FIRM-SPECIFIC FACTORS AND SHARE LIQUIDITY OF 20 SHARE INDEX CONSTITUENT COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other institution, or university for academic credit.

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DEDICATION

I dedicate this project to my family, who have supported and encouraged me throughout my academic journey. I am grateful for their unwavering belief in my abilities and endless love and encouragement that has been instrumental in my success.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

DEFINITIONS OF TERMS

Company Size	refers to the total assets of the company, which includes all employees, and assets.
Financial leverage	refers to the use of borrowed money to finance a company's operations and growth. It is calculated as the ratio of total debt to total equity of the company.
Financial performance	refers to how well a company is doing in terms of its financial results, operational efficiency, and overall strategic goals measured by its earnings per share (EPS).
Financial liquidity	refers to the ability of the company to meet its short financial obligations. It is measured using the current ratio or acid ratio.
Share liquidity	refers to the ease with which the shares of the company can be bought or sold in the market. It is typically measured using the share turnover ratio.

ABBREVIATIONS

ADF	Augmented Dickey Fuller
APT	Arbitrage Pricing Theory
AR	Autoregression
ARDL	Autoregressive Distributed Lags
ASEA	African Securities Exchanges Association
BP	Bias Proportion
CAPM	Capital Asset Pricing Model
CMA	Capital Markets Authority
DL	Distributed Lag
DSE	Dar es Salaam Stock Exchange
ECM	Error Correction Model
EMH	Efficient Market Hypothesis
ETFs	Exchange Traded Funds
HQ	Hannan-Quinn
IFRS	International Financial Reporting Standards
ISE	Instabul Stock Exchange
JSE	Johannesburg Stock Exchange

MSE	Mean Absolute Error
NSE	Nairobi Securities Exchange
NSE	Nigerian Stock Exchange
RMSE	Root Mean Square Error
UK	United Kingdom
USE	Uganda Securities Exchange
VAR	Vector Autoregression
VIF	Variance Inflation Factors
WFE	World Federation of Exchanges

ABSTRACT

Listed firms at the Nairobi Securities Exchange (NSE) have encountered challenges regarding share liquidity, impacting market efficiency and the attractiveness of the NSE to investors. This study focuses on the effect of firm-specific factors on share liquidity, specifically examining the NSE 20 share index constituent companies. The factors considered include company size, financial liquidity, financial performance, and ownership structure. The study draws upon market depth theory, arbitrage pricing theory, and efficient market hypothesis and adopts a positivism philosophy with a longitudinal research design. The target population consists of firms listed in the NSE 20 share index from 2014 to 2021. Secondary data from company reports and NSE historical data were collected. The study employed preliminary analysis, descriptive statistics, and inferential analysis including correlation analysis and a random effects model. The study found that company size had no statistically significant effect on share liquidity in Kenya ($\beta = 0.012$, $p = 0.53$ for contemporaneous effects, and $\beta = -0.002$, $p = 0.98$ for lagged effects). However, financial leverage had a statistically significant effect on share liquidity, as indicated by the contemporaneous effects ($\beta = 0.13$, $p = 0.005$) and lagged effects ($\beta = 0.155$, $p = 0.01$). Company financial liquidity did not have a statistically significant effect on share liquidity in contemporaneous effects ($\beta = 0.07$, $p = 0.245$), but it showed a positive and significant effect after lagging the values by one year ($\beta = 0.155$, $p = 0.001$). The contemporaneous effects of financial performance were found to be negative and insignificant ($\beta = -0.001$, p-value = 0.249). However, by analyzing the lagged effects, a significant and positive relationship between EPS and share liquidity was identified, with a coefficient of 0.006 and a corresponding p-value of 0.02, which is below the conventional significance level of 0.05. The study concludes that financial leverage, company liquidity, and financial performance have a positive impact on the share liquidity of firms listed at NSE. However, the effects of these variables are observed with a one-year lag. The study recommends policymakers and regulators avoid assuming that larger companies are more liquid, and instead focus on implementing measures to promote liquidity, financial leverage, and good financial performance in both large and small firms. The study recommends further investigations into the effect of firm-specific factors on share liquidity in different market conditions.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents the background on firm-specific factors and share liquidity within the context of the Nairobi Securities Exchange (NSE) in Kenya. The chapter is organized into different sections including the background of the research, statement of the problem, research significance, scope of the study, theoretical framework, and conceptual framework.

1.2 Background of the Study

Share liquidity in the context of capital markets refers to the ease with which securities, including stocks, bonds, options, warrants, and other instruments, can be traded and converted into cash (Norvaišienė & Stankevičienė, 2015). Generally, share liquidity in developed countries such as Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States is mostly high (Tiwari et al., 2022). However, some African stock markets have seen improvements in liquidity and performance (Oriaregbete, 2019). In Kenya, the Nairobi Securities Exchange (NSE) is the largest and most liquid stock market in the East Africa region (Ochenge *et al*., 2020). It has seen steady growth but is still considered a developing market. As a developing market, the NSE faces challenges such as a lack of liquidity, low market capitalization, a lack of financial infrastructure, and a weak regulatory framework (Kayala *et al*., 2018). Other factors limiting share liquidity at NSE are related to firm characteristics (Mwende, 2021).

Under the same economic conditions, the share liquidity of different companies varies, the underlying question would therefore be: what aspects of a company have a greater impact on share liquidity? Firm-specific factors vary between firms which might explain variations in

share liquidity given the same macroeconomic conditions (Nassar, 2018; Khan et al., 2019). This study focuses on four factors: company size, financial leverage, financial performance, and company liquidity. Larger companies may have higher share liquidity due to more shares and shareholders, but the relationship is complex due to factors like restricted share supply (Sholikah & Nurasik, 2021; Astakhov et al., 2019; Roman & Sargu, 2015). Positive financial performance attracts investors and enhances liquidity, while poor performance can decrease it (Okumu et al., 2022; Yitayaw, 2021). Companies with strong liquidity are seen as financially stable and have higher share liquidity (Sunardi et al., 2020; Degubir, 2020). However, the relationship between firm-specific factors vis-à-vis share liquidity in the Kenyan context remains undetermined, which warrants a study on the impact of firm-specific factors on the share liquidity of firms listed at NSE.

1.2.1 Share Liquidity

Share liquidity refers to the ease with which a company's stock can be bought or sold on the open market (Nassar, 2018). A company's shares are considered to be highly liquid if they can be bought or sold quickly and with minimal impact on the stock's price (Li *et al*., 2018). Both developed and emerging economies benefit from a liquid stock market because it promotes efficient resource allocation and serves as an engine of economic expansion. Liquidity is a crucial prerequisite for the expansion and development of the financial industry. The capacity to trade large volumes of shares rapidly, cheaply, and without causing the price to change is typically referred to as share liquidity. It is a market distinguished by the ease with which securities can be bought and sold (Li *et al*., 2018). These descriptions provide information about time, quantity, and cost. While quantity considers how big holdings can be liquidated, time examines how long it takes to liquidate a position (Zhang & Lence, 2022). Price is the amount of fair value discount that must be accepted while liquidating. Investors place a high priority on how simple it is to trade financial products (Nassar, 2018).

Since each proxy captures a distinct dimension and has its limits, previous share liquidity studies have not relied solely on one proxy to measure stock market liquidity. The studies on firm-specific factors vis-à-vis share liquidity so far have not paid attention to the selection of the liquidity dimensions as a major consideration. Therefore, studies by Bichanga *et al*. (2021), Khan *et al*. (2019), Li *et al*. (2018) and Nassar (2018) used turnover ratio as a proxy measure of share liquidity.

Share liquidity in any stock market tends to fluctuate based on several factors such as economic conditions, overall market sentiment, and individual company performance (Nassar, 2018. Angweye and Miroga (2020) and Mwende (2021) observed that, in comparison to a few significant stock markets in Sub-Saharan Africa, the Kenyan stock market has the highest cost of raising equity. These extant studies contend that the high cost of equity is strongly influenced by illiquidity costs, therefore, low stock market liquidity is one of the main barriers to the development of the Kenyan stock market. Furthermore, liquidity changes noticeably over time, especially for small and medium-sized companies (Ochenge *et al*., 2020). These problems warrant a study on what influences share liquidity at NSE.

1.2.2 Firm-Specific Factors

Firm-specific factors refer to characteristics or attributes that are unique to a particular company or organization and set it apart in its industry (Nassar, 2018). Firm-specific factors are important research issues in productivity and stock market literature. Given that the shares markets usually reflect the productivity and performance of the individual firm, firm-specific factors are of critical importance, especially to the investors, shareholders, and, the individual firm's managers. For firm managers, identifying such factors helps to review firm practices, compare with counterparts, and allocate corporate earnings in a better way that increases firm value (Mulyono *et al*., 2018). From an investor perspective, identifying firm-specific factors

that may influence share liquidity can assist investors and portfolio managers to detect companies with policies, productivity, and performance that best fit their investment targets (Li *et al*., 2018).

Hang (2020) noted that there are different categories that stock market liquidity determinants can be classified into: internal factors including firm size, capital adequacy, profitability, leverage, deposits, non-interest income, firm age, etc., and external factors mainly economic activity, inflation rate, exchange rate, and interest rate. Further, Scholars such as Khan *et al*. (2019) and Nassar (2018) identified firm size, liquidity of company assets, return on assets, profit margins, debt ratio, and market-to-book value of assets ratio as the key firm-specific factors that may cause variations in company share liquidity and should be considered by investors and portfolio managers. This research focuses on only four of these internal factors: the size of the company, financial leverage, financial performance, and company liquidity.

1.2.2.1 Company Size

Company size refers to the size of the firm regarding the number of operations, assets, number of employees, and market capitalization. Company size is one of the most important variables in the financial economics literature that affects various aspects of the company's corporate performance (Sholikah & Nurasik, 2021). It is a prominent factor that is used to predict stock returns, however, little attention has been paid to how it influences the share liquidity of the firm. Different studies have used different measures of company size. For instance, Astakhov *et al*. (2019) and Farhan used market capitalization as a proxy measure for firm size while Zuhroh *et al*. (2022) employed total assets as the proxy measure of firm size. Nonetheless, the relationship between firm size and share liquidity seems to be undetermined in the literature.

Theoretical assumptions hold that large organizations typically have strong liquidity because of a large number of outstanding shares and frequent ownership changes (Nasser, 2018). A

company with strong financial performance and positive growth prospects tends to have higher stock prices and greater share liquidity (Astakhov et al., 2019). On the other hand, company liquidity refers to the ability to convert financial assets quickly into cash without losing value. A company with strong liquidity is considered a safer investment, potentially leading to higher share liquidity (Sholikah & Nurasik, 2021). Khan *et al*. (2019) and Nassar (2018) argued that larger companies tend to have higher share liquidity than smaller companies, because of having a greater number of shares outstanding and a larger number of shareholders. This means that there are more shares available to be bought and sold, which makes it easier for investors to buy or sell them at fair prices.

While company size is generally seen as a positive factor that can increase share liquidity, it can also have a detrimental effect on share liquidity in certain cases. Roman and Sargu (2015) observed that even though large companies have a greater number of shares outstanding, they may also have a limited number of shares available for trading, which can make it difficult for investors to buy or sell them at fair prices. This is particularly true for companies with a high percentage of shares held by insiders or institutional investors, which can restrict the supply of shares available for trading.

1.2.2.2 Financial Leverage

Financial leverage refers to the use of borrowed money to finance a company’s operations and growth (Nayeem, 2019). It is measured by the debt-to-equity ratio, which compares a company's total debt to its total shareholder equity (Nasser, 2018). The general trend of financial leverage of companies listed on the NSE depends on various factors such as the overall economic conditions in the country, the level of access to credit, the availability of alternative forms of financing, and the specific policies and regulations governing the use of debt by companies (Susanto & Agness, 2019). The trend varies from company to company and

from year to year given the company's financial position, financial year objectives, and other firm-specific factors (Odhiambo, 2022). A higher debt-to-equity ratio indicates a higher level of financial leverage and a higher level of risk for the company. A lower debt-to-equity ratio doesn't necessarily imply that a company is more profitable or has better prospects than a higher one (Astakhov et al., 2019).

Financial leverage, which reflects the use of borrowed funds to finance company operations and growth, has shown conflicting findings regarding its impact on share liquidity. Some studies suggest that higher financial leverage negatively affects share liquidity, as it indicates higher risk and potential financial distress (Nayeem, 2019). Conversely, other studies argue that financial leverage can have a positive association with share liquidity, possibly due to increased investor interest and expectations of higher returns (Gopalan et al., 2009). Furthermore, Khan *et al*. (2019) also established that financial leverage had a significant negative effect on share liquidity in Indian stock markets, while Nassar (2018) established a positive association. Similarly, Gopalan, Kadan, and Pevsner's (2009) research in Canadian and US stock markets, established that share liquidity and asset liquidity have a sizable positive association.

1.2.2.3 Company Financial Liquidity

A firm's liquidity is the amount of operating cash or the efficiency of converting a financial asset or security quickly and easily into cash without depreciating (Sunardi *et al*., 2020). A company with strong liquidity is considered to be a safer investment, as it is more likely to meet its financial obligations. This can lead to higher share liquidity, as investors are more likely to buy shares of a company perceived as financially stable. Conversely, a company with weak liquidity may be seen as a riskier investment, which can lead to lower share liquidity as investors are less likely to buy shares of the company (Degubir, 2020). Company liquidity is

measured by payables turnover (Degubir, 2020), working capital (Noori, 2018), acid-test ratio, current ratio, and cash ratio, (Lotto, 2019).

Ochenge *et al*. (2020) noted that liquidity changes noticeably over time, especially for small and medium-sized companies. The same problem is noted by Angweye and Miroga (2020) who identified that the inability of the firms listed at NSE to trade large volumes quickly at low cost has adversely affected trading. Similarly, Bichanga *et al*. (2020) concurred with that observation and noted that despite the Kenya Capital Markets Authority's corporate governance requirements the firms' inability to transact in big volumes rapidly and cheaply has negatively impacted trading.

1.2.2.4 Company Performance

Company performance refers to how well a company is doing in terms of its financial results, operational efficiency, and overall strategic goals. To assess a company's performance, a variety of financial and non-financial metrics can be used. Many decisions are based on companies' performance (Bichange, 2022). Company performance is relevant to securities exchanges because it can have a significant impact on the value of a company's shares (Okumu *et al*., 2022).

The performance of a company can affect the demand for its shares, which in turn can affect the price of the shares. Companies that have strong financial performance and positive prospects for future growth tend to have higher stock prices, while companies that have weak financial performance and negative prospects for future growth tend to have lower stock prices. This is because investors are willing to pay more for shares in companies that will generate higher returns in the future (Odhiambo, 2022). Nassar (2018) established that companies that

have a history of consistent earnings and strong financial performance tend to have higher share liquidity than those that do not. This is because investors are more likely to buy shares of companies that are financially stable and have a track record of growth. Conversely, Yitayaw (2021) noted that companies that have poor earnings and unstable financial performance experience more volatility in share prices. This makes it difficult for investors to buy or sell shares at fair prices, which negatively impacts share liquidity.

1.2.3 Overview of NSE 20 Share Index

The study focused on firms listed at the Nairobi Securities Exchange in general and in particular the constituent companies of the NSE-20 share index. The Nairobi Securities Exchange 20 Share Index (NSE 20) was introduced on November 28, 1996. It is a market capitalization-weighted index that tracks the performance of the 20 largest and most liquid companies listed on the Nairobi Securities Exchange (NSE, 2010). The NSE20 is a significant stock market index that monitors the progress of the top 20 companies listed on the Nairobi Securities Exchange (NSE, 2018). These firms are chosen through a process that considers their market capitalization, the volume of shares traded, the number of transactions, and turnover over a period of 12 months. The index assigns weights to each of these factors to determine the best-performing companies.

The NSE 20 provides investors with an overview of the market's performance, which can assist in making informed investment decisions (Wendo *et al*., 2020). In addition, it is considered an important indicator of the health of the Kenyan economy, as changes in the index can reflect shifts in investor sentiment, economic conditions, and other factors that impact the performance of listed companies (Karungu *et al*., 2020).

1.3 Statement of the Problem

Globally, an index is the main proxy for the stock market since it contains only the most important securities in a given market (World Bank Report, 2020). NSE 20 share index, the main index at the NSE has faced liquidity challenges, which has affected the efficiency of the market and the attractiveness of the NSE to both domestic and foreign investors (Ochenge *et al*., 2020; Mwende, 2021). The index has a relatively low trading volume compared to other indices (Mwende, 2021). For example, in 2020, the average daily trading volume on the NSE was around Kes1.6 billion, which is significantly lower than the average daily trading volume on the Johannesburg Stock Exchange (JSE) in South Africa, which was around Kes124 billion (Mwende, 2021). This warrants a study on factors that affect share liquidity, which can be leveraged to improve the liquidity levels of companies listed at NSE.

Studies conducted globally on the nexus between firm-specific factors and share liquidity presents both methodology and contextual gaps. For instance, Gopalan, Kadan, and Pevzner (2009) examine the firm-level factors that affect the stock market liquidity of the firms in Canadian and United States capital markets. The study used panel regression analysis which failed to control for the endogeneity of the data. Similarly, Nassar (2018) examined company-level factors influencing share liquidity in Istanbul Stock Exchange and Baltic markets respectively. The findings of these extant studies show that firm internal factors have a major impact on stock liquidity; however, both the list of indicators and the magnitude of the impact vary greatly among nations. Besides the study, Nassar (2018) reported an explanatory power of up to 63% and 64% respectively. These ostensibly high R-squared values call for more research based on actual data on the factors affecting share liquidity. Studies also failed to indicate whether the effects are lagged or contemporaneous. Thus, this study seeks to examine the effect of firm-specific factors on share liquidity, with a focus on NSE 20 share index

constituent companies. This can help in addressing the illiquidity problem, therefore, leading to high trading frequency, high stock performance, and development of the Kenya capital market.

1.4 Objective of the Study

The main objective of this study was to examine the effect of firm-specific factors on the share liquidity of listed firms with a focus on NSE 20 share index constituent companies in Kenya.

1.4.1 Specific Objectives

i. To establish the effect of company size on the share liquidity of listed firms in Kenya.
ii. To determine the effect of financial leverage on the share liquidity of listed firms in Kenya.
iii. To evaluate the effect of company financial liquidity on the share liquidity of listed firms in Kenya.
iv. To assess the effect of financial performance on the share liquidity of listed firms in Kenya.

1.5 Study Hypotheses test of relationships

To achieve the objectives, the research sought to test the following hypotheses:

H_{O1}: Company size has no statistically significant effect on the share liquidity of listed firms in Kenya.

H_{O2}: Financial leverage has no statistically significant effect on the share liquidity of listed firms in Kenya.

H_{O3}: Company financial liquidity has no statistically significant effect on the share liquidity of listed firms in Kenya.

H_{O4}: Financial performance has no statistically significant effect on the share liquidity of listed firms in Kenya.

1.6 Significance of the Study

The findings are beneficial to policymakers such as the government, Capital Markets Authority (CMA), and Nairobi Securities Exchange (NSE). The nexus between firm-specific factors and share liquidity gives insights into what company factors affect the liquidity of stock counters, and consequently informs policies and regulations based on those factors. The study identifies firm-specific factors that have a significant impact on share liquidity, which would inform regulatory efforts to improve market liquidity and stability. The findings of this study can also lead to the development of financial instruments that can help mitigate the negative impact of firm-specific factors on share liquidity.

The study findings are expected to have various practical implications for the NSE-20 share constituents and NSE. The study identifies specific firm-specific factors that are associated with higher levels of share liquidity, which would inform efforts to improve company performance. In addition, the study findings provide valuable insights for investors and analysts to make more informed investment decisions, as well as, provide insights for firms on how to raise capital more efficiently by understanding the firm-specific factors that are associated with higher levels of share liquidity. The findings also benefit businesses, financial managers, and the board of directors. The findings shed light on how the company shares are affected by firm-specific factors and inform the practices that align positively with the share liquidity. The study is useful to investors and portfolio managers who gain insights into companies and how company-specific factors affect share liquidity, thus helping in making informed investment decisions. The findings of the study provide NSE with practical insights to review, update and/or create new regulations that govern the listed firms to enhance the share liquidity.

Finally, the study contributes to financial economics literature and investment practices. The study concepts are anchored on market depth theory and arbitrage pricing theory and the findings could potentially advance or refine these theories. The findings integrate different perspectives and approaches from different fields of study, such as finance, and economics, to provide a more comprehensive understanding of the relationship between firm-specific factors and share liquidity. Moreover, the study findings provide a foundation for future studies to extend research on share liquidity.

1.7 Scope of the Study

The study focused on the effect of firm-specific factors on the share liquidity of NSE 20 share index firms listed at NSE. Specifically, the study examined the effects of company size, financial leverage, company financial liquidity, and company performance on share liquidity. In terms of study context, the study was carried out on the 20 companies constituting the NSE 20 share index. This is because the NSE 20 share index constituent companies are a representative sample of the largest and most financially stable companies listed on the NSE, and there is a significant amount of data available. In terms of time horizon, the study was longitudinal in nature. The research covered the period between 2014 to 2021. This period was able to capture different industry dynamics and macroeconomic environment changes during the periods. In relation to the methodology, the research employed quantitative methods. This involved collection of quantitative data from financial reports and published NSE data, as well as, statistical techniques such as time series regression analytical techniques.

1.8 Limitations and Delimitations of the Study

The main limitation was concerning obtaining data from respective companies' online repositories. This was addressed by obtaining physical copies from respective company offices or the NSE library. Secondly, the data on liquidity to be obtained from the NSE was costly.

This was addressed by the researcher obtaining the data from third-party vendors with valid subscriptions to the NSE data service.

This study was delimited to the four firm-specific factors that may influence stock market liquidity. While other factors could influence stock market liquidity this study focused on financial leverage, company liquidity, financial performance, and company size and its influence on share liquidity. Further to streamline the purpose of this study, this research did not cover the NSE all share index but focused on the NSE20 share index.

1.9 Assumptions of the Study

This study assumed that other scholars will find its findings valuable in obtaining new insights into the addressed gaps. To ensure accuracy, this study assumed that NSE has maintained an accurate record of market liquidity during the relevant period, and the constituent companies of the NSE 20 share index have publicly disclosed all data in compliance with the International Financial Reporting Standards (IFRS) guidelines. Furthermore, the data has been audited according to IFRS guidelines, and the listed companies have submitted all audited financial statements as required by law to both the CMA and NSE.

1.10 Theoretical Framework

This study was anchored on market depth theory, Arbitrage Pricing Theory, and Efficient Market Hypothesis.

1.10.1 Market Depth Theory

The market depth theory can be traced from Kyle (1985) who states that price changes are completely information induced. The theory claims that there is contact between a monopolistic competitor, a market producer, and noise traders. The market maker monitors the combined

net order flow between insider and noise traders providing a warning to the market maker about the asset's liquidation interest. Kyle (1985) revises her values based on this signal and adjusts the price such that it matches the estimated liquidation value given the order flow observed. Market depth theory defines a list showing the amount to be sold versus the unit price in real time (Black, 1986).

The theory aids the study in understanding how the share liquidity of the spot market influences the trading frequency. Black (1986) argued that noise trading liquidity can incite traders with firm-specific and private information to act on the information and therefore make the markets more efficient. Large orders placed by major investors disturb the demand and supply equilibrium in markets with imperfect liquidity, which results in price variations, a fall in price if the investor is selling, and a rise in price if the investor is buying, which is disadvantageous to the investor (Bloomfield, 2009). In addition, the impact of prices can also be partially informative. If an investor suddenly decides to buy or sell a large number of stocks, other market participants may perceive this as a sign that the investor possesses important information that is not available to others. This perception can lead to an increase in trading activity, further impacting prices (Bloomfield, 2009).

The theory is important in linking the liquidity factor with the market depth. Market depth theory explains the link between firm-specific factors and shares liquidity by suggesting that these factors can impact the supply and demand for a stock in the market (Bessembinder & Seguin, 1993). For example, Alam *et al.* (2019) argued that a company with a history of positive earnings is likely to have a greater number of interested buyers compared to a company with a history of negative earnings. This increased demand for the stock can increase its liquidity, as there are more buyers and sellers in the market and transactions can be executed more quickly and easily. Similarly, Roulstone (2003) argued that a company with high levels of information

asymmetry may have a lower level of liquidity because investors may be hesitant to invest in a stock if obtaining reliable information about the company is costly. The author claimed that this can reduce the demand for the stock and increase the difficulty of executing trades, resulting in lower share liquidity. Overall, researchers assert that the theory suggests that the supply and demand for a stock in the market are impacted by firm-specific factors such as earnings, volatility, dividend policy, and information asymmetry (Bessembinder & Seguin, 1993; Alam *et al,* 2019. These factors can either increase or decrease the demand for a stock, which in turn can impact its liquidity in the market (Wang, 2010). In that regard, the market depth theory is used to analyze share liquidity as an accelerator of trading activities and firm-specific information as a determinant of the level of liquidity and price changes.

1.10.2 Arbitrage Pricing Theory

Arbitrage Pricing Theory (APT) is the first multifactor asset pricing model introduced by Ross (1976). The APT posits that the price of an asset, such as a stock, is determined by several systematic factors that affect the entire market, as well as specific factors that are unique to the individual firm. The systematic factors include macroeconomic variables such as inflation, interest rates, and GDP, while the firm-specific factors include variables such as company size, profitability, and growth potential. The theory suggests that the effect of firm-specific factors on stock prices can be measured by the degree of liquidity of a stock, as more liquid stocks are likely to be more affected by firm-specific factors (Bhattacharya *et al*., 2020). This is because more liquid stocks are more easily traded, and therefore the effect of any news or information about the firm is more quickly reflected in the stock price (Nishantha, 2018). Hence, the connection between firm-specific factors and share liquidity can be expounded using the APT framework.

1.10.3 Efficient Market Hypothesis

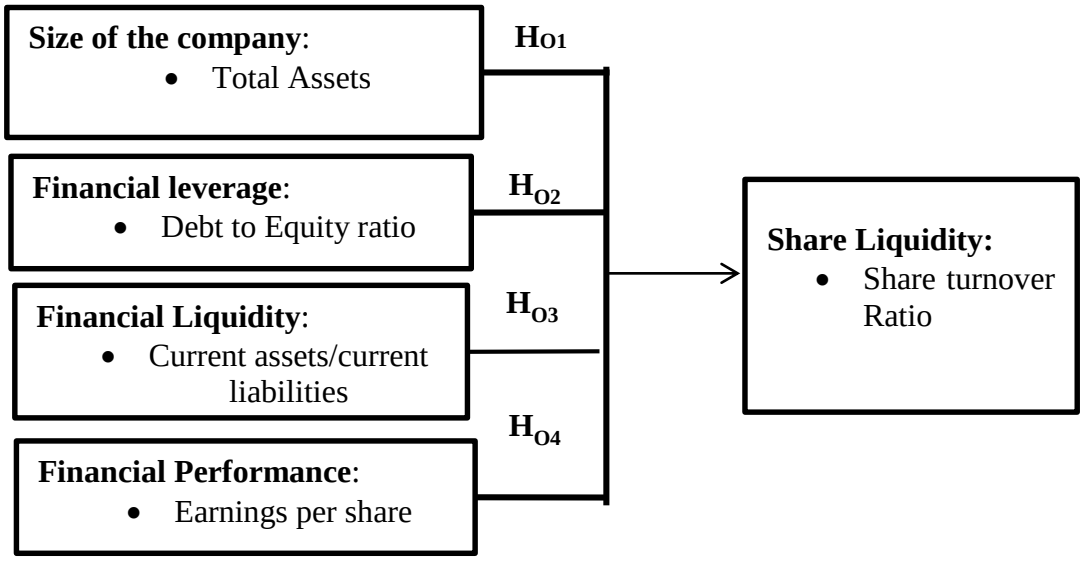
The Efficient Market Hypothesis (EMH) was first introduced by Eugene Fama in the 1960s. Fama is widely considered to be the father of modern financial economics and is a Nobel Prize winner in economics. The EMH states that all publicly available information is reflected in a stock's price at any given time. This means that new information about a company is immediately reflected in its stock price, making it difficult for investors to earn excess returns (Sodsai & Suksonghong, 2018). Financial markets are informationally efficient, meaning that new information is quickly reflected in stock prices and that prices adjust rapidly to new information. Since all information is reflected in prices, it is impossible for an investor to consistently earn returns that are higher than the overall market. This means that active investment strategies, such as stock picking and market timing, are unlikely to be successful in the long run (Noreen *et al*., 2022). The EMH suggests that stock prices follow a random walk, meaning that future price movements cannot be reliably predicted based on past price movements. This makes it difficult for investors to generate excess returns through technical analysis or chart patterns (Singh et al., 2021).

The Efficient Market Hypothesis (EMH) suggests that the relationship between firm-specific factors and share liquidity is determined by the price discovery process in financial markets (Malini, 2019). According to the EMH, financial markets are highly competitive, and all publicly available information is reflected in a stock's price. This means that the price of a stock reflects the collective view of all market participants, including beliefs about a company's prospects and liquidity (Dias et al., 2020). In the context of firm-specific factors, the EMH suggests that these factors are reflected in a stock's price and can impact its liquidity (Singh et al., 2021). For example, if the market views a company as having strong growth prospects, this is reflected in its stock price, and the stock is likely to be more liquid as investors are willing to buy and sell shares (Noreen *et al*., 2022). On the other hand, if the market views a company

as having weak prospects, this is also reflected in its stock price, and the stock is likely to be less liquid as investors are less willing to trade (Malini, 2019).

1.11 Conceptual Framework

The conceptual framework illustrated in the model in Figure 1 below shows the relationship between the study variables. The independent variables are the company size, financial leverage, company performance, and company liquidity, while the dependent variable was share liquidity.



Source: Researcher (2023)

Figure 1.1 Conceptual Framework

As shown in Figure 1, the size of the company is measured by total assets, financial leverage was measured by debt to equity ratio, financial performance was measured by earnings per share, and financial liquidity was measured by current assets to current liabilities. The dependent variable of the study, share liquidity was measured using total share turnover to market capitalization.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents a comprehensive summary and critical analysis of the research that has been conducted on the relationship between firm-specific factors and share liquidity. The sections include a summary of the key findings, as well as an evaluation of the strengths and weaknesses of the research that has been conducted. The purpose of this literature review was to identify gaps in the current research and to provide context for new research.

2.2 Empirical Literature

2.2.1 Company Size and Share Liquidity

Company size refers to the size of the firm regarding the number of operations, assets, number of employees, and market capitalization. Company size is one of the most important variables in the financial economics literature that affects various aspects of the company's corporate performance (Sholikah & Nurasik, 2021). It is a prominent factor that is used to predict stock returns, however, little attention has been paid to how it influences the share liquidity of the firm. Different studies have used different measures of company size. For instance, Astakhov et al. (2019) and Farhan used market capitalization as a proxy measure for firm size while Zuhroh et al. (2022) employed total assets as the proxy measure of firm size. Nonetheless, the relationship between firm size and share liquidity seems to be undetermined in the literature.

For instance, in Turkey, Nasser (2018) investigated the factors affecting the share liquidity of industrial companies listed on the Istanbul Stock Exchange (ISE). The study employed annual ranking data of 199 industrial companies listed on the Istanbul Stock Exchange (ISE) was used

and covered a period of 8 years from 2005-2012. A regression analysis model was used to determine the relationship between company size (market capitalization) and share liquidity ratio (LQR). The results of the study revealed that firm size has a significant positive effect on the share liquidity of the companies. However, the Kenyan stock market may have unique characteristics and economic conditions that could affect the relationship between company size and share liquidity, and further research in this area could help to understand these specific effects.

In Taiwan, Cheng *et al* (2019) examined and discussed the various factors that influence share liquidity. Among the factors considered were firm size, ownership structure compression, level of information asymmetry, margin trading utilization rate, absorbed stocks of investors, and overall market liquidity. The study utilized regression analysis and time series on listed companies from the Taiwan Stock Exchange Corporation as a sample for empirical analysis. The study revealed that there is a positive correlation between firm size and share liquidity. The study was conducted in Taiwan, which has a different economic and political environment than Kenya. Therefore, the results may not be generalizable to other contexts.

Conversely, other studies revealed a negative and non-significant effect on share liquidity. Khan *et al.* (2019) examined the impact of corporate internal factors on the stock liquidity of companies listed at the Karachi Stock Exchange Pakistan. The study regressed the relationship of cross-panel data using panel least squares and revealed that the size of the corporation has no significant influence on share liquidity. However, the study only used the illiquidity ratio, Amihud liquidity to measure stock liquidity, which may not capture other important dimensions of liquidity. Besides, panel least squares are not the most suitable method for dealing with cross-sectional and time-series independence.

Similarly, Norvaisie and Stankeviciene (2018) studied both Estonian and Lithuanian markets and the results varied for both. In both markets, the only significant positive factor was the size of the corporation as measured by its total assets. The study used data from firms in Estonian and Lithuanian markets for a period between 2000 and 2015. Using OLS analysis, results revealed that firm size has a significant effect on the share liquidity for the Estonian stock market, but the results were insignificant for Lithuanian markets. These mixed results are indications of different economic and market characteristics which might also be revealed at the NSE.

In Kenya, there exists scanty research investigating factors affecting share liquidity. For instance, a study by Bichanga *et al*. (2021) examined the influence of board structure on the stock liquidity of firms listed on the Nairobi securities exchange. All 64 firms listed on the Nairobi Securities Exchange were included in the study, and the authors used a census survey to collect data. Eviews 7 was employed for data analysis. The study revealed that the company size had a significant negative effect on share liquidity, as measured by turnover. However, when measured by quoted spread, illiquidity, and liquidity ratio, there was no significant impact. However, the study scope did not include company size.

Jepkemei (2020) conducted a study on inflation on stock market liquidity in the case of the Nairobi Securities Exchange. The study examined the relationship between stock market liquidity and inflation, interest rates, and GDP growth using annual data from a sample of twenty companies listed at the Nairobi Securities Exchange for the period between 2002 and 2011. The results show that stock market liquidity is negatively related to inflation, which contradicts Fisher`s hypothesis. Descriptive statistics were also used in the study. However, this study's scope is different from the present study which seeks to determine the influence of firm-specific factors on the share liquidity of firms listed at NSE.

In summary, several studies have investigated the relationship between company size and share liquidity. Some studies have found a positive relationship between the two, meaning that larger companies tend to have more liquid shares. This is often attributed to the fact that larger companies have more resources and a larger investor base, which can increase the demand for shares and make them more liquid. Other studies reported an insignificant relationship between company size and share liquidity. Overall, the mixed findings reported warrant a study on how company size affects share liquidity in the Kenyan securities exchange context.

2.2.2 Financial Leverage and Share Liquidity

Financial leverage refers to the use of borrowed money to finance a company's operations and growth (Nayeem, 2019). It is measured by the debt-to-equity ratio, which compares a company's total debt to its total shareholder equity (Nasser, 2018). The general trend of financial leverage of companies listed on the NSE depends on various factors such as the overall economic conditions in the country, the level of access to credit, the availability of alternative forms of financing, and the specific policies and regulations governing the use of debt by companies (Susanto & Agness, 2019). The trend varies from company to company and from year to year given the company's financial position, financial year objectives, and other firm-specific factors (Odhiambo, 2022). A higher debt-to-equity ratio indicates a higher level of financial leverage and a higher level of risk for the company. A lower debt-to-equity ratio doesn't necessarily imply that a company is more profitable or has better prospects than a higher one (Astakhov et al., 2019).

Several studies have investigated the relationship between financial leverage and stock returns, but few have examined share liquidity. Some studies have found a positive relationship between financial leverage and share liquidity and stock liquidity, meaning that companies with higher levels of financial leverage tend to have more liquid shares. Nayeem et al. (2019)

conducted a study to investigate the influence of financial leverage and market size on the stock liquidity of selected stocks. The link between the dependent and independent variables was examined using Ordinary Least Square (OLS) regression models. Five corporations that operate in the manufacturing sector`s annual financial reports covering the five years from 2008 to 2012 were used to assess the financial leverage of the chosen companies. When using the aggregate industry data, the study found a significant inverse association between leverage and stock liquidity. However, the study only examined five companies operating in the manufacturing sector, which may not be representative of the broader market and may limit the generalizability of the findings.

Another example of an empirical study on the effect of financial leverage and share liquidity is a study by Nasser (2018) which investigated the factors affecting the share liquidity of industrial companies listed on the Istanbul Stock Exchange (ISE). The study focused on 199 industrial companies listed on the ISE and utilized annual ranking data covering a period of 8 years from 2005 to 2012. Using a regression analysis model, the study examined the relationship between financial leverage (measured as debt-to-equity ratio) and share liquidity ratio (LQR). The results showed that there is a significant negative impact of financial leverage on share liquidity. The findings are in line with the trade-off theory which suggests that leverage negatively affects a company`s liquidity. However, the study has a limitation of only being based on a sample of Turkish companies, therefore, the results may not be generalizable to other markets. In summary, this study provides evidence of a negative relationship between financial leverage and share liquidity in the context of Turkish companies listed on the Istanbul Stock Exchange. However, due to the limited sample, the results may not be generalizable to other markets and further research is needed to confirm the findings.

Studies by Nayeem *et al*. (2019) and Nasser (2018) found a negative relationship between financial leverage and share liquidity. These studies suggest that companies with higher levels of financial leverage may be riskier and may have less predictable cash flows, which can make their shares less liquid. Additionally, some companies with high leverage may be more likely to default on their debt, which can also decrease share liquidity. The market`s assessment of the company`s capacity to obtain capital should the need arise may also contribute to the negative association between share liquidity and leverage.

Other studies reported that financial leverage has a negative influence on share prices. For instance, Bathala (2020) documented a significant and negative effect of the change in a firm`s leverage ratio on its stock prices. It was discovered that the adverse effect is more pronounced for enterprises with larger leverage ratios, higher default probabilities, and more stringent financial restraints. However, the study scope was limited as it only studied share prices, while the current study seeks to study the influence of financial leverage on share liquidity.

The annual change in leverage and the stock returns for the current year and the following year was found to be negatively correlated by Dimitrov and Jain (2018). All common stocks listed on the NYSE had returns information available on the Compustat annual files made up of the study sample. It found that a firm`s stock returns may boost its borrowing when the underlying performance is anticipated to worsen. However, the study focused on stock return while the current study focuses on share liquidity.

2.2.3 Company Financial Liquidity and Share Liquidity

A firm’s liquidity is the amount of operating cash or the efficiency of converting a financial asset or security quickly and easily into cash without depreciating (Sunardi et al., 2020). A company with strong liquidity is considered to be a safer investment, as it is more likely to meet its financial obligations. This can lead to higher share liquidity, as investors are more

likely to buy shares of a company perceived as financially stable. Conversely, a company with weak liquidity may be seen as a riskier investment, which can lead to lower share liquidity as investors are less likely to buy shares of the company (Degubir, 2020). Company liquidity is measured by payables turnover (Degubir, 2020), working capital (Noori, 2018), acid-test ratio, current ratio, and cash ratio (Lotto, 2019).

There is scanty empirical literature on the relationship between company financial liquidity and share liquidity. Financial liquidity refers to a company`s ability to meet its short-term financial obligations, such as paying off debts and bills. Share liquidity, on the other hand, refers to the ease with which shares of a company can be bought or sold on the stock market. One example of an empirical study on the relationship between a company`s financial liquidity and its share liquidity is a study by Huang and Teng (2019). The study analyzed data from Taiwan`s stock market from 2001 through 2006 and used multiple regression analysis to examine the relationship between several measures of financial liquidity (such as current ratio, quick ratio, and cash ratio) and share liquidity as measured by the Amihud illiquidity ratio. The results of the study showed that there is a negative relationship between financial liquidity and share liquidity, meaning that companies with higher financial liquidity tend to have lower share liquidity. This relationship was found to be statistically significant for all of the measures of financial liquidity used in the study. The study also found that the relationship between financial liquidity and share liquidity was stronger for companies in the technology and electronics industries than for companies in other industries. The authors suggested that this may be because these industries have higher levels of uncertainty and volatility, which makes investors more cautious and more likely to trade shares in companies with higher financial liquidity.

Similarly, Kim and Park (2020) study analyzed data from the South Korean stock market from 2009 through 2018, and sed panel regression analysis to examine the relationship between several measures of financial liquidity (such as current ratio, cash ratio, and cash flow to total debt ratio) and share liquidity as measured by the Amihud illiquidity ratio. The results of the study showed that there is a positive relationship between financial liquidity and share liquidity, meaning that companies with higher financial liquidity tend to have higher share liquidity. This relationship was found to be statistically significant for all of the measures of financial liquidity used in the study. However, one limitation is that the study only focuses on companies in South Korea, which may limit the generalizability of the findings to other countries or regions. Additionally, the study only examines data from a specific period (2009-2018), which may not accurately reflect the current relationship between financial and share liquidity.

One strength of the study is that it provides evidence for a negative relationship between financial liquidity and share liquidity. Additionally, the study`s finding that the relationship is stronger for firms in the service sector than for firms in other sectors, and the effect of profitability and size on the relationship provides a more nuanced understanding of the relationship. However, it is important to note that the findings of this study should not be directly compared to a study conducted in a different context such as the Nairobi Securities Exchange (NSE). This is because the findings of the study may not be generalizable to other markets, as factors such as market structure, regulations, and economic conditions can vary significantly between different countries and regions. Additionally, the study only examines data from a specific period (2007-2015), which may not accurately reflect the current relationship between financial and share liquidity.

Regionally, studies on company financial liquidity and share liquidity are elusive. However, an example of an empirical study conducted in an African context on the relationship between

a company`s financial liquidity and its share liquidity is a study by Oladipupo and Olasunkanmi (2020). The study examined the relationship between financial liquidity, measured by the current ratio and cash ratio, and stock liquidity, measured by the bid-ask spread, for a sample of firms listed on the Nigerian Stock Exchange (NSE) from 2007-2016. The study used a panel data regression analysis and found a positive relationship between financial liquidity and stock liquidity, meaning that companies with higher financial liquidity tend to have higher share liquidity. This relationship was found to be statistically significant for both the current ratio and cash ratio.

The study by Oladipupo and Olasunkanmi (2020) provides valuable insights into the relationship between a company's financial liquidity and its share liquidity in the context of the Nigerian Stock Exchange (NSE). The use of panel data regression analysis and the inclusion of multiple measures of financial liquidity allows for a comprehensive examination of the relationship. However, it is important to note that the findings of this study should not be directly compared to a study conducted in a different context such as the Nairobi Securities Exchange (NSE). This is because the findings of the study may not be generalizable to other markets, as factors such as market structure, regulations, and economic conditions can vary significantly between different countries and regions. Additionally, the study only examines data from a specific period (2007-2016), which may not accurately reflect the current relationship between financial and share liquidity.

2.2.4 Financial Performance and Share Liquidity

Company performance refers to how well a company is doing in terms of its financial results, operational efficiency, and overall strategic goals. To assess a company's performance, a variety of financial and non-financial metrics can be used. Many decisions are based on companies' performance (Bichange, 2022). Company performance is relevant to securities

exchanges because it can have a significant impact on the value of a company's shares (Okumu et al., 2022).

The financial performance of a company can have a significant impact on the liquidity of its shares. If a company has strong financial performance, such as high revenue and profit growth, it is likely to attract more investors, which can increase demand for its shares and improve liquidity. On the other hand, if a company has weak financial performance, it may struggle to attract investors and its shares may become less liquid. Studies conducted on the effect of financial performance on share liquidity have revealed mixed findings, while also studies investigating this relationship are missing in Kenya.

One example of an empirical review study on the effect of financial performance on share liquidity is Impact of Financial Performance on Share Liquidity: Evidence from the Chinese Stock Market by Wang (2021). He measured financial performance using several financial ratios, including return on assets, return on equity, and gross profit margin. The study found that financial performance had a positive impact on share liquidity in the Chinese stock market. Specifically, the authors found that companies with higher returns on assets and returns on equity had higher liquidity, while those with higher gross profit margins had lower liquidity. However, it is important to consider the applicability of the study's findings to the Nairobi Stock Exchange. The study was conducted using data from the Shanghai and Shenzhen stock exchanges in China, which may have different market characteristics and regulations compared to the Nairobi Stock Exchange.

A study by Dalvi and Baghi (2018) evaluated the connection between the performance and liquidity of shares listed on the Tehran Stock Exchange. The study`s findings, which were validated by several regressions, provided evidence for the notion of representation and feedback between performance scales and stock liquidity. According to the investigation`s

findings, there is a significant association between liquidity and performance scales. However, the study findings can only be compared with the present study findings and cannot be legitimately applied to fit the context of firms listed at NSE.

Ahmad et al. (2023) used a sample of listed companies on the Pakistan Stock Exchange (PSX) to investigate the relationship between financial performance and share liquidity. The study used time series regression analysis and specifically employed the Autoregressive Distributed Lags model to examine the relationship. It was found that financial performance had a positive impact on share liquidity in the Pakistan Stock Exchange. Specifically, the authors found that companies with higher returns on assets and returns on equity had higher liquidity, while those with higher gross profit margins had lower liquidity. The authors also found that the relationship between financial performance and liquidity was stronger for larger companies and those with more profitable operations. However, in the context of the present study, is important to consider the applicability of the study`s findings to the Nairobi Stock Exchange, given the market and economic differences, the model used, and the measures of company performance and share liquidity used.

Gombe *et al*. (2022) conducted a study into how non-financial performance aspects of the company such as corporate governance affects the stock liquidity of listed companies on the Istanbul Stock Exchange (ISE). The study found that corporate governance had a positive impact on share liquidity in the ISE. Specifically, the authors found that companies with larger board sizes, higher ownership concentration, and a greater proportion of independent directors had higher liquidity. The authors also found that the relationship between corporate governance and liquidity was stronger for larger companies and those with more profitable operations. However, this finding cannot be applied in the context of Kenyan firms given the operational differences as well as market differences. Moreover, the study focused on corporate

governance as a non-financial performance measure, which is conceptually different from the focus of the present study which seeks to examine financial performance effects on share liquidity.

2.3 Summary and Research Gaps

The review established that studies on firm-specific factors on share liquidity are particularly elusive in the context of the East African securities exchange market. This called for further research to fill up the contextual and knowledge gap and further enhance the understanding of the relationship between firm-specific factors and share liquidity in developing markets. The review also established that some studies employed simple regression analysis models, that fail to take into account complex relationships between different factors that may affect share liquidity. In addition, the majority of studies did not include a diverse sample of firms from different industries, countries, or regions, making it difficult to generalize the results to other contexts. Finally, some studies focused on stock prices, and stock returns hence presenting a conceptual gap since the focus of the present study is on share liquidity. Overall, it was crucial to conduct more extensive and comprehensive research in the Kenyan context to gain a better understanding of the factors that influence share liquidity and their interaction with each other. Table 2.1 shows the summary of the findings and key gaps.

Author	**Variables**	**Key Gaps**
Nasser (2018)	Company size Share liquidity	**Contextual gap:** The Kenyan stock market may have unique characteristics and economic conditions that could affect the relationship between company size and share liquidity
Bogdan *et al*. (2019)	Company size Stock liquidity	**Contextual gap:** The Zagreb stock exchange and the Kenyan NSE may have different market characteristics and market participants.
Batten and Vinh (2019)	Company size Share liquidity	**Contextual gap:** In a Kenyan and NSE context there are lack of a studies specifically examining the factors affecting share liquidity.

Cheng (2017)	Firm size, ownership structure, and share liquidity	**Contextual gap:** The study was conducted in Taiwan, which has a different economic and political environment than Kenya.
Khan *et al*. (2019)	Stock liquidity Leverage Firm size	**Methodological gap:** They used panel least squares to analyze the data, which may not be the most appropriate method for dealing with cross-sectional and time-series independence.
Nayeem *et al*. (2019)	Financial leverage Market size ,Stock liquidity	**Contextual gap:** The study only examined five companies operating in the manufacturing sector, which may not be representative of the broader market.
Bathala (2017)	Leverage ratio Stock prices	**Conceptual gap:** The study scope was limited as it only studied share prices, while the current study seeks to study the influence on share liquidity
Dimitrov and Jain (2018)	Stock returns Leverage	**Conceptual gap:** the study focused on stock return while the current study focuses on share liquidity.
Kim and Park (2020)	Financial liquidity Share Liquidity	**Contextual gap:** The study only focuses on companies in South Korea, which may limit the generalizability of the findings to other countries or regions.
Zouaoui *et al*. (2019)	Financial liquidity Share liquidity	**Contextual gap:** The study was focused on firms listed on the Tunisian Stock Exchange.
Lei and Wang (2017)	Financial performance Share liquidity	**Contextual gap:** The study was conducted using data from the Shanghai and Shenzhen stock exchanges in China, which may have different market characteristics and regulations compared to the Nairobi Stock Exchange.
Wang (2022)	Ownership structure Stock liquidity	**Contextual gap:** The findings cannot be legitimately applied to firms listed at NSE because specific economic and regulatory environments between Taiwan and Kenya are different.
Chatterjee (2018)	Ownership structure Block shareholding Stock liquidity	**Conceptual gap:** The study did not control for other important factors that may affect stock liquidity such as industry, firm performance, and macroeconomic factors.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the research methods used in achieving the research's general and specific objectives. The chapter detailed the research philosophy and design, target population and sample size, data collection methods, ethical considerations, and data analysis and presentation.

3.2 Research Philosophy

Research philosophy refers to the overarching framework or approach that guides research practices and decisions (Novikov & Novikov, 2019). It is a fundamental aspect of research as it determines the nature and scope of the research, the methods used to collect and analyse data, and how the results are interpreted (Edson *et al.,* 2016). There are several dominant research philosophies, including positivism, pragmatism, and constructivism, each of which has its assumptions, beliefs, and methods. This study followed the positivist research philosophy that holds that reality is objective and that knowledge about the world can be gained through systematic observation and experimentation (Bridges & Smith, 2007). It is based on the idea that scientific methods can be applied to the study of human behaviour and social phenomena and that the results of this research can be used to make predictions and develop theories. It emphasizes empirical data and the scientific method, which are essential for conducting a rigorous and systematic analysis of the topic (Novikov & Novikov, 2019).

The positivist approach involved collecting data on the firm-specific factors and share liquidity of the NSE 20 share index constituent firms, and using statistical methods to analyse the relationships between the variables. The aim was to identify any causal relationships between the firm-specific factors and share liquidity and to test any existing theories or hypotheses about

the topic. The use of empirical data and quantification allowed for a more objective analysis of the topic, and the application of rigorous research methods, such as the use of controls, randomization, and replication, to eliminate subjective bias and ensure the validity and reliability of the results (Edson *et al.,* 2016).

3.3 Research Design

Research design refers to the plan or strategy for conducting research. It is a crucial aspect of research as it determines how the research question is addressed, what data is collected, how it is collected, and how the results are analyzed (Arvind, 2010). A well-designed research study should have clear goals, be feasible to implement, and have the potential to produce meaningful and valid results (Creswell, 2014). The study was guided by a longitudinal research design. Longitudinal research design is a research method that involves collecting data over an extended time (Hunziker & Blankenagel, 2021). It is used to study changes in variables over time and to establish temporal relationships between variables. In a longitudinal study, data is collected from the same individuals, groups, or organizations, at multiple points in time (Holder, 2016). This allows for the examination of trends, patterns, and changes in the variables of interest (Creswell, 2014).

The period of this study was between 2014 to 2021, hence longitudinal study approach was considered suitable for this study due to several reasons. By collecting data at multiple points in time, a longitudinal study provided a more detailed understanding of changes and trends in the variables of interest. In the study, the effects of firm-specific factors on share liquidity were observed over a period of time, and any changes in these effects were analyzed design allowed for the control of extraneous variables that may impact the results (Creswell, 2014). This was particularly important in this study, where other factors that affect share liquidity, such as changes in the market or changes in the broader economy (Holder, 2016). In addition, the

cause-and-effect relationship between firm-specific factors and share liquidity was analyzed by examining the changes in these variables over time (Hunziker & Blankenagel, 2021).

3.4 Target Population

The target population refers to the group of individuals, objects, or elements that a researcher is interested in studying or making inferences about (Asiamah *et al*., 2019). It is the group of entities to which the research results were generalized and applied. The target population can be a specific group, such as a certain age group, gender, or ethnic group, or it can be a larger, more general group, such as all individuals living in a certain region or all employees of a specific company (Spake, 2021). The target population for this study was the constituent firms listed at NSE 20 share index in Nairobi Securities Exchange. The study focused on the firm-specific factors of these 20 firms and the corresponding share liquidity over a period ranging from 2014 to 2021.

3.5 Sampling Technique

The study employed a census survey to select all the constituent firms of the NSE 20 share index. A census survey is a research method where data is collected from every member of the target population (Asiamah *et al*., 2019). This method is used when it is possible and feasible to obtain data from all members of the target population, and when the goal is to obtain detailed and accurate information about the target population. The current study sought to collect data based on actual observations of every member of the target population, rather than a sample of the population. This increased the accuracy and precision of the results of the study (Sharma, 2015).

Therefore, all the 20 firms, which are constituents of the NSE 20 share index were included in the study. The time horizon ranged from 2014 to 2021, hence the total number of observations was 160, after computing the indices. The study relied on secondary data, hence NSE 20 share index was the study unit of analysis and the data was obtained from the companies' annual reports and NSE historical data database.

3.6 Data Collection Procedure

The data collection procedure refers to the steps taken to gather data for a research study (Sharma, 2015). The first step in the data collection process was to identify what data is needed to answer the research questions (Ustadh, 2021). This included firm-specific factors namely company size, financial leverage, financial performance, and company liquidity, as well as share liquidity secondary data. The next step was to determine where the data can be obtained. This study relied on a secondary data collection sheet (Appendix II) and obtained secondary data from documented company reports and NSE historical data about total share turnover and market capitalization. Table 3.1 summarizes the data collected and the source.

Table 3.1 Variable Measurement and Data Source

Variable	Measure	Data Type	Data Source
Share Liquidity (Dependent Variable)	Share Turnover Ratio	Secondary Data	NSE historical data.
Company Size	Log of total assets	Secondary Data	Annual report/Financial statements
Financial leverage	Debt to equity ratio	Secondary Data	Annual report/Financial statements
Financial performance	Earnings per share	Secondary Data	Annual report/Financial statements
Financial liquidity	Current ratio	Current assets/current liabilities	

Source: Researcher (2023).

3.7 Data Analysis and Presentation

Data analysis is the process of identifying and interpreting the data to examine any pertinent information that has been provided by the research and confirm any consistent trends (Bryman & Kramer, 2014). Data analysis methods are determined as per the study objectives and measurement of the variables. Stata version 16 was used in data analysis. The researcher conducted preliminary analysis, descriptive statistics, and inferential analysis.

3.7.1 Test of Regression Analysis Assumptions

A preliminary analysis is a preliminary or initial assessment or evaluation of data or information. It is often the first step in a more comprehensive analysis process and serves as a basis for further investigation (Montgomery, 2015). The purpose of a preliminary analysis was to identify patterns, trends, and important issues in the data, and to determine if there is enough information to proceed with a full analysis. Preliminary analysis involved diagnostic tests to assess whether the conditions are right for the time series regression method. The tests included normality, linearity, multicollinearity, heteroskedasticity, autocorrelation, stationarity, and cointegration (Wei, 2019).

3.7.1.1 Normality Tests

To check if a data set resembles the normal distribution, a normality test is utilized. The distribution of test results is visually represented to ascertain whether or not the bell-shaped normal curve is present (Gupta *et al.*, 2019). Wu *et al.* (2020) aver that residuals from the regression model should be normally distributed. This study used the Jacque Bera test to examine whether the data deviate from normality. Jarque-Bera test is a statistical test used to assess the normality of a data set. It is used to determine if the sample data deviates significantly from a normal distribution. The test is based on two statistics, skewness, and kurtosis, which

measure the degree of asymmetry and peakedness in the data distribution, respectively. A large test statistic from the Jacque-Bera test indicates that the data does not follow a normal distribution. The null hypothesis of the Jarque-Bera test is that residuals do not deviate from normality (Alejo *et al*., 2015).

3.7.1.2 Linearity Tests

Linearity assumption avers that independent and dependent variables should have a linear relationship before conducting any type of linear regression analysis. If a linear model is fitted to data that is nonlinear, the results would be spurious (Imai & Kim, 2020). Linearity was tested using scatter plots, which is a graphical method of fitting the data to check if the points of two variables are symmetrically distributed around a diagonal line (Katris, 2019).

3.7.1.3 Multicollinearity Tests.

In a multivariate regression, the term "multicollinearity" suggests that two variables are almost perfectly linear combinations of one another causing the standard errors for the coefficients to become greatly inflated (Assaf, Tsionas & Tasiopoulos, 2019). This research utilized Variance Inflation Factors (VIF) to check for the levels of multicollinearity. If the VIF value was less than 10 there is no serial multicollinearity, which can affect the calculation of standard errors (Assaf et al., 2019).

3.7.1.4 Heteroscedasticity

Heteroscedasticity occurs when the standard deviations of a predicted variable are not constant and its presence may cause wrong computations of standard errors (Rho & Vogelsang, 2018). This study used a modified Breusch-Pagan-Godfrey (Breusch-Pagan) test to test for heteroscedasticity. The null hypothesis of the test provides that the data is homoscedastic (no heteroscedasticity), therefore the study rejected the null hypothesis if P.value is less than 0.05.

In the case of heteroscedasticity, the study applied a robust standard error method to remedy the violation (Herwartz *et al*., 2019).

3.7.1.5 Autocorrelation

When the residuals are not independent of one another, autocorrelation happens. Serial correlation lowers the coefficient standard errors and increases the R-squared value (Bottomley et al., 2023). In this study, autocorrelation was tested using Wooldridge Test for autocorrelation in panel data. The null hypothesis of the tests asserts that the residuals are not linearly autocorrelated (Weiß *et al*., 2023).

In the case of the presence of autocorrelation, there are several ways of addressing the problem. A common approach to address autocorrelation is to differentiate the data, that is, to calculate the difference between consecutive observations. This can help to eliminate autocorrelation and transform the data into a stationary time series, which is a more suitable model (Bottomley et al., 2023). Second, is the use of ARIMA models, a class of time series models that are specifically designed to handle autocorrelation. ARIMA models incorporate both autoregression and differencing components to model the dependence structure in the data (Weiß *et al*., 2023).

3.7.1.6 Stationarity Test

Stationarity is a property of time series that states that a variable's value does not change over time, i.e., time variation is not a factor that causes a change in a variable (Cai & Omay, 2021). The null hypothesis of stationarity requirement is described as the presence of a unit root (non-stationary) whereas, depending on the test used, the alternative hypothesis is either stationarity, trend stationarity, or drift stationarity. This study applied Fishers Augmented Dickey-Fuller

(ADF) test to establish the presence or absence of unit roots. In the case of the presence of unit roots, the researcher applied differencing up to the level to which the data has no unit roots.

3.7.2 Descriptive Statistical Analysis

Descriptive statistical analysis is a fundamental aspect of quantitative research that involves the use of statistical techniques to summarize and describe the basic features of a data set. It provides a way to understand and interpret data by identifying patterns, trends, and relationships within the data (Zhou et al., 2014). The primary objective of descriptive statistics was to summarize and present the data in a meaningful way so that the study can draw accurate conclusions and make informed decisions. Measures of central tendency, such as mean, median, and mode, were used to describe the typical or average value of a data set, while measures of variability, such as range and standard deviation were used to assess the degree of dispersion or spread of the data.

3.7.3 Inferential Statistical Analysis

Inferential statistical analysis is a crucial component of quantitative research that enables researchers to make inferences and draw conclusions about a population based on a sample of data. It helps researchers to determine the probability that the findings are due to chance, and to estimate the margin of error in the results (Gujarati, 2003). It also enables researchers to test hypotheses and make predictions about the population using statistical models. This study utilized techniques such as Pearson Correlation Analysis, and panel regression model (fixed effects model and Random Effects Model).

3.7.3.1 Pearson Correlation Analysis

To establish the strength of the relationship, Pearson’s product-moment of correlation was used. It is a statistical technique used to measure the strength and direction of the linear

relationship between two variables. It calculates the correlation coefficient (r) that ranges from -1 to +1, where -1 represents a perfect negative correlation, +1 represents a perfect positive correlation, and 0 represents no correlation (Gujarati, 2003). A positive value of r indicates a positive correlation between the two variables, meaning that the variables tend to move together in the same direction. A negative value of r indicates a negative correlation between the two variables, meaning that the tendency is to move in opposite directions. A value of 0 indicates no correlation between the two variables (Zhou et al., 2014).

3.7.3.2 Panel Regression Analysis Techniques

Since the data was pooled cross-sectional, taking into account a period of 8 years (2014 to 2021) for all the constituents of the NSE20 share index, panel data regression methods namely fixed effects model, random effects model, weighted least squares (WLS) or generalized least squares (GLS) was estimated. Fixed effects model, random effects model, and generalized least squares (GLS) model are all statistical methods used to analyze panel data, which consists of observations on the same set of entities over multiple periods. However, the difference is in the assumptions each makes about the data and the types of questions that are best suited to answer (Jordan & Philips, 2018). In a fixed effects model, the individual effects are included in the regression model as fixed parameters. This model assumes that the individual effects are correlated with the independent variables in the model and that the coefficients for the independent variables are constant across individuals. The fixed effects model is often used to control for unobserved heterogeneity across individuals and to estimate the impact of changes in the independent variables on the dependent variable within each individual (Hassler & Wolters, 2019).

In a random effects model, the individual effects are included in the regression model as random variables with a distribution assumed across the population of entities. This model

assumes that the individual effects are uncorrelated with the independent variables in the model and that the coefficients for the independent variables are constant across individuals (Allison, 2019). The random effects model is often used when the individual effects are believed to be uncorrelated with the independent variables and to estimate the average impact of the independent variables on the dependent variable across individuals. The GLS model is a generalization of the ordinary least squares (OLS) model that accounts for correlated errors in the data. The GLS model assumes that the errors in the data are correlated over time and/or across individuals. The GLS model is often used to account for autocorrelation in the data and to estimate the impact of changes in the independent variables on the dependent variable while accounting for the correlation structure in the data (Sera et al., 2019).

A Hausman test was used to determine whether the analysis should be conducted using a fixed-effects model regression or a random-effects model regression. Hausman's test compares the null hypothesis that random effects are the preferred model to the alternative of fixed effects (Green, 2008). The fixed-effects model is recommended if the probability of $\chi 2$ is less than 5% (that is, significant). However, in the case of the heteroscedasticity assumption violation, the model that accounts for heteroscedasticity, such as a weighted least squares (WLS) or generalized least squares (GLS) model was used. Equation 3.1 specifies the panel regression model to be tested for contemporaneous effects, and equation 3.2 for lagged effects:

$$Y_{it} = \beta_{0_{it}} + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{it} + \beta_4 X4_{it} + \varepsilon_{it} \quad (3.1)$$

$$Y_{it} = \beta_{0_{it}} + \beta_1 X1_{it-1} + \beta_2 X2_{it-1} + \beta_3 X3_{it-1} + \beta_4 X4_{it-1} + \varepsilon_{it} \quad (3.2)$$

Where:

Y is share liquidity (Turnover Ratio);

X1 is the size of the company (Log of market capitalization);

X2 is the financial leverage (Debt to equity ratio);

X3 is the financial performance (Earnings per share);

X4 is the financial liquidity (Current assets/Current liabilities);

$\boldsymbol{\varepsilon}$ is the residual.

i is the firm-specific component in panel models.

t, t-1 is time in the panel model.

The null hypothesis was rejected at a 5% significance level when the p-value of coefficients is less than 0.05.

3.8 Ethical Considerations

Ethical consideration provides a researcher with a guiding principle to ensure that research is conducted in the respondents' best interests (Cardwell, 2015). Since the study did not collect data from the units of observation, for example, human beings or any other living being, the main ethical consideration was plagiarism violations. The researcher understood that plagiarism is a severe academic offense and took steps to safeguard the authenticity and integrity of the research by acknowledging the work of other researchers and refraining from presenting them as his own.

CHAPTER FOUR

ANALYSIS RESULTS AND DISCUSSION

4.1 Introduction

The data analysis results chapter is a critical component of any research study, providing an in-depth examination of the data collected during the research process. This chapter presents the findings from the data analysis, which includes descriptive statistical analysis, preliminary analysis, correlation analysis, and panel regression analysis exploring the relationship between firm-specific factors and share liquidity of NSE20 share index constituent firms. The chapter is organized into various sections namely data description, descriptive statistical analysis, preliminary analysis, and inferential statistical analysis (correlation analysis and panel regression model analysis).

4.2 Data Description

The study relied on secondary data from published annual reports, as well as, historical prices trading volume, and market capitalization of the firms from NSE historical data. The total number of firms was 20 and the data was obtained for the period ranging between 2014 and 2021, hence the total number of observations was 160. As indicated in Figure 1.1, the independent variables of the study are the size of the company, financial leverage, financial performance, and financial liquidity, which are firm-specific characteristics studied. The size of the company is measured by the log of total Assets (Khan *et al*., 2019; Norvaisie & Stankeviciene, 2018), financial leverage is measured by debt to equity ratio (Ozturk & Karabulut, 2020; Barua, 2020), financial performance is measured by earnings per share (Dalvi & Baghi, 2018), financial liquidity is measured by current assets to current liabilities, also known as an acid-test ratio (Tran *et al*., 2018). The dependent variable of the study, share

liquidity is measured using total share turnover to market capitalization as also employed by Khan *et al*. (2019), Li *et al*. (2018), and Nassar (2018).

4.3 Descriptive Statistical Analysis

Descriptive statistics provide an overview of the data, summarizing the central tendencies and variability in the variables. It provides a way to understand and interpret data by identifying patterns, trends, and relationships within the data (Zhou et al., 2014). Table 4.1 shows the overall descriptive statistics of the data.

Table 4.1 Descriptive Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Total assets	160	229,900,000	2.35	1,685,104	1,305,000,000
Log of total assets	160	8.014	0.69	6.227	9.116
Acid test ratio	160	1.521	0.993	0.363	6.38
D/E	160	0.375	0.589	0	2.637
EPS	160	10.78	14.862	-1.39	81.8
Share liquidity	160	0.22	0.368	0.003	2.261

Source: Stata Output.

As shown in Table 4.1, the first variable total assets. The total number of observations is 160, with a mean of 229,900,000 and a standard deviation of 2.35. The minimum value is 1,685,104, while the maximum value is 1,305,000,000. The second variable is the natural logarithm of the total size variable. The mean log size is 8.014, with a standard deviation of 0.69. The minimum and maximum values are 6.227 and 9.116, respectively. Thirdly, the mean acid test ratio is 1.521, with a standard deviation of 0.993. This suggests that on average, NSE 20 share index companies have a moderate level of liquidity. The minimum value of 0.363 and the maximum value of 6.38 suggest that there is a wide range of liquidity levels within the companies. On the lower end, the minimum value indicates that at least one company has difficulty meeting its

short-term financial obligations, while at least one company has a strong ability to meet its short-term financial obligations.

The fourth variable is the debt-to-equity ratio with a mean of 0.375, a standard deviation of 0.589, and a minimum value is 0, indicating no debt financing, while the maximum value is 2.637. These statistics suggest that on average, the NSE 20 share index companies have a relatively low level of debt financing and at least some companies in the sample do not have any debt financing, while the maximum value of 2.637 suggests that at least one company in the sample has a high level of debt financing relative to equity.

The fifth variable is earnings per share which has a mean of 10.78 and a standard deviation of 14.862. The minimum and maximum values are -1.39 and 81.8, respectively. The mean EPS for the sample of companies suggests that on average, the companies are profitable. However, the large standard deviation of 14.862 suggests that there is a wide range of EPS values within the sample, with some companies performing much better or worse than the average. The minimum EPS value of -1.39 suggests that at least one company in the sample is reporting a loss, while the maximum EPS value of 81.8 suggests that at least one company is reporting very high profitability. Figure 4.1 shows the trend of the variables over the period between 2014 to 2021.

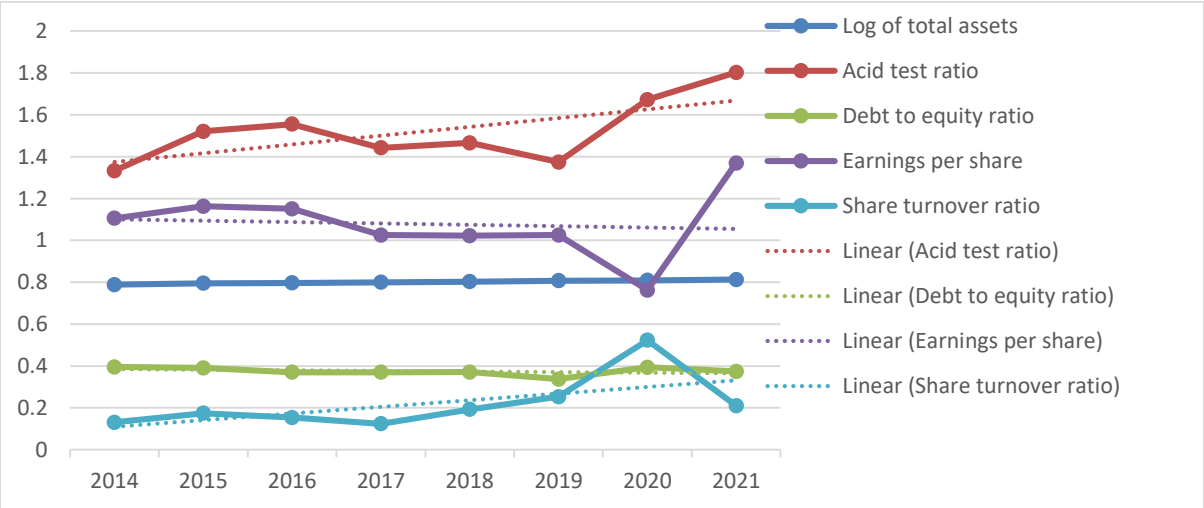


Figure 4.1 Trend Analysis over the period between 2014 and 2021

Source: Stata Output

As shown in Figure 4.1 the log of total assets appears to remain constant over time suggesting that nothing much has changed in terms of total assets of NSE20 share index constituent firms. The acid test ratio has an increasing trend over the period between 2014 and 2021, with deep in 2019 and the highest value in 2021. This suggests that the company's ability to meet its short-term obligations has been improving. In addition, the debt-to-equity ratio trend appears to be constant over the period between 2014 and 2021, but with a slight dip in 2019. This suggests that the overall financing structure of the NSE20 share index remained relatively stable over the period, with some possible variation in individual companies. The dip in 2019 could be due to a variety of factors, such as increased debt levels, increased equity due to share buybacks or dividends, or a combination of both. Moreover, earnings per share over the 8-year exhibit a declining trend, with the largest dip in 2020 and the resurgence and highest value in 2021. The largest dip in 2020 may have been due to the COVID-19 pandemic, which caused significant disruptions to many industries and resulted in decreased revenues and earnings for many companies. The resurgence in 2021 could indicate that the company has recovered from the impact of the pandemic, or that it has implemented successful strategies to improve profitability.

Finally, share the turnover ratio has had an increasing trend over the years shows an increasing trend, with the highest value in 2020. A high share turnover ratio can indicate a higher level of liquidity, which can be beneficial for investors as it allows for easier buying and selling of shares. The trend therefore suggests that the shares' liquidity of the NSE20 share index constituents' companies has been increasing over time. The highest value in 2020 may have been due to various factors such as increased market volatility due to the COVID-19 pandemic,

changes in investor sentiment, or company-specific events such as earnings releases or announcements of mergers and acquisitions.

4.4 Preliminary Analysis

Before inferential analysis, the study conducted a preliminary analysis. The preliminary analysis involves diagnostic tests to assess whether the conditions are right for the time series regression method. The tests include linearity, multicollinearity, heteroskedasticity, autocorrelation, stationarity, and endogeneity tests. The normality of the data is not tested because time series and panel data can follow various distributions such as normal distribution, Gamma distribution, or lognormal distribution. According to De Hoyos and Sarafidis (2006) in panel regression analysis, the residuals should be normally distributed, but it is not an absolute must.

4.4.1 Linearity Tests

Linearity was tested using scatter plots, which is a graphical method of fitting the data to check if the points of two variables are symmetrically distributed around a diagonal line and the results are as shown in Figure 4.2.

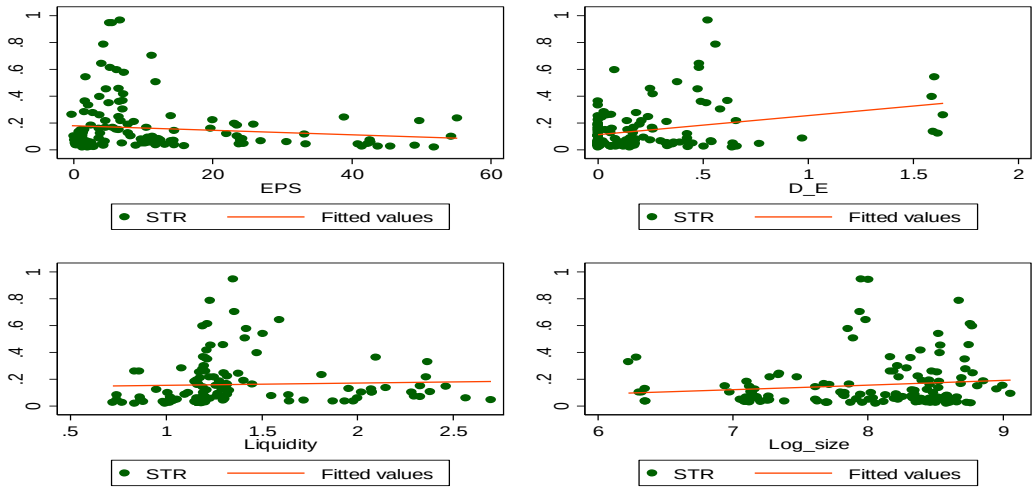


Figure 4.2 Linearity Test Results

Source: Stata Output

As shown in Figure 4.2, the relationship between the dependent variable (STR, share turnover ratio) and independent variables (EPS, D/E, Liquidity (acid-test ratio), and log of total assets) provides visual cues to suggest that the variables have linear relationship. Specifically, the graphs exhibit a roughly straight-line pattern that runs diagonally through the plot, except for the liquidity vis-à-vis share turnover ratio which may suggest a non-linear relationship. However, that is not a point of concern as the effect of liquidity on the share turnover ratio maybe lagged and not be contemporaneous. If the pattern is roughly linear, the conclusion is that there is a linear relationship between the two variables.

4.4.2 Multicollinearity Tests

This research utilized Variance Inflation Factors (VIF) to check for the levels of multicollinearity and the findings are shown in Table 4.2.

Table 4.2 Multicollinearity Results

	VIF	1/VIF
Log size (Log of total assets)	2.034	.492
Liquidity (acid test ratio)	1.761	.568
Leverage (Debt to equity ratio)	1.25	.8
Performance (EPS)	1.046	.956
Mean VIF	1.523	.

Source: Stata Output

As shown in Table 4.2, none of the variables have particularly high VIF values, as all are well below the threshold of 5 or 10. The mean VIF across all variables is only 1.523, which indicates that there is relatively low multicollinearity among these variables. If the VIF value is less than 10 there is no serial multicollinearity, which can affect the calculation of standard errors (Assaf et al., 2019).

4.4.3 Heteroskedasticity

The assumption of homoscedasticity must hold in any regression analysis. If the assumption is violated, the researcher runs the risk of running spurious results due to inflated standard errors. The study used the likelihood ratio test for heteroscedasticity to determine whether the variances of the residuals in a regression model are constant (homoscedastic) or vary across the levels of the independent variables (heteroscedastic). To support the findings, the study also employs the Breusch Pagan test and the white test. The null hypothesis is that data are heteroscedastic. The findings of the analysis as shown in Table 4.3.

Table 4.3 Heteroskedasticity Tests Results

	Chi-Square	P-value	Decision
Likelihood ratio test	169.23	0.000	Heteroskedastic
Breusch Pagan test	16.80	0.0000	Heteroskedastic
White test	18.12	0.2015	Homoscedastic

Source: Stata Output

Table 4.3 shows the test statistic is LR chi2= 169.23. The p-value for the test is 0.0000, which is less than the typical significance level of 0.05. This means that the null hypothesis for panel-level homoscedasticity is rejected in favor of the alternative hypothesis of heteroscedasticity. In other words, there is evidence that the panel-level variances of the errors in the regression model are not constant, but instead vary across the levels of the independent variables. In addition, the Breusch Pagan test shows that the p-value is less than 0.05, implying that the variance of the errors is heteroscedastic. However, the White-test p-value is greater than 0.05, suggesting that the variance of the errors is homoscedastic.

One possible explanation for the conflicting results is that the Breusch-Pagan test is a test for conditional heteroskedasticity, which means that it tests whether the variance of the residuals varies with the independent variables in the regression model (Rho & Vogelsang, 2018). On the other hand, the White test is a test for unconditional heteroskedasticity, which means that

it tests whether the variance of the residuals is constant across all observations, regardless of the values of the independent variables. Given that panel data can have both within-group and between-group variation, the Breusch-Pagan test may be picking up on within-group heteroskedasticity, while the White test is picking up on between-group homoskedasticity (Herwartz *et al*., 2019). Overall, since the likelihood ratio suggests there is panel-level heteroskedasticity, the study concludes the presence of heteroskedastic residuals. This implies that a modified model that accounts for heteroscedasticity, such as a weighted least squares (WLS), generalized least squares (GLS) model, or use of robust standard errors allows for correlated errors across individuals and over time.

4.4.4 Autocorrelation Test

The autocorrelation test ensures that the model does not suffer from serial autocorrelation. Serial correlation occurs when the residuals are not independent of each other (Kissling & Carl, 2008). In this study, autocorrelation was tested using the Woodridge test for autocorrelation in panel data. The null hypothesis of the tests asserts that the residuals are not linearly autocorrelated and the findings are shown in Table 4.4.

Table 4.4 Woodridge Test for Autocorrelation

	Statistics
Wooldridge test for autocorrelation in panel data	F(1, 15) = 0.033
H0: no first-order autocorrelation	Prob > F = 0.8591

Source: Stata Output.

As shown in Table 4.4, the test statistic is F(1, 15) = 0.033, which is the ratio of the estimated variance of the regression coefficient to the estimated variance of the residuals. The p-value for the test is 0.8591, which is greater than the typical significance level of 0.05. Therefore, the study fails to reject the null hypothesis of no first-order autocorrelation in the residuals. This

suggests that there is no evidence of a linear relationship between the residuals at different periods, and the assumption of no autocorrelation is likely to hold for the regression model.

4.4.5 Stationarity Tests

Panel data regression analysis requires that the data be stationary (have no unit roots). To test for stationarity, the study used Fishers Augmented Dickey-Fuller (ADF) test. The null hypothesis of the Fishers ADF test avers that all panels contain a unit root. The alternative hypothesis asserts that for a finite number of panels, at least one panel is stationary (Mertler & Reinhart, 2016). The findings of the test are shown in Table 4.5.

Table 4.5 Fishers Augmented Dickey-Fuller Test Results

Variable name		Statistic	P-value
STR	Modified inv. chi-squared (Pm)	7.5377	0.0000
EPS	Modified inv. chi-squared Pm	7.2478	0.0000
D/E	Modified inv. chi-squared Pm	11.0201	0.0000
Liquidity	Modified inv. chi-squared Pm	32.0130	0.005
Log_size	Modified inv. chi-squared Pm	-0.2261	0.5894
D.Log_size	Modified inv. chi-squared Pm	13.2704	0.0000

Source: Stata Output.

As shown in Table 4.5, the variables STR (share turnover ratio), EPS (Earnings per share), D/E (Debt to equity ratio), Liquidity (Acid test ratio), and D.Log_size (First difference of log of total assets) have p-values of 0.0000, indicating strong evidence against the presence of a unit root and suggesting that these variables are stationary. The variable Log_size (log of total assets) has a p-value of 0.5894, suggesting that it may have a unit root and therefore may not be stationary, after which the first difference of the log of total assets was stationary.

4.4.6 Hausman Test

In linear models, the assumption is that the regressors are exogenous, and thus are independent of or uncorrelated with the error term. Often there are reasons to believe that some regressors

are correlated with the error term. In that case, those regressors are called endogenous. Under the classical assumptions, OLS estimators are the Best Linear Unbiased Estimators (BLUE). One key assumption is that the regressors have to be uncorrelated with the error term. If this condition does not hold, OLS estimators are biased and inconsistent. To test for endogeneity, this study employed the Hausman test. The test compares the coefficients estimated using a fixed effects model (which assumes no endogeneity) to those estimated using a random effects model (which allows for endogeneity). The results of the findings are shown in Table 4.6 below.

Table 4.6 Hausman Specification Test

	Coef.
Chi-square test value	8.468
P-value	0.076

Source: Stata Output.

As shown in Table 4.6, the Chi-square test value is 8.468 and the p-value is 0.076. Since the p-value is greater than the typical significance level of 0.05, the study fails to reject the null hypothesis at the 5% level of significance. This suggests that the random effects model is consistent and efficient, and the fixed effects model may be consistent but inefficient. Therefore, the study should choose the random effects model as the preferred model for this study analysis.

4.5 Inferential Statistical Analysis

Inferential statistical analysis is a crucial component of quantitative research that enables researchers to make inferences and draw conclusions about a population based on a sample of data (Gujarati, 2003). This study utilized techniques such as Pearson Correlation Analysis, and panel regression model (fixed effects model and Random Effects Model).

4.5.1 Correlation Analysis

To establish the strength of the relationship, Pearson's product-moment of correlation was used in this study. The findings of the correlation analysis as indicated in Table 4.7.

Table 4.7 Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)
(1) STR	1.000				
(2) EPS	-0.108	1.000			
	(0.219)				
(3) D/E	0.303	-0.164	1.000		
	(0.000)	(0.057)			
(4) Acid test ratio	-0.019	-0.061	-0.117	1.000	
	(0.828)	(0.487)	(0.171)		
(5) Log of total assets	0.153	-0.057	0.440	-0.538	1.000
	(0.079)	(0.519)	(0.000)	(0.000)	

Where STR is share turnover ratio, EPS is earnings per share, and D/E is debt to equity ratio. P-value in parenthesis.

Source: Stata outcome

As shown in Table 4.7, shows the correlation coefficient between STR and EPS (financial performance) is -0.108 with a p-value of 0.219, suggesting a weak negative correlation that is not statistically significant at the conventional level of 0.05. Similarly, the correlation coefficient between STR and acid test ratio (company liquidity) is -0.019 with a p-value of 0.828, implying a very weak negative correlation that is not statistically significant at the conventional level of 0.05. Moreover, the log of total assets (company size) has a correlation coefficient of 0.153 and a p.value of 0.079, suggesting that the relationship is positive but weak and insignificant at a 5% significance level. However, the debt-to-equity ratio (financial leverage) has a correlation coefficient of 0.303 and a p-value of 0.000, suggesting that the correlation is positive and significant.

4.5.2 Random Effects Regression Analysis

Since the Hausman specification test suggested that the random effects model is consistent and efficient, and the fixed effects model may be consistent but inefficient, this study used the

random effects model. The model is suitable since it can address the panel-level heteroskedasticity by using robust standard errors, which adjust for the heteroskedasticity and produce more accurate standard errors for the estimated coefficients (Herwartz *et al*., 2019). The findings of the analysis are shown in Table 4.8.

Table 4.8 Random Effects Regression Results

STR	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Acid test ratio	0.07	0.06	1.16	0.245	-0.048	0.189	
D/E	0.13	0.046	2.81	0.005	0.039	0.22	***
EPS	-0.001	0.001	-1.15	0.249	-0.003	0.001	
Dlgsize	0.012	0.019	0.63	0.53	-0.026	0.05	
Constant	0.136	0.066	2.060	0.01	0.094	0.166	***
Mean dependent var		0.148	SD dependent var			0.180	
Overall r-squared		0.120	Number of obs			88	
Chi-square		9.755	Prob > chi2			0.045	
R-squared within		0.124	R-squared between			0.052	

**** p<.01, ** p<.05, * p<.1*

Source: Stata outcome

As shown in Table 4.8, the overall r-square of the model is 0.12, suggesting that the explanatory variables namely acid test ratio (liquidity), D/E (financial leverage), EPS (Financial performance), and Dlogsize (differenced firm size) explain 12% variation in share liquidity of NSE20 share index constituent firms. The total number of observations in the model is 88, which declined due to the trimming of outlier observations. The Chi-square value of 9.755 and the corresponding p-value of 0.045, which is below the standard threshold of 0.05, imply that the model (4.1) is significant.

$$Y_{it} = \beta_{0_{it}} + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{it} + \beta_4 X4_{it} + \varepsilon_{it} \qquad (4.1)$$

Table 4.8 also presents the contemporaneous effects of the explanatory variables on share liquidity. The results show that the coefficient for the Acid test ratio is 0.07 with a standard error of 0.06, indicating a non-significant positive relationship between the Acid test ratio and the outcome variable at the 5% level of significance (p-value of 0.245). This means that there

is no statistically significant evidence that the company liquidity measured in the acid-test ratio affects the share liquidity of NSE20 share index constituent firms.

The results also show coefficient for EPS is -0.001 with a standard error of 0.001, indicating a non-significant negative relationship between financial performance (EPS) and share liquidity of NSE20 share index constituent firms at the 5% level of significance (p-value of 0.249. This means that there is no statistically significant evidence that the financial performance of NSE20 share index constituent firms affects share liquidity.

Similarly, the coefficient for Dlgsize (first difference of log of total assets) is 0.012 with a standard error of 0.019, indicating a non-significant positive relationship between the log of total assets and share liquidity (share turnover ratio) at the 5% level of significance (p-value of 0.53). This suggests that there is no statistically significant evidence that firm size (measured in the log of total assets) affects the share liquidity of firms listed in the NSE20 share index.

However, the coefficient for D/E (debt to equity ratio) is 0.13 with a standard error of 0.046, indicating a statistically significant positive relationship between D/E and share liquidity at the 5% level of significance (p-value of 0.005). This suggests that a one-unit increase in the companies' financial leverage (debt to equity ratio) is associated with a 0.13-unit increase in share liquidity of the firms listed the at NSE20 share index, holding all other variables constant. From the above results, the optimal regression model demonstrating contemporaneous effects of firm-specific variables (company performance, company financial leverage, company size, and company liquidity) is as shown in equation 4.2.

$$\boldsymbol{Y_{it} = 0.136 + 0.13\, X2_{it} + \varepsilon_{it}} \qquad (\mathbf{4.2})$$

The study further conducted robust checks by examining the lagged effects of firm-specific factors on share liquidity by lagging the values for explanatory variables by one year. The results of the regression are shown in Table 4.9.

Table 4.9 Random Effects Regression Analysis Outcomes

STR	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Lagged ACR	0.148	0.071	2.08	0.001	0.082	0.213	***
Lagged DER	0.155	0.033	4.7	0.01	0.0905	0.2195	***
Lagged EPS	0.006	0.003	2	0.02	0	0.012	***
Lagged log size	-0.002	0.028	-0.07	0.98	-0.057	0.054	
Constant	0.173	0.08	2.16	0.007	0.061	0.207	***
Mean dependent var		0.180	SD dependent var			0.198	
Overall r-squared		0.113	Number of obs			81	
Chi-square		20.858	Prob > chi2			0.000	
R-squared within		0.112	R-squared between			0.403	

**** p<.01, ** p<.05, * p<.1*

Source: Stata Output

As shown in Table 4.9, the overall r-square of the model is 0.11, suggesting that the lagged explanatory variables namely ACR (liquidity), D/E (financial leverage), EPS (Financial performance), and Dlogsize (differenced firm size) explain 11% variation in share liquidity of NSE20 share index constituent firms. The Chi-square value of 20.858 and the corresponding p-value of 0.000, which is below the standard threshold of 0.05, implying that the model (4.3) is significant.

$$Y_{it} = \beta_{0_{it}} + \beta_1 X1_{it-1} + \beta_2 X2_{it-1} + \beta_3 X3_{it-1} + \beta_4 X4_{it-1} + \varepsilon_{it} \quad (4.3)$$

Table 4.9 shows the lagged effects of the explanatory variables on share liquidity. The results show that the coefficient for lagged acid test ratio is 0.148 with a standard error of 0.071, indicating a significant positive relationship between the Acid test ratio and the outcome variable at the 5% level of significance (p-value of 0.001). This means that there is statistically significant evidence that lagged company liquidity measured in the acid-test ratio affects the share liquidity of NSE20 share index constituent firms.

Additionally, the coefficient estimate for lagged debt-to-equity ratio (DER) is 0.155 with a standard error of 0.033, indicating a significant positive relationship between lagged debt-to-equity ratio (DER) and share liquidity of NSE20 share index constituent firms evaluated at the 5% level of significance (p-value of 0.01). This suggests that there is statistically significant evidence that the financial leverage of the constituent companies affects share liquidity, with a one-unit increase in debt-to-equity ratio resulting in a 0.155-unit increase in share liquidity the following year.

The results also reveal that the coefficient estimate is 0.006 with a standard error of 0.003, indicating a significant positive relationship between lagged earnings per share (EPS) and share liquidity of NSE20 share index constituent firms evaluated at a 5% level of significance (p-value of 0.02). This implies that there is statistically significant evidence that lagged firm's performance affects share liquidity, with a one-unit increase in lagged EPS resulting in a 0.006-unit increase in share liquidity the following year.

Moreover, the results also show that the coefficient estimate is -0.002 with a standard error of 0.028, indicating that there is no statistically significant relationship between the lagged logarithm of total assets and share liquidity of NSE20 share index constituent firms (p-value of 0.98). This means that there is no evidence to suggest that lagged firm size affects share liquidity, as a one-unit increase in the log of total assets is associated with a non-significant decrease of 0.002 units in share liquidity.

Finally, the R-squared of 0.124 and 0.112 in both cases is consistent with Hang (2020) who stated that there are different categories that stock market liquidity determinants can be classified into internal factors including firm size, capital adequacy, profitability, leverage, deposits, non-interest income, firm age, etc. and external factor mainly economic activity,

inflation rate, exchange rate, and interest rate. This research was looking at only four of these internal factors.

From the above results, the optimal regression model demonstrating lagged effects of firm-specific variables (company performance, company financial leverage, company size, and company liquidity) is as shown in equation 4.4.

$$Y_{it} = 0.173 + 0.155\,X2_{it-1} + 0.006\,X3_{it-1} + 0.148\,X4_{it-1} + \varepsilon_{it} \quad (4.4)$$

4.6 Hypotheses Testing

The study sought to test the hypothesis that firm-specific factors contribute positively to the share liquidity of firms listed at the NSE 20 share index. Following the random effects model analysis, the tested hypotheses are as follows:

4.6.1 Relationship between Company Size and Share Liquidity

The first hypothesis was that company size has no statistically significant effect on the share liquidity of listed firms in Kenya. Based on the analysis of the contemporaneous effects, the random effects model revealed the coefficient of total assets is 0.012 and the p-value is 0.53. Therefore, following the standard threshold of testing the hypothesis at a 5% significance level, the study fails to reject the null hypothesis. Similarly, based on the analysis of the lagged effects, the regression revealed that the coefficient of total assets is -0.002 and the corresponding p-value is 0.98, suggesting that the study fails to reject the null hypothesis at a 5% significance level. Therefore, company size has no statistically significant effect on the share liquidity of listed firms in Kenya. This finding is consistent with the study by Khan *et al.* (2019) on the Karachi Stock Exchange, which found a negative and non-significant effect of corporate internal factors on share liquidity. However, it contrasts with the findings of Bichanga et al. (2021) in Kenya, who reported a significant negative effect of company size on

share liquidity measured by turnover, but no significant impact when share liquidity was measured by quoted spread and illiquidity ratio. Moreover, Norvaisie and Stankeviciene (2018) found a significant effect of firm size on share liquidity in the Estonian stock market but insignificant results in Lithuanian markets.

The finding that company size does not statistically and significantly affect share liquidity in the Kenyan stock market could be attributed to several reasons. Firstly, larger companies may have more resources to ensure higher levels of liquidity, such as larger trading volumes, larger market capitalization, and wider investor bases. However, these advantages may be offset by the fact that larger companies are often more complex, which can increase information asymmetry and transaction costs, making it more difficult for investors to trade shares in these firms (Khan *et al.*, 2019; Noreen *et al*., 2022). Secondly, the impact of company size on share liquidity may be contingent on other factors such as market structure, investor behavior, and regulatory policies. For example, market makers may play a more significant role in providing liquidity for smaller companies, whereas high-frequency traders may dominate liquidity provision for larger companies (Mwende, 2021). Additionally, regulatory policies, such as disclosure requirements and trading restrictions, can affect the liquidity of shares in both large and small companies (Bichange, 2022). This finding implies that researchers, investors, and market participants should consider other contingent factors before analyzing the effect of company size vis-à-vis the share liquidity of the Kenyan stock market.

4.6.2 Relationship between Financial Leverage and Share Liquidity

The second hypothesis was that financial leverage has no statistically significant effect on the share liquidity of listed firms in Kenya. Based on the analysis of the contemporaneous effects, the random effects model revealed the coefficient of debt-to-equity ratio is 0.13 and the p-value is 0.005, which is less than 0.05. Therefore, following the standard threshold of testing the

hypothesis at a 5% significance level, the study rejects the null hypothesis. Similarly, based on the analysis of the lagged effects, the regression revealed that the coefficient of total assets is 0.155 and the corresponding p-value is 0.01, which is less than 0.05. Therefore, the study rejects the null hypothesis at a 5% significance level and concludes that financial leverage has a statistically significant effect on the share liquidity of listed firms in Kenya. This finding is similar to those of Nassar (2018) who established a positive association. Similarly, Gopalan, Kadan, and Pevzner's (2009) research in Canadian and US stock markets, established that share liquidity and asset liquidity have a sizable positive association. However, the finding also contradicts previous research, such as Nayeem et al. (2019) and Nasser (2018), which found a negative relationship between financial leverage and share liquidity. These studies posit that companies with higher levels of financial leverage may be riskier and may have less predictable cash flows, which can make their shares less liquid. However, the findings are supported by market depth theory which suggests that a higher level of financial leverage can increase share liquidity by attracting more market participants and increasing trading activity (Alam *et al.*, 2019). When firms use financial leverage to finance their operations, this may increase the potential return for investors and as a result, investors are more likely to trade these shares, leading to increased market depth and liquidity (Roulstone, 2003).

Moreover, financial leverage can make a firm more attractive to institutional investors. Institutional investors such as mutual funds and pension funds are often attracted to companies with higher levels of financial leverage because of the potential for higher returns. This increased interest from institutional investors can lead to higher trading volumes and increased liquidity in the stock (Nassar, 2018). Lastly, financial leverage can increase the availability of capital for companies. This increased availability of capital can lead to more investment opportunities and increased profitability for the company, which in turn can lead to higher demand for the stock and increased liquidity (Gopalan *et al*., 2009). The study finding implies

that companies in Kenya can potentially increase their share liquidity by using financial leverage, which can have positive effects for both companies and investors.

4.6.3 Relationship between Financial Liquidity and Share Liquidity

The third hypothesis was that company financial liquidity has no statistically significant effect on the share liquidity of listed firms in Kenya. After analyzing the contemporaneous effects using a random effects model, the coefficient for the acid test ratio was found to be 0.07, with a p-value of 0.245. Since this p-value is greater than the commonly used threshold of 0.05, the null hypothesis cannot be rejected at the 5% significance level. However, analyzing the lagged effects showed a coefficient of 0.148 for the acid test ratio, with a corresponding p-value of 0.001, which is less than 0.05. Therefore, the study can reject the null hypothesis at the 5% significance level and conclude that company financial liquidity, as measured by the acid test ratio, has a statistically significant effect on the share liquidity of the following year of listed firms in Kenya. This finding highlights the importance of considering lagged effects in the analysis of financial liquidity and its impact on share liquidity.

The finding is supported by Sunardi *et al*., (2020) who averred that company with strong liquidity is considered to be a safer investment, as it is more likely to meet its financial obligations. This can lead to higher share liquidity, as investors are more likely to buy shares of a company perceived as financially stable. Conversely, a company with weak liquidity may be seen as a riskier investment, which can lead to lower share liquidity as investors are less likely to buy shares of the company (Degubir, 2020).

One possible explanation for this is that investors in the Kenyan stock market may not immediately react to changes in a company's financial liquidity. Investors may need time to assess the financial health of the company and its ability to meet its financial obligations before deciding to buy or sell shares (Degubir, 2020). For example, if a company has a high acid test

ratio, indicating strong financial liquidity, it may take some time for investors to recognize this and become more willing to buy shares in the company. Another reason for the time lag may be related to the behavior of institutional investors, such as mutual funds and pension funds, who tend to have longer investment horizons than individual investors. These investors may be more likely to consider a company's financial liquidity when making investment decisions and may take time to adjust their portfolios accordingly (Yi et al., 2018). The finding underscores the importance of maintaining strong financial liquidity for listed companies in Kenya. Companies that have strong financial liquidity are more likely to be perceived as safe investments by investors, which can lead to higher share liquidity over time.

4.6.4 Relationship between Financial Performance and Share Liquidity

The fourth hypothesis was that financial performance has no statistically significant effect on the share liquidity of listed firms in Kenya. After analyzing the contemporaneous effects using a random effects model, the coefficient for earnings per share was found to be -0.001, with a p-value of 0.249. Since this p-value is greater than the commonly used threshold of 0.05, the null hypothesis cannot be rejected at the 5% significance level. However, analyzing the lagged effects showed a coefficient of 0.006 for EPS, with a corresponding p-value of 0.02, which is less than 0.05. Therefore, the study can reject the null hypothesis at the 5% significance level and conclude that company financial performance, as measured by EPS, has a statistically significant effect on the share liquidity of the following year of listed firms in Kenya.

This result is supported by Wang (2021) who found that in Shanghai and Shenzhen stock exchanges in China, companies with higher returns on assets and returns on equity had higher liquidity, while those with higher gross profit margins had lower liquidity. Similarly, Ahmad *et al*. (2020) found that financial performance had a positive impact on share liquidity in the Pakistan Stock Exchange.

This finding may be attributed to several factors. Firstly, investors in the Kenyan stock market may adopt a long-term investment horizon, which means more focus on a company's historical financial performance as a predictor of its prospects (Bichange, 2022). As such, investors may not react immediately to the release of the company's current financial performance, but instead, wait to evaluate its sustainability and future outlook. Secondly, the Kenyan stock market is dominated by institutional investors, who often have more resources and expertise to evaluate a company's financial health comprehensively (Okumu *et al*., 2022). Institutional investors may consider a company's performance over an extended period and may be less swayed by short-term financial performance thus, may not react immediately to the release of current financial results.

The finding is consistent with the EMH, which suggests that financial markets are informationally efficient and reflect all available information in stock prices. The finding that the effect of financial performance on share liquidity takes time to materialize implies that the market may not fully reflect the impact of a company's current financial performance immediately (Singh et al., 2021). However, the market adjusts to new information over time, and stock prices reflect all available information, including lagged financial performance (Malini, 2019). Therefore, this finding contributes to the existing literature on the dynamic relationship between financial performance and share liquidity and underscores the importance of a long-term investment horizon in evaluating the financial health of listed firms in the Kenyan stock market.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, discussion, conclusion, and recommendations. The summary of findings presents the key results of the study based on the specific objectives of the study and the key study variables. Further, the chapter presents the conclusion of the study based on the specific objectives of the study. Lastly, the study provides recommendations for policy, practice, and further research.

5.2 Summary

The study sought to examine the influence of firm-specific factors on the share liquidity of listed firms with a focus on NSE 20 share index constituent companies in Kenya. The firm-specific factors studied include the size of the company is measured by total Assets, financial leverage is measured by debt to equity ratio, financial performance measured by earnings per share, and financial liquidity measured by current assets to current liabilities. The dependent variable of the study was share liquidity measured by the total share turnover to market capitalization.

5.2.1 Effect of Company Size on Share Liquidity

The present study aimed to investigate the impact of company size on the share liquidity of listed firms in Kenya. The study adopted a random effects model to examine the contemporaneous and lagged effects of company size on share liquidity. The results showed that company size had no statistically significant effect on share liquidity in Kenya ($\beta = 0.012$, $p = 0.53$ for contemporaneous effects, and $\beta = -0.002$, $p = 0.98$ for lagged effects). The finding that company size does not have a statistically significant effect on share liquidity in the Kenyan stock market suggests that other factors may be at play. One possible explanation is

that larger companies, despite their advantages in terms of resources and investor base, may also face challenges such as increased complexity, information asymmetry, and higher transaction costs, which can hinder share liquidity (Khan et al., 2019; Noreen et al., 2022).

Furthermore, the impact of company size on share liquidity may be contingent on other factors such as market structure, investor behavior, and regulatory policies. Market makers and high-frequency traders may have different roles in providing liquidity for smaller and larger companies, respectively (Mwende, 2021). Regulatory policies, including disclosure requirements and trading restrictions, can also influence the liquidity of shares in both large and small companies (Bichange, 2022).

5.2.2 Effect of Financial Leverage on Share Liquidity

The study established that financial leverage has a statistically significant effect on the share liquidity of listed firms in Kenya. The empirical analysis showed that financial leverage has a statistically significant effect on share liquidity, as evidenced by the contemporaneous effects ($\beta = 0.13$, $p = 0.005$) and lagged effects ($\beta = 0.155$, $p = 0.01$). However, the findings are supported by market depth theory which suggests that a higher level of financial leverage can increase share liquidity by attracting more market participants and increasing trading activity (Alam *et al.,* 2019). When firms use financial leverage to finance their operations, this may increase the potential return for investors and as a result, investors are more likely to trade these shares, leading to increased market depth and liquidity (Roulstone, 2003).

5.2.3 Effect of Company Financial Liquidity on Share Liquidity

The study established that lagged company financial liquidity has a statistically significant effect on the share liquidity of listed firms in Kenya. The empirical analysis showed that company financial liquidity (measured in acid test ratio) has no statistically significant effect on share liquidity, as evidenced by the contemporaneous effects ($\beta = 0.07$, $p = 0.245$), while

after lagging the values by one year, company financial liquidity has a positive and significant effect on share liquidity ($\beta = 0.155$, $p = 0.001$). This means that the effect of financial liquidity on share liquidity takes time to materialize and may not be immediately visible. This may imply that investors in the Kenyan stock market may not immediately react to changes in a company's financial liquidity. Investors may need time to assess the financial health of the company and its ability to meet its financial obligations before deciding to buy or sell shares (Degubir, 2020). The finding underscores the importance of maintaining strong financial liquidity for listed companies in Kenya. Companies that have strong financial liquidity are more likely to be perceived as safe investments by investors, which can lead to higher share liquidity over time.

5.2.4 Effect of Financial Performance on Share Liquidity

The study ascertained the impact of lagged financial performance on the share liquidity of listed firms in the Kenyan stock market. The empirical findings revealed that contemporaneous effects of financial performance, measured by earnings per share (EPS), were negative and insignificant ($\beta = -0.001$, p-value = 0.249). However, by analyzing the lagged effects, a significant and positive relationship between EPS and share liquidity was identified, with a coefficient of 0.006 and a corresponding p-value of 0.02, which is below the conventional significance level of 0.05. These results imply that the impact of financial performance on share liquidity is not immediate and takes time to materialize.

5.3 Conclusion

From the empirical analysis, the study concludes that company size has no statistically significant effect on share liquidity in both contemporaneous and lagged effects. This finding contrasts with previous studies conducted in other stock markets, indicating the possibility that contingent factors such as market structure, investor behavior, and regulatory policies may influence the relationship between company size and share liquidity. The study's finding

challenges the Asset Pricing Theory and implies that researchers, investors, and market participants need to consider other contingent factors before analyzing the effect of company size on share liquidity in the Kenyan stock market.

Further, the study concludes that financial leverage has a significant effect on the share liquidity of listed firms in Kenya, as evidenced by the statistically significant contemporaneous and lagged effects. The finding underscores the potential benefits of financial leverage in attracting institutional investors, increasing capital availability, and ultimately boosting share liquidity. Therefore, companies in Kenya can potentially increase share liquidity by using financial leverage, which can have positive effects for both companies and investors.

Moreover, the study concludes that while contemporaneous financial liquidity does not have a statistically significant effect on share liquidity in Kenya, lagged financial liquidity has a positive and significant effect. This implies that investors in the Kenyan stock market may take some time to fully evaluate a company's financial health and make investment decisions accordingly. The study highlights the importance for companies to maintain strong financial liquidity, as this can have positive effects on share liquidity and attract more investors. The lagged effect of financial liquidity on share liquidity underscores the need for companies to maintain financial stability over time, rather than relying on short-term measures to boost liquidity.

Finally, the study concludes that while the contemporaneous effects of financial performance on share liquidity were negative and insignificant, the lagged effects had a significant and positive relationship with share liquidity. As such, it is empirically evident that financial markets reflect all available information in stock prices, including lagged financial performance.

5.4 Recommendations

Based on the findings, the study made recommendations about practice and policy as discussed below.

The study finding may have implications for regulatory policies related to the stock market. Regulators such as capital market authorities and Nairobi Securities Exchange should monitor the financial liquidity of listed companies and take appropriate actions to encourage companies to maintain adequate liquidity levels. Regulators should also promote policies that encourage long-term investment horizons, such as tax incentives for long-term investors. Moreover, the study reveals that policymakers and shapers such as CMA, Central Bank of Kenya, Kenya Bankers Association, Kenya Manufacturers Association, and other industry regulators and associations should consider implementing measures that promote liquidity in both large and small companies, such as reducing trading costs, increasing transparency, and improving market structures.

In addition, respective industry regulators should provide guidelines to encourage companies to use financial leverage to attract institutional investors, increase capital availability, and ultimately boost share liquidity. This may help improve the liquidity of the stock market, making it more attractive to domestic and foreign investors. At the same time, regulators may need to consider the potential risks associated with higher levels of financial leverage, such as increased financial fragility and higher default risk. Therefore, policies should be designed to balance the benefits of financial leverage with the potential risks and ensure that companies do not become excessively leveraged.

Finally, the Nairobi Securities Exchange and Capital Markets Authority should avail all the data relating to securities trading for public use free of charge. This makes prospective investors

more informed and encourages potential researchers to conduct more research on capital markets in Kenya.

The study recommends that listed companies in Kenya maintain strong financial health relating to company liquidity, performance, and leverage position. These attributes indicate strong financial management practices thus making them more likely to be perceived as safe investments by investors, which ultimately leads to higher share liquidity over time.

5.5.3 Areas for Further Studies

Based on the limitations of this study, future studies should consider other areas for further studies. Specifically, this study used a measure of liquidity as share turnover ratio, future studies can use other measures of stock illiquidity such as trading volume, bid-ask spread, or price impact. This can have different results or generate a more comprehensive understanding of share liquidity at NSE. Further, this study focused on only four internal factors therefore future studies should consider the effect of both internal and external factors on share liquidity across different industries. Companies in different industries may have different levels of financial leverage, performance, and liquidity, so it would be interesting to examine whether the effect of financial leverage on share liquidity varies across industries. Finally, the studies should examine how firm-specific factors affect share liquidity during different market conditions. The current study did not examine how the effect of financial leverage on share liquidity may vary during different market conditions, such as during periods of high volatility or market downturns. Future studies could examine whether the effect of firm-specific factors on share liquidity varies during different market conditions.

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APPENDICES

Appendix I: Secondary Data Collection Sheet for each company/firm

Year	Company Size	Company liquidity	Financial leverage	Financial Performance	Share liquidity	
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						

Appendix II: Research Permit

REPUBLIC OF KENYA

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Appendix III: Research Authorization Letter

11th, April, 2023

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 19M03EMBA019

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: KIMUTAI BENEDICTUS

Mr. Benedictus is a postgraduate student at Africa Nazarene University in the Master of Business Administration (MBA) program.
In order to complete his program, Mr. Benedictus is conducting research entitled: **"Firm Specific Factors and Share Liquidity of Listed Firms in Kenya: Case of Nairobi Securities Exchange 20 Share Index Constituent Companies"**

Any assistance offered to him will be highly appreciated.

Yours Faithfully,

DR. Kimani Gichuhi,

MBA, Coordinator,

School of Business,

Africa Nazarene University.

Appendix IV: Map of the study area