BANK CHARACTERISTICS AND DIVIDEND PAYOUT OF TIER ONE COMMERCIAL BANKS IN KENYA

SIMON KIREMBU MWANGI

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DECLARATION

This research project is my original work and has not been presented in this or any other University for a degree or any other award. No part of this research project should be reproduced without the permission of the author or/and Kenyatta University.

Signed: _____ Date_____

Mr. Simon Kirembu Mwangi
D53/CTY/PT/22552/2012

SUPERVISOR:

I confirm that this research project has been carried out by the candidate under my supervision as the university appointed supervisor.

Signed: _____ Date_____

Dr. Salome Musau
Department of Accounting and Finance
School of Business
Kenyatta University, Kenya.

DEDICATION

This research project is dedicated to my lovely wife Jacquiline Jepchumba Cherutich and my daughters Lana Wambeti, Lara Mukami and Lora Wacera for their encouragement, patience, and support as I was working on this research project. I also dedicate it to my mother Aloisia Wambeti Kirembu for her encouragement. Finally, I dedicate it to my father the Late Peter Mwangi Kirembu.

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OPERATIONAL DEFINITION OF TERMS

Bank Characteristics	Internal attributes or qualities which embody or form a banking institution.
Bank Value	Value of a bank according to the financial market.
Bank Size	Market value of a bank's outstanding shares.
Bank Liquidity	Quantitative correlation of a firm's net asset value to its market value.
Beta	Volatility of a security in relative to the market.
Book-to-Market Value	Ratio of book value of equity to market value of equity. It detects stocks that are overvalued or undervalued.
Commercial Banks	Financial establishments regulated by Central Bank and responsible for giving loans and taking deposits.
Earnings per Share	Profit given to each share
Financial Performance	level where financial objectives of a financial establishment can be considered good based on its returns on equity or assets.
Independent Variable	A quantity that will be changed or controlled in the research and represents the cause or reason for an outcome.
Market Capitalization	Market value of a firm's shares.
Market Value	Value of a firm according to the financial market.

LIST OF ABBREVIATIONS & ACRONYMS

APA	American Psychological Association
EPS	Earnings per share
CBK	Central Bank of Kenya
CLRM	Classical Linear Regression Model
CRR	Cash Reserve Ratio
CMA	Capital Market Authority
FF3F	Fama and French Three Factor Model
KSH	Kenya Shillings
LLC	Levin-Lin Chu
MC	Market Capitalization
NACOSTI	National Commission for Science, Technology, and Innovation
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
PBT	Profit before tax
SSA	Sub-Saharan African

ABSTRACT

Commercial banks have been identified as one of the priority sectors that would remarkably participate in attainment of Kenya's Vision 2030 since they perform a critical part in enabling and transforming the economy through mobilization of savings. However, dividend payout for Tier I banks in Kenya has remained relatively stagnant over the years even with improved financial performance. Central Bank of Kenya reports show that Kenya's banking sector is very profitable with the average return on asset being about 2.6 per cent for the years between 2016-2021. During the same period, commercial banks have been registering improving financial performance. Firms can be differentiated from one another based on distinct characteristics which can be financial or non-financial. Studies done on this area observed significant correlation between various firm characteristics and dividend payout. However, there are gaps on academic literature and studies on large financial institution characteristics as well as replicating the same in the Kenyan context. Thus, this study sought to determine the effect of bank characteristics on dividend payout of Tier I banks in Kenya. The study specifically aimed at objectively quantifying effect of bank size, liquidity, and profitability on dividend payout of Tier I banks in Kenya. Profitability indicators were used as performance indicators and specifically earnings per share. The study was directed by several theories including Fama-French theory, pecking order theory, free cash flow theory and dynamic trade-off theory. Positivism philosophy, descriptive statistics and inferential analysis were employed for empirical evaluation of data. Descriptive statistics employed comprised of mean and standard deviation which are measures of central tendency and maximum values and minimum values. Inferential analysis comprised of regression analysis and Pearson's correlation analysis. Target population was all nine (9) Tier I banks listed at the Nairobi Securities Exchanges (NSE). Secondary data was acquired from audited and published financial reports of the nine (9) banks for the period between 2016-2021 using document review guide. Descriptive analysis and panel regression were applied for data testing. Independent variables were bank size, liquidity, and profitability while dependent variable was dividend payout. Market capitalization was used as a measure for bank size, book-to-market value as a measure for liquidity and earnings per share as a measure for profitability. Results indicated liquidity had negative statistically significant effect on dividend payout while both bank size and profitability had negative statistically insignificant effect on dividend payout. The study thus determined that bank characteristics had insignificant effect on dividend payout for Tier I banks. The study therefore recommends that bank management ought to focus on increasing their profitability through growth of interest income, non-funded income as well as employ cost cutting measures and making investments on innovations and latest technologies that increase efficiency. Additionally, the study recommends that prospective investors ought to invest in commercial banks with higher profit margin, with relatively lower liquidity which indicate strong future profit projections, with better policies on retained earnings and with better efficiencies including better credit and reputational risk management policies. The study also recommends that CBK consider reducing Cash Reserve Ratio (CRR) and NSE consider an alternative stock classification system which will categorizes stocks in same sector based on size which will give a clear insight of the risk-return trade off characteristics at the NSE. The study recommends more research should be done to establish effect of bank characteristic on dividend payout on Tier 2 and Tier 3 banks in Kenya then a comparison can be made to this study which is on Tier 1 banks.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Dividend payout continually remains a contentious issue in the field of corporate finance (Mui & Mustapha, 2016). When shareholders own shares of a company's stock, they expect to reap benefits of the firm's success especially the profits through dividend payout. Firm management know the importance of dividend payout especially in satisfying shareholders expectations. Consequently, management must decide on what portion of profits may be issued to shareholders as dividend payout, what portion will be retained earnings and what portion will be invested in investments having net present value that is positive and the possible effect that decision will have on the stock price (Al-Malkawi, Rafferty & Pillai, 2010).

In addition, Kiangi, William and Milamo (2022), explains that management's decision on what portion of profits may be issued to shareholders as dividend payout, particularly the decision on low dividend payout generates more retained earnings that are important in internal financing and investment which reduces dependance on external financing. On the other hand, decision on high dividend payout reduces retained earnings which increase the probability of dependance on external financing.

Globally, banking sector tend to have greater dividend payout compared to firms in non-financial sector. (Gambacorta, Oliviero & Shin, 2020). This can be attributed to the vital and significant role the banking sector play in the economic growth, trade, and commerce as the main source of credit and economic resource allocation. By availing credit to investors and local enterprises, commercial

banks help in the economic growth of a country. Access to banking and financial services are essential in any country. According to Nagar, Masih and Badugu (2011) banking sector in a country is a major instrument of commerce and trade in industrial growth. The financial soundness of the banking sector performs a crucial part in the wellbeing of a country's economy.

In Sub-Saharan Africa (SSA), commercial banks appear to be very profitable in comparison with banks world over considering that the average Returns on Assets (ROA) are remarkably higher (Flamini, Valentine, McDonald & Liliana, 2009). One of the most important technological innovations that was disruptive to the banking sector was the development mobile money transfer service that facilitate monetary transactions and transfers via mobile phones. The money is stored in a mobile wallet from where customers can deposit, withdraw, and transfer to other persons from their handsets (Beck & Cull, 2013).

In Kenyan, the banking sector can be termed as very profitable since the average return on asset (ROA) was about 2.6 percent for the years between 2016 - 2021 (CBK, 2022). Ndung'u, Thugge, and Otieno (2011) identify financial sector as the sixth priority sector that would remarkably participate in attainment of Kenya's Vision 2030. They further explained that financial sector performs a critical part in enabling and transforming the economy through mobilization of savings. Due to socio-economic challenges, investors wish more and more for higher dividend payout to cushion themselves from these socio-economic challenges.

Dividend payout is affected by financial and non-financial factors which include size, profitability, and liquidity. Dividend payout is important for shareholders and investors since it gives them confidence with respect to a firm's financial performance and management and assist maintain the

share price and value of a firm. In this study, independent variables were bank size, liquidity, and profitability while dependent variable was dividend payout.

1.1.1 Banks Characteristic

Bank characteristics can be described as distinct factors or elements which can be financial and non-financial that define a commercial bank enterprise. Commercial bank enterprise can be differentiated from one another using these distinct factors or elements which are affected by policies, decisions, and objectives set by the management. These characteristics including bank size, liquidity, and profitability can raise perceptions regarding the performance, profitability, dividend payout and future of a bank (Tahir, Sabir, Alam & Ismail, 2013).

1.1.1.1 Bank Size

Bank size is essentially the total worth of its market capitalization with respect to its total assets. According to Gambacorta *et al.* (2020), firms with a higher market capitalization display a greater tendency for dividend payout. Theoretically, large sized banks are projected to have a higher dividend payout compared to medium and lower tier banks since they tend to have higher cash flows, tend to have more stable profits, are more mature and can benefit from economies of scale in their operational and organizational efficiency. These factors consequently can guarantee a steady dividend payout policy.

According to George (2015), a bank's size is of importance in the way it carries out its daily activities. Even with similar management across several banks, bank size would still affect the operational and organizational risk level it would face. Were and Wambua (2014) explains that large banks are more capable and have the latitude of making investments in innovations and latest technologies to increase efficiency. Onuonga (2014) posits that large firms in general will operate

efficiently as well as provide services at relatively lower costs if the firm is experiencing economies of scale.

Robinson (1964) proposed the theory of optimal firm size which postulates that optimal size of a firm is one that results in the least costs of production for each unit of output in the current circumstances of organizational ability and technology. In other words, optimum firm size indicates the circumstances under which a firm can have maximum output with minimum operating costs.

Naceur and Goaied (2008) argues that size reports for economies as well as dis-economies of scale. In the long run, a cost minimizing firm size would have one worker producing the lowest possible output level if it was only dis-economies of scale that existed. Obamuyi (2013) argues that theory of banks puts a limit on the extent to which the economies of scale will work beyond which, dis-economies of scale kicks in.

According to Fama and French (1992) and Banz (1981) there is a robust correlation between firm size proxied by market capitalization and dividend payout. Berk (1995) on the other hand argues that market capitalization taken as a measure for company size is internally took in equivalence as rebated worth of expected cash flow. Consequently, with all other factors held constant, a firm's expected stock returns will be negatively correlated to the market capitalization.

Figure 1.1 below shows summarized trend analysis of bank size of Tier I commercial banks in Kenya from 2016 to 2021. The vertical axis is the measure of bank size measured by Market Capitalization in Ksh. B while the bottom horizontal axis represents the years.

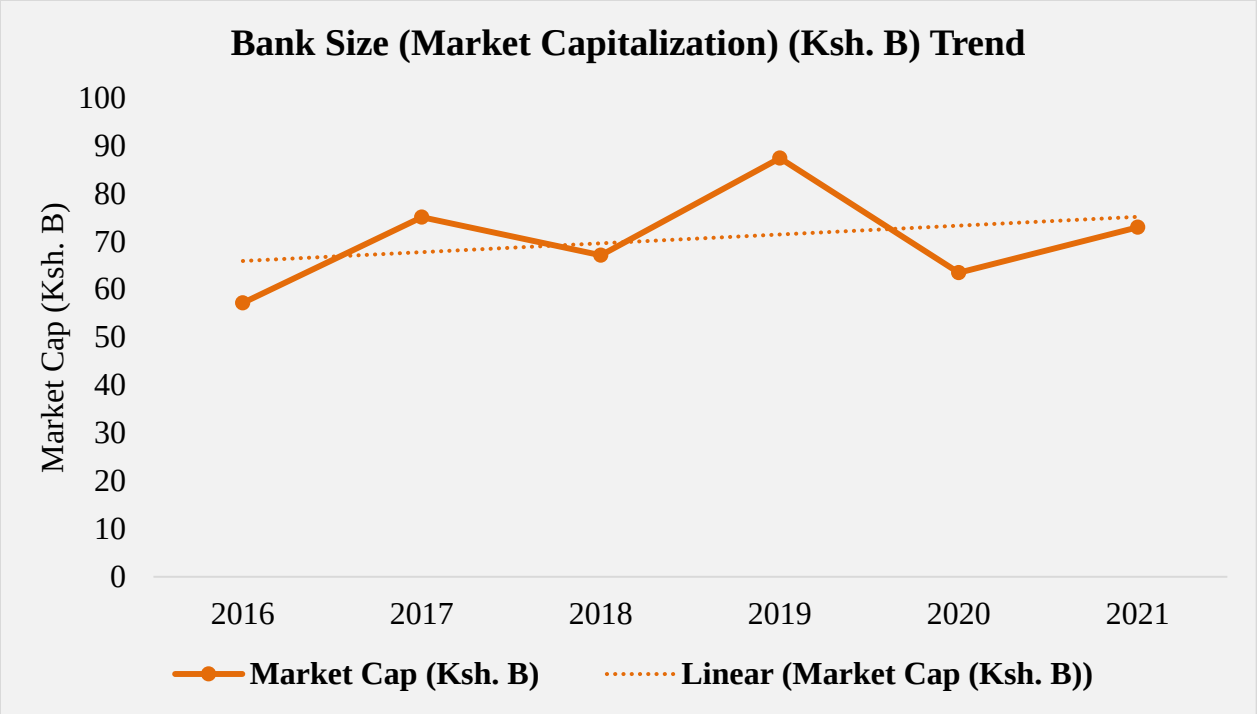

Figure 1:1: Bank Size Trend Analysis (Market Capitalization)

Source: Research data, (2022)

Average market capitalization was highest in 2019 at Ksh 87.4371 billion and lowest in 2016 at Ksh 57.2013 billion. Trend analysis presented average Market Capitalization growing gradually from 2016 to 2021. That can be ascribed to growth of stock price. However, share price should not be mistaken to be an accurate representation of a bank's worth or stability but rather Market Capitalization which is the correct representation since it denotes the actual value perceived by the public and the markets.

1.1.1.2 Liquidity

Liquidity is the capacity of a commercial bank to readily meet its current financial commitment upon demand. If the management of a company decides on a high dividend payout yet lacks the

liquidity to support the cash outflows, the management will ultimately be forced to decide whether to go with a reduced investment plan or go for debt or equity financing from investors.

According to Elliott (2014), a bank can succumb if its depositors lose trust in the institution even if it is solvent. In the lead-in to the financial crisis of 2008, commercial banks preferred to invest in credit expansion by getting additional obligations, even when it lowered the book value of their equity because of dividend payouts (Adrian *et al.,* 2015). Consequently, the 2008 financial crisis underlined the significance of liquidity in covering unexpected cash outflows. It is therefore important for management not to increase dividend payout until they are assured of adequate cash flows to support the dividend payout cash out flows (Drobetz & Grüninger, 2007).

When stock price is considerably lower than the book value, investors may wish to get dividend payout even at the cost of eat away at the bank's lending capacity. Consequently, if the management decides on dividend payout yet lacks the liquidity to support the cash outflows, they will ultimately be forced to decide on whether to go with a reduced lending capacity or go for debt or equity financing from investors (Myers & Majluf, 1984).

For shareholders interested in short-term returns, dividend payout is better than retained earnings for banks with a lower market value. Lower book-to-market value is linked with growth stock which have a minimal tendency for dividend payout. Moreover, the higher the book-to-market value, the better the dividend payout becomes. Therefore, one can argue that dividend payout signals that a bank's shares are undervalued. Consequently, a higher book-to-market value raises pressure on the management to payout dividends (Stein, 2003).

Book-to-market value can be an important measure of banks' value since it can be used to identify overvalued and undervalued securities. Securities are considered overvalued if the value is <1 and

undervalued if it is >1 (Gambacorta *et al.*, 2020). A value of >1 implies the share price is buying and selling below its assets value which means that it is buying and selling inexpensively in the stock market in contrast to its book value. Assets minus liabilities is the measure of the book value whereas market value is the value of the bank according to the financial market.

Book-to-market value of <1 indicates shareholders are prepared to offer a premium than the assets worth for the firm's stocks. This would suggest strong profit projections in the future hence shareholders are prepared to offer a premium for that prospect. On the other hand, book-to-market value of >1 indicates the firm is a value stock. Value stocks are expected to have a better long term dividend payout than growth stock because of risk (Gambacorta *et al.*, 2020).

Trend analysis of liquidity of Tier I commercial banks in Kenya from 2016 to 2021 is summarized in Figure 1.2 below. The vertical axis is the measure of liquidity while horizontal axis is the years.

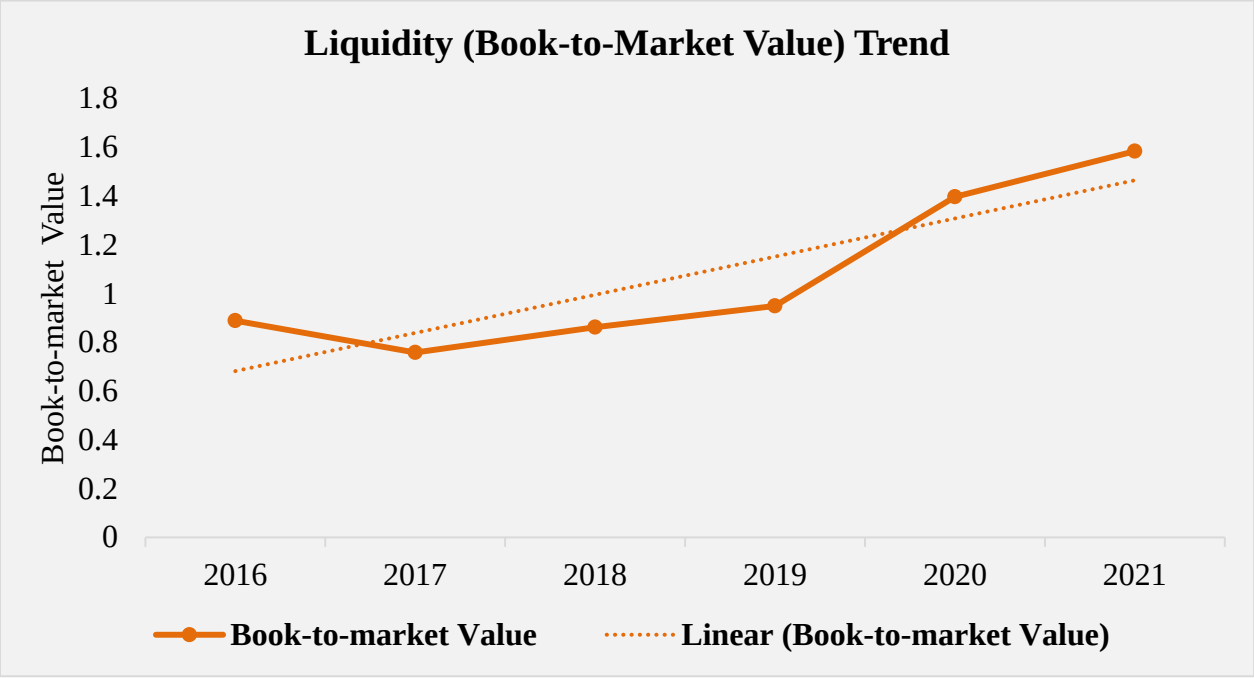

Figure 1:2: Liquidity Trend Analysis (Book-to-Market Value)

Source: Research data, (2022)

Average book-to-market value was high in 2021 at 1.58402 and lowest in 2017 at 0.75854. The trend further show that book-to-market value has been increasing steadily from 2017 through to 2021. From 2016 to 2019, the average book-to-market value was <1 which indicated that the stocks were overvalued which can be attributed to speculation. From 2020 through to 2021, the average book-to-market value was >1 which indicated that the stocks were undervalued indicating that the share prices were trading for less than their assets worth which means that they were buying and selling modestly in the market contrasted to its book value.

1.1.1.3 Bank Profitability

Commercial banks profitability and subsequently earnings per share depends largely on the loan book quality (Ongore and Kusa, 2013). For commercial banks, loans are the main assets and biggest source of earnings and income particularly interest income from loans among other fees and commissions. From a theoretical perspective, higher profitability signals higher earnings per share for shareholders. Signaling effect is important for commercial banks since their main asset, which is loans, are not transparent to external investors compared to assets of firms in other sectors.

Profitability can be affected by losses from bad and doubtful debts provisions and delinquent loans. For bad and doubtful debts, CBK risk management guidelines direct commercial banks must make adequate provisions. According to Khrawish (2011) a bank is effective in profit generation if the return on equity is higher which also shows the effectiveness of the bank's management in making use of the amount of equity in the firm. Conversely, return on asset demonstrates capability and efficiency in utilizing the available resources to generate income by the management.

Gul, Faiza and Khalid (2011) explains that a bank is more stable when the net interest margin is higher which also reflect higher profitability. From academic literature, causes of profitability are

categorized into internal determinants which are within the control of the management or external determinants which are outside the control of management.

From a theoretical perspective, firms with steady profitability or higher profitability are inclined to pay out a bigger fraction of the profits as dividends compared to firms with unsteady profits. Consequently, it is expected that a firm will have a higher dividend payout if it has higher earnings per share with a lower variance. When profitability increases, it means there is high level of free cash flows available to management for them to increase dividend payout hence reduce agency cost (Jensen, 1986).

Profitability determines the attractiveness of earnings per share for shareholders and if a bank's profitability is stable, this can better predict its future profitability to shareholders and investors. Most past studies have found a relationship between dividend payout and profitability. Fama and French (2001) observed the prospects of a firm management to decide on dividend payout was positively correlated to profitability which is one of the main determinants that affect dividend payout decisions.

Trend analysis of profitability of Tier I commercial banks in Kenya from 2016 to 2021 is summarized in Figure 1.3 below. The vertical axis is the measure of profitability while horizontal axis is the years.

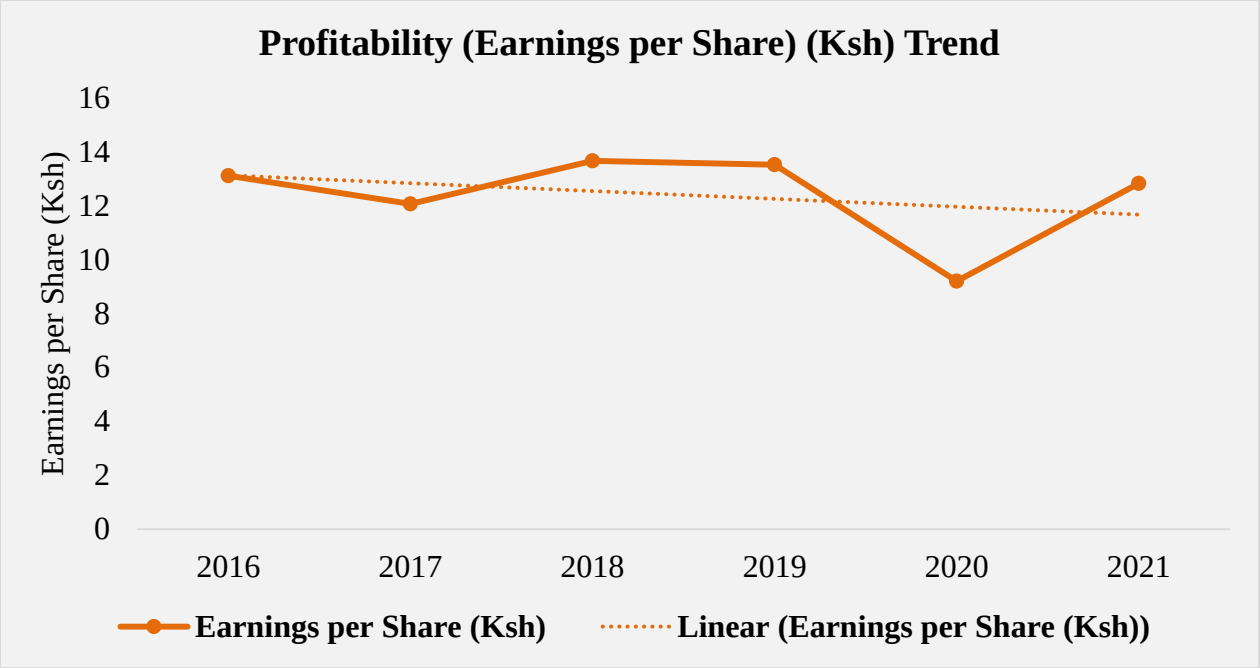

Figure 1:3: Profitability Trend Analysis (Earnings per Share)

Source: Research data, (2022)

Trend analysis indicates the average earning per share was highest in 2018 at Ksh 13.67 and lowest in 2020 at Ksh 9.20. The trend shows that the average earning per share has been decreasing gradually from 2016 to 2021 which can be ascribed to various macroeconomic variables including interest rate, inflation, and Gross Domestic Product (GDP). For commercial banks, loans are their main assets and biggest source of earnings and income particularly interest income from loans among other fees and commissions. There was drop in 2020 which can be ascribed to the Covid-19 pandemic. Covid-19 pandemic had a big effect on the banking sector (Gambacorta *et al.*, 2020). During the period, banks put greater caution due to credit default risk which affected growth.

1.1.2 Dividend Payout

In corporate finance, dividend payout is one of the important operational decisions that management face especially when they must satisfy shareholders expectations as well as convince

prospective investors to invest in the firms' common stock at a premium (Mui & Mustapha, 2016). Consequently, management must decide on what portion of profits may be issued to shareholders as dividend payout, what portion will be retained earnings and what portion will be invested in investments having net present value that is positive and the possible effect that decision will have on the stock price (Al-Malkawi *et al*., 2010).

When shareholders own shares of a company's stock, they expect to reap benefits of the firm's success especially the profits through dividend payout. The Board of Directors decision on dividend payout must also account for the company's obligations over and above guaranteeing that investors get returns (Gurullon, & Swaminathan, 2012).

Dividend payout is an important aspect of corporate finance policies especially in capital structure and dividend policy. Capital structure refers to how a firm uses the combination of equity and debt to fund investments and activities. Firms depend on the constant investment in projects with positive net present value using internal financing from retained earnings which forms an important part of the firms' finances. Factors that affect the size of dividend payout to be distributed to shareholders include creditworthiness, liquidity, debt, investment opportunities, profitability, leverage, company size and growth factors (Pattiruhu and Paais, 2020).

Dividend policy refers to the policy the management adopt to guide dividend payout. Miller and Modigliani (1961) dividend irrelevance hypothesis marked the beginning of dividend policy studies which have since documented a huge volume theoretical and empirical research. According to Al-Malkawi *et al*. (2010), the first theoretical hypothesis argues that increasing dividend payout increases a firm's value. Conversely, the second hypothesis argues increasing dividend payouts reduces firm's value. The third hypothesis argue that dividends should be irrelevant.

These three arguments are encompassed in the three dividend policy theories which include Bird-in-the-hand theory that asserts that increasing dividend payout rises firm value, Tax-preference theory that asserts reducing dividend payout rises firm value and Dividend irrelevance theory asserts that dividend payout should be irrelevant (Al-Malkawi *et al.*, 2010). The dividend payout arguments are not restricted to Bird-in-the-hand theory, Tax-preference theory and dividend irrelevance theory since several other theories have been presented. They include clientele effects theory, signaling theory, and agency cost theory.

Trend analysis of dividend payout of Tier I commercial banks in Kenya from 2016 to 2021 is summarized in Figure 1.4 below. The vertical axis is the measure of dividend payout while horizontal axis is the years.

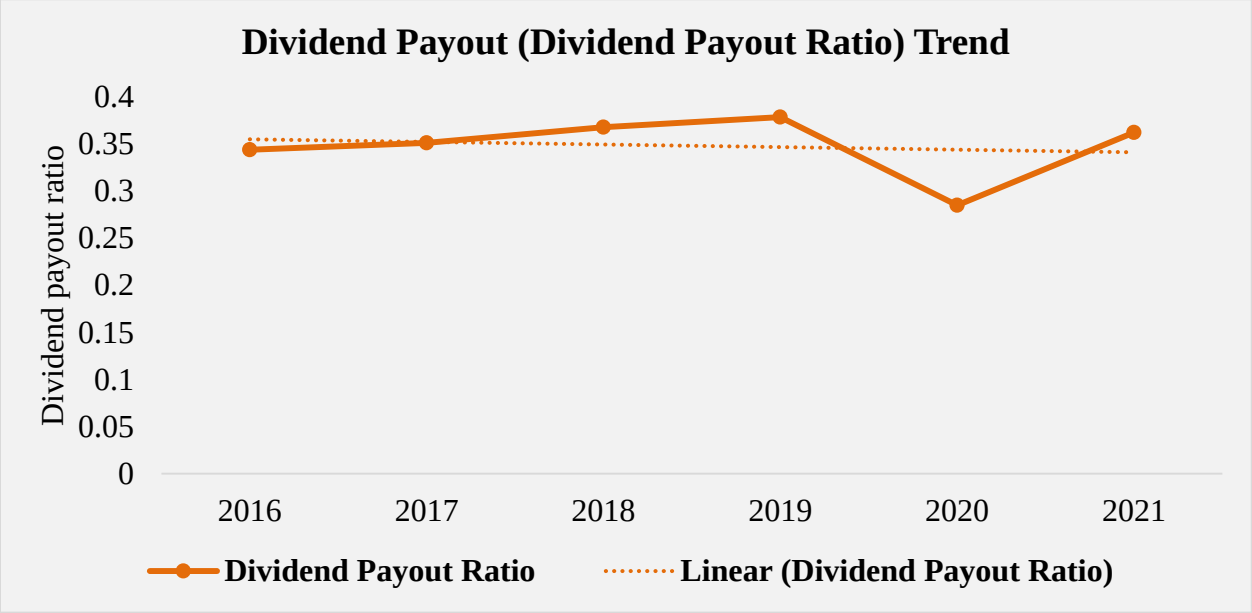

Figure 1:4: Dividend Payout Trend Analysis (Dividend Payout Ratio)

Source: Research data, (2022)

Average dividend payout was highest in 2018 at 0.36811 and lowest in 2020 at 0.28522. The trend further show that dividend payout was increasing at a very small rate from 2016 to 2019. This

could be ascribed to banks conserving capital to boost capacity to support more lending and other economic activities or building cash reserves with CBK to facilitate liquidity management.

1.1.3 Commercial Banking Sector in Kenya

Beck and Cull (2013) in their paper on banking in Africa observed that globalization, liberalization of the financial sector, institutional development and regulatory advancement have all changed the financial industry in Sub-Sahara Africa (SSA). Kenya's banking sector is the more advanced as well as strong among the East African counties (Beck, 2009). Ongore and Kusa (2013) observe that in Kenya, banks operate as firms where the key objective is maximization of profits.

Commercial banks have been identified as one of the priority sectors that would remarkably participate in attainment of Kenya's Vision 2030 since they perform a critical part in enabling and transforming the economy through mobilization of savings. However, dividend payout for Tier I banks in Kenya has remained relatively stagnant over the years even with improved financial performance. Central Bank of Kenya reports show that Kenya's banking sector is very profitable with the average return on asset being about 2.6 per cent for the years between 2016-2021. During the same period, commercial banks have been registering improving financial performance.

In Kenya, at the end of December 2021, banking sector was composed of 38 commercial banks with the regulatory authority being Central Bank of Kenya (CBK). CBK classifies banks using a weighted composite index into peer groups that is composed of capital and reserves, loan accounts volume, deposit accounts volume, customer deposits and net assets.

Large banks have an index of >5 per cent and are commonly referred to as Tier I banks. Medium banks have an index of between 1-5 per cent and are commonly referred to as Tier II banks. Small banks have an index of <1 per cent and are commonly referred to as Tier III banks. Based

on this CBK classification, nine banks fell under the large bank category as of December 31, 2021. They include Kenya Commercial Bank Ltd, Equity Bank Ltd, Co-operative Bank of Kenya Ltd, Absa Bank Ltd, Standard Chartered Bank (K) Ltd, Diamond Trust Bank (K) Ltd, NCBA Bank Ltd, Stanbic Bank Ltd and I&M Bank Ltd.

Table 1.1 below shows the market share and the pre-tax profit (PBT) of the large banks in Kenya in the period 2016-2021. Large banks have almost 75 per cent market share in pre-tax profit, total net asset, total deposits and capital and reserves. This command of the market share shows how large banks are crucial to the stability and development of the Kenyan economy.

Table 1.1: Market Share of Tier I banks in Kenya 2016-2021 (Ksh. B)

Year	Market Share (%)	No. of Banks	Net Assets (Ksh. B)	Deposits (Ksh. B)	Capital & Reserves (Ksh. B)	PBT (Ksh. B)
2021	74.76%	9	4,508	3,387	667	171
2020	74.55%	9	4,033	3,061	599	97
2019	74.68%	9	3,607	2,710	538	143
2018	70.28%	9	3,103	2,367	470	130
2017	65.98%	8	2,641	2,020	415	108
2016	65.32%	8	2,404	1,739	373	116

Source: CBK Bank Supervision Annual Reports

1.2 Statement of the Problem

One objective of the Vision 2030 economic blueprint is that by the year 2030, Kenya should have transformed into a middle-income country. Ndung'u *et al.* (2011) identify financial sector as the sixth priority sector that would remarkably participate in attainment of Kenya's Vision 2030. They further explain that financial sector performs a critical part in enabling and transforming economy through savings mobilization. By availing credit for investors and local enterprises, commercial banks help in a county's economic growth.

In Kenya, banks operate as firms where the key objective is maximization of profits (Ongore & Kusa, 2013). Bank supervision reports from Central Bank of Kenya show that banking sector is very profitable given that it had an average return on asset of 2.6 percent for years between 2016-2021. However, dividend payout has remained relatively constant over the years despite the reported impressive financial performance and growing profitability.

The financial soundness of banking sector performs a crucial part in wellbeing of a country's economy. Access to banking and financial services are essential in any country. According to Nagar *et al.* (2011), banking sector in a country is a major instrument of commerce and trade in industrial growth. Investments depend on financing from the banking sector, while for commercial banks, the financing of these investments which is usually in terms of loans is the main assets and biggest source of profits and income particularly interest income from loans.

Before the Board of Directors decide on dividend payout, they must take into consideration several factors including financial obligations, liquidity, future investment, and growth opportunities (Gurullon, & Swaminathan, 2012; Al-Malkawi *et al*., 2010). In this study, independent variables were bank size, liquidity, and profitability while dependent variable was dividend payout.

Prior findings have recorded significant correlation between various firm characteristics and dividend payout. For instance, Kiangi *et al.* (2022), Nyere and Wesson (2019), Ogundajo, Enyi, Akintoye, and Dada (2019), Brahmaiah, Srinivasan, and Sangeetha (2018) and Rahmadi (2020) found a significant correlation between dividend payout and firm size whereas Pattiruhu and Paais (2020), Katakwar, Tenguriya, Chhajer, and Mehta (2021) and Okoro, Ezeabasili, and Alajekwu (2018) found insignificant correlation.

Furthermore, Kiangi *et al.* (2022), Ogundajo *et al.* (2019), Nyere and Wesson (2019), Abiahu, Udeh and Ogbekhilu (2018) and Brahmaiah *et al.* (2018) observed significant correlation between liquidity and dividend payout while Pattiruhu and Paais (2020), Okoro *et al.* (2018) and Katakwar *et al.* (2021) found an insignificant relationship liquidity and dividend payout. Moreover, study by Pattiruhu and Paais (2020), Okoro *et al.* (2018), Rahmadi (2020) and Abiahu *et al.* (2018) found zero significant correlation between dividend payout and profitability while Nyere and Wesson (2019), Kiangi *et al.* (2022), Brahmaiah *et al.* (2018) and Ogundajo *et al.* (2019) observed significant correlation.

However, these studies were conducted in other emerging and developing nations and did not focus on a specific sector or narrow down to study specific segment of a sector since the internal characteristics differ across industries and countries thereby creating contextual and empirical gap. Considering foregoing studies together with several others published in other emerging and developing countries, this study wanted to establish by providing empirical evidence of effects of bank characteristics on dividend payout for large commercial banks. This study used panel data analysis to investigate effects of bank characteristics on dividend payout for large commercial banks.

1.3 Objective of the Study

This study is directed by the ensuing objectives.

1.3.1 General Objective

The main objective of the study is to investigate the effects of bank's characteristics on dividend payout of Tier I banks in Kenya.

1.3.2 Specific Objective

This study is directed by the ensuing specific objectives

1. To establish the effect of bank size on dividend payout of Tier I banks in Kenya.
2. To establish the effect of liquidity on dividend payout of Tier I banks in Kenya.
3. To establish the effect of profitability on dividend payout of Tier I banks in Kenya.

1.4 Research Hypothesis

The study is directed by the ensuing null hypotheses:

H_{01}: Bank size has no significant effect on dividend payout of Tier I banks in Kenya.

H_{02}: Liquidity has no significant effect on dividend payout of Tier I banks in Kenya.

H_{03}: Profitability has no significant effect on dividend payout of Tier I banks in Kenya.

1.5 Significance of the Study

This study is important since it will inform as well as contribute on principle and literature. From the study results, management will comprehend better the effect of their unique characteristics on dividend payout and make better business decisions. The findings will also be helpful to Central Bank of Kenya (CBK) when formulating relevant policies, and other regulatory authority like Nairobi Securities Exchange and Capital Markets Authority.

The investors, shareholder and other market participants may gain more understanding about effects of bank characteristics on dividend payout and acquired knowledge may help them when prospecting at the NSE. The researcher will build on an already established body of knowledge in corporate finance especially around dividend payout policy and capital structure. The findings will

as well contribute to building academic literature around effects of bank characteristics on dividend payout. Knowledge gaps and areas of further study will be pointed out by the study which may interest future researchers.

1.6 Scope of the Study

By end of December 2021, banking sector in Kenya consisted of 38 commercial banks. CBK classifies banks using a weighted composite index into peer groups that is composed of capital and reserves, loan accounts volume, deposit accounts volume, customer deposits and net assets. Large banks have an index of >5 per cent and are commonly referred to as Tier I banks.

The financial soundness of banking sector performs a crucial part in the wellbeing of a country's economy. Kenya's Vision 2030 economic blueprint identifies financial sector as the sixth priority sector that would remarkably participate in attainment Vision 2030 (Ndung'u *et, al.*, 2011). For this reason, researcher chose financial sector with a focus on the Tier I banks between 2016-2021.

The researcher picked 2016-2021 because it is a period where we have the same banks classified as Tier I by CBK. Secondly, it is the most recent period that precede this study. Moreover, the study focused on the Tier I banks peer group since the CBK's weighted composite classification composed of capital and reserves, loan accounts volume, deposit accounts volume, customer deposits and net assets suggest that peer banks have relatively the same characteristic.

Three bank characteristics, bank size, profitability, and liquidity were included in the study. The independent variables in the study were bank size, liquidity, and profitability while dividend payout was the dependent variable. The study is anchored on Fama-French theory, pecking order theory, free cash flow theory and dynamic trade-off theory.

1.7 Limitations of the Study

Possibility of secondary data errors was the main limitation in this study. However, researcher overcame this limitation by obtaining secondary data from audited published financial statements. Another limitation was noisy nature of financial data. The researcher overcame this limitation by using panel data analysis which yield meaningful results from either balanced or unbalanced data.

1.8 Organization of the Study

This research project is structured into five chapters. The first chapter includes the study background leading to problem statement, study objectives, significance, scope, and limitations. The second chapter covers theoretical literature and empirical review and conceptual framework. The third chapter includes research methodology employed to achieve research objectives. The fourth chapter presents study results and discussions, and the fifth chapter provides summary, conclusions and recommendations from the study and contributions to knowledge.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two introduces review of relevant theories supporting this research and an analytical assessment of empirical literature. It analytically reviews studies done by other scholars on the research variables and synopsis of research gap from the empirical literature. A conceptual framework outline is also included demonstrating the conceptualization of the research.

2.2 Theoretical Literature Review

A theory is described as a statement, principle, or logical aid used for comprehension, description, and forming forecast about a stated issue. In this segment, the study reviews several theoretical foundations that characterize the theorize correlation linking independent and dependent variables. This research is anchored on Fama-French Theory, Pecking Order Theory, Free Cash Flow Theory and Dynamic Trade-Off Theory.

2.2.1 Fama-French Theory

Proposed by Fama and French (1992), the theory observes that book-to-market value and firm size have the highest descriptive control on dividend payout. They hypothesized that stock markets are affected by three factors: book-to-market value, firm size which is measured by market capitalization and beta which is the measures the market risk. The theory further argues that when book-to-market value and firm size are combined, they can replace market risk by taking up the role of leverage and profitability in dividend payout (Allen, Singh & Powell, 2009).

Fama and French (1993) in their second study put forward Fama-French three-factor theory encompassing three factors: book-to-market value, size, and beta. Firm size was a measure of size risk and suggests that rationally, small sized firms are likely to be more susceptible to various risk components due to reduced capacity to absorb financial shocks. Size measured the extra dividends investors previously got after investing in small market capitalized firms and was calculated by deducting average dividend payout of big sized firms from average dividend payout of small sized firms.

On the other hand, book-to-market value suggested a higher risk exposure for firms with high book-to-market value in contrast with firms with low book-to-market value. Book-to-market value measured extra dividends investors got from investing in high book-to-market ratio firms and was calculated by subtracting average dividend payout of firms with low book-to-market values from average dividend payout of firms with high book-to-market values (Allen *et, al.*, 2009).

Shah, Ghafoor and Khan (2014) while estimating this theory observed that if large firms are less risky than small firms, investors should accept lower dividends when investing in large firms. On the other hand, if book-to-market value is <1 an investor will be optimistic about the firms' future profit projections but should expect lower dividends initially. Fama and French (1993) found a negative relationship between dividend payout and firm size which was referred to as size effect. They also found a positive relationship between dividend payout and book-to-market ratio which was referred to as value effect.

Fama and French theory is considered applicable in the current study because it describes variation in dividend payout by using book-to-market ratio, firm size which is measured by market capitalization and beta which is the measures the market risk as explanatory variables.

Therefore, this study investigated the effect of book-to-market value and market capitalization on dividend payout as well as to what degree they are valid. This theory therefore strengthens the independent variable liquidity and bank size in this study

This theory further strengthens the study variables by explaining how the independent variable liquidity and bank size can assists investors make knowledgeable choice on which firm to invest in. When investors invest in the stock market, they are expecting dividends in future against their investments, hence they need to consider firm characteristics which can have effects on dividend payout. Identifying how firm book-to-market value and market capitalization can describe variability in dividend payout is the main concept in Fama-French theory.

2.2.2 Free Cash Flow Theory

Proposed by Jensen (1986), it suggests firms tend to generate and retain high level of cash flows even when there are no profitable projects or opportunities for growth. Hence management of such firms may misuse the excess cash by overinvestment or investment in ventures with net present value that is negative even when these investments are not at the interests of shareholders which reduces future profitability and firm value.

Jensen (1986) argues that management can reduce agency cost that accompany high level of free cash flows through issuing dividend payout and issuing debt financing. This theory further posits that management of such firms, have a preference to keep excess level of cash flows to increase the amount of liquid assets within their management, rather than issuing the surplus cash as dividend.

According to Drobetz and Grüninger (2007), management may retain high level of cash because they may be averse to debt financing or because they do not wish to payout dividends which

shows a relationship between dividend payout and retained earnings or cash reserves. This suggests that management may retain high level of cash by cutting or reducing the dividend payout to hold excess level of cash within the firm.

Kadioglu and Yilmaz (2017) explain that dividend payout reduces excess level of free cash flows within managements' control, reduces agency cost and increases firm value. Agency cost arises after gross misconduct on the part of management, organizational and operational inefficiencies, bankruptcy, corruption, shareholders dissatisfaction or conflicts of interest between the management and shareholders. Firms with higher dividend payout are more often finance by external capital thus they are subject to scrutiny of shareholders and the market participants. Management of these firms are also subject to regulations and provision of information needed by market participants.

The level of retained earnings by management is an important aspect of the dividend policy. Shareholders will wish for higher dividend payout to lower the level of free cash flows within managements' control. Higher dividend payout may also increase financing of investments using external capital. According to Kariuki, Namusonge and Orwa (2015), stocks become more appealing to investors during the period of high growth opportunities hence can be traded at a bonus. Shareholders consequently respond by demanding the management to raise the dividend payout so that they can get higher returns on their investment.

Free cash flow theory is therefore considered relevant in this study since this study took to investigate effects liquidity and profitability have towards dividend payout and to what degree they are valid. This theory further strengthens the study variables by explaining how liquidity and profitability can assists investors make knowledgeable investment option.

2.2.3 Pecking Order Theory

Proposed by Donaldson (1961) then advanced and popularized Myers and Majluf (1984), it explains that firm management have a preference on utilizing internal financing from retained earnings as opposed to external financing to fund investment opportunities. Due to asymmetrical information between investors and firm management, the firm management preference order for capital is internal financing from retained earnings, then debt financing then equity financing (Myers & Majluf, 1984).

Internal financing from retained earnings is given first preference since it is the least asymmetric and therefore has no risk or extra cost associated with debt financing or equity financing. Debt financing comes in second due to interest cost of debt. Equity financing comes in last since it is the most expensive financing option. To equity investors, less information denotes a higher risk, hence their expectation is higher dividend payout due to greater asymmetrical information.

This pecking order is significant since it signals to the market participants on the firms' performance. Internal financing from retained earnings signals a strong firm. Debt financing signals that firms' shares are undervalued, management are confident that the investment is profitable and that the firm can meet its debt. On the other hand, equity financing gives a negative indicator that the executives believes that firms' securities are overvalued hence they seeks to make money before the share price drop (Tahir, Alifiah, Arshad & Saleem, 2015)

Myers (1984) posits that firms management will adjust dividend payout to support internal financing. Dividend payout decisions, investment decisions and internal financing decisions affect liquidity level. Firms use cash flow for internal financing of investment opportunities, debt repayments, then build up cash reserves from the unutilized cash flow. If cash flow cannot cover

investment and internal financing, firms could avoid external financing by using cash reserves. Therefore, change in liquidity level is affected by cash flows (Opler, 1999).

According to Dittmar, Mahrt-Smith and Servaes, (2003), firms with high cash flows have efficient dividend payout. However, they may depend on debt financing and keeping high liquidity level. It is reasonable to assume large firms are more likely to have high cash flows and they can get debt financing easily and in large amount hence, due to high cash flows, they will borrow less when issuing bigger dividend payout. Large firms depend significantly on internal financing from retained earnings to meet their financial needs. Small deficits that remain are financed by external financing. For large firms, equity financing is not a significant source of financing.

Shyam-Sunder and Myers (1999) argue this theory predicts effect of profitability accurately. Debt ratio decreases in financial surplus years and increases in deficit years. This means that firms use financial surplus to offset their outstanding debt. Higher retained earnings are more likely to be seen in profitable firms since they are likely to have more cash flow. However, if two firms have the profitability index, the larger firm will get more external financing compared to the smaller firm.

Pecking order theory is thus considered relevant since the current study wanted to examine effects of firm size, liquidity, and profitability on dividend payout and to what degree they are valid. This theory further strengthens the study variables by explaining how the independent variables can assists investors make knowledgeable investment option.

2.2.4 Dynamic Trade-off Theory

Advanced by Fischer, Heinkel and Zechner (1989), it suggests that firms take recapitalization actions only when the marginal benefits of the recapitalization can offset the marginal costs of the

recapitalization. This theory further explains that the firm might not be close to its target capital structure, however it could have adjustment actions towards the target only once the benefits of the correction will compensate costs of correction (Dudley, 2007). The theory further posits a firm could improve its market value by maintaining an ideal capital structure. It underlines the suggestion that firms have a target capital structure that maximizes its value, and it is costly to move away from the ideal (Fischer *et al*., 1989).

For financially unconstrained firms, this theory indicates a firm will give equity after increase in risk and take debt after decrease in risk. When a firm decides to lower or increase external capital after facing risk adjustments, it is probable that it will select a financing structure that will move it near its new higher or lower target leverage ratio. This decision depends on its risk level and the costs of adjustment related with external financing (Strebulaev, 2007).

For instance, a firm can decide to avoid external financing if cost of correction is higher than advantages gained from capital structure adjustment. On the other hand, it is anticipated that a firm will be active on external financing which permits it to move nearer to its optimal leverage ratio, if benefits gained from raising external financing after facing risk adjustments are greater than the costs of adjustment.

Investments, capital expenditures and dividend payout have significant impact on financial distress since they are largely financed by cash flows generated by a firm hence investments, capital expenditures and dividend payout affect a firm's capital structure. To be specific, large investments, capital expenditures and dividend payout reduces retained earnings available for capital structure adjustment indicating a negative impact of investment and dividend payout on rate of correction (Dang, Kim & Shin, 2012).

According to Dudley (2007), profitability and interest rates lowers leverage range. High profitability firms are less vulnerable to financial distress compared to low profitability firms since high profitability firms they are likely to have reserves or retained earnings with which they can use offset debts to adjust towards target leverage. When acquiring external finance, high profitability firms also have a better chance of getting lower security issuance costs. In additional, under-levered profitable firms have powerful motivation to lever up to experience benefits of tax saving.

Large sized firms usually get preferable opportunity in capital markets compared to small sized firms since large sized firms encounter lesser degree of agency problems and information asymmetry. Secondly, large sized firms are more likely to have higher profitability due to being more mature and with asset clarity therefore they encounter smaller capital structure adjustment cost (Drobetz, Pensa & Wanzenried, 2006). Therefore, the foregoing implies that firm size and speed of adjustment have a positively relationship. In addition, large firms are more likely to have less obligations, smaller financial distress costs and less cash flow unpredictability. This implies that large firms have less external pressure and motivation to embark on adjustment.

Dynamic trade-off theory is therefore considered relevant in this study since it examined effects of firm size, value, and profitability on dividend payout and to what degree they are valid. This theory further strengthens the study variables by explaining how the independent variables can assists investors make knowledgeable choice on firm to invest in.

2.3 Empirical Review

Firms can be differentiated from one another based on distinct financial or non-financial characteristics which are affected by the management's decisions, policies, and objectives and

have effect on dividend payout. In this section, the researcher reviews past studies by various researchers in detail. Most of the past studies contains detailed empirical analysis of correlation between dividend payout and various characteristics. Documented findings from these studies indicate that size, liquidity, and profitability have explanatory power on dividend payout hence they are crucial characteristics. The empirical review is organized based on objectives of the study and are discussed below.

2.3.1 Bank Size and Dividend Payout

Pattiruhu and Paais (2020) investigated effects of firm size on dividend payout in Indonesia for nine listed real estate companies using primary data for the period between 2016-2019. The primary data was transformed to ordinal data and regression analysis was thereafter done for hypothesis testing of data to examine the correlation between size and dividend payout. The results showed no positive and significant effect of size on dividend payout. The study however presented a research gap on the sector specific and Kenyan perspective since it focused on listed real estate and property companies in Indonesia. This study closed the gap by focusing on the Kenya's financial industry since circumstances in the two developing nations are different which could significantly affect results.

Katakwar *et al.* (2021) studied the determinants of dividend policy in India by employing secondary data from the national stock exchange of India for the financial year 2015/2016 to 2019/2020. The analysis used multiple regression analysis. The findings showed negative insignificant effect of size on dividend payout. However, the study involved nifty 50 Index companies listed at the national stock exchange of India thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap

by narrowing down to banking sector in Kenya since circumstances in the two nations are different with India being more developed with a bigger economy which could significantly affect results.

Okoro *et al.* (2018) studied determinants of dividend payout in Nigerian for nine listed consumer goods companies using secondary data over the period between 2006-2015. The study employed multiple regression for empirical testing of data to establish effects of the independent variable size. The findings showed negative statistically insignificant effects of size. However, the study involved consumer goods companies thereby presenting research gap on the Kenyan perspective and sector specific perspective. The researcher closed the gap by centering on Kenya's financial industry since circumstances between the two developing nations are different which could significantly affect results.

Kiangi *et al.* (2022) also while studying dividend policy in Tanzania, examined secondary data of six commercial banks for the period between 2009-2018. The study employed random and fixed effect data analysis for inferential examination of data to establish effects size. The results showed significant effect of size on dividend payout. However, the study presented a research gap on the Kenyan perspective since it focused on big banks in Tanzania. The current study addressed the research gap by centering on Kenya's Tier I banks since conditions in these two countries could significantly affect results.

Nyere and Wesson (2019) studied factors affecting decisions on dividend payout in South Africa using secondary data from listed industrial companies for the period between 1999-2014. The study applied economics techniques of fixed-effects panel regression for empirical testing of data to establish effects of the independent variable size. The results showed positive statistically significant effects of size the Johannesburg Stock Exchange (JSE). However, the study involved

industrial companies thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to commercial banks in Kenya since circumstances in the Kenya and South Africa are different with South Africa being more developed nation with a bigger economy which could significantly affect results.

Ogundajo *et al.* (2019) studied correlation between accounting information and dividend payout prediction in Nigeria using secondary data from 36 listed manufacturing firms for the period between 1997-2016. The study employed fixed effects regression to examine the correlation between size and dividend payout. The results showed a negative significant effect of size. However, the study involved manufacturing firms in Nigeria thereby presenting a research gap on the Kenyan perspective and specifically the banking sector perspective. The current study addressed the research gap by centering on Kenya's financial industry since circumstances in these two sectors and two nations are different which could significantly affect results.

Brahmaiah *et al.* (2018) studied determinants of corporate dividend policy in India employing secondary data from 95 firms at the national stock exchange with continuous dividend payout for the period between 2012/2013-2017/2018. The study applied economics technique of dynamic panel regression for empirical testing of data to establish the effects of size. The findings showed negative significant effect of size. However, the study involved sampled firms from the national stock exchange thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to banking sector in Kenya since circumstances in the two nations are different with India being more developed with a bigger economy which could significantly affect results.

Rahmadi (2020) examined factors influencing the dividend payout in the banking industry in Indonesia employing secondary data of six banks for the period between 2014-2018. Panel regression was employed for empirical testing of data to establish the effects of size on dividend payout. The results showed a significant effect of size. However, the study presented a research gap on the Kenyan perspective since it focused on listed banks in Indonesia. The current study addressed the research gap by centering on Kenya's Tier I banks since circumstances in the two developing nations are different with Indonesia being in Southeast Asia which could significantly affect results.

2.3.2 Liquidity and Dividend Payout

Kiangi *et al.* (2022) also while studying dividend policy in Tanzania, examined secondary data of six commercial banks between 2009-2018. The study employed fixed and random effect data analysis for inferential examination of the data to determine effects of the independent variable liquidity. The findings showed negative statistically significant effect of liquidity on dividend payout. The study presented a research gap on the Kenyan perspective since it focused on Tanzania's big banks. The current study addressed the research gap by centering on Kenya's Tier I banks since conditions in these two countries could significantly affect results.

Ogundajo *et al.* (2019) studied correlation between accounting information and dividend payout prediction in Nigeria using secondary data from 36 listed manufacturing firms for the period between 1997-2016. The study employed fixed effects regression to examine correlation between liquidity and dividend payout. The results showed a negative significant effect of liquidity. However, the study involved manufacturing firms in Nigeria thereby presenting a research gap on the Kenyan perspective and specifically the banking sector perspective. The current study

addressed the research gap by centering on Kenya's financial industry since circumstances in these two sectors and two nations are different which could significantly affect results.

Nyere and Wesson (2019) studied factors influencing decisions on dividend payout in South Africa using secondary data from listed industrial companies for the period between 1999-2014. The study applied economics techniques of fixed-effects panel regression for empirical testing of data to establish effects of liquidity on dividend payout. The results showed a negative significant effect of liquidity. However, the study involved industrial companies thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to commercial banks in Kenya since circumstances in the Kenya and South Africa are different with South Africa being more developed nation with a bigger economy which could significantly affect results.

Abiahu *et al.* (2018) studied correlation between performance and dividend payout in Nigeria using secondary data from listed companies for the period between 2010-2016. They used descriptive and panel regression for empirical testing of data to establish effects of liquidity. The findings showed a negative significant correlation between liquidity on dividend payout at the Nigeria stock exchange. However, the study involved all companies at the Nigeria stock exchange thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to commercial banks in Kenya since circumstances in the two developing nations are different which could significantly affect results.

Brahmaiah *et al.* (2018) studied determinants of corporate dividend policy in India employing secondary data from 95 firms at the national stock exchange with continuous dividend payout for the period between 2012/2013-2017/2018. The study applied economics technique of dynamic

panel regression for empirical testing of data to establish the effect of liquidity on dividend payout. The results showed a negative significant effect of liquidity. However, the study involved sampled firms from the national stock exchange thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to banking sector in Kenya since circumstances in the two nations are different with India being more developed with a bigger economy which could significantly affect results.

Okoro *et al.* (2018) studied determinants of dividend payout in Nigerian using secondary data from nine consumer goods companies between 2006-2015. The study employed multiple regression for empirical testing of data to establish effects of liquidity. The findings revealed positive significant effect of liquidity. The study involved consumer goods companies thereby presenting research gap on the Kenyan perspective and sector specific perspective. The current study closed the gap by centering on Kenya's financial industry since circumstances in these two countries is not the same which can significantly impact on the results.

Pattiruhu and Paais (2020) investigated effects of firm size on dividend payout in Indonesia for nine listed real estate companies using primary data for the period between 2016-2019. The primary data was transformed to ordinal data and regression analysis was thereafter done for hypothesis testing of data to examine correlation between liquidity and dividend payout. The results showed negative statistically insignificant effect of liquidity. However, the study presented a research gap on the sector specific and Kenyan perspective since it focused on listed real estate and property companies in Indonesia. The current study closed the gap by centering on Kenya's financial industy since circumstances in these two developing nations are different which could significantly affect results.

Katakwar *et al.* (2021) studied the determinants of dividend policy in India employing secondary data from National Stock Exchange of India for the financial year 2015/2016 to 2019/2020. They used multiple regression analysis in the study of the effects of size. The results revealed a positive insignificant effect of liquidity. The study involved Nifty 50 Index companies listed at the National Stock Exchange of India thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to banking sector in Kenya since circumstances in the two nations are different with India being more developed with a bigger economy which could significantly affect results.

2.3.3 Profitability and Dividend Payout

Pattiruhu and Paais (2020) investigated effects of firm size on dividend payout in Indonesia for nine listed real estate companies using primary data for the period between 2016-2019. The primary data was transformed to ordinal data and regression analysis was thereafter done for hypothesis testing of data to investigate correlation between dividend payout and profitability. The findings showed negative insignificant effect of profitability. The study however presented a gap on the sector specific and Kenyan perspective since it focused on listed real estate and property companies in Indonesia. The current study closed the gap by centering on Kenya's financial industry since circumstances in these two developing nations are different which could significantly affect results.

Okoro *et al.* (2018) studied determinants of dividend payout in Nigerian for nine listed consumer goods companies using secondary data between 2006-2015. The study employed multiple regression for empirical testing of data to establish effects of profitability. The findings revealed a positive insignificant effect of profitability. The study however involved consumer goods

companies thereby presenting research gap on the Kenyan perspective and sector specific perspective. The current study closed the gap by centering on Kenya's financial industry since circumstances in these two developing nations are different which could significantly affect results.

Abiahu *et al.* (2018) studied correlation between performance and dividend payout in Nigeria using secondary data from listed companies for the period between 2010-2016. The study used descriptive and panel regression for empirical testing of data to establish effects of earnings per share. The findings showed a negative insignificant correlation between dividend payout and earnings per share. However, the study involved all companies at the Nigeria stock exchange thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to commercial banks in Kenya since circumstances in the two developing nations are different which could significantly affect results.

Rahmadi (2020) examined factors influencing the dividend payout in the banking industry in Indonesia by employing secondary data from six banks for the period between 2014-2018. They employed panel regression for empirical testing of data to establish effects of profitability on dividend payout. The results showed zero significant effect of profitability. The study however presented a research gap on the Kenyan perspective since it focused on listed banks in Indonesia. The current study addressed the research gap by centering on Kenya's Tier I banks since circumstances in the two developing nations are different with Indonesia being in Southeast Asia which could significantly affect results.

Nyere and Wesson (2019) studied factors influencing decisions on dividend payout in South Africa using secondary data from listed industrial companies for the period between 1999-2014. The

study applied economics techniques of fixed-effects panel regression for empirical testing of data to establish effects of profitability on dividend payout. The results showed positive statistically significant effect of profitability at the Johannesburg Stock Exchange (JSE). However, the study involved industrial companies thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap by narrowing down to commercial banks in Kenya since circumstances in the Kenya and South Africa are different with South Africa being more developed nation with a bigger economy which could significantly affect results.

Kiangi *et al.* (2022) also while studying dividend policy in Tanzania, examined secondary data of six commercial banks between 2009-2018. The study employed fixed and random effect data analysis for inferential evaluation to establish effects of profitability. The results showed positive significant effect of profitability on dividend payout. However, the study presented a research gap on the Kenyan perspective since it focused on Tanzania's big banks. The current study addressed the research gap by focusing on listed Tier I banks in Kenya since conditions in the two countries could significantly affect results.

Brahmaiah *et al.* (2018) studied determinants of corporate dividend policy in India by employing secondary data from 95 firms at the national stock exchange with continuous dividend payout for the period between 2012/2013-2017/2018. The study applied economics technique of dynamic panel regression for empirical testing of data to establish effects of profitability on dividend payout. The findings showed negative significant effect of profitability. However, the study involved sampled firms from the national stock exchange thereby presenting a research gap on the Kenyan perspective and sector specific perspective. The current study addressed the research gap

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2.4 Summary of Literature Review and Research Gaps

The researcher pursued to link research gaps found while researching effect of banks characteristic on dividend payout in Kenya and specifically on the banking sector. In addition, the study has covered a recent period between 2016-2021. Summary of empirical literature review, their key findings and research gaps are presented below.

Table 2.1: Summary of Literature Reviewed and Research Gaps

Author (s)	Study	Key Findings	Research Gaps	Addressing the Gap
Pattiruhu and Paais (2020)	Effect of Liquidity, Profitability, Leverage, and	-Negative insignificant effect of size, liquidity, profitability.	-Study was conducted in Indonesia using data from real estate companies.	-The current study was conducted in Kenya with specific focus banking sector.

	Firm Size on Dividend Policy		-Study did not consider banking sector.	
Katakwar *et al.* (2021)	Determinants of Dividend Policy in India	-Negative insignificant effect of size. -Positive insignificant effect of liquidity.	-Study was conducted in India using data from all Nifty 50 Index companies listed at the National Stock Exchange. -The study did not focus on the banking sector. -Did not study effect of profitability.	-The current study was conducted in Kenya with specific focus banking sector. -Included profitability as a variable.
Okoro *et al.* (2018)	Determinants of Dividend Payout of Consumer Goods Companies in Nigeria	-Negative insignificant effect of size and profitability on dividend payout. -Positive significant effect of liquidity.	-Study was conducted in Nigeria using data from consumer goods companies. -Financial industry was not in the scope.	-Conducted in Kenya with specific focus banking sector.
Kiangi *et al.* (2022)	Dividend policy for commercial banks in Tanzania.	-Positive significant effect of size and profitability on dividend payout. -Negative significant effect of liquidity on dividend payout.	-The study was conducted in Tanzania. -Scope of the commercial banks not specified.	-The current study was conducted in Kenya with specific focus on large commercial banks.
Nyere and Wesson (2019)	Factors influencing dividend payout decisions in South Africa	-Positive significant effect of size and profitability. -Negative significant effect of liquidity on dividend payout.	-The study was conducted in South Africa using data from industrial companies listed at the Johannesburg Stock Exchange. -Financial industry was not in the scope.	-The current study was conducted in Kenya with specific focus banking sector.
Ogundajo *et al.* (2019)	Accounting information and dividend payout prediction in Nigerian listed manufacturing firms	-Negative significant effect of size, profitability on dividend payout. -Negative significant effect of liquidity.	-The study was conducted in Nigeria using data from manufacturing firms. -Financial industry was not in the scope.	-The current study was conducted in Kenya with specific focus banking sector.
Brahmaiah *et al.* (2018)	Determinants of Corporate	-Negative significant effect of	-The study was conducted in India using data from sampled firms	-The current study was conducted in Kenya with

	Dividend Policy in India.	size and profitability. -Negative significant effect of liquidity on dividend payout.	listed at the National Stock Exchange. -Financial industry was not in the scope.	specific focus banking sector.
Rahmadi (2020)	Influence of return on investment, current ratio, debt to equity ratio, earning per share, and firm size to the dividend payout ratio in banking industries listed at Indonesia Stock Exchange.	-Significant effect of size. -Zero significant effect of profitability.	-The study was conducted in Indonesia using data from all Banks. -Sudy did not consider different segments in the Banking Industries. -Did not study effect of liquidity.	-The current study conducted in Kenya centering on Tier I banks. -Included liquidity as a variable.
Abiahu *et al.* (2018)	Modelling correlation between shareholders dividends and corporate performance in Nigeria	-Negative significant of liquidity on dividend payout. -Negative insignificant of profitability on dividend payout.	-Study done in Nigeria with data from listed companies. -Study did not consider the exclusivity of the financial and non-financial sectors and separate them. -Did not study effect of size.	-The current study was done in Kenya with specific focus on Tier I banks.

Source: Researcher (2022)

2.5 Conceptual Framework

Conceptual framework is diagrammatical presentation of correlation between independent and dependent variable. This research tool illustration helps the researcher to derive intuitive explanation from ensuing findings from the study. Mugenda (2008), explains it as a brief illustration of the case being studied along with a visible representation of the major variables. The study employed descriptive and inferential analysis to establish the correlation between independent and dependent variable with aim of generating tables and statistical estimates.

Conceptual framework below illustrates the relationship where independent variable is bank characteristic, and dependent variable is dividend payout of Tier I banks in Kenya.

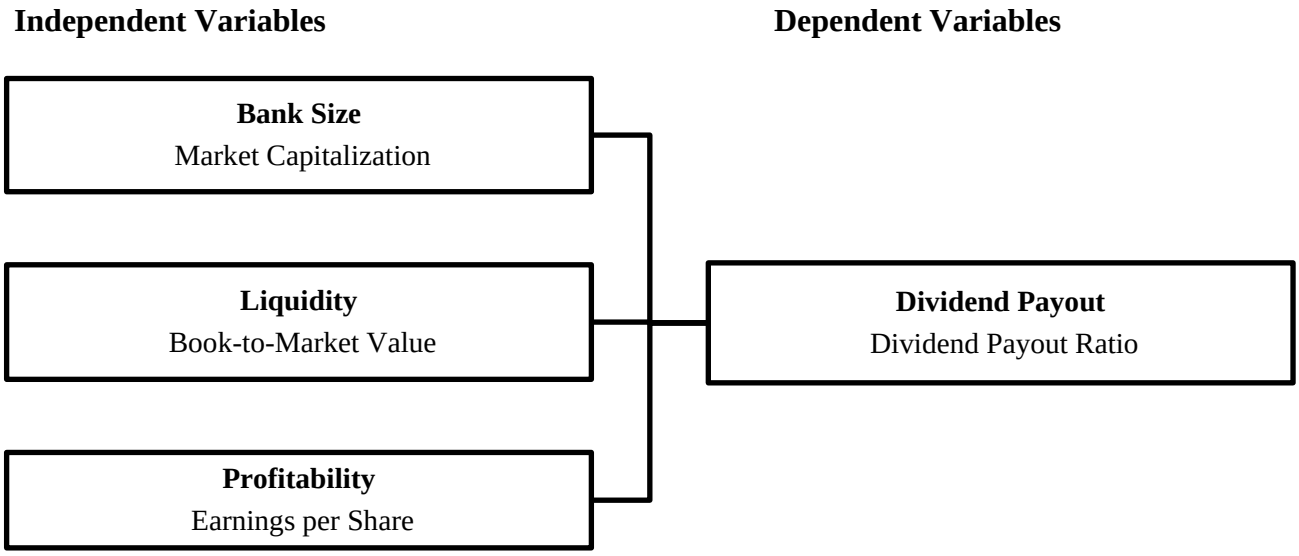

Figure 2:1: Conceptual Framework

Source: Researcher (2022)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out procedure to be employed while undertaking this study as well as the method that will be adopted to examine the research questions put forward. The chapter will also center on the technique which has been picked and offer explanations for the options of method and procedure. Based on the conceptual framework developed, it will also extend over the design and technique employed for testing independent and dependent variables.

3.2 Research Philosophy

This involves a belief regarding the approach that data ought to be collected, evaluated, then applied (Saunders, Lewis & Thornhill, 2009). According to Eriksson and Kovalainen (2015), it involves knowledge development and its nature while research methods involve data collection and evaluation techniques employed in research. A research paradigm considers the nature and methodology employed when carrying out a study and it can be recognized by its research philosophy and methods.

This study employed positivism philosophy. According to Bryman & Bell (2003) positivism philosophy believes that the environment and outcomes of importance in the study are external, factual, and unbiased of the researcher. These fundamental beliefs of positivism philosophy are helpful to this study since the study sought to test and verify theories and generate knowledge in a scientific manner. Positivism philosophy was also helpful since this study is centered on

hypotheses that are developed from existing economic theories and principles that were afterwards examined either to reject or fail to reject the assumptions.

3.3 Research Design

Research design is the research's framework or blueprint. The study assumed descriptive design which employs a predetermined plan for analysis. Descriptive design shows uncommon events and real situations where they occurred and describes the occurring situations or relationships between variables (Bryman & Bell, 2003). Creswell (2003) explains that descriptive design should be applied where data is gathered for description of a phenomenon, settings, organizations, or persons.

Descriptive design was important in case study since it considered in what way an occurrence was affected by the circumstance where it was located hence of importance in the research (Baxter & Jack, 2008). It is also indemnified against prejudice hence high dependability. The descriptive design was employed to establish and describe the occurring correlation between dividend payout and bank characteristics.

3.4 Empirical Model

An empirical model is a methodology or model established on empirical observations and used to obtain a direct relationship between responses and yields of a system or pack. The study employed panel multiple regressions model since the dependent variables are continuous. According to Brooks (2008), panel regression is employed to examine the correlation between variables whose measures are continuous in nature. Jackson (2009) further explains that this model involves getting several independent variables into one equation hence effects of several

independent variables on dependent variables is measured. The model employed by the current study was adopted from Kutner, Nachtsheim, and Neter (2004). It was specified as follows:

$$DP_{it} = \alpha + \beta_1(BS_{it}) + \beta_2(L_{it}) + \beta_3 (P_{it})$$

Where:

(DP_{it}) = Dividend Payout measured by dividend payout ratio at a specified time.

(BS_{it}) = Bank Size measured by market capitalization at a specified time.

(L_{it}) = Liquidity measured by book-to-market value at a specified time.

(P_{it}) = Profitability measured by earnings per share at a specified time.

(α) = Constant term.

(β) = Coefficients of the explanatory variables.

3.5 Operationalization and Measurement of Study Variables

Measurement assumed by this study have been supported in previous studies and therefore adopted by this study.

Table 3.1: Operationalization and Measurement of Study Variables

Variable Category	Variable	Operationalization	Measurement	Measurement Scale
Dependent	Dividend Payout	Dividend Payout Ratio	Dividends paid/ Earnings after tax	Ratio
Independent	Bank Characteristics	Bank Size	Market Capitalization	Ratio
		Liquidity	Book value/Market value	Ratio
		Profitability	Earnings/Shares	Ratio

Source: Researcher (2022)

3.6 Target Population

Population defined by Sekaran (2010) as the whole category of items of significance which can be researched. It can also be defined as the complete category of items with familiar noticeable factors. In this study, the sample was Tier I banks. CBK classified banks into Tiers using a weighted composite index into peer groups that is composed of capital and reserves, loan accounts volume, deposit accounts volume, customer deposits and net assets. Banks with an index of >5% are categorized as large or Tier I. Based on this classification, nine (9) commercial banks in Kenya (Appendix I) were categorized by CBK as Tier I as at the end of December 31, 2021.

3.7 Sampling Design

Bryman and Bell (2003) define sample as set of characteristic elements withdrawn from target population. According to Kothari (2004), sampling technique is a statistical methodology adopted in developing an appropriate sample that is representative of a population under study. This study used census sampling technique which gathers information about all members of the population. The criteria chosen gives the researcher an opportunity to obtained accurate results since each member is evaluated therefore, there is an insignificant error. The advantages of census sampling are that it is highly reliable and suited for data that is heterogeneous.

3.8 Data Collection Instruments

The study employed document review guide to gather secondary data which was quantitative in nature from the Tier I banks which was later employed in empirical evaluation. Secondary data was collected from audited and published financial reports of the nine Tier I banks in Kenya from year 2016-2021.

3.9 Data Collection Procedures

The researcher acquired authorization letter for research from graduate school which was sent to the National Commission for Science, Technology, and Innovation to permit panel data collection from audited published financial statements of the Tier I banks. Census of 9 Tier I banks between 2016-2021 was conducted. Document review guide (Appendix II) was employed in panel data collection.

3.10 Data Validity

Data validity is the degree to which a set of determined entries are qualitatively accurate and indicate the underlying theory the items are intended to quantify (Cooper & Schindler, 2014). To guarantee data validity, panel data was collected from audited and published financial reports. The study also employed comparable significant variables such as dividend payout (dependent), bank size (independent), liquidity (independent) and profitability (independent) from several past studies that employed similar analysis as the one being assessed.

3.11 Data Analysis & Presentation Method

Descriptive statistics and inferential analysis were employed for empirical evaluation of data. Descriptive statistics was employed to explain changes in bank characteristics and dividend payout and comprised of mean and standard deviation which are measures of central tendency and maximum values and minimum values. Inferential analysis comprised of regression analysis and Pearson's correlation analysis. Combining descriptive statistics and inferential analysis enhances the profoundness of the results (Jackson, 2009).

Descriptive statistics offered conclusions on the data evaluation and together with graphs and tables it established the premise of all empirical data examination. Bank characteristics had three measurements: market capitalization, earnings per share and book-to-market value. Regression analysis was conducted to measure the correlation between bank characteristics and dividend payout. The effect of independent variables was investigated using empirical model described in section 3.4. Before hypotheses testing, diagnostic tests were done to test fitness of panel data for subsequent regression evaluation.

3.12 Diagnostic Test

Before hypotheses testing, diagnostic tests were done to test the suitability of the panel data for regression analysis and to confirm Classical Linear Regression Model assumptions were not breached. If the assumptions of CLRM were not guaranteed, then the produced estimates remained at the risk of being biased, inconsistent and inefficient. Diagnostic tests done were normality, heteroskedasticity, multicollinearity, autocorrelation, stationary, Hausman test and correlation analysis.

3.12.1 Normality Test

Shapiro-Wilk (W) test was employed to determine whether sample fitted a normal distribution. This test was more appropriate for conducting the normality test in this study since the size of the sample was small and Shapiro-Wilk test has more ability to identify nonnormality (Razali & Wah, 2011). First, Shapiro-Wilk (W) test computes the similarity between observed distribution and normal distribution then overlays a normal curve over the observed distribution then calculates similarity ratio. The null hypothesis (H_0) was that the sample came from a normal distribution. Shapiro-Wilk (W) values lie between 0 and 1. Values close to 0 lead to rejection of normality

whereas 1 indicate normal distribution (Razali & Wah, 2011). If data did not fit a normal distribution, the study would have embraced Kolmogorov–Smirnov test which is non-parametric.

3.12.2 Heteroskedasticity Test

Breusch-Pagan/Cook-Weisberg test was employed to determine presence of heteroskedasticity. In OLS regression, one of the assumptions made about errors is variance of error term is homoskedasticity or constant (Gujarati & Porter, 2009). Heteroskedasticity is the violation of this assumption. The null hypothesis (H_0) for Breusch-Pagan/Cook-Weisberg test was the error term is homoskedastic. Rejection of the null hypothesis (H_0) indicated the existence of heteroskedasticity. The alternative hypothesis (H_1) was the error term is heteroskedastic.

3.12.3 Multicollinearity Test

In multiple regression model, a state where two or more independent variables are very related therefore one could be applied in place of the other is referred to as multicollinearity (Kock & Lynn, 2012). This test makes use of collinearity statistics to get the tolerance and Variance Inflation Factor. The study employed correlation matrix for the test. Field (2009) recommend VIF threshold <10 and Tolerance of >0.1 for excluding likelihood of multicollinearity. Tolerance of <0.1 make an independent variable redundant which indicates multicollinearity is a problem and VIF represents the reciprocal of tolerance. In case multicollinearity was detected, the solution would have been to cut out a few independent variables.

3.12.4 Autocorrelation Test

Durbin-Watson test was employed to examine if error terms were correlated with respect to time at different points. Regression analysis assumptions mandate that error terms must not be linked

at different points with respect to time. Regression analysis model summary contains Durbin-Watson autocorrelation statistics. Where it falls between 1.5<d<2.5, an assumption can be made serial autocorrelation does not exist (Brooks, 2008). The null hypothesis (H_0) for Durbin-Watson test was serial autocorrelation does not exist. Rejecting the null hypothesis (H_0) indicates there is covariance between several values of bank characteristics variables linked to the error terms.

3.12.5 Stationary Test

Stationary test was performed since panel data employed comprised of both time-series and cross-sectional components. The study employed Levin-Lin Chu (LLC) test to determine if variables remained non-stationary or stationary to avoid spurious regressions caused by non-stationary variables. Performing regression analysis on non-stationary data could lead to spurious regression (Choi, 2001). The null hypothesis (H_0) for stationarity test was unit roots existed in the variables. The existence of unit root suggests non-stationary variable. If data was found to be non-stationary, then first differencing of the non-stationary variables would have been employed to make them stationary.

3.12.6 Hausman Test

Before using panel data, analysis for fixed effect and random effect is essential to determine ideal regression model for the specified panel data (Greene, 2008). The study employed Hausman specification test to select the optimal regression model which should be employed between fixed and random effect. This test is centered on reliability and effectiveness of estimators of fixed effect and random effect subject to the relationship between the specific effects and their repressors.

The null hypothesis (H_0) was the variance between fixed effect estimates and random effect estimates is not systemic. If the findings show the existence of significant relationship between the

undetected random effects and the repressors, then the fixed effect would be most optimal. On the other hand, if there is no significant relationship established, then random effect would be most optimal (Greene, 2008). Hence in this study, random effect model was the optimal panel regression model.

3.12.7 Correlation Analysis

The study employed Pearson's correlation coefficient for evaluation of the extent and direction of the relationship between variables. When two variables are linearly connected, the correlation coefficient represents the extent and direction of the connection which varies between -1 and 1, indicating the strength of the connection linearly (Field, 2009). Positive correlation coefficient points to a direct relationship, whereas negative correlation coefficient points to an inverse relationship.

3.13 Ethical Considerations

Ethics has become one of the key cornerstones for conducting successful and significant study. Researchers ethical conduct is always under keen review. Several ethical concerns were considered throughout this research project. The researcher was very clear that this research project was only for academic purpose and that confidentiality was paramount and guaranteeing privacy of the organizations from where data collection was done.

The researcher obtained from graduate school an authorization letter for research which was sent to National Commission for Science, Technology, and Innovation to obtain a license for research (Appendix III) which allowed for usage of secondary data from audited and published financial reports for nine Tier I banks in Kenya. American Psychological Association (APA) guideline has

been used in all citations, quotations, and citations of quotations and all citations have also been referenced in the references section.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter shows empirical results and discussion. Analysis techniques employed include descriptive statistics which determined key characteristics of data and diagnostic tests which determined the suitability of study variable. Lastly, the panel regression analysis was conducted as specified in Chapter three and interpreted using inferential statistics. Chapter four also presents hypothesis testing.

4.2 Response Rate

According to Saunders *et al*., (2009), Kothari (2004) and Mugenda and Mugenda (2013) above 70 per cent response rate is deemed exceptionally good, outstanding, and excellent respectively for analysis, reporting, drawing conclusions, and inferring about a target population. This study gathered all required secondary data (Appendix VII) which was quantitative in nature from all the nine (9) Tier I banks for each year between 2016-2021 which was 100 per cent of the target population. This was achieved using a document review guide (Appendix II). This concludes that the 100 per cent response rate was excellent for analysis, reporting, drawing conclusions, and inferring about effect of bank characteristics on dividend payout.

4.3 Descriptive Statistics Analysis

Descriptive statistics was employed to illustrate and summarize changes in bank characteristics and dividend payout. Descriptive statistics analysis offered conclusions on the data evaluation and together with graphs and tables, established the premise of all empirical data examination. It

comprised of mean and standard deviation as measures of central tendency and maximum values and minimum.

Table 4.1: Study Variables Descriptive Analysis Summary

Variables	Observations	Min	Max	Mean	Standard Deviation
Banks Size (Ksh. B)	54	16.63633	201.8916	70.562834	45.2885466
Liquidity	54	0.38740	4.0450	1.073257	0.5903302
Profitability (Ksh)	54	0.77000	41.4000	12.401832	10.7071786
Dividend Payout	54	0.00000	0.7600	0.348420	0.1886841

Source: Research data, (2022)

Bank size had a mean of Ksh 70.562834 billon. The minimum value and maximum value were Ksh 16.63633 billon and Ksh 201.8916 billon respectively. This finding indicated that total assets of the Tier I banks in Kenya have been growing steadily. This could be accredited to more loan facilities being advanced to customer leading to high profit margins from interest income.

According to Onuonga (2014), large firms will operate efficiently as well as provide services at relatively lower costs if the firm is experiencing economies of scale. According to Were and Wambua (2014) large banks also are more capable and have the latitude of making investments on innovations and latest technologies to increase efficiency.

Liquidity had a mean of 1.073257. Minimum and maximum value of liquidity was 0.3874 and 4.0450. Book-to-market value identifies overvalued and undervalued stocks. A stock is considered overvalued if the value is <1 and undervalued if it is >1 (Gambacorta *et al.*, 2020). A value of >1 implies the share price is buying and selling for less than its assets are worth which means that it is buying and selling modestly contrasted to its book value.

The findings indicate that Tier I banks in Kenya are value stocks which can explain the relatively stable dividend payout. Book value is computed by considering the accounting value of the firm which is assets minus liabilities. The 2008 financial crisis underlined the significance of liquidity in covering unexpected cash outflows. According to Elliott (2014), a bank can succumb if its depositors lose trust in the institution even if it is solvent. The results also showed that Tier I banks were safer from risks associated with liquidity risk.

Profitability had a mean of Ksh 12.40. The minimum value and maximum value were Ksh 0.77 and Ksh 41.40 respectively. This was an indication that the Tier I banks in Kenya have been effective in terms of profit generation. According to Khrawish (2011) a bank is effective in profit generation if the return on equity is higher which also shows the success of the management in making use of amount of equity in the bank. Therefore, the greater the earnings per share the effective the firm in making profits.

Dividend payout had a mean of 0.34842, maximum value of 0.76 and minimum value of 0. These results indicated dividend payout of Tier I banks in Kenya have been relatively low. This could be attributed to banks retaining capital thus announcing lower dividend payout. This was driven by the need to build buffers and increase capability to soak up losses, strengthen lending and support economic activity.

4.4 Trend Analysis

Trend analysis was employed to monitor changes in study variables over the period of study. Bank characteristics (bank size, liquidity, and profitability) trends which occurred within the period of study were analyzed where annual means were calculated for each variable and trend analysis

done. Market capitalization was used as measurement for bank size, book-to-market was used as measurement for liquidity and earnings per share was used as measurement for profitability.

4.4.1 Trend Analysis of Bank Size (Market Capitalization)

Figure 4.1 below shows summarized trend analysis of bank size from 2016 to 2021. The vertical axis is the measure of bank size measured by Market Capitalization in Ksh. B while the bottom horizontal axis represents the years.

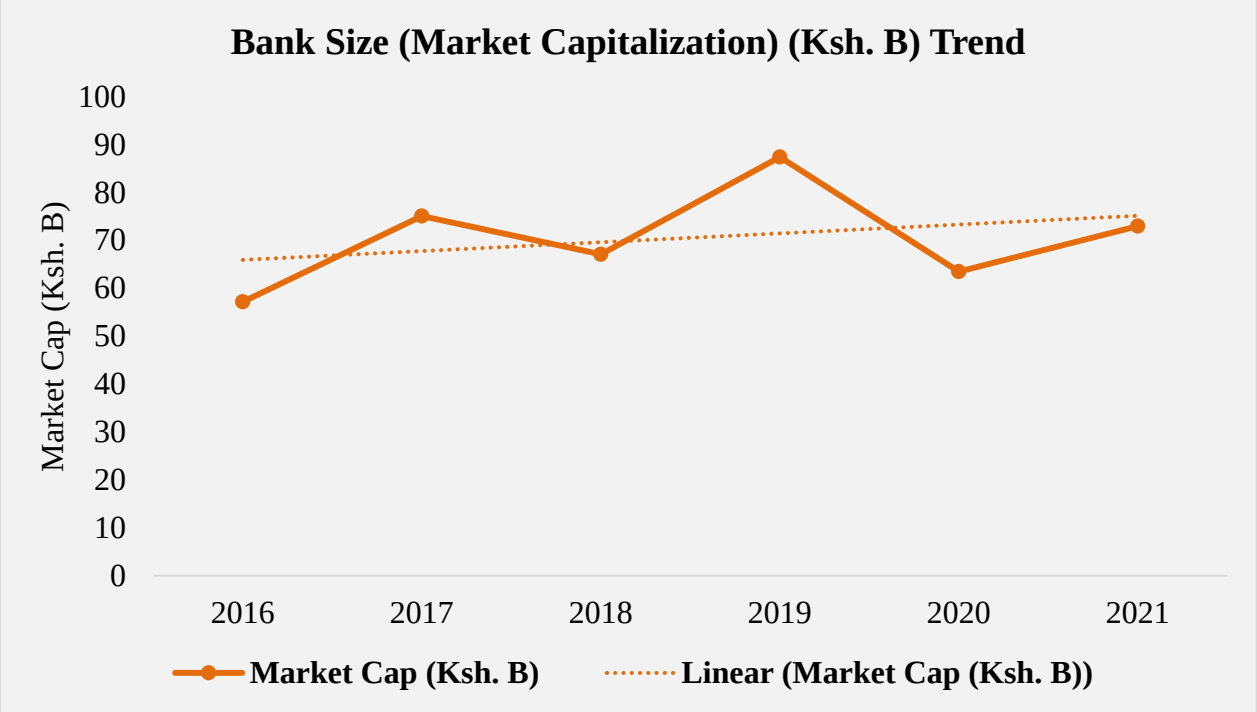

Figure 4:1: Bank Size Trend Analysis (Market Capitalization)

Source: Research data, (2022)

The current study took to analyze trends in bank size for Tier I banks. Average market capitalization was highest in 2019 at Ksh 87.4371 billion and lowest in 2016 at Ksh 57.2013 billion. Trend analysis presented average Market Capitalization growing gradually from 2016 to 2021. That can be ascribed to growth of stock price. However, share price should not be mistaken

to be an accurate representation of a bank's worth or stability but rather Market Capitalization which is the correct representation since it denotes the actual value perceived by the public and the markets. There was drop in 2020 which can be ascribed to the Covid-19 pandemic. Covid-19 pandemic had a big effect on the banking sector (Gambacorta *et al.*, 2020). During the period, banks put greater caution due to credit default risk which affected growth.

Theoretically, large banks are anticipated to be more profitable hence expected to have a higher dividend payout compared to smaller banks due to their ability to capitalize on the economies of scale, thus, bank size can predict financial performance. According to Were and Wambua (2014) large banks are more capable and have the latitude of making investments on innovations and latest technologies to increase efficiency.

Onuonga (2014), further argue that large firms will operate efficiently as well as provide services at relatively lower costs if the firm is experiencing economies of scale. However, Naceur and Goaied (2008) argue that firm size reports for economies as well as dis-economies of scale. Dis-economies of scale will take place after the firm is too large to the extent that economies of scale stops functioning hence unit costs increases rather than decreasing leading to poor financial performance. Dis-economies of scale can be in the form of technical constraints, organizational constraints, management issues or external diseconomies of scale.

4.4.2 Trend Analysis of Liquidity (Book-to-Market Value)

Trend analysis of liquidity from 2016 to 2021 is summarized in Figure 4.2 below. The vertical axis is the measure of liquidity while horizontal axis is the years.

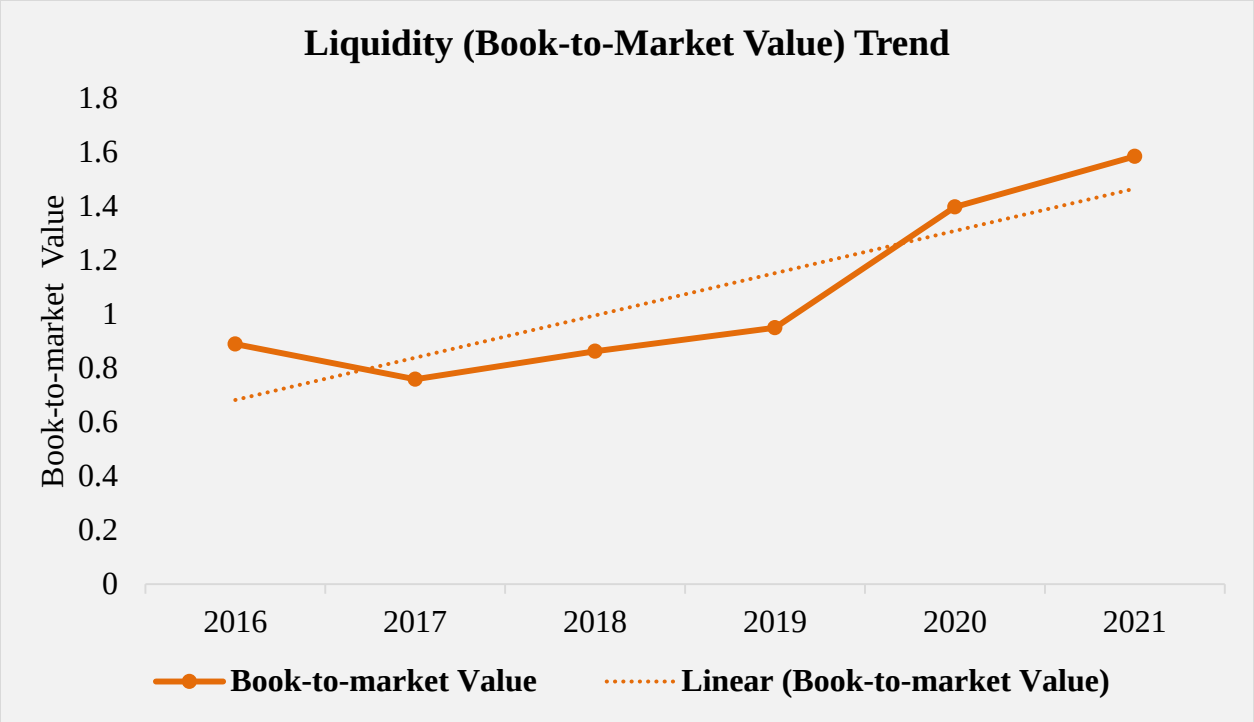

Figure 4:2: Liquidity Trend Analysis (Book-to-Market Value)

Source: Research data, (2022)

The current study as well took to analyze trends in liquidity for Tier I banks. Average book-to-market value was high in 2021 at 1.58402 and lowest in 2017 at 0.75854. The findings further showed that book-to-market value has been increasing steadily from 2017 through to 2021. From 2016 to 2019, the average book-to-market value was <1 which indicated that the stocks were overvalued which can be attributed to speculation. From 2020 through to 2021, the average book-to-market value was >1 which indicated that the stocks were undervalued indicating that the share prices were trading for less than their assets worth which means that they were buying and selling modestly in the market contrasted to its book value.

Book-to-market value of <1 indicates shareholder are prepared to give a premium for the firm's stocks more than its assets worth. That can suggest the firm holds strong profit predictions in the future hence shareholders are prepared to give more for that prospect. On the other hand, book-to-

market value of >1 is interpreted to suggest value stock. Value stocks are expected to have a better long term dividend payout than growth stock because of the risk (Gambacorta *et al.*, 2020). Book-to-market value is an important measure of the value of a firm whereas book value is determined through considering the accounting value of the firm which is the value of assets minus liabilities.

4.4.3 Trend Analysis of Profitability (Earnings per Share)

Trend analysis of profitability from 2016 to 2021 is summarized in Figure 4.3 below. The vertical axis is the measure of profitability while horizontal axis is the years.

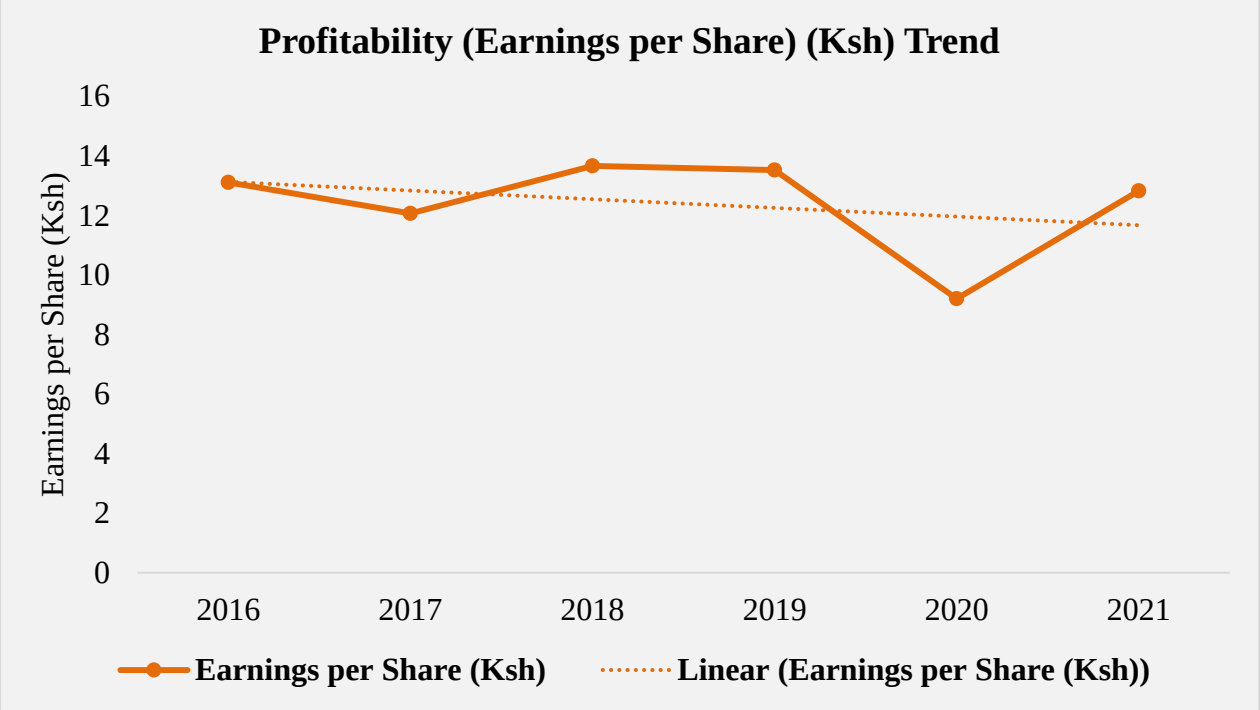

Figure 4:3: Profitability Trend Analysis (Earnings per Share)

Source: Research data, (2022)

The current study as well took to analyze trends in profitability for Tier I banks. Analysis indicates the average earning per share was highest in 2018 at Ksh 13.67 and lowest in 2020 at Ksh 9.20. The trend showed that the average earning per share has been decreasing gradually from 2016 to

2021 which can be ascribed to various macroeconomic variables including interest rate, inflation, and Gross Domestic Product (GDP). For commercial banks, loans are their main assets and biggest source of earnings and income particularly interest income from loans among other fees and commissions.

The drop in 2020 may be explained by losses incurred from credit losses and loan loss provisions by banks during and after the Covid-19 pandemic. Covid-19 pandemic had a big effect on the banking sector (Gambacorta *et al.*, 2020). In addition to losses incurred from credit losses, lending also was affected by banks putting greater caution due to credit default risk. In part, lending has the propensity of being procyclical because of tightening of lending guidelines as a reaction to economic shocks (Lewrick, *et al.*, 2020).

Commercial bank profitability is affected by losses from bad debts and loan loss provisions. From academic literature, contributing factor of profitability may be categorized into internal factor which are within the control of the management or external factor which are outside the control of management. A bank with steady profits is inclined to pay out a bigger fraction of the profits as dividends compared to a bank with unsteady profits. Consequently, a bank will have a higher dividend payout if it has higher earnings per share with a lower variance.

4.4.4 Trend Analysis of Dividend Payout (Dividend Payout Ratio)

Trend analysis of dividend payout from 2016 to 2021 is summarized in Figure 4.4 below. The vertical axis is the measure of dividend payout while horizontal axis is the years.

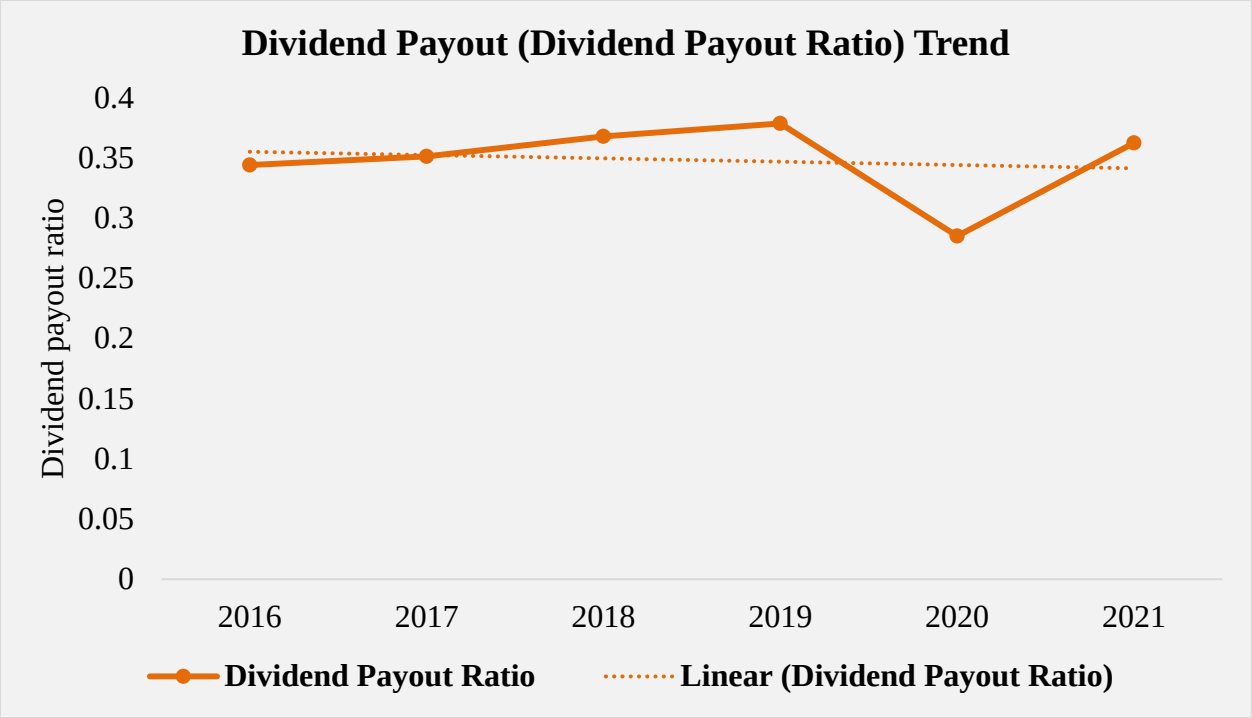

Figure 4:4: Dividend Payout Trend Analysis (Dividend Payout Ratio)

Source: Research data, (2022)

The current study as well took to analyze trends in dividend payout for Tier I banks. Average dividend payout was highest in 2018 at 0.36811 and lowest in 2020 at 0.28522. The findings further showed that dividend payout was increasing at a very small rate from 2016 to 2019. This could be ascribed to banks conserving capital to boost capacity to support more lending and other economic activities or building cash reserves with CBK to facilitate liquidity management.

There was drop in 2020 which can be ascribed to the Covid-19 pandemic. Covid-19 pandemic had a big impact on the banking sector (Gambacorta *et al.*, 2020). In Kenya, during the pandemic period, CBK recommended that banks should conserve capital by suspending dividend payout (CBK, 2020). This was driven by the need to build buffers and boost banks capacity to absorb losses from bad debts, nonperforming loan (NPL), delinquent loans and loan loss provisions.

4.5 Diagnostic Tests

Before hypotheses testing, diagnostic tests were done to test the suitability of the panel data for regression analysis and to confirm Classical Linear Regression Model assumptions were not breached. If the assumptions of CLRM were not guaranteed, then the produced estimates remained at the risk of being biased, inconsistent and inefficient.

4.5.1 Normality Test

Shapiro-Wilk (W) test was employed to determine whether sample fitted a normal distribution. This test was more appropriate for conducting the normality test in this study since the size of the sample was small and Shapiro-Wilk test has more ability to identify nonnormality (Razali & Wah, 2011). First, Shapiro-Wilk (W) test computes the similarity between observed distribution and normal distribution then overlays a normal curve over the observed distribution then calculates similarity ratio. The null hypothesis (H_0) was that the sample came from a normal distribution. Shapiro-Wilk (W) values lie between 0 and 1. Values close to 0 lead to rejection of normality whereas 1 indicate normal distribution (Razali & Wah, 2011).

Table 4.2: Normality Test Results

	Statistic	df	Sig
Bank Size	0.851	54	0.000
Liquidity	0.707	54	0.000
Profitability	0.875	54	0.000
Dividend Payout	0.977	54	0.369

Source: Research data, (2022)

The null hypothesis (H_0) was that the sample came from a normal distribution. From the test results provided in table 4.2, the null hypothesis (H_0) was not rejected which implied that the residuals came from a normal distribution hence regression analysis can be employed.

4.5.2 Heteroskedasticity Test

Breusch-Pagan/Cook-Weisberg test was employed to determine presence of heteroskedasticity. In OLS regression, one of the assumptions made about errors is variance of error term is homoskedasticity or constant (Gujarati & Porter, 2009). Heteroskedasticity is the violation of this assumption. The null hypothesis (H_0) for Breusch-Pagan/Cook-Weisberg test was the error term is homoskedastic. Rejection of the null hypothesis (H_0) indicated the existence of heteroskedasticity. The alternative hypothesis (H_1) was the error term is heteroskedastic.

Table 4.3: Breusch-Pagan/Cook-Weisberg Test Results

Fixed Effects	**Chi^2**	**Prob> Chi^2**
Bank Size	263.23	0.001
Liquidity	5.64	0.040
Profitability	143.54	0.001
Dividend Payout	33.43	0.001

Source: Research data, (2022)

From the test findings provided above the null hypothesis (H_0) was not rejected since the p-value were below the critical level of significance ($p<0.05$). Homoskedasticity assumption was thus established which indicated presence of panel-level heteroskedasticity in the panel data making the data acceptable for regression analysis since throughout the period, the error term was homoskedastic. This therefore makes standard errors suitable for evaluating co-efficient significance (Gujarati & Porter, 2009).

4.5.3 Multicollinearity Test

In multiple regression model, a state where two or more independent variables are very related therefore one could be applied in place of the other is referred to as multicollinearity (Kock & Lynn, 2012). This test makes use of collinearity statistics to get the tolerance and Variance Inflation Factor. The study employed correlation matrix for the test. Field (2009) recommend VIF threshold <10 and Tolerance of >0.1 for excluding likelihood of multicollinearity. Tolerance of <0.1 make an independent variable redundant which indicates multicollinearity is a problem and VIF represents the reciprocal of tolerance. In case multicollinearity was detected, the solution would have been to cut out a few independent variables.

Table 4.4: Multicollinearity Test Results

Variable	Tolerance	Variance Inflation Factor
Bank Size	0.763	1.311
Liquidity	0.872	1.147
Profitability	0.864	1.158
Mean VIF	0.833	1.205

Source: Research data, (2022)

The test findings indicated the independent variables of VIF were below the appropriate limit of 10 which implied fear of multicollinearity challenge was not present. Tolerance value of greater than 0.1 also confirmed that there was no fear of multicollinearity.

4.5.4 Autocorrelation Test

Durbin-Watson test was employed to examine if error terms were correlated with respect to time at different points. Regression analysis assumptions mandate that error terms must not be linked at different points with respect to time. Regression analysis model summary contains Durbin-

Watson autocorrelation statistics. Where it falls between 1.5<d<2.5, an assumption can be made serial autocorrelation does not exist (Brooks, 2008). The null hypothesis (H_0) for Durbin-Watson test was serial autocorrelation does not exist. Rejecting the null hypothesis (H_0) indicates there is covariance between several values of bank characteristics variables linked to the error terms.

Table 4.5: Autocorrelation Test Results

	Durbin-Watson Test (DW)	p-value
Bank Size	3.033	0.000
Liquidity	1.578	0.000
Profitability	2.001	0.000
Dividend Payout	3.453	0.000

Source: Research data, (2022)

From the findings above, the p-value of the dependent variables were observed to be below the critical level of significance ($p<0.05$) hence null hypothesis (H_0) was not rejected. Consequently, the study assumed that challenges of serial correlation were not present hence adequate for panel regression analysis (Brooks, 2008).

4.5.5 Stationarity Test

Stationary test was performed since panel data employed comprised of both time-series and cross-sectional components. The study employed Levin-Lin Chu (LLC) test to determine if variables remained non-stationary or stationary to avoid spurious regressions caused by non-stationary variables. Performing regression analysis on non-stationary data could lead to spurious regression (Choi, 2001). The null hypothesis (H_0) for stationarity test was unit roots existed in the variables. The existence of unit root suggests non-stationary variable.

Table 4.6: Stationarity Test Results

Variable	Levin-Lin Chu (LLC)	Statistics	p-value
Bank Size	Unadjusted t	-9.456	0.010
	Adjusted t*	-8.876	
Liquidity	Unadjusted t	-2.453	0.000
	Adjusted t*	-6.765	
Profitability	Unadjusted t	-5.654	0.040
	Adjusted t*	-4.335	
Dividend Payout	Unadjusted t	-11.807	0.010
	Adjusted t*	-2.966	

Source: Research data, (2022)

The findings above indicated that for the series, the Levin-Lin Chu (LLC) t* statistic had a p-value below the critical level of significance ($p<0.05$), hence null hypothesis (H_0) was rejected therefore fear of spurious regressions caused by non-stationary variables was removed (Choi, 2001).

4.5.6 Hausman Test

Before using panel data, analysis for fixed effect and random effect is essential to determine ideal regression model for the specified panel data (Greene, 2008). The study employed Hausman specification test to select the optimal regression model which should be employed between fixed and random effect. The null hypothesis (H_0) was the variance between fixed effect estimates and random effect estimates is not systemic. If the findings show the existence of significant relationship between the undetected random effects and the repressors, then the fixed effect would be most optimal. On the other hand, if there is no significant relationship established, then random effect would be most optimal (Greene, 2008).

Table 4.7: Hausman Test Results

Variable	Fixed (b)	Random (B)	Difference (b-B)	sqrt(diag(V_b-V_B)) S.E.
Bank Size	0.234	-0.535	0.769	0.877
Liquidity	-0.343	-0.564	-0.907	0.952
Profitability	0.654	-0.353	1.007	0.100
Dividend Payout	0.754	0.864	-0.110	0.333

b = consistent under H_0 and H_1; obtained from xtreg
B = inconsistent under H_1, efficient under H_0; obtained from xtreg
Test: H_0: difference in coefficients not systematic
$Chi^2(3) = 2.32$
$Prob>chi^2 = 0.550$

Source: Research data, (2022)

The results above shows that Hausman test had Chi^2 of 2.32 with a $Prob>chi^2$ of 0.550 which implied that the Chi^2 value was not systemic at critical level of significance. The $Prob>chi^2$ value of 0.550 is also above the significance level ($p>0.05$). Therefore, the null hypothesis (H_0) was not rejected which implied that random effects model was the optimal regression model (Greene, 2008).

4.5.7 Correlation Analysis

The study employed Pearson's correlation coefficient for evaluation of the extent and direction of the relationship between variables. When two variables are linearly connected, the correlation coefficient represents the extent and direction of the connection which varies between -1 and 1, indicating the strength of the connection linearly (Field, 2009). Positive correlation coefficient points to a direct relationship, whereas negative correlation coefficient points to an inverse relationship.

Table 4.8: Correlation Matrix

		Bank Size	Liquidity	Profitability	Dividend payout
Bank Size	Pearson Correlation	1			
	Sig. (2-tailed)				
Liquidity	Pearson Correlation	-0.357**	1		
	Sig. (2-tailed)	0.008			
Profitability	Pearson Correlation	-0.368**	0.110	1	
	Sig. (2-tailed)	0.006	0.430		
Dividend Payout	Pearson Correlation	0.107	-0.303*	-0.141	1
	Sig. (2-tailed)	0.442	0.026	0.309	

Source: Research data, (2022)

Positive correlation coefficient points to a direct relationship, whereas negative correlation coefficient points to an inverse relationship. The correlation matrix findings showed correlation between dividend payout and market capitalization as 0.107 ($p=0.442>0.05$). The coefficient was weak positive and insignificant suggesting that market capitalization insignificant effect on dividend payout. This finding suggests that during the study period between 2016-2021, growth in market capitalization may not essentially result in an increase in dividend payout. When examined closely, bigger bank size does not assure that dividend payout distributed to shareholders is likewise bigger. This can be demonstrated by large value firm which are expected to have a better long term dividend payout and inversely related to small growth firms because of the risk (Gambacorta *et al.*, 2020).

The findings also showed that the correlation between dividend payout and liquidity was -0.303 ($p=0.026<0.05$). The coefficient was weak negative and significant suggesting that during the study period between 2016-2021, a change in liquidity inversely affected the Tier 1 banks dividend payout. It is assumed that the higher the liquidity, the better the prospect and the firms' capability

to pay dividends (Ogundajo *et al.*, 2019). However, in the case of Tier 1 banks, the relationship was inverse.

The results further showed that correlation between dividend payout and profitability was -0.141 ($p=0.309>0.05$). The coefficient was weak negative and insignificant suggesting that had insignificant effect on dividend payout. This finding suggests that during the study period between 2016-2021, a rise in profitability does not essentially result in a reduction in dividend payout of Tier I banks in Kenya. The next financial year working capital can be retained from the profits (Pattiruhu and Paais, 2020).

4.6 Hypothesis Testing

The study aimed to find out effects of bank characteristics (bank size, profitability, and liquidity) on dividend payout of Tier I banks. Market capitalization was used as measurement for bank size, earnings per share as measurement for profitability and book-to-market value as measurement for liquidity.

Research hypothesis **H_{01}, H_{02}** and **H_{03}** presented in chapter two were based on dividend payout therefore examined by employing regression analysis to identify at 95 per cent critical level of significance effects of bank characteristics on dividend payout of Tier I banks. The subsequent null hypotheses were analyzed:

H_{01}: Bank size has no significant effect on dividend payout of Tier I banks in Kenya.

H_{02}: Liquidity has no significant effect on dividend payout of Tier I banks in Kenya.

H_{03}: Profitability has no significant effect on dividend payout of Tier I banks in Kenya.

The estimation of the model summary is presented below:

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.324202[a]	0.105107	0.051413	0.1837697	1.217

a. Predictors: (Constant), Bank Size, Liquidity, Profitability

Source: Research data, (2022)

From the estimation above, R-value, which reflects correlation coefficient, is 0.324202, which suggests correlation degree is low which implies a weak and positive correlation between bank characteristics and dividend payout. Adjusted R square value of 0.051413 represents coefficient of determination that measures amount of variability in the dividend payout that is attributed to the bank characteristics (bank size, liquidity, and profitability) which suggests that bank characteristics has low descriptive control on dividend payout. The result from model summary shows collectively bank size, profitability, and liquidity reported for 5.14 per cent of the variation in dividend payout of Tier I banks.

Table 4.10: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	P
1	Regression	0.198325	3	0.066108	1.957531	0.132371[b]
	Residual	1.688564	50	0.033771		
	Total	1.886889	53			

a. Dependent Variable: Dividend Payout

b. Predictors: (Constant), Bank Size, Liquidity and Profitability

Source: Research data, (2022)

Table 4.10 clearly shows how the regression model predicts dividend payout at 5 per cent significance level. F-statistics was 1.9575 ($p=0.1324>0.05$) which indicated bank characteristics

(bank size, liquidity, and profitability) had an insignificant effect on dividend payout. The main objective of the study was to investigate effects of bank characteristics (bank size, liquidity, and profitability) on dividend payout and the results are as shown below:

Table 4.11: Effect of Bank Characteristics on Dividend Payout

	Unstandardized Coefficients		Standardized Coefficients		
Bank Characteristic	**B**	**Std. Error**	**Beta**	**t**	**P**
Bank Size	-0.000200	0.000638	-0.04979	-0.313670	0.751301
Liquidity	-0.097880	0.045800	-0.30686	-2.137120	0.037503
Profitability	-0.002221	0.002537	-0.12572	-0.870980	0.387928
_Cons	0.495226	0.093075		5.320741	2.43E-06
R-sq: within = 0.105107 F Statistics = 1. 957531 Prob>chi^2 = 0.132371					

Source: Research data, (2022)

Established from the findings above, the subsequent equation was developed:

Dividend Payout = 0.495226 + -0.0002 (Bank Size) + -0.09788 (Liquidity) + -0.002221 (Profitability)

4.6.1 Effect of Bank Size on Dividend Payout

Bank size was proxied by market capitalization. To accomplish the first specific objective a null hypothesis, $\mathbf{H_{01}}$ in chapter one was developed. From table 4.11 bank size coefficient (β=-0.0002, p=0.751301>0.05) indicates negative insignificant correlation between bank size and dividend payout at 0.05 significance level. Therefore, at critical level of significance, the null hypothesis $\mathbf{H_{01}}$ was not rejected. The finding therefore suggested that during the study period between 2016-2021 bank size had no significant effect on dividend payout.

It is assumed that big banks have a higher probability to distribute higher dividends because they have higher free cash flows hence, they can reduce agency cost through higher dividend payout. It is also assumed that large banks are better in managing market risk. It is further assumed that large commercial banks are more mature and have higher free cash flows. However, the current study found negative insignificant correlation between bank size and dividend payout. This could be due to more liabilities or higher retained earnings to support the costs of debts since both creditors and debtors have more confidence in large banks.

When examined closely, the bigger bank size doesn't assure shareholders of higher dividend payout. This can be demonstrated in large value firms which are expected to have a better long term dividend payout and inversely related to small growth firms because of the risk (Gambacorta *et al.,* 2020). These circumstances can affect shareholders interest in the future, particularly for shareholders who favor dividend payout every end of each the financial year.

The study findings agrees that of Okoro *et al.* (2018) who found a negative insignificant effect of size for consumer goods companies in Nigerian. The study also agrees with Pattiruhu and Paais (2020) who found a negative insignificant effect for real estate companies in Indonesia. In India, Katakwar *et al.* (2021) as well found a negative insignificant effect for Nifty 50 Index companies listed at the National Stock Exchange.

The study findings however contradict findings by Kiangi *et al.* (2022) who found a significant effect for commercial banks in Tanzania. The study findings also contradict findings by Nyere and Wesson (2019) in South Africa who found a positive significant effect for industrial companies and Ogundajo *et al.* (2019) in Nigeria who found a negative significant effect for manufacturing

firms. In Asia, the findings contradict the findings by Brahmaiah *et al.* (2018) in India and Rahmadi (2020) for banks listed at the Indonesia Stock Exchange.

4.6.2 Effect of Liquidity on Dividend Payout

Liquidity was measured by book-to-market value. To accomplish the second specific objective a null hypothesis, $\mathbf{H_{02}}$ in chapter one was developed. From table 4.11 liquidity coefficient (β=-0.09788, p=0.037503<0.05) indicates negative significant correlation between liquidity and dividend payout at 0.05 significance level. Therefore, at critical level of significance, the null hypothesis $\mathbf{H_{02}}$ was rejected. The finding therefore suggested that during the study period between 2016-2021 liquidity significantly affected dividend payout of Tier I banks in Kenya. The negative coefficient of liquidity of -0.09788 indicate that an increase in liquidity reduced dividend payout.

However, the perception of shareholders and investors is that high liquidity leads to assumption that a high liquidity provides good conditions for a firm to pay higher dividends as well as meet its debt obligations. Negative significance of liquidity on dividend payout signals that during the period, banks retained profits from shareholders and investors. It could also be Tier I banks were improving their book value of equity through reducing dividend payouts.

Dynamic trade-off theory posits a firm could improve the market value through maintaining an ideal capital structure. It underlines the suggestion that firms have a target capital structure that maximizes its value, and it is costly to deviate from the target (Fischer *et al*., 1989). In the lead-in to the financial crisis of 2008, commercial banks preferred to invest in credit expansion by getting additional obligations, even when it lowered the book value of their equity because of dividend payouts (Adrian *et al.,* 2015).

The negative statistically significant relationship between liquidity and dividend payout could be because Tier I banks being more mature hence have developed to value stocks as opposed to being growth stocks hence have a better long term dividend payout. Another reason could be that their share prices are trading for less than their assets worth which means that they are trading modestly contrasted to their book value.

In Sub Sahara Africa, the study findings agrees that of Kiangi *et al.* (2022) who found that among commercial banks in Tanzania, liquidity showed negative but small effect. The study also agrees with Ogundajo *et al.* (2019) and Abiahu *et al.* (2018) whose study in Nigeria found a negative significant effect for manufacturing firms and listed companies respectively. In South Africa, Nyere and Wesson (2019) as well found a negative significant effect for industrial companies. In South Asia, the study findings also agree with Brahmaiah *et al.* (2018) findings in India.

The study findings however contradict findings by Okoro *et al.* (2018) who found positive significant effect for consumer goods companies in Nigerian. In Asia, the study findings also contradict findings by Pattiruhu and Paais (2020) in Indonesia and Katakwar *et al.* (2021) in India who found a negative insignificant effect.

4.6.3 Effect of Profitability on Dividend Payout

Profitability was measured by earnings per share. To accomplish the third specific objective a null hypothesis, $\mathbf{H_{03}}$ in chapter one was developed was developed. From table 4.11 profitability coefficient (β=-0.00221, p=0.387928>0.05) indicates negative insignificant correlation between profitability and dividend payout at 0.05 significance level. Therefore, at critical level of significance, the null hypothesis $\mathbf{H_{03}}$ was not rejected. The finding therefore suggested that during the study period between 2016-2021 profitability had no significant effect on dividend payout.

Dividends are distributed from profit after tax generated by the banks. Theoretically, large banks are anticipated to have bigger profit margins hence expected to have a higher dividend payout compared to smaller banks due to their ability to capitalize on the economies of scale. Therefore, it is assumed that large banks have higher level of cash flows hence, they can reduce agency cost by distributing higher dividend payout.

However, this study found no statistically insignificant relationship between Tier I banks in Kenya profitability and dividend payout. This could be due to higher retained earnings to support internal financing since management may have a preference on utilizing internal financing from retained earnings as opposed to external financing to fund investment opportunities. Working capital for the following financial year could also be retained from profits. Internal financing from retained earnings also signals a strong bank.

In Sub Sahara Africa, the study findings agrees that of Abiahu *et al.* (2018) and Okoro *et al.* (2018) whose study in Nigeria found an insignificant effect for listed companies and consumer goods companies respectively. In Indonesia, the study findings also agrees that of Pattiruhu and Paais (2020) and Rahmadi (2020) who found a negative insignificant affect for real estate companies and banks respectively.

The study findings however contradict study findings by Kiangi *et al.* (2022) who found positive significant effect for commercial banks in Tanzania, Nyere and Wesson (2019) who found positive significant effect for industrial companies in South Africa while in in Nigeria, Ogundajo *et al.* (2019) found negative significant effect for manufacturing firms. The study findings as well contradict study results by Brahmaiah *et al.* (2018) in India who observed negative significant effect at the National Stock Exchange.

Table 4.12: Research Hypotheses Summary

Hypothesis	Analysis Employed	Results	Reject H_0 or Fail to Reject H_0
H_{01}: *Bank size has no significant effect on dividend payout of Tier I banks in Kenya*	Random Effect Regression Analysis	p=0.751301>0.05	**Failed to Reject H_{01}**
H_{02}: *Liquidity has no significant effect on dividend payout of Tier I banks in Kenya*	Random Effect Regression Analysis	p=0.037503<0.05	**Reject H_{02}**
H_{03}: *Profitability has no significant effect on dividend payout of Tier I banks in Kenya*	Random Effect Regression Analysis	p=0.387928>0.05	**Failed to Reject H_{03}**

Source: Research data, (2022)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is distributed as follows: summary of the study with respect to research objectives, followed by conclusion grounded on research findings, contributions to existing knowledge, followed by recommendations grounded on research findings, and lastly further research suggestions.

5.2 Summary

The main aim of this study was to investigate effect of bank characteristic on dividend payout among Tier I banks in Kenya between 2016 and 2021. Particularly, the study sought to determine effect of liquidity, bank size, and profitability on dividend payout. Prior studies on firms' characteristic and dividend payout documented conflicting conclusions regarding effect of firms' characteristic on dividend payout. Some argued for positive effect while others for negative effect depending on the characteristic under review.

In this study, panel data was collected from audited and published financial reports as at the conclusion of each financial year. Market capitalization was used as measurement for bank size, earnings per share as measurement for profitability and book-to-market ratio as measurement for liquidity. Descriptive statistics was used by the researcher for illustrating and encapsulating the data attributes whereas regression analysis was employed in determining effect of bank characteristic on dividend payout among Tier I banks in Kenya.

The panel data was entered into SPSS, and the statistical tool was used to create the tables of model summary, ANOVA, and coefficients. Correlation coefficient and coefficient of determination were determined from model summary. Using coefficients of the variables, a regression model was created. From the regression analysis, the study measured the type and intensity of the link which occurred between bank size and dividend payout, liquidity and dividend payout, and profitability and dividend payout.

The first specific objective was to determine effect of bank size on dividend payout among Tier I banks in Kenya between 2016 and 2021. The study used market capitalization as measurement for bank size. Trend analysis findings suggested bank size had been growing gradually with a slight drop in 2020 ascribed to the Covid-19 pandemic. The gradual growth of bank size can be ascribed to rise of share price. Regression analysis was employed to establish that effect and the results revealed negative statistically insignificant effect of bank size on dividend payout. Therefore, at critical level of significance, the null hypothesis, $\mathbf{H_{01}}$ was not rejected.

The second specific objective was to establish effect of liquidity on dividend payout. The study used book-to-market value as measurement of the bank liquidity. Trend analysis findings suggested liquidity has been growing steadily. This steady growth of liquidity can be ascribed to stocks being initially overvalued then undervalued from 2020 through to 2021. The study used regression analysis and the results revealed liquidity had negative statistically significant effect on dividend payout. Therefore, at critical level of significance, the null hypothesis, $\mathbf{H_{02}}$ was not rejected.

The third specific objective was to determine effect of profitability on dividend payout. The study used earnings per share as measurement of the profitability. Trend analysis findings suggested

profitability has been decreasing gradually with a drastic drop in 2020 which can be ascribed to losses incurred from credit losses and loan loss provisions by banks during and after the Covid-19 pandemic. The gradual decrease in the profitability can be ascribed to various macroeconomic variables including interest rate, inflation, and Gross Domestic Product (GDP). The study used regression analysis and the results revealed profitability had negative statistically insignificant effect on dividend payout. Therefore, at critical level of significance, the null hypothesis, $\mathbf{H_{03}}$ was not rejected.

5.3 Conclusion

The empirical findings of this study concluded that liquidity had negative statistically significant effect while bank size and profitability have a negative statistically insignificant effect on dividend payout. The results of the study are related to Tier I banks in Kenya between 2016 and 2021. Panel data was collected from respective banks audited and published annual financial reports. Market capitalization was used as measurement for bank size, earnings per share as measurement for profitability and book-to-market value as measurement for liquidity.

The empirical negative statistically insignificant correlation linking bank size and dividend payout shows insignificant existence of size effect in Tier I banks in Kenya. Bank size and liquidity are directed by financial distress, momentum effects, contrarian effects and growth options in the market. As much as the empirical results have undergone several robustness tests, the sample period contains a shorter time-period than earlier studies.

Liquidity remains the most significant determinants of dividend payout. Accordingly, if commercial banks choose to retain high liquidity rather than to distribute dividends, the impact could be a boost in the bank lending capacity thereby improving its market value by maintaining

an ideal capital structure since the target capital structure is that which maximizes banks' value. Consequently, additional lending supplied could lead to higher interest earnings which determine availability of profits and cash flows to support dividend payout. Higher profitability signals more earnings and cash flows which can be capable of managing larger cash out flows.

Covid-19 pandemic had a big effect on the banking sector. In addition to losses incurred from credit losses, lending also was affected by banks putting greater caution due to credit default risk. In part, lending has the propensity of being procyclical because of tightening of lending guidelines as a reaction to economic shocks.

In years 2019 and 2020, several regulators including Central Bank of Kenya recommended that banks should conserve capital by suspending dividend payout. This was driven by the need to build buffers and improve banks capability to soak up losses, strengthen lending and support economic activity. This study identifies several similarities and inconsistencies with other emerging markets that bank management, regulators, investment managers, fund managers, securities analysts, and marginal investors may need to consider.

5.4 Recommendations

The findings have great importance to bank management, academics, investment managers, fund managers, securities analysts, marginal investors, and regulators. Consequently, several recommendations have been made. The findings of this study have determined that some bank characteristics affect dividend payout.

This study recommends bank management to generate extra interest income, non-funded income as well as employ cost cutting measures that increase profitability. This study also suggests that banks focus should be on increasing their profitability by increasing turnover and making

investments on innovations and latest technologies that increase efficiency. Higher profitability signals more earnings which boosts the capacity to manage larger cash out flows.

This study recommends banks to consider capital base as well as financial needs when deciding the dividend payout. They should consider the significance of retained earnings as a determinant of dividend payout. Additionally, they should consider the impact dividend payout has on cash flows constraints and liquidity of the bank. Accordingly, if commercial banks choose to retain earnings in their capital base rather than to distribute dividends, the impact could be a boost in the bank lending capacity. Consequently, additional lending supplied could lead to higher interest earnings which determine availability of future profits for dividend payout. However, higher retained earnings might lead to agency problem and agency costs if the excess free cash flow is not invested in profitable ventures.

This study also recommends CBK to decrease the Cash Reserve Ratio (CRR). Reducing the CRR leads to higher lending capacity. Consequently, banks will reduce the interest rate which will encourage customers to borrow loans. In addition, reduced CRR leads to banks having more money to invest in other income generating ventures. Reduced CRR signals that bank will have higher profit margins. This study further recommends banks to plan for economic shocks which may lead regulators to recommend conservation of capital by suspending dividend payout driven by the need to build buffers and improve banks capability to soak up losses, strengthen lending and support economic activity.

The study recommends that Nairobi Securities Exchange (NSE) should consider an alternative stock classification system which categorizes stocks in same sector based on size and value. This

classification system will give a clear insight of stocks risk-return trade off characteristics at the Nairobi Securities Exchange (NSE), which the current classification system does not give.

5.5 Contribution to Knowledge

This study aimed to determine effect of bank characteristic on dividend payout. The findings have contributed to the existing knowledge by establishing that among the bank characteristic, liquidity, significantly affect dividend payout while bank size and profitability do not. This research is anchored on Fama-French Theory, Pecking Order Theory, Free Cash Flow Theory and Dynamic Trade-Off Theory.

This study has added on present knowledge by expanding applicability of the three-factor model of developed by Eugene Fama and Kenneth French in establishing bank characteristics which account for variations in dividend payout. The size effect was also expounded to relate the empirical negative correlation linking bank size and dividend payout. The study has contributed to existing knowledge on strategies in investment especially those centered on value and size effect which could be adopted to create higher dividend payout. This study has also contributed to the debated issue of size anomaly and the explanatory power of size.

The study results have also added on existing knowledge by effectively analyzing the study hypotheses in which bank size, liquidity, and profitability have no statistically significant effect on dividend payout. This study has also provided additional insight to specific bank characteristics as well as dividend payout and various theories including, Fama-French Theory, Pecking Order Theory, Free Cash Flow Theory and Dynamic Trade-Off Theory. This may also facilitate direction for sustainable dividend payout policy and future banking operations.

Conceptual framework was simplified for easy understanding and clear comprehension regarding the investigative structure being studied. The conceptual framework illustration helps the researcher to derive intuitive explanation from ensuing results and connect them to the study. Variables were presented illustratively showing connection connecting banks characteristic to dividend payout.

Panel regression included analytical instrument which permitted researcher to investigate how an independent variable is correlated to a dependent variable. Thus, starting with known value of a few variables, regression analysis can calculate the undetermined value of a variable with the aim of finding the most suitable and acceptable model that will explain correlation between bank characteristic and dividend payout.

5.6 Suggestions for Further Research

The researcher concentrated on establishing effect of bank characteristic (bank size, profitability, and liquidity) on dividend payout of Tier I banks in Kenya. The researcher proposes more research should be done to establish effect of bank characteristic on dividend payout on Tier 2 and Tier 3 banks in Kenya then a comparison can be made to this study which is on Tier 1 banks.

Additionally, for further research, the research sample can be widened by adding firms operating in other sectors to examine if characteristic explaining dividend payout in banking sector are also valid for other sectors. The study further suggests that future research to use more variables as well as other analysis technique because a set of bank characteristic variables that are mutually exclusive could be employed in analyzing their effect on dividend payout.

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APPENDICES

Appendix I: Tier 1 Banks in Kenya (Large Commercial Banks in Kenya)

1. Kenya Commercial Bank Ltd.
2. Equity Bank Ltd.
3. Co-operative Bank of Kenya Ltd.
4. Absa Bank Ltd.
5. Standard Chartered Bank (K) Ltd.
6. Diamond Trust Bank (K) Ltd.
7. NCBA Bank Ltd.
8. Stanbic Bank Ltd.
9. I&M Bank Ltd.

Source: Central Bank of Kenya, 2021.

Appendix II: Document Review Guide

Year	Bank	Earnings per Share (Ksh.)	Book-to-Market Value	Market Cap (Ksh. B)	Dividend Payout Ratio
2016					
2017					
2018					
2019					
2020					
2021					

Appendix III: Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **355444**

Date of Issue: **21/February/2022**

RESEARCH LICENSE

This is to Certify that Mr.. SIMON KIREMBU MWANGI of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: BANK CHARACTERISTICS AND DIVIDEND PAYOUT OF SELECTED COMMERCIAL BANKS IN KENYA for the period ending : 21/February/2023.

License No: **NACOSTI/P/22/15806**

355444

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix IV: Research Authorization

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/22552/2012

DATE: **26th January, 2022**

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR SIMON KIREMBU MWANGI – REG. NO. D53/CTY/PT/22552/2012.

I write to introduce Simon Kirembu Mwangi who is a Postgraduate Student of this University. The student is registered for M.B.A degree programme in the Department of Accounting and Finance.

Simon intends to conduct research for a M.B.A Project Proposal entitled, **"Bank Characteristics and Dividend Payout of Selected Commercial Banks in Kenya".**

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

KENYATTA UNIVERSITY
11 FEB
GRADUATE SCHOOL

Appendix V: Approval of Research Project.

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Dean, Graduate School

DATE: 26th January, 2022

TO: Simon Kirembu Mwangi
C/o Accounting and Finance Dept.

REF: D53/CTY/PT/22552/2012

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 19th January, 2022 approved your Research Project Proposal for the M.B.A Degree Entitled, **"Bank Characteristics and Dividend Payout of Selected Commercial Banks in Kenya".**

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and progress report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

11 FEB 2022

ANNBELL MWANIKI
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Accounting and Finance.

Supervisors:

1. Dr. Salome Mwongeli Musau
   C/o Department of Accounting and Finance
   Kenyatta University

Appendix VI: Work Plan

Activity	**May 2015**	**June - Aug 2015**	**Oct 2015**	**Nov 2015**	**Sep 2021**	**Mar - Apr 2022**	**May - June 2022**	**July - Sep 2022**
Allocation of Supervisor								
Proposal Development								
Proposal Defense								
Corrections, amendments, and Re-defense								
Re-allocation of new Supervisor								
Collection of Data								
Analysis of Data								
Compilation and Submission								

Appendix VII: Secondary Data

Year	Bank	Earnings per Share (Ksh)	Book-to-Market Value	Market Cap (Ksh. B)	Dividend Payout Ratio
2016	Kenya Commercial Bank Ltd.	6.430	1.086	88.916	0.466
2017	Kenya Commercial Bank Ltd.	6.430	0.808	131.074	0.311
2018	Kenya Commercial Bank Ltd.	7.830	0.990	114.824	0.319
2019	Kenya Commercial Bank Ltd.	8.110	0.748	173.527	0.319
2020	Kenya Commercial Bank Ltd.	6.100	1.163	122.433	0.164
2021	Kenya Commercial Bank Ltd.	10.640	1.176	146.052	0.282
2016	Equity Bank Ltd.	4.380	0.718	114.154	0.455
2017	Equity Bank Ltd.	5.000	0.621	150.004	0.399
2018	Equity Bank Ltd.	5.250	0.722	131.513	0.381
2019	Equity Bank Ltd.	5.930	0.554	201.892	0.418
2020	Equity Bank Ltd.	5.240	1.005	137.928	0.000
2021	Equity Bank Ltd.	10.380	0.885	199.061	0.283
2016	Co-operative Bank of Kenya Ltd.	2.640	0.946	64.783	0.309
2017	Co-operative Bank of Kenya Ltd.	1.990	0.741	93.875	0.412
2018	Co-operative Bank of Kenya Ltd.	2.180	0.833	83.901	0.461
2019	Co-operative Bank of Kenya Ltd.	2.480	0.827	95.928	0.419
2020	Co-operative Bank of Kenya Ltd.	1.980	1.237	73.340	0.543
2021	Co-operative Bank of Kenya Ltd.	2.850	1.319	75.980	0.355
2016	Absa Bank Ltd.	1.360	0.853	49.699	0.587
2017	Absa Bank Ltd.	1.280	0.846	52.143	0.627
2018	Absa Bank Ltd.	1.370	0.743	59.475	0.659
2019	Absa Bank Ltd.	1.370	0.623	72.511	0.656
2020	Absa Bank Ltd.	0.770	0.886	52.469	0.000
2021	Absa Bank Ltd.	2.000	0.877	64.364	0.550
2016	Standard Chartered Bank (K) Ltd.	25.850	0.621	71.794	0.541
2017	Standard Chartered Bank (K) Ltd.	19.640	0.581	78.595	0.633
2018	Standard Chartered Bank (K) Ltd.	23.090	0.698	66.813	0.604
2019	Standard Chartered Bank (K) Ltd.	23.490	0.687	69.561	0.636
2020	Standard Chartered Bank (K) Ltd.	13.950	1.013	49.551	0.760
2021	Standard Chartered Bank (K) Ltd.	23.490	1.208	44.055	0.594
2016	Diamond Trust Bank (K) Ltd.	26.940	1.306	31.426	0.090
2017	Diamond Trust Bank (K) Ltd.	23.730	0.901	53.684	0.105
2018	Diamond Trust Bank (K) Ltd.	23.910	1.226	43.758	0.103
2019	Diamond Trust Bank (K) Ltd.	24.270	1.931	30.477	0.104
2020	Diamond Trust Bank (K) Ltd.	11.610	2.955	20.970	0.000
2021	Diamond Trust Bank (K) Ltd.	13.980	4.045	16.636	0.220
2016	NCBA Bank Ltd.	6.770	0.387	29.000	0.148
2017	NCBA Bank Ltd.	6.480	0.457	32.000	0.154
2018	NCBA Bank Ltd.	7.110	0.488	33.000	0.333

2019	NCBA Bank Ltd.	8.690	1.214	55.192	0.286
2020	NCBA Bank Ltd.	2.770	1.642	44.071	0.541
2021	NCBA Bank Ltd.	6.210	1.875	41.517	0.363
2016	Stanbic Bank Ltd.	25.940	1.085	27.870	0.316
2017	Stanbic Bank Ltd.	27.620	1.032	32.021	0.369
2018	Stanbic Bank Ltd.	36.210	0.967	35.777	0.210
2019	Stanbic Bank Ltd.	36.480	0.902	43.189	0.338
2020	Stanbic Bank Ltd.	30.630	1.246	33.602	0.268
2021	Stanbic Bank Ltd.	41.400	1.349	34.492	0.396
2016	I&M Bank Ltd.	17.730	0.996	37.170	0.187
2017	I&M Bank Ltd.	16.470	0.840	52.451	0.153
2018	I&M Bank Ltd.	16.068	1.094	35.105	0.243
2019	I&M Bank Ltd.	10.909	1.060	44.658	0.234
2020	I&M Bank Ltd.	9.770	1.421	37.215	0.291
2021	I&M Bank Ltd.	4.502	1.522	34.899	0.220