The Impact of Covid-19 on Corporate Dividend Policies of Top 40 JSE Listed Companies in South Africa: A Quantitative Panel Analysis

Mini dissertation submitted in fulfillment of the requirements for the degree **Master of Business Administration** at The Independent Institute of Education, IIE MSA**.**

Doreen Muchaneta Munyombwe

[redacted]

Supervisor: Dr Shaun De Wet

31 / 03/ 2026

PLAGIARISM DECLARATION

I hereby declare that the dissertation submitted for the Master of Business Administration at The Independent Institute of Education, IIE MSA, is my own work, its unaided work and has not previously been submitted to another University or Higher Education Institution for degree purposes.

Name: Doreen Muchaneta Munyombwe

Date: 31 March 2026

Signature

ACKNOWLEDGEMENTS

Firstly, I would like to express my deepest gratitude to God for granting me the strength, resilience, and perseverance to complete this dissertation. Without His guidance and grace, this achievement would not have been possible. I would also like to extend my sincere appreciation to my family and friends for their unwavering support, encouragement, and understanding throughout this journey. Their constant presence and belief in me have been a source of motivation during both challenging and rewarding moments. To my mother, Patricia Munyombwe, thank you for always keeping me in your prayers.

A special and heartfelt thank you goes to my sister, Ruth Nyasha Munyika, whose generosity in supporting my tuition and continuous encouragement to further my studies made this opportunity possible. Your sacrifices and belief in my potential have played a significant role in this achievement.

I am profoundly grateful to my supervisor, Dr Shaun De Wet, for his exceptional guidance, patience, and support throughout the entire research process. His willingness to go above and beyond, provide continuous direction, and offer encouragement at every stage has been invaluable. I sincerely appreciate the time, effort, and dedication he invested in ensuring the successful completion of this dissertation.

Lastly, I would like to thank IIE MSA University for affording me the opportunity to pursue my studies and for providing the academic environment and resources necessary to complete this research.

ABSTRACT

This study investigates the impact of the COVID-19 pandemic on the dividend policy of the Top 40 companies listed on the Johannesburg Stock Exchange (JSE). The study aimed to ascertain the pandemic's substantial impact on dividend policy and determine the firm-specific financial variables that explained dividend behaviour during the COVID-19 period. Although extensive international research has examined dividend behaviour during the pandemic, limited empirical evidence regarding how COVID-19 influenced dividend policies in emerging economies such as South Africa exists. Additionally, most traditional dividend policy theories were developed under stable economic conditions, resulting in uncertainty regarding their applicability during crisis periods such as the COVID-19 pandemic.

Grounded in dividend irrelevance, signalling, pecking order and bird in the hand theory, a quantitative study design was employed, utilising panel data from 2017 to 2024. The analysis incorporates descriptive statistics, correlation analysis, analysis of variance (ANOVA), fixed-effects panel regression models, dynamic dividend models, and binary response models of dividend changes.

The results indicate that the COVID-19 pandemic does not exhibit a statistically significant effect on dividend policy within the two-way effects and dynamic panel model specifications once firm-specific and time effects are controlled for. Although some variations in dividend behaviour were observed across firms and across time, the differences in dividend per share and dividend payout ratio across the pre-COVID, COVID, and post-COVID periods were not statistically significant in the main continuous models.

Leverage emerges as the only statistically significant firm-level determinant across specifications, with more highly leveraged firms paying lower dividends, therefore among all the hypotheses tested, only the leverage hypothesis (H4) was supported, while the remaining hypotheses were not statistically supported. Growth opportunities were also significant in selected models, while profitability, liquidity, and free cash flow did not exhibit statistically significant effects across models. The dynamic models provide evidence of dividend smoothing, indicating that past dividend behaviour plays an important role in current dividend decisions.

Overall, the findings suggest that dividend policy among major JSE-listed firms is relatively stable and strongly path-dependent, with historical dividend behaviour and capital structure considerations playing a more prominent role than contemporaneous financial variables or external shocks such as the COVID-19 pandemic. These findings contribute to the literature by providing evidence from an emerging market context that dividend policy remains stable even during periods of significant economic disruption.

Keywords: *Dividend Policy; COVID-19; Panel Data Analysis; Dividend Smoothing; Johannesburg Stock Exchange (JSE); Emerging Markets*

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

Abbreviation	Full Term
COVID-19	Coronavirus Disease 2019
CSR	Corporate Social Responsibility
DPS	Dividend Per Share
DPR	Dividend Payout Ratio
ECB	European Central Bank
FCA	Financial Conduct Authority
FCF	Free Cash Flow
FE	Fixed Effects
FSCA	Financial Sector Conduct Authority
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IIE	Institute of International Education
IMF	International Monetary Fund
IFRS	International Financial Reporting Standards
JSE	Johannesburg Stock Exchange
PA	Prudential Authority
POLS	Pooled Ordinary Least Squares
POPIA	Protection of Personal Information Act
PRA	Prudential Regulation Authority
RE	Random Effects
ROA	Return on Assets
ROE	Return on Equity
SARB	South African Reserve Bank
VIF	Variance Inflation Factor
VUCA	Volatility, Uncertainty, Complexity, and Ambiguity
G-7	A group of seven of the world's largest advanced economies (Canada, France, Germany, Italy, Japan, United Kingdom and United States)
G-12	A group of 12 major economies included in the study sample of Ali (2022)'s study.

1 CHAPTER ONE: INTRODUCTION

1.1 Background and Context

In times of crisis, the quality and responsiveness of decision-making by senior management become critical determinants of organisational resilience and sustainability. The COVID-19 pandemic, an unprecedented global health emergency, represented a significant inflexion point for businesses worldwide. It thrust decision-makers into a landscape characterised by volatility, uncertainty, complexity, and ambiguity (commonly referred to as the VUCA environment) (Horney, Pasmore, and O'Shea, 2010). It represented one of the most significant global economic disruptions in modern history, creating unprecedented uncertainty for businesses, investors, and policymakers. Unlike previous financial shocks, the pandemic simultaneously affected supply chains, consumer demand, labor markets, and financial systems, forcing organisations to make critical strategic and financial decisions under conditions of extreme volatility. In South Africa, many listed companies faced declining revenues, liquidity constraints, operational disruptions, and heightened uncertainty, compelling management to reassess capital allocation decisions, including dividend payments. These conditions transformed dividend policy from a routine financial decision into a strategic mechanism for preserving financial flexibility and organisational resilience. Senior leaders were compelled to make rapid and high-stakes decisions with limited information in a climate of evolving risks and heightened stakeholder scrutiny.

One of the strategic areas most impacted by this period of uncertainty was corporate financial policy, particularly the management of dividend distributions (Bae et al., 2021). Traditionally, dividend policy reflects a firm's financial health and long-term strategic orientation, coupled with investor confidence (Tinungki et, al., 2022). However, the onset of COVID-19 introduced acute pressures on cash flows, risk assessments, and capital allocation priorities. Consequently, many firms were forced to reassess or suspend dividend payments, raising important questions about the interplay between short-term liquidity preservation and long-term shareholder value commitments (Cejnek, 2021).

This study examines decision-making by senior management under extreme VUCA conditions, specifically focusing on the COVID-19 crisis as a case study. It

explores how dividend policies were altered in response to the pandemic and what these changes reveal about executive priorities, risk tolerance, and adaptive strategies during systemic shocks. Despite the growing body of international literature examining corporate responses to the COVID-19 pandemic, limited empirical evidence exists regarding how firm-specific financial characteristics influenced dividend policy decisions among JSE Top 40 companies during this period. Furthermore, most existing studies focus on developed markets, providing only partial insights into the unique institutional, regulatory, and economic conditions that characterise the South African environment. By drawing on a combination of empirical data and theoretical frameworks, the study aims to contribute to understanding corporate financial governance during crises and the broader implications thereof for stakeholder trust, financial signalling, and strategic resilience.

1.2 Preliminary literature review

The literature on dividend policy provides several theoretical perspectives for understanding how firms determine dividend payouts under varying economic and financial conditions. Classical theories such as the dividend irrelevance theory (Miller and Modigliani, 1961), signalling theory (Ross, 1977), bird-in-the-hand theory (Gordon, 1963), and the pecking order theory (Myers and Majluf, 1984) offer differing explanations regarding the factors that influence corporate dividend decisions. While these theories have been extensively applied within corporate finance research, their relevance during periods of severe economic disruption remains subject to ongoing debate. Recent studies suggest that the COVID-19 pandemic challenged many of the assumptions underpinning traditional dividend theories, as firms were compelled to prioritise liquidity preservation, financial resilience, and operational continuity under conditions of heightened uncertainty (AlGhazali and Yilmaz, 2023; Mazur, Dang and Vo, 2023).

Furthermore, emerging evidence indicates that financial constraints, profitability pressures, and crisis-specific market conditions played a significant role in shaping dividend policy decisions during the pandemic, often producing outcomes that diverged from traditional theoretical expectations (Kanojia and Bhatia, 2023). Despite the growing body of international research, empirical evidence from emerging-market economies remains relatively limited, particularly within the South African context. Consequently, Chapter 2 critically examines the major

dividend policy theories together with recent empirical literature on COVID-19 and corporate payout behaviour to establish the theoretical and conceptual foundation for investigating dividend policy decisions among Top 40 JSE-listed companies during the pandemic period.

1.3 Rationale

In pursuing its aim of shedding light on decision-making during uncertainty, this study seeks to understand decision-making under VUCA conditions by highlighting how dividend policy serves financial and resilience functions during crises. The study furthermore raises critical questions about the implications of such decision-making for corporate governance practices, suggesting that dividend decisions in VUCA environments can give an indication of a firm's strategic agility, stakeholder orientation, and long-term resilience.

1.4 Problem Statement

The literature review (Chapter 2) suggests that there is limited information available on how senior management are supposed to make corporate financial decisions under extreme conditions; yet these decisions significantly contribute to a company's sustainability (Ali, 2022; Chomba, 2021). Businesses may find it more difficult to continue as going concerns if they make poor financial judgments. One of the corporate financial decisions that management must make is how to distribute dividends. Due to the VUCA environment created by the COVID-19 pandemic, it was unclear if management were supposed to stop paying dividends to maintain companies' short-term liquidity or if they were supposed to keep doing so to maximise shareholder wealth and boost investor confidence.

Due to operational uncertainty, rising debt levels, and declining profitability, several companies suspended or reduced their dividend payments (Krieger et al., 2021). Others continued to follow their dividend distribution policies despite the global economic disruption (Tinungki et al., 2022). These variations in responses to the COVID-19 pandemic gave rise to a key question: Did the COVID-19 pandemic significantly influence the dividend policies of the top 40 JSE-listed companies? Dividend policies of companies are also affected by various factors, and such factors include corporate financial factors (Ramana, 2022). This, therefore, raises a secondary question of which firm-level financial variables

significantly explain dividend policy behaviour among Johannesburg Stock Exchange (JSE) Top 40 firms during the COVID-19 pandemic.

Another question is whether industry characteristics influenced dividend policy during the COVID-19 crisis period. Determining the long-term impact of these factors on the company's corporate finance strategy in subsequent crises is equally important. This study aims to close the existing knowledge gap so that organisations' senior management are better prepared to handle extreme situations. From this, they will learn how to make sound financial choices during emergencies.

1.5 Research Goal

This study aims to explore and gain insight into whether the COVID-19 pandemic had a significant impact on the dividend policies of the JSE top 40 JSE-listed companies, and furthermore, examine which firm-level financial variables significantly explained dividend policy behaviour of these companies during the COVID-19 pandemic. This will be achieved by analysing the companies' financial data, company disclosures, and board decisions. In doing so, the study will address the limitations in the existing literature on this topic in the South African context.

1.6 Research Objectives

The study comprises the following objectives:

Primary Objective:

Objective 1: To determine whether the COVID-19 pandemic significantly influence the dividend policies of the top 40 JSE-listed companies.

Secondary Objectives:

- Objective 2: To examine which firm-level financial variables significantly explain dividend policy behaviour among JSE top 40 firms during the COVID-19 pandemic.
- Objective 3: To determine whether there were changes to dividend behaviour during the COVID-19 pandemic relative to the pre-COVID and post-COVID periods.

- Objective 4: To investigate whether industry-specific factors influenced dividend policy behaviour during the COVID-19 pandemic.

The research objectives define what the study seeks to achieve, while the research questions specify the issues that must be investigated to achieve those objectives. Each research question is directly linked to a corresponding research objective, thereby ensuring coherence between the study's purpose, empirical investigation, and intended contribution.

1.7 Research Questions

The following research questions aim to achieve the research objectives mentioned in 1.6:

Primary Research Question:

Question 1: Did the COVID-19 pandemic significantly influence the dividend policies of the top 40 JSE-listed companies?

Secondary Research Questions:

- Question 2: Which firm-level financial variables significantly explain dividend policy behaviour among JSE Top 40 firms during the COVID-19 pandemic?
- Question 3: Were there any changes to dividend behaviour during the COVID-19 crisis period relative to the pre-COVID and post-COVID periods?
- Question 4: Did industry sector characteristics influence dividend policy during the COVID-19 crisis period?

1.8 Significance of Study

The COVID-19 pandemic generated considerable economic unpredictability that altered corporate profits, liquidity, and financial frameworks worldwide. Among companies on the JSE, especially the top 40, dividend strategies were significantly influenced, with numerous firms cutting or halting distributions to maintain financial stability. Considering the significance of dividend strategy in indicating financial stability and preserving investor trust, understanding the factors influencing dividend choices during crises is crucial. This research is of

significance as it investigates whether firm-specific financial factors such as profitability, leverage, liquidity, and free cash flow consistently explained dividend policy actions before, during, and after the COVID-19 pandemic. Although traditional dividend theories examine payout decisions under normal conditions, there is limited evidence regarding the stability of these factors during major economic disruptions, especially in emerging markets such as the South African one. This study enhances the understanding of the stability of established dividend theories in crisis situations by examining dividend patterns across various economic phases.

The results of the study are of relevance to investors, corporate executives, and policymakers. For investors, recognising the financial characteristics linked to dividend stability enhances the evaluation of dividend sustainability in times of economic decline. For managers, understanding which financial elements have the most significant impact on dividend choices can facilitate more robust capital allocation approaches. Policymakers will gain a better understanding of corporate financial conduct in times of economic downturns. In conclusion, this research contributes both academically and practically to an understanding of the dynamics impacting decision-making under VUCA conditions.

1.9 Delimitations, Limitations and Assumptions of Study

1.9.1 Delimitations of Study

Delimitations refer to the boundaries intentionally established by the researcher to define the scope and focus of a study (Creswell and Creswell, 2018). This study was limited to companies included in the Top 40 Index of the Johannesburg Stock Exchange (JSE), as these firms represent the largest listed companies in South Africa by market capitalisation and play a significant role in the national economy. The study focused on the period from 2017 to 2024, thereby facilitating an examination of dividend policy behaviour during the pre-COVID-19, COVID-19, and post-COVID-19 periods.

The study adopted a quantitative research approach and utilised secondary panel data obtained from publicly available company annual reports, integrated reports, and financial databases. Quantitative methods are particularly appropriate for examining relationships between variables, testing hypotheses, and generating objective empirical evidence (Saunders, Lewis and Thornhill, 2019; Creswell and

Creswell, 2018). Furthermore, the investigation focused specifically on the relationship between COVID-19, selected firm-specific financial variables (profitability, liquidity, leverage, growth opportunities, and free cash flow), and corporate dividend policy. Other potential determinants of dividend policy, including corporate governance characteristics, ownership structures, managerial behavioural factors, and broader macroeconomic variables, were excluded from the scope of the study.

1.9.2 Limitations of the Study

Limitations refer to potential weaknesses or constraints that may influence the interpretation or generalisability of research findings (Saunders et al., 2019). First, the study relied exclusively on secondary data, which limited the ability to obtain direct insights into managerial motivations and decision-making processes underlying dividend policy decisions during the pandemic period. While secondary data offer advantages in terms of accessibility and objectivity, researchers have limited control over the way such data were originally collected and reported (Hair et al., 2022).

Second, the findings are based exclusively on Top 40 JSE-listed companies and may therefore not be fully generalisable to smaller listed companies, privately owned firms, or organisations operating in other emerging-market economies. Third, although the study examined key firm-specific determinants identified in the dividend policy literature, other potentially relevant variables may not have been captured within the empirical models. Consequently, the possibility of omitted variable bias cannot be entirely excluded. Finally, while the study examined the impact of COVID-19 on dividend policy behaviour, other economic, regulatory, and political developments occurring during the study period may also have influenced corporate financial decision-making.

1.9.3 Assumptions of the Study

Research assumptions represent conditions that are accepted as true for purposes of conducting the investigation (Creswell and Creswell, 2018). This study assumed that the financial information disclosed in company annual reports, integrated reports, and financial databases was accurate, reliable, and prepared in accordance with applicable financial reporting standards. The study further assumed that the selected financial variables provide appropriate proxies for the

theoretical constructs identified in the dividend policy literature and are therefore suitable for examining the determinants of dividend policy behaviour.

In addition, it was assumed that the classification of the pre-COVID-19, COVID-19, and post-COVID-19 periods adequately captures the effects of the pandemic on corporate dividend decisions. Finally, the study assumed that the statistical techniques employed, including panel data regression models, were appropriate for analysing the relationships between the variables under investigation and generating reliable empirical findings (Hair et al., 2022).

1.10 Research Methodology Overview

This study adopted a quantitative research methodology to investigate the impact of the COVID-19 pandemic on the dividend policies of Top 40 JSE-listed companies in South Africa. Consistent with the study's objective of examining the relationships between COVID-19, firm-specific financial variables, and dividend policy behaviour, the research was grounded in a positivist epistemology and an objectivist ontology. A deductive approach was employed whereby hypotheses derived from established dividend policy theories were empirically tested using secondary financial data. The study further adopted an explanatory, longitudinal research design to examine dividend policy behaviour across the pre-COVID-19, COVID-19, and post-COVID-19 periods. A detailed discussion of the methodological choices is presented in Chapter 3, while Table 1.10.1 provides a summary of the methodological framework adopted in this study.

Table 1:1.10.1 Summary of methodological framework

Methodological Element	**Description**
Research Philosophy	Ontology – Objectivism Epistemology- Positivism
Research Approach	Deductive Approach
Research Strategy	Quantitative panel data analysis
Time Horizon	Longitudinal (2017-2024)

Data Type	Secondary quantitative data
Data sources	Financial databases, Annual reports, financial statements
Population	Top 40 JSE-listed companies
Sample Size	36
Sampling Technique	Index-based census sampling with eligibility screening
Data Analysis Techniques	Descriptive statistics, correlation analysis, fixed-effects regression, dynamic panel regression

1.11 Chapter Outline

CHAPTER 1: Introduction

This chapter will focus on the study background, research problem, aim, questions and contribution of the study.

CHAPTER 2: Literature Review

This chapter will focus on reviewing, assessing and summarising existing literature to assist in identifying gaps and establishing context.

CHAPTER 3: Research Methodology

The research design, paradigm, population, sampling, data collection, data analysis, methodological constraints, and ethical issues will all be covered in detail in this chapter

CHAPTER 4: Analysis of Findings and Discussion on Findings

This chapter will focus on examining the findings and discussing them.

CHAPTER 5: Conclusion

The results are summarised in this chapter along with recommendations for businesses and investors, and potential directions for further research.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will explore the current theoretical and empirical literature important to the analysis of dividend policy decisions during times of crisis. Dividend policy is a fundamental aspect of corporate finance, as it demonstrates how companies distribute profits to shareholders while signalling financial stability and performance (Cejnek, 2021). In periods of economic uncertainty, dividend decisions are frequently reassessed as companies strive to balance various priorities, including conserving cash, maintaining investor confidence, and ensuring the long-term sustainability of their business operations (Muriungi, 2020).

The COVID-19 pandemic provides a distinctive context for this investigation, considering the scale and abruptness of its worldwide economic impact (Mamaro, 2020). The pandemic not only revealed pre-existing financial weaknesses but also necessitated swift changes in governance, strategy, and financial policy for companies in South Africa. This literature review utilises both international and local research to understand how dividend policies were modified in response to falling revenues, disrupted supply chains, regulatory changes, and broader macroeconomic volatility (Muthu, 2023).

The aim of this literature review is to critically examine existing theories and empirical research on corporate dividend policies, with the goal of understanding how financial and contextual factors influenced the dividend decisions of the Top 40 companies on the JSE during the COVID-19 pandemic. The review explores key theoretical perspectives, including the dividend irrelevance theory, signalling theory, and agency theory, to assess their relevance and limitations under the extraordinary conditions of the pandemic. By analysing how profitability, leverage, liquidity, and free cash flow shaped corporate dividend behaviour during a period of economic uncertainty, the review provides a framework for interpreting the financial decision-making of firms.

In addition, the literature review aims to identify gaps and inconsistencies in existing research regarding the determinants of dividend decisions during crisis periods. While much of the global literature has focused on developed economies,

relatively little empirical attention has been given to emerging markets such as the South African one, where structural constraints, regulatory frameworks, and sectoral differences play significant roles in shaping corporate financial policy. Addressing this gap provides the rationale for the present study and highlights its contribution to both an academic and a practical understanding of corporate financial resilience under crisis conditions. By doing so, the review will logically lead to the formulation of research questions and hypotheses that investigate how COVID-19 pandemic, firm-specific financial factors and contextual influences shaped corporate dividend behaviour in South Africa during one of the most chaotic economic periods in recent history.

2.1.1 COVID-19 Pandemic and Its Global Effects on Businesses

The COVID-19 pandemic initiated an unprecedented global economic crisis, with the International Monetary Fund reporting a 3.5% decline in global GDP for 2020, marking the most severe recession since the Great Depression (International Monetary Fund, 2021; Benson, 2022). This economic downturn disproportionately affected various business sectors due to their differing structural vulnerabilities and abilities to adapt. The varying degrees of resilience observed among various sectors during the COVID-19 pandemic can be analysed from both structural and theoretical perspectives.

From a structural perspective, resilience can be understood by examining characteristics specific to the industry, such as demand elasticity, vulnerability to global supply chains, regulatory frameworks, and dependence on physical operations (Barua, 2020). For instance, industries possessing digital infrastructure (such as ICT and financial services) managed to adjust to remote operations more effectively than those reliant on direct personal interactions (like hospitality and tourism). Additionally, organisations in sectors equipped with strong digital infrastructure, adaptable supply chains, and substantial cash reserves were more effectively positioned to withstand economic disruptions and seize new opportunities (Baldwin and Tomiura, 2020). For example, the technology, e-commerce, and healthcare industries exhibited remarkable resilience and even growth. This is demonstrated by the increase in global e-commerce sales by 27.6% in 2020, propelled by significant changes in consumer behaviour during prolonged lockdowns (Qiu, 2023). For example, during the

lockdown, consumers who were previously hesitant about online shopping rapidly adopted digital platforms, causing an already growing trend to accelerate (Creswell and Creswell, 2018).

In contrast, other industries were negatively affected by the pandemic. The global hospitality and travel industries experienced significant revenue losses, with global airline passenger traffic dropping significantly by over 60% in 2020 and hospitality revenues decreasing by more than 50% in numerous regions (Hartono, 2021). This can be explained by the heavy reliance of these industries on direct personal interactions, which were limited and even prohibited at some point during the pandemic.

Theoretically, frameworks such as the resource-based view (RBV) and institutional theory provide useful insights into firms' ability to withstand crisis pressures such as those caused by COVID-19, owing to their internal strengths and their social, cultural, and regulatory environments. According to the RBV, firm-specific capabilities are crucial in helping firms exploit opportunities and neutralise threats (Wernerfelt, 1984); therefore, companies with greater financial flexibility and innovation capacity were better equipped to endure the COVID-19 crisis, as it helped them operate in this unfamiliar environment (Liu, Lee, and Lee, 2020). Institutional theory explains how regulatory restrictions, such as suspensions of dividend payments or liquidity preservation requirements, affect sectoral resilience by limiting corporate financial decisions (Siregar and Kesuma, 2025). It highlights how organisational behaviour is shaped by both formal and informal regulations, norms, and pressures within a specific context.

As Ali (2022) notes, institutional theory suggests that organisations often respond to external influences, such as government actions, regulatory changes, and societal expectations, in ways that shape their strategic choices. For example, where countries quickly implemented fiscal stimulus measures and liquidity support systems, such as South Africa’s COVID-19 Solidarity Fund and loan guarantee programmes, it helped to stabilise at-risk industries by shaping the institutional environment in which businesses operate (International Monetary Fund, 2021). The worldwide economic turmoil triggered by COVID-19 revealed significant sectoral inequalities, influenced by a combination of structural factors, firm-level resources, and external policy measures (Hsiao, 2021).

The inequalities impacted the operational capabilities and financial strategies of firms, especially in relation to dividend policies during challenging times. It is crucial to note that, although the global industrial trends visible during the COVID-19 pandemic, as discussed above, offer significant insights, their relevance to South Africa and the JSE requires thorough examination (Chomba, 2021). Analysing these dynamics through the lens of the JSE Top 40's sector structure provides essential insights into how South Africa's most prominent companies navigated financial risks and addressed shareholder expectations amid an extraordinary crisis, thereby contributing to both theoretical understanding and practical applications in corporate financial management.

2.2 Theoretical Framework

This section investigates the foundational theories that have historically influenced dividend decision-making, including the Modigliani and Miller dividend irrelevance hypothesis (Miller and Modigliani, 1961), the signalling theory (Ross, 1977), and the bird-in-hand theory (Gordon, 1963). The frameworks provide insights into the reasons why and methods by which firms may adjust their dividend policies during periods of financial distress, as well as the consequences thereof for shareholder relationships and perceptions within capital markets. This study utilises the above-mentioned dividend policy theories to analyse the impact of the COVID-19 pandemic on the dividend decisions of the top 40 companies listed on the JSE.

The theoretical framework aims to provide a critical comparison of their assumptions and explanatory capabilities in crises, particularly considering the pandemic's unique liquidity challenges and information asymmetries. The approach employed in this section facilitates a more comprehensive examination of how firms navigated the tension between responsible financial planning and market signalling while at the same time trying to manage investor expectations during the systemic disruptions at the time, with the aim of establishing a sound basis for the empirical investigation of the study.

2.2.1 Liquidity Constraints and Dividend Decisions: Dividend Irrelevance vs Pecking Order

Miller and Modigliani (1961) held that a company's worth is solely influenced by its earning capacity and that its dividend policy has no bearing on that value. They

argued that a corporation's earnings, which are a result of its investment policy, are the primary determinant of its value. By virtue of this, the dividend policy of a company is of no consequence. Their dividend irrelevance theory is a fundamental concept in the literature on dividend policy (Mamaro, 2020). It posits that, under ideal conditions characterised by perfect capital markets, the absence of taxes, no transaction costs, and symmetric information, the value of a firm remains unchanged regardless of how its earnings are allocated between dividends and retained earnings (Miller and Modigliani, 1961). This suggests that dividend policy does not significantly influence shareholder wealth, as investors can create their own dividend streams through homemade dividends (Ogunyemi, 2023). Nevertheless, these assumptions are frequently breached, particularly during significant economic disruptions such as the COVID-19 pandemic.

The pandemic and government responses to it created substantial liquidity constraints and market frictions, which compelled different firms around the world to adjust their normal dividend to conserve cash (Linh and Syed, 2023). From the standpoint of dividend irrelevance, such action should not have had a significant impact on the value of these businesses. However, the action would have contributed to their financial stability and resilience.

The pecking order theory, in contrast to dividend irrelevance, provides a more pragmatic framework by recognising the significance of information asymmetry and market imperfections. According to this theory (Myers and Majluf, 1984), businesses favour internal funding over outside funding. Companies may lower or stop paying dividends in times of crisis to protect internal funds and use them to finance company investments, as they prefer funding investments using their internal resources as a first option, then subsequently using debt as a second option, only resorting to issuing equity as a final option. This hierarchy indicates that reducing dividends during a crisis serves as a strategic measure to preserve internal resources when external financing is either expensive or unavailable.

During the COVID-19 pandemic, numerous firms reduced their dividend payments due to increased cash-flow pressures, which is consistent with the pecking order principle (Muriungi, 2020). Regulators prevented the South African banking industry from paying dividends in 2020, forcing banks to maintain capital reserves to cover possible loan losses (SARB, 2020). Similar to this, companies

in consumer-facing sectors, such as retail and hotels, stopped paying dividends to conserve cash for operations, indicating a preference for in-house funding over external funding.

The commodity price increases in late 2020 and 2021, on the other hand, put resource companies in a stronger position. As internal cash flow improved, many of these companies resumed or even increased dividends, which further supports the pecking order theory's claim that internal fund availability influences a company's payout decisions. However, the theory implies that firms can still tap into debt markets when internal funds fall short, a premise that was challenged during the pandemic as credit availability became constrained globally (Bossman, 2022). This situation highlights the limitations of the pecking order theory in the face of systemic shocks during which liquidity challenges surpass traditional financing hierarchies (Ali, 2022).

2.2.2 Signalling and Investor Expectations Amid a Financial Crisis

Dividend decisions are deemed significant because they convey an informative message through distribution or non-distribution (Ross, 1977). The assumption that managers and shareholders have unequal access to information underpins this hypothesis. It suggests that managers have a greater understanding of a business's operations than investors do. Dividends signal the market about the business, thereby filling this gap (Lin and Lee, 2021).

Signalling theory provides an additional perspective on the distribution or non-distribution of dividends by conceptualising dividends as signals that managers communicate to investors about a firm's financial health and prospects, thereby addressing the information asymmetry that exists between managers and shareholders (Benson, 2022). This theory was initially introduced by Spence (1973) and subsequently applied to the dividend decision by Ross (1977), establishing that changes in dividends can serve as credible indicators of a company’s future performance. During stable periods, increases in dividends typically indicate confidence in upcoming earnings, while decreases may be interpreted as distress signals that could provoke adverse reactions in stock prices (Hartono, 2021).

The COVID-19 pandemic intensified this concept, as companies faced the difficult decision of whether to cut dividends to conserve cash or maintain them to reassure investors. Tinungki et al., (2022) emphasises that this signalling function became vital during times of heightened uncertainty, as announcements related to dividends had a significant effect on market perceptions and investor confidence. Said (2024) states that during the crisis, dividend policies were carefully crafted communication tools, reflecting a strategic balance between managing liquidity and conveying market signals. This situation underscores the interplay between financial limitations and information asymmetry, illustrating how dividend decisions serve dual roles during times of crisis (Qiu, 2023).

The interaction between signalling and liquidity constraints generates a bit of tension. On one side, managers face the risk of undermining investor confidence and share prices by reducing dividends, whereas on the other side, upholding dividends amidst cash constraints jeopardises operational viability (Ramana, 2022). This suggests that during the pandemic, dividend policies were complex strategic choices rather than simple financial necessities. The crisis challenged the explanatory capacity of signalling theory, exposing its shortcomings when liquidity constraints take precedence over communication motives, and the other way around. These complexities highlight the necessity to examine dividend behaviour through comprehensive theoretical perspectives in crisis situations (Tinungk et al., 2022).

2.2.3 Investor Preferences and Market Behaviour: Bird-in-Hand Theory in Crisis

The bird-in-hand theory (Gordon, 1963) introduces a behavioural aspect to the analysis of dividend policy by suggesting that investors favour the certainty of current dividend payments over the unpredictability of future capital gains (Chomba, 2021). The saying "a bird in the hand is worth two in the bush" succinctly captures investors' inclination to prioritise immediate, tangible returns, particularly during times of market volatility and uncertainty. This stands in contrast to the signalling theory, which emphasises dividends as a means of conveying information to investors regarding a firm’s prospects, placing greater focus on behavioural psychology and risk aversion. Lintner (1962), in his foundational study, underscored that firms typically establish stable dividend

payout patterns to meet investor preferences, reflecting a delicate balance between earnings stability and dividend consistency.

Companies that uphold dividends during crises may attract or retain risk-averse investors, thereby stabilising their shareholder base and potentially reducing stock price volatility (Muriung, 2020). Empirical studies support this idea; for example, Baker and Wurgler (2004) discovered that investor sentiment has a significant impact on dividend policy, with firms adjusting payouts to align with the prevailing investor risk appetite. According to Zakaria, Muhammad, and Zulkifli (2012), the share price volatility of Malaysian companies was significantly impacted by their dividend policy; bigger payouts decreased volatility and increased company value. Furthermore, evidence from Sri Lanka suggests that investors place a high value on dividends and that dividend policy is a significant factor in determining valuation (Baker, Dewasiri, and Koralalage, 2019). These results tend support to the notion that dividend payouts reduce perceived risk, particularly in environments where capital gains are less certain and forms of investor protection may be less robust. However, Bossman (2022) warns that maintaining dividends in the face of severe cash-flow constraints can threaten a firm's long-term financial health, forcing it to consider short-term investor demands against long-term sustainability. The bird-in-hand preference thus intersects with liquidity and signalling factors, highlighting the complex pressures that influence dividend decisions during crises.

2.2.4 Theoretical Framework Conclusion

According to Ali (2022), the pandemic has undermined fundamental assumptions such as the existence of perfect capital markets, stable investor expectations, and unrestricted capital access, thereby challenging the boundary conditions of traditional theories such as the dividend irrelevance theory. By analysing liquidity constraints in conjunction with signalling dynamics and investor behavioural preferences, this approach embraces a comprehensive perspective that mirrors the financial and strategic intricacies encountered by companies. This multidimensional theoretical basis is crucial for understanding how these firms navigated the conflicting demands of cash preservation and shareholder communication during one of the most disruptive crises in recent history (Chomba, 2021).

The COVID-19 pandemic's unprecedented nature exposed the shortcomings of traditional theories such as dividend irrelevance, the bird-in-the-hand hypothesis, signalling theory, and the pecking order framework, even though they offer useful insights into the factors influencing dividend policy. Companies modified dividends in response to unusual liquidity challenges, regulatory actions, increased uncertainty, and theoretical expectations. According to this, real-world crises put established theoretical frameworks to the test, emphasising the necessity of considering dividend policy as context-dependent and impacted by both classical traditional theories and other internal and external factors that alter investor behaviour and managerial decision-making.

2.2.5 Hybrid and Contingency Approaches

According to Chomba (2021), the recognition of the limitations of dividend theories in effectively explaining complex real-world business behaviours has led to the development of hybrid and contingency methods. These models integrate components from various theories and highlight the adaptive characteristics of dividend policy decisions, which are influenced by a firm's specific circumstances in conjunction with external environmental factors. Contingency approaches pertain to frameworks that consider how dividend policies are dependent on variables such as earnings stability, market conditions, and managerial discretion, thereby reflecting firm-level reactions to evolving economic situations (Hartono, 2021).

Lintner’s dividend adjustment model (Lintner, 1956) exemplifies this perspective, suggesting that firms aim for a long-term dividend payout ratio while gradually adjusting dividends in response to earnings fluctuations and managerial prudence, thereby smoothing out dividend changes over time. This model emphasises that dividend policy is neither inflexible nor arbitrary, but rather responsive to both internal performance indicators and external disruptions (Benson, 2022). In response to the COVID-19 pandemic, Lintner’s dividend adjustment model offers significant insights into the reasons why companies may temporarily adjust their target payout ratios to conserve cash while at the same time indicating their plans to reinstate dividend payments as conditions improve (Arsal, 2021). This model serves as an example of a contingency strategy, where

dividend decisions are shaped by liquidity constraints, investor expectations, and the need to maintain market confidence (Lintner, 1962).

Moreover, other adaptive frameworks, such as the partial adjustment model and the catering theory, further elucidate dividend behaviour by highlighting how firms dynamically react to shifting economic conditions and investor sentiment. The catering theory suggests that companies modify their dividends to correspond with current investor preferences, which can vary during times of crisis (Baker and Wurgler, 2004).

On the other hand, Lintner's partial-adjustment model of dividends (1956) suggests that companies do not instantly modify their payouts to correspond with shifts in earnings or their intended payout ratio, as Lintner's groundbreaking research demonstrated. Instead, they take a methodical approach, making only a partial adjustment to the gap between the current payout and the desired dividend over any given time frame. This conduct is indicative of the cautious and stabilising character of dividend policy, as companies strive to prevent abrupt swings that can give investors the wrong impression. This model offers a helpful perspective for comprehending corporate behaviour during the COVID-19 pandemic.

Collectively, these hybrid and contingency approaches encapsulate the intricate and multifaceted nature of dividend policy decisions during the pandemic, providing a comprehensive theoretical framework for the empirical analysis of this study.

2.3 Empirical Literature on COVID-19 and Dividend Policies

The COVID-19 pandemic led to a worldwide economic disruption that fundamentally altered the way in which companies approach their dividend policies, compelling many to reassess long-standing financial practices amid the uncertainty (Mamaro, 2020). This section evaluates recent empirical research that investigated how firms from various regions and industries modified their dividend distributions during the crisis, with a specific focus on financial limitations, sectoral performance, and regulatory measures. By categorising the literature thematically with the focus on corporate financial factors such as profitability, liquidity, sector-

specific effects, international comparisons, and regulatory restrictions, this review highlights both common trends and varied strategies in dividend decision-making.

2.3.1 Corporate Financial Factors Affecting Dividend Policies during the COVID-19 pandemic

Corporate financial considerations such as profitability, liquidity, leverage, and free cash flows have always had an influence on dividend decisions (Fama and French, 2001. However, their influence was especially noticeable during the crisis. As businesses navigated this unstable climate, they took more cautious measures, cutting, pausing, or eliminating dividends to conserve funds and maintain solvency (Baker et al., 2021). Thus, the COVID-19 pandemic offers a unique opportunity to reconsider how much domestic financial health influences decisions about dividend policy, especially in developing nations like South Africa, where economic vulnerabilities are more prevalent.

Examining the financial aspects that influence a company's dividends is essential to understanding dividend behaviour, especially in critical circumstances such as the COVID-19 pandemic. Dividend policies are influenced by several factors, including growth prospects, cash-flow stability, profitability, liquidity, and leverage, all of which were severely hampered by the pandemic. A better understanding of how businesses strike a balance between shareholder expectations and the necessity of financial resilience in the face of uncertainty can be obtained by critically examining these drivers in the literature. This section critically evaluates the existing literature on the significance of key corporate financial considerations in determining dividends, with a special focus on their relevance to firms listed on the JSE.

2.3.1.1 Profitability

Profitability is the capacity of a business to make money in relation to its revenue, equity, or assets (Penman, 2013). Financial success and operational efficiency are reflected in this, with dividend payout being strongly influenced by profitability. It was initially demonstrated by Lintner (1956) that companies with higher earnings are more likely to pay and maintain steady dividends. According to recent research, profitability remains one of the most significant factors influencing dividend decisions (Bossman, 2022). Gunawan and Tobing (2018) also found that

a company's propensity to pay dividends increases with its profitability. Previously, Jabbouri (2016) demonstrated that a key factor affecting corporate dividend policy in emerging markets is return on equity, which acts as a proxy for a company's profitability.

According to Baker et al. (2020), the COVID-19 pandemic lowered business profitability across industries by causing significant supply chain disruptions, demand shocks, and operational shutdowns. Businesses adopted capital preservation tactics by postponing or lowering dividends as a result of sharp decreases in earnings in industries such as mining, manufacturing, and hospitality (Mazur, Dang, and Vo, 2020). On the other hand, companies in profitable yet resilient industries such as technology, healthcare, and finance were more likely to maintain or slightly increase their dividend payments.

2.3.1.2 Leverage

Leverage refers to the degree to which a company utilises debt financing in relation to its equity in its capital structure (Ross, Westerfield, and Jordan, 2019). It increases financial risk as well as possible returns. Due to debt covenants and financial risk, companies with higher debt levels are less likely to pay dividends. The financial flexibility needed to maintain dividend payments is diminished by debt (Ross, Westerfield, and Jordan, 2019). Rozeff (1982) found that, due to increased agency and bankruptcy risk, dividend distribution correlates inversely with financial leverage. Similar trends in developing market enterprises were confirmed by Amidu and Abor (2006). Studies' findings demonstrate that an entity’s leverage is a significant determinant of corporate dividend policy.

Ka´zmierska-Jó´zwiak (2015) also found a negative correlation between leverage and dividend payout. An investigation by Asif et al. (2011) confirmed those findings, showing that highly debt-ridden companies pay lower dividends. This was further demonstrated when the pandemic hit. Leveraged corporations found it more difficult to sustain prior dividend amounts due to the need to retain liquidity for interest payments and debt covenants. Studies show that companies with large debt burdens were more likely to stop or cut dividend payments during the pandemic due to regulatory restrictions in certain industries and concerns about safeguarding creditors (Bae, El Ghoul, Guedhami, and Kwok, 2021).

2.3.1.3 Liquidity

A corporation is considered liquid if it can settle its short-term debts using its current assets (cash, receivables, and inventories) without requiring external funding (Brigham and Houston, 2019). Although profitability is a significant factor, cash availability and liquidity determine real dividend payments. A company's liquidity position is viewed as a key factor in determining dividend payouts, and according to Amidu and Abor (2006), liquidity has a positive relationship with the dividend payout ratio. Businesses are better equipped to pay dividends when they have a lot of cash or cash equivalents (Ho, 2003). Jabbouri and Attar (2018) showed that those companies listed on the Casablanca Stock Exchange that exhibited greater liquidity levels were more likely to pay out significant cash dividends. Similar findings were observed in a study by Ahmed (2015).

Due to increased uncertainty, operational disruptions, and income losses, liquidity became a crucial factor in determining dividend policy during the COVID-19 pandemic (Baker et al., 2020). Cash preservation was a top priority for businesses in order to maintain operations, pay off debt, and guarantee solvency (Acharya and Steffen, 2020). Regulations under South Africa's Companies Act 71 of 2008, which mandate that companies show sufficient solvency and liquidity prior to disbursing dividends, emphasised the importance of these concerns (Chomba, 2021). Firms with better liquidity levels were more likely to continue paying dividends, according to empirical data, whereas those with poorer liquidity tended to cut or stop them (Bae et al., 2021). This emphasises how crucial liquidity is in determining dividend policy during hard times.

2.3.1.4 Free Cash Flows

The money which a business generates from its ongoing operations, after deducting capital expenditures required to preserve or grow its asset base, is known as free cash flow (FCF) (Jensen, 1986). As much as dividend reductions were prompted by the pandemic's severe effects on company earnings, companies that had more debt and less cash on hand were more likely to change their dividend policy (Fama and French, 2001). Businesses with substantial free cash flow typically maintain consistent dividend payments (Fama and French, 2001). However, the availability and utilisation of free cash flow became a strategic survival concern during the COVID-19 pandemic.

To strengthen their balance sheets, create precautionary cash buffers, and manage revenue unpredictability, many businesses, including those with historically strong FCFs, redirected their resources (Ramelli and Wagner, 2020). The discretionary character of dividends made them a good target for reductions as operational uncertainties and liquidity concerns increased (Bae, El Ghoul, Guedhami, and Kwok, 2021). Empirical data indicate that, in contrast to cash-constrained enterprises, firms with larger pre-pandemic FCF levels were more resilient in maintaining dividends (Ding, Levine, Lin, and Xie, 2021). These companies not only continued to provide dividends to shareholders; they also profited from demonstrating stability during times of crisis, which increased investor trust.

The COVID-19 pandemic clearly showed the critical role that corporate financial factors such as profitability, leverage, liquidity, and FCFs play in determining dividend policy choices. Although the literature had long acknowledged these factors, the crisis put a new focus on them, as businesses had to strike a balance between the demands of shareholders and the pressing need to maintain financial stability. Leverage exposed firms to increased risks, and limited distributions became a crucial buffer for maintaining payouts. Liquidity became essential for survival in the face of operational disruptions, while FCFs identified resilient firms that could sustain investor confidence. Collectively, these elements not only influenced payout patterns but also served as indicators of sound financial standing, effective risk management, and long-term stability during periods of uncertainty. This section highlights the significance of comprehending dividend policy as a financial strategy and a representation of corporate flexibility in times of crisis.

2.3.2 Sectoral and National Regulatory Contexts: Effects on Dividend Policies

Sectoral disparities in dividend responses to COVID-19 are significant, highlighting the varying levels of exposure to pandemic-related shocks and the differences in regulatory frameworks (Bossman, 2022). Many companies in the travel, hospitality, and manufacturing sectors, for example, implemented substantial dividend cuts due to disrupted operations and significant declines in demand. In contrast, it was not uncommon for those in sectors such as healthcare,

digital services, and essential goods to sustain or even raise their dividends, capitalising on the demand increases driven by the pandemic (Krieger et al., 2021; Tinungki et al., 2022).

The regulatory environment played a vital mediating role. Guedhami (2022) states that in 73 countries, stringent government actions, including lockdowns and restrictions on financial markets, led to dividend reductions, particularly among multinational corporations that encountered additional political and fiscal uncertainties in foreign markets. However, the implementation of the phrase 'strict government response' remains ambiguous in numerous studies, with a lack of quantitative analysis regarding how these policies interact with financial constraints at firm level. Furthermore, insufficient attention is given to confounding variables such as exchange rate fluctuations, sectoral composition, or varying levels of access to government assistance programmes (Ramana, 2022).

Research concentrating on firms in the US and Pakistan (Krieger et al., 2021). 2021) further emphasises the significance of national context. In numerous instances, US firms gained advantages from specific stimulus packages, which potentially mitigated dividend reductions, whereas Pakistani firms functioned under distinct regulatory and market limitations that uniquely influenced their payout behaviour. These disparities underscore the challenges of making broad generalisations across different countries and the necessity of considering institutional diversity when evaluating dividend policies during global crises (Krieger et al., 2021).

2.3.3 Contrasting Evidence: Dividend Increases Amid the Crisis

While numerous companies reduced or eliminated dividends during the pandemic, a significant number opted to either maintain or even increase their dividend distributions, creating a complex landscape of corporate strategy amid the crisis. Tinungki et al., (2022) found that certain Indonesian companies increased their dividends during the COVID-19 pandemic, viewing this as a strategic signalling approach to reassure shareholders about financial stability. In a similar vein, Ali (2022) reported that most firms within the G-12 group of developed nations either sustained or raised their dividends, contrary to the prevailing trend of reductions and suspensions.

These differing behaviours likely indicate variability in firm characteristics, such as robust cash reserves, diversified income sources, or access to governmental assistance, allowing some organisations to utilise dividends as a signal of confidence rather than simply a financial obligation. Nevertheless, the limited investigation into the firm-level factors influencing these divergent strategies raises unresolved questions. Additionally, the lack of consistent definitions and sample descriptions, particularly regarding the composition of the G-12 group, limits the generalisability of these results (Clark, 2021). Establishing more comprehensive theoretical frameworks to elucidate such outlier behaviour is an essential focus for future research.

2.3.4 Dividend Policy Trade-Offs and Firm Performance

The literature emphasises a crucial trade-off encountered during the pandemic: companies must find a balance between the need to maintain dividends and uphold investor confidence, and the necessity to safeguard liquidity for operational resilience (Ali, 2022). Such a balance can be achieved by the implementation of adaptive dividend strategies that flexibly align payouts with the liquidity positions, growth prospects, and risk profiles of firms. However, empirical investigations of these principles within the context of COVID-19 are still limited.

While certain firms seem to have effectively managed this balance, numerous others experienced a decline in financial performance after cutting or suspending dividends, indicating intricate relationships between payout decisions and the survival of firms (Bossman, 2022). Furthermore, the concept of a healthy balance sheet is frequently referenced but seldom applied consistently. Metrics such as liquidity ratios, debt coverage, and cash-flow stability may have played a significant role in shaping dividend policies, yet standardised benchmarks for these metrics during the crisis have not yet been established. It is crucial to understand how these financial indicators influence payout behaviour and subsequent performance to enhance dividend theories about crisis situations (Cejnek, 2021).

2.3.5 Regulatory Dividend Payout Restrictions

2.3.5.1 Companies Act

Decisions regarding dividend policies are influenced by the legal and regulatory environments in which businesses operate, further steered by corporate strategy and financial theory. These limitations ensure that dividend payments do not threaten creditor protection or the companies' financial stability. In South Africa, dividend distributions are primarily governed by section 46 of the Companies Act 71 of 2008 ('the Companies Act'). According to section 46 of the Companies Act, a business can only declare and pay dividends if it passes the solvency and liquidity test, which requires that its assets be greater than its liabilities and that it continues to be able to pay off its debts as they become due (Republic of South Africa, 2008). Given that many businesses saw a decline in revenue, a reduction in cash flows, and an increase in uncertainty during the COVID-19 pandemic, this regulatory obligation was significant. As a result, even companies that theoretically wanted to continue paying dividends as a sign of stability, in line with signalling theory (Ross, 1977), might have been legally prohibited from doing so if they were unable to achieve the solvency and liquidity criterion.

Additionally, the Companies Act imposes fiduciary duties on directors to act in the best interests of the company. At the time of the pandemic, directors had to be especially careful about dividend payouts, particularly in view of the fact that if directors pay dividends without meeting the solvency and liquidity requirements, they may be held personally liable for any losses that arise (Cassim et al., 2012). Unless financial stability could be guaranteed, boards were deterred from declaring dividends due to this liability risk. Empirical data support the substantial influence of these statutory restrictions. According to research on companies listed on the JSE, for example, several corporations halted or reduced dividends in 2020, citing solvency and liquidity constraints as a result of the Companies Act (PwC, 2021). In a similar vein, Deloitte (2020) found that before approving dividend proposals, audit committees gave more weight to stress-testing financial forecasts to guarantee section 46 compliance.

2.3.5.2 Industrial Regulations

The COVID-19 pandemic not only disrupted corporate earnings and liquidity but also triggered significant regulatory interventions that directly influenced dividend distributions across various sectors. While dividend policy is typically at the discretion of company boards within the boundaries of the Companies Act, sector-specific regulators imposed additional restrictions during the pandemic to safeguard systemic stability, particularly in industries deemed critical to the economy.

In the financial sector, regulators were among the first to impose limitations on the banking sector. In 2020, the Prudential Authority of South Africa (PA), a part of the South African Reserve Bank (SARB), released guidelines prescribing that banks reduce or cease paying bonuses and dividends to preserve capital. Given the predicted spike in defaults during the economic downturn, the reasoning was to make sure banks had sufficient capital buffers to withstand elevated credit risk (SARB, 2020). Similar actions were seen worldwide. As an example, the Bank of England (BoE) instructed UK banks to cancel anticipated dividends to preserve lending capacity, while the European Central Bank (ECB) mandated that eurozone banks cease dividend distributions and share buybacks until at least October 2020 (ECB, 2020).

Similar measures were taken in the insurance industry. Citing the need to safeguard policyholders and preserve solvency in the face of great uncertainty, the UK's Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) strongly recommended that insurers halt dividend payments and discretionary incentives (FCA, 2020). The Financial Sector Conduct Authority (FSCA) in South Africa warned against aggressive dividend payouts that could jeopardise long-term resilience and emphasised the importance of prudent capital management for retirement funds and insurers (FSCA, 2020). All things considered, these legislative actions led to a significant decrease in dividend payments during the COVID-19 pandemic. Empirical research demonstrates that insurers and financial institutions drastically cut or halted dividend payments, both in accordance with regulatory requirements and due to lower earnings (Al-Najjar and Kilincarslan, 2022; Karpavičius, 2021). The general pattern suggested that sectoral regulations played a significant role in influencing dividend policy

decisions throughout the crisis, even as certain industries outside of financial services continued to pay out modest amounts.

This suggests that during the COVID-19 pandemic, corporate dividend policy was influenced by sector-specific dividend governance systems and legal limitations incorporated into the Companies Act. These regulations served as barriers that prevented companies from prioritising shareholder dividends over financial stability by imposing solvency, liquidity, and prudential capital requirements. These restrictions have significant implications for this study. First, they suggest that dividend decisions were not solely managerial throughout the pandemic. For some companies, the pandemic period was marked by external limitations superseding internal financial performance, in contrast to typical conditions where considerations such as profitability, liquidity, leverage, and free cash flow dominate decisions about dividend policy (Amidu and Abor, 2006; Jabbouri, 2016).

For instance, some companies that had substantial cash reserves and high earnings were unable to distribute dividends due to these industrial regulations. Second, the regulations emphasised the necessity of considering sectoral differences in dividend policy results. Strict regulatory restrictions on dividend payments resulted in significant payout reductions for financial organisations, including banks and insurers, regardless of their liquidity or profitability. Instead, the Companies Act's solvency and liquidity restrictions largely impacted non-financial corporations in, for example, the mining and industrial sectors, leading to a more varied dividend adjustment pattern. According to studies by Ali (2022) and Bae et al. (2021), sector-specific regulations played a significant role in determining dividend suspensions worldwide during the COVID-19 pandemic.

Lastly, these limitations have a direct impact on the study's population and sample. Dividend policy responses cannot be consistently interpreted across all firms in the sample. Recognising the differences between the financial and non-financial industries is essential. Dividend suspensions at financial institutions, in particular, are often due to regulatory pressure, whereas in non-financial companies they may be more closely related to internal financial metrics such as free cash flow, profitability, liquidity, and leverage. By acknowledging these differences, the study can avoid incorrectly attributing regulatory-driven results to

a business' financial success. This will be readdressed in the methodology chapter.

2.3.6 South African Evidence: Market Specificities and Research Gaps

The situation in South Africa reflects and amplifies global trends while simultaneously presenting unique challenges shaped by its economic structure and market dynamics (Mazenda, 2021). The COVID-19 pandemic resulted in a significant economic decline and heightened volatility on the JSE. According to PwC (2021), over 40% of the JSE Top 40 companies either reduced or suspended dividends in 2020 as firms prioritised liquidity amidst considerable uncertainty. However, empirical studies at the firm level in the South African context are still limited (Ngarava, 2021). This creates an opportunity for the current study to be done based on South African companies.

2.4 Comparative Sythesis of Dividend Policy Theories and Empirical Evidence in Crisis Contexts.

Theories of dividend policy provide important but often competing explanations for corporate payout behaviour. While dividend irrelevance theory, signalling theory, bird-in-the-hand theory, pecking order theory, and contingency approaches each contribute to understanding dividend decisions, their explanatory power becomes increasingly contested during periods of significant economic disruption such as the COVID-19 pandemic. Consequently, a critical evaluation of these theories is necessary to assess their applicability within the context of crisis-driven corporate decision-making. Dividend irrelevance theory posits that dividend policy should not affect firm value under conditions of perfect capital markets (Miller and Modigliani, 1961).

However, the assumptions underpinning the theory, including perfect information, the absence of taxes, and frictionless capital markets, have been widely criticised as unrealistic, particularly within emerging-market economies characterised by information asymmetries and market inefficiencies (Baker and Weigand, 2015). During the COVID-19 pandemic, many firms reduced or suspended dividend payments to preserve liquidity, yet investors often interpreted such decisions within the broader context of the crisis rather than as signals of poor future performance. This suggests that the relevance of dividend policy may vary

according to prevailing economic conditions and investor expectations, thereby challenging the universal applicability of dividend irrelevance theory.

In contrast, signalling theory argues that dividend decisions communicate information regarding managerial expectations and future firm performance (Ross, 1977). The theory suggests that firms may maintain dividend payments during periods of uncertainty to reassure investors and reduce information asymmetries. However, empirical evidence from the COVID-19 period presents mixed findings. While some studies report that firms-maintained dividends to signal financial resilience and confidence (Bae et al., 2021), others found that liquidity preservation became a greater priority than signalling considerations, leading many firms to reduce or suspend dividend payments despite potential negative market perceptions (Mazur, Dang and Vo, 2023). These findings indicate that signalling motives may weaken when firms face extraordinary financial constraints and operational uncertainty.

Similar tensions emerge between bird-in-the-hand theory and pecking order theory. Bird-in-the-hand theory proposes that investors place greater value on certain dividend income than uncertain future capital gains (Gordon, 1963), implying that firms should strive to maintain dividends even during periods of economic stress. Conversely, pecking order theory suggests that firms prioritise internally generated funds and are therefore more likely to retain earnings when confronted with financial uncertainty or increased financing costs (Myers and Majluf, 1984). Evidence from the COVID-19 pandemic appears to provide stronger support for pecking order theory, as numerous firms reduced dividend payments to conserve liquidity and strengthen financial flexibility (AlGhazali and Yilmaz, 2023; Wang et al., 2023).

Nevertheless, the fact that some financially resilient firms maintained or increased dividends demonstrates that investor expectations and signalling considerations continued to influence payout decisions, suggesting that both theories retain explanatory value under different organisational circumstances. A further source of complexity arises from the empirical literature itself. Although numerous studies have examined dividend policy behaviour during the COVID-19 pandemic, findings remain inconsistent regarding the determinants of payout decisions. For example, several studies identify profitability as the dominant driver of dividend

policy (Tinungki et al., 2022), whereas others emphasise liquidity constraints, leverage, or free cash flow considerations (Kanojia and Bhatia, 2023; Wang et al., 2023). These inconsistencies may be attributable to differences in institutional environments, industry composition, sample periods, and methodological approaches. Studies conducted in developed markets frequently report different outcomes from those conducted in emerging economies, highlighting the importance of contextual factors in shaping dividend policy behaviour.

These theoretical and empirical contradictions have contributed to the growing acceptance of hybrid and contingency-based perspectives, which argue that dividend decisions cannot be adequately explained by a single theoretical framework (Hartono, 2021; Chomba, 2021). Instead, dividend policy appears to reflect the interaction of multiple firm-specific, market-specific, and macroeconomic factors. Such perspectives are particularly relevant during periods of systemic disruption, where firms must balance competing objectives including liquidity preservation, shareholder expectations, financing requirements, and long-term strategic considerations.

The applicability of these theories within the South African context warrants consideration. Most dividend policy theories were developed and tested within mature capital markets characterised by relatively stable economic conditions and sophisticated financial systems. South Africa, while possessing one of the most developed financial markets in Africa, operates within an emerging-market environment that is subject to greater economic volatility, structural inequalities, and external shocks. Consequently, the extent to which traditional dividend policy theories explain corporate behaviour during the COVID-19 pandemic remains an empirical question. By examining the dividend policies of Top 40 JSE-listed companies, this study contributes to addressing this gap and provides evidence regarding the relevance of established dividend theories within a South African crisis context.

2.5 Gaps in the Literature

Numerous studies have investigated the effects of the COVID-19 pandemic on corporate dividend policies worldwide; however, the current literature remains fragmented and lacks several important aspects (Wirama, 2024). Most research has focused on developed economies, frequently overlooking the distinct

financial, regulatory, and sectoral characteristics found in emerging markets such as the South African one (Benson, 2022). This section highlights the primary gaps in the existing body of knowledge that underscore the necessity of this study, particularly for the Top 40 JSE-listed companies during the COVID-19 crisis (Arsal, 2021).

The impact of COVID-19 on dividend policies has been extensively studied in developed economies of countries such as the US (Krieger, Mauck, and Pruitt, 2021), the UK (Michayluk, Neves, and Sun, 2024), and parts of Asia (Hsiao and Chen, 2021). However, emerging markets, especially that of South Africa, have received little contextualization. Due to South Africa's distinct economic structure, characterised by inequality, reliance on natural resources, and a small yet developed capital market, results from developed markets may not be directly applicable here (Muthu, 2023).

Additionally, a significant portion of the literature now in publication primarily provides general evaluations of dividend reductions or suspensions, often overlooking firm-level financial factors that influence dividend outcomes, such as profitability, debt, liquidity, and free cash flow (Ramana, 2022). Another neglected aspect is the importance of regulatory and policy interventions. South Africa's regulatory requirements, while less formalised, still influenced corporate payment decisions, even as international authorities placed curbs on dividend distributions to safeguard financial stability (Arsal, 2021). Furthermore, it is questionable whether dividend adjustments made during the pandemic were short-term liquidity-driven reactions or indicative of longer-term structural changes in corporate finance strategies, due to the lack of longitudinal studies (Cejnek, 2021).

Despite extensive global research on dividend policy during the COVID-19 pandemic, there remains an inadequate understanding of the effects of firm-level financial health in an emerging-market context such as that of South Africa. This limits both theoretical refinement and practical guidance for crisis-era corporate finance. Most global studies, such as those by Krieger, Mauck, and Pruitt (2021); Hsiao and Chen (2021); and Ali (2022), focus on developed economies, overlooking firm-level financial data and regulatory contexts in emerging markets. South Africa, with its resource-dependent economy and unique regulatory

framework, presents a distinct setting to test whether established dividend theories hold under crisis conditions.

Thus, broadly speaking, there remains a limited understanding of how firms determine dividend policy under conditions of uncertainty. Specifically, both theoretical and empirical literature provide insufficient clarity on how corporate managers of companies in developing markets navigate dividend decisions when faced with unprecedented uncertainty, such as that experienced during the COVID-19 pandemic. Existing studies offer only partial insights into the context that characterises South Africa as a developing market, failing to capture how firm-level financial indicators integrate with dividend policy decisions under crisis conditions.

Within the context of the JSE Top 40 companies, the relationship between financial metrics and dividend decisions during periods of crisis remains largely unexplored. Without this information, both corporate managers and policymakers lack evidence-based guidance for dividend policy in future crises.

By addressing these gaps through answering the research questions and further addressing the research problem, this study contributes to a deeper understanding of dividend decision-making under crisis conditions, offering both theoretical and practical implications for corporate finance and policy in South Africa and beyond.

2.6 Conceptualisation and Hypothesis Development

The issue of dividend policy choices made during times of crisis is still highly debated. Businesses are faced with the difficult decision of whether to retain or raise dividend payments to indicate expected strong growth and performance, or to decrease or cut dividends to conserve cash and liquidity in preparation for future funding requirements. Many businesses cut or reduce dividend payouts in an environment of high uncertainty and drastically declining earnings (Pettenuzzo et al., 2023). An example of a crisis that created such an environment is the 2008–2009 global financial crisis. According to Hauser's (2013) research, a company's likelihood of paying dividends declined during the 2008–2009 global financial crisis. In a similar vein, Kilincarslan (2021) noted that the 2008 financial crisis had a detrimental effect on the dividend payments of companies that were listed on

the London Stock Exchange. These companies swiftly adjusted their dividend payouts in reaction to notable declines in their earnings. Al-Malkawi et al. (2014) found, however, that the global financial crisis of 2008 had no effect on the corporate dividend policy of Jordanian listed corporations. Their study is relevant to the current one as it, too, was carried out in a developing economy.

COVID-19 pandemic and Corporate Financial Variables influence on Dividend Policy during the COVID-19 Pandemic

Due to the COVID-19 pandemic being considered to have been a crisis, several recent empirical studies investigated how companies' dividend policies changed for its duration. For example, Tinungki et al. (2022) examined how the COVID-19 pandemic affected Indonesian listed companies' dividend policies and discovered that the crisis increased dividend payments, confirming the signalling theory's premise. Similarly, Ali (2022) utilised data from 8889 listed companies in the G-12 to find that most companies kept their dividend payouts the same or even grew them during the COVID-19 pandemic, despite a larger percentage of dividend cutbacks and omissions. In contrast to this, however, Ntantamis and Zhou (2022) noted that the COVID-19 pandemic caused a significant reduction in dividends across the G-7 nations. Their research indicates that during the COVID-19 pandemic, companies were more inclined to reduce payouts. Ali (2022) used data on 360 companies listed on the Pakistan Stock Exchange, also finding that corporations were more likely to reduce or stop paying dividends in 2020 than they were prior to the financial crisis. Similarly, according to Cejnek et al.'s research from 2021, dividend payouts declined in the first quarter of 2020 and did not increase again by the end of that year. Fama and French (2001) confirm that corporate financial variables have a significant influence on the dividend policy of firms.

From the above, it is evident that the literature presents conflicting findings and lacks clarity regarding how the COVID-19 pandemic affected companies' dividend policy. This study, therefore, set out to investigate what prompted the varying dividend payout behaviours during the COVID-19 pandemic and determine whether the COVID-19 pandemic significantly influenced dividend policies during this period. Given that there were alterations to dividend payouts based on the studies discussed above, the first two hypotheses are:

H1: The COVID-19 pandemic significantly influenced dividend policies of the top 40 JSE-listed companies.

H2: Corporate financial variables significantly explain the dividend payout behaviour of the JSE Top 40 companies during the COVID-19 pandemic.

The Effect of Profitability on Dividend Policy during the COVID-19 Pandemic

Research shows that a company's dividends are significantly impacted by its profitability. As demonstrated by Gunawan and Tobing (2018), the more profitable a company is, the more likely it is to pay dividends. According to Baker et al. (2020), the COVID-19 pandemic led to supply chain disruptions, demand shocks, and operational shutdowns, which severely reduced the profitability of businesses across a wide range of industries. The mining, manufacturing, and hotel industries, for instance, experienced sharp drops in profits, making it difficult for them to sustain prior payout levels. These companies adopted cash preservation tactics, delaying dividends or reducing payouts as profitability declined (Mazur, Dang, and Vo, 2020). However, profitable companies were more likely to maintain or gradually increase dividend payments, especially in more resilient industries such as technology, healthcare, and financial services (Ali, 2022). As a result, this hypothesis was assumed:

H3: There is a significant positive relationship between profitability and dividend payouts.

The Effect of Leverage on Dividend Policy during the COVID-19 Pandemic

Leverage is a key factor in determining a company's dividend policy. According to Ka´zmierska-Jó´zwiak (2015), there is a negative correlation between leverage and dividend payout. A study by Asif et al. (2011), which showed that companies with high levels of debt pay lower dividends, corroborated this finding. This trend intensified during the COVID-19 pandemic. Due to pressure to maintain cash for interest payments and debt covenants, highly leveraged companies were less able to maintain the payment of historical dividend amounts when the crisis struck. Businesses with high debt loads were more likely to halt or reduce dividend payments during the pandemic (Bae, El Ghoul, Guedhami, and Kwok, 2021). In contrast, companies with lower leverage ratios were better positioned to maintain

dividend payments and had greater financial flexibility, which provided investors with a sense of stability during a time of increased uncertainty (Acharya and Steffen, 2020). This demonstrates how leverage, as a structural restriction, significantly influenced dividend outcomes during the COVID-19 pandemic. As a result, this hypothesis was assumed:

H4: There is a significant negative relationship between leverage and dividend payouts.

The Effect of Liquidity on Dividend Policy during the COVID-19 Pandemic

Several studies have considered a firm's liquidity to be a significant factor in dividend payout decisions. For example, Jabouri and Attar (2018) showed that companies listed on the Casablanca Stock Exchange were more likely to pay substantial cash dividends when they exhibited higher liquidity. Ahmed (2015) reported similar findings in his study. Liquidity concerns became even more pressing while making dividend decisions during the COVID-19 pandemic. Many businesses in various industries such as tourism, hospitality, accommodation, and aviation all over the world, but specifically in countries such as the UK, Japan, and Canada, experienced increased uncertainty, operational shutdowns, and significant revenue disruptions (Baker et al., 2020).

At the time, businesses placed a high priority on preserving cash to cover necessary operations, settle debts, and remain solvent (Acharya and Steffen, 2020). This was further supported by regulators in certain jurisdictions, such as South Africa, who implemented solvency and liquidity requirements under the Companies Act 71 of 2008 to limit dividend payments for companies that could not prove that they had sufficient cash (Mazenda, 2021). Businesses with larger liquidity buffers were more likely to either maintain or just slightly modify dividends during the pandemic (Bae, El Ghoul, Guedhami, and Kwok, 2021). On the other hand, because cash preservation became crucial for survival, companies with limited liquidity were more likely to suspend or omit dividend payments (Krieger, Mauck, and Pruitt, 2021). This demonstrates the importance of liquidity in regulating dividend policy in times of crisis. As a result, this hypothesis was assumed:

H5: There is a significant positive relationship between liquidity and dividend payouts.

The effect of free cash flow on dividend policy during the COVID-19 pandemic

The COVID-19 pandemic offered an ideal environment for observing how internal financial capacity and liquidity affect payout behaviour in times of crisis. Research has consistently demonstrated that companies with more robust internal resources, such as cash holdings and free cash flow, were better able to withstand the financial disruptions caused by the pandemic (Ding et al., 2021). In a similar vein, Ali (2022) found that companies with larger cash reserves and more free cash flow were less likely to cut or suspend dividends during the pandemic, suggesting that internal liquidity buffers offered the adaptability required to keep payout policies steady in the face of earnings volatility. These results are corroborated by evidence from similar research. According to Ntantamis et al. (2022), companies with greater cash and liquidity had a far lower likelihood of changing their dividend policy during COVID-19. This implies that the stability of payout decisions was influenced by the financial flexibility that came from free cash flow. As a result, this hypothesis was assumed:

H6: Firms with higher free cash flow were more likely to continue dividend distributions during the COVID-19 pandemic.

Figure 2.6.1 presents the conceptual framework underpinning this study. The framework illustrates the hypothesised relationships between the COVID-19 pandemic, firm-specific financial variables, and dividend policy behaviour among Top 40 JSE-listed companies. Dividend policy serves as the dependent variable, while profitability, liquidity, leverage, growth opportunities, free cash flow, and the COVID-19 pandemic constitute the primary explanatory variables. The framework is informed by dividend irrelevance theory, signalling theory, bird-in-the-hand theory, and pecking order theory, which collectively provide theoretical explanations for corporate dividend decisions.

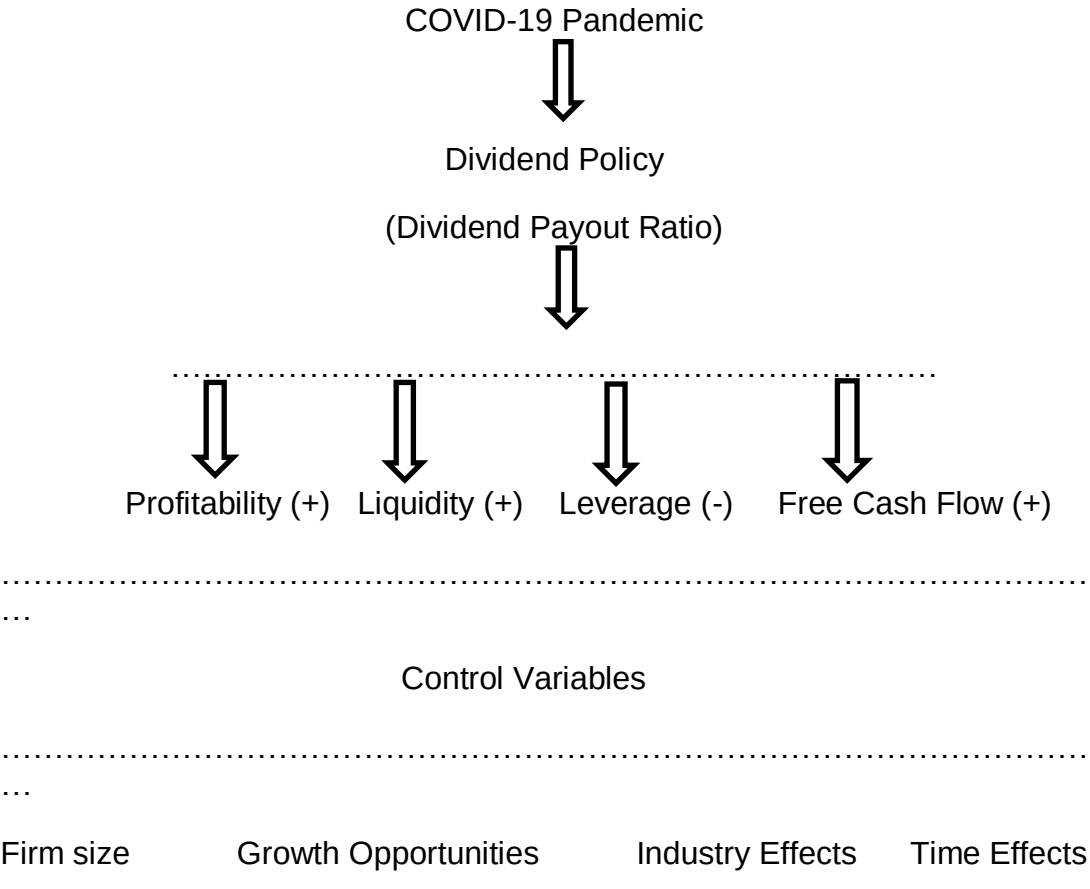

Figure 1: 2.6.1 Conceptual Framework Diagram

The framework proposes that profitability, liquidity, growth opportunities, and free cash flow are expected to exhibit positive relationships with dividend policy, whereas leverage is expected to exhibit a negative relationship. The COVID-19 pandemic is incorporated as an explanatory variable to assess whether the crisis significantly influenced dividend policy behaviour during the study period. Control variables are included to account for firm-specific and temporal factors that may influence dividend decisions independently of the primary explanatory variables.

2.7 Summary and Conclusion

The literature examined in this chapter emphasises the complex effects of the COVID-19 pandemic on corporate dividend policies worldwide, particularly in relation to how companies reacted to financial challenges, market fluctuations, and disruptions specific to their sectors. It indicates that while numerous firms chose to reduce or halt dividends to safeguard liquidity, others either maintained or even increased their payouts as a strategic demonstration of resilience, highlighting the conflict between immediate survival and long-term investor trust.

Theoretical models such as the dividend irrelevance theory, signalling theory, pecking order theory, and bird-in-hand theory provide valuable yet often insufficient insights when considered in crises, particularly amid significant uncertainty and external regulatory pressures. Empirical research from various nations illuminates the influence of profitability, cash flow, capital structure, and policy measures on dividend decisions; however, the results tend to be disjointed and frequently lack essential comparisons across different contexts.

A notable gap exists in the literature regarding emerging markets, particularly that of South Africa, where there have been few firm-level studies examining how leading JSE-listed companies modified their dividend strategies in response to COVID-19. Furthermore, there is a pressing need for a more thorough analysis of how internal financial metrics, sectoral resilience, and governmental expectations shaped these decisions, along with longitudinal perspectives to determine whether the changes were temporary or indicative of a more extensive strategic transformation. This study aims to fill these gaps by exploring the degree to which corporate financial elements affected dividend policy among South Africa's Top 40 listed companies during the pandemic, thereby enhancing both the empirical comprehension of crisis-induced financial behaviour and the theoretical advancement of dividend policy under crisis.

The literature reviewed in this chapter has provided the theoretical and empirical foundation for examining the impact of the COVID-19 pandemic on the dividend policies of Top 40 JSE-listed companies. Building on this theoretical and empirical foundation, Chapter 3 presents the research methodology adopted to investigate the hypothesised relationships between COVID-19, firm-specific financial variables, and dividend policy behaviour among Top 40 JSE-listed companies.

3 CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Chapter three outlines the research design, methodology, and method employed to achieve the study's objectives. The chapter elucidates the philosophical assumptions and reasoning framework that support the study, the selected research design, and the methods employed for sampling, data collection, and data analysis. It begins with the research design, which offers the structural framework for addressing the study's primary and secondary research questions. It subsequently discusses the study's ontology, epistemology, and reasoning mode to establish the philosophical underpinnings of the research approach. The following section elaborates on the research method, encompassing the sampling strategy, data sources, and analytical techniques employed. The chapter concludes by addressing the measures implemented to ensure reliability and validity, the methodological limitations of the study, and the ethical considerations observed throughout the research process, thereby guaranteeing transparency, rigour, and adherence to scientific standards.

3.2 Research Design

Research design refers to the structured plan that guides the actions, behaviours, and tools that the researcher uses to gather data relevant to answering the research questions and responding to the study's hypothesis (Coe, 2021). It is the overall method used to conduct the research. Thus, it defines an intricate plan for responding to the research questions by collecting, interpreting, analysing, and discussing the data provided. The types of research design include qualitative, quantitative, and mixed-methods research designs. This research employed a quantitative research design to answer the research question. The focus of quantitative research designs is on using statistical analysis and numerical data to evaluate hypotheses and look at how variables relate to one another (Bryman, 2016).

A quantitative design is appropriate, given that the study is grounded in numerical and measurable data derived from verifiable financial records. This approach facilitates objective analysis through the application of statistical methods (Strunk, 2025). The design incorporates the use of secondary financial data, ensuring

consistency and comparability among the selected firms. Additionally, it employs regression analysis to evaluate the statistical significance of the identified relationships (Smith, 2022). Mamaro and Tjano (2019) point out that a quantitative research design utilises statistical techniques such as regression analysis to precisely quantify the correlations between variables. This precision enables the identification of trends and patterns that qualitative research may not detect (Mamaro and Tjano, 2019). Consequently, this design is well suited to analysing financial data, which is primarily numerical and requires rigorous statistical techniques to uncover complex patterns and relationships (Bryman, 2016).

A qualitative research design is less appropriate because it employs open-ended questioning to provide profound and comprehensive insights into complex phenomena such as human behaviour and experiences (Bell et al., 2019). In comparison to the more linear and systematic approach of quantitative research, the nonlinearity of qualitative research can pose difficulties in maintaining a structured research framework and establishing statistical relationships (Bell et al., 2019). Consequently, studies like this one, which aims to quantify factors and generalise findings to a broader population, may find qualitative methodologies less suitable.. The specific objectives and questions of the study guided the choice to utilise quantitative methods over qualitative approaches.

This study is of an explanatory nature, aiming to identify and elucidate the corporate financial factors influencing senior management's decisions regarding dividends during the COVID-19 pandemic, while also establishing statistical relationships between variables. Understanding the reasons underlying a phenomenon and identifying the relationships among variables constitute the primary components of an explanatory study (Saunders, Lewis, and Thornhill, 2019).

This approach facilitates the testing of hypotheses derived from established financial theories and prior empirical research, thereby linking theoretical frameworks to actual corporate behaviours. The research design incorporated the utilisation of secondary financial data to ensure consistency and comparability across the selected firms. Regression analysis was employed to evaluate the statistical significance of the identified relationships (Smith, 2022). As noted by Saunders et al. (2019), explanatory research examines the relationship between

variables, often addressing the question of “why”. In contrast to exploratory studies, which aim to gain insights into poorly understood issues, this research is grounded in existing literature on dividend policy and crisis management and focuses on testing specific hypotheses regarding the impact of COVID-19 on corporate payout behaviour.

3.3 Research Philosophy

The underlying collection of ideas, assumptions, and guidelines that directs the planning, execution, and interpretation of research is referred to as the research philosophy. It addresses fundamental issues regarding the nature of reality (ontology) and the process of knowledge acquisition (epistemology) (Saunders, Lewis, and Thornhill, 2019). Researchers must ensure that their methodological decisions are consistent, logical, and aligned with the study's goal by clearly articulating these philosophical positions. The selection of methodology is guided by these presumptions, guaranteeing that the design, techniques, and analytical strategies of the study align with the researcher's fundamental philosophical position.

3.3.1 Ontology

A set of fundamental principles must guide every research investigation. In the context of conducting research, these principles include assumptions about the nature of the world and the essence of knowledge (Babbie, 2020). Ontology is one such principle, concerned with the nature of reality and what entities are regarded as real (Saunders, Lewis, and Thornhill, 2019). The ontology adopted for this study is objectivism, as it presumes that the subject under investigation, dividend policy decisions during the COVID-19 pandemic, is an objective reality that exists independently of the researcher and is driven by observable factors rather than individual interpretation (Bryman and Bell, 2015). According to objectivism, factors such as cash-flow availability, profitability, regulatory actions, and investor expectations essentially influence a company's decision to pay out dividends during times of crisis.

However, considering the role that managerial discretion and signalling motives play in dividend decisions, it is also necessary to critically scrutinise the applicability of objectivism in this situation. According to agency theory, managers

may intentionally employ dividends to indicate their financial health to the market or to lower agency costs (Jensen and Meckling, 1976). Signalling becomes more important in times of crisis, as companies may decide to maintain or even increase dividends despite financial difficulties to reassure investors about their stability and long-term prospects (DeAngelo and DeAngelo, 2006). Even while these behaviours seem subjective, they may nevertheless be examined from an objectivist perspective.

3.3.2 Epistemology

This study adopted a positivist epistemological stance, asserting that the most reliable information is derived from objective, observable, and quantifiable evidence (Saunders, Lewis, and Thornhill, 2019). Assuming that links between variables can be discovered through methodical observation and empirical testing, positivism posits that knowledge comes from facts that are both observable and measurable (Smith, 2022). The subject of dividend policy research is supported by established but conflicting theoretical viewpoints, including the life-cycle theory of dividends, agency theory, signalling theory, and catering theory (Krieger, Mauck, and Pruitt, 2021). For this reason, this position is especially pertinent. These theories explicitly account for several factors that influence corporate payout decisions, including investor demand, company maturity, agency costs, and information asymmetry. Using quantifiable metrics such as profitability, leverage, liquidity, and free cash flow, a positivist approach enables the empirical testing of these theories (Krieger, Mauck, and Pruitt, 2021).

When compared to other research theories, the choice to embrace positivism is further supported. For example, interpretivism might have offered deep insights into the discretionary logic of managers who cut or suspended dividends during the COVID-19 pandemic, particularly in cases where such choices were presented as reassuring signals to the markets. However, while interpretivist approaches excel at revealing meanings and narratives, they are less well suited to examining broadly applicable correlations among the JSE Top 40.

In a similar vein, pragmatism blends quantitative and qualitative methodologies to provide a flexible strategy that many finance dissertations use to strike a balance between contextual richness and statistical rigour (Morgan, 2014). This study prioritises positivism despite the merits of pragmatic pluralism, though, since its

main objective is to assess the empirical validity of dividend policy ideas during COVID-19, a task that is best accomplished through quantitative, objective data analysis. The study acknowledges this and notes that pragmatism may be helpful in conducting supplementary research, especially when examining how managers informed investors of dividend decisions.

Positivism has drawbacks that include its inability to adequately deal with unobservable variables such as managerial expectations, regulatory constraints, and informal governance dynamics, which is a significant criticism of the approach in financial research (Bryman, 2016). This restriction applies to the COVID-19 context as well, when enterprises' dividend behaviour was impacted by both quantifiable features, such as liquidity, and less obvious ones, such as changing regulatory actions under the Companies Act and prudential standards being placed on banks. To overcome this limitation, the study utilises a range of secondary data sources and presents statistical results within the broader context of the pandemic's regulatory and economic environment.

3.3.3 Axiology

Axiology refers to the role of values in the research process and the extent to which the researcher's beliefs, preferences, and subjective judgements influence the generation and interpretation of knowledge (Saunders, Lewis and Thornhill, 2019). This study adopted a positivist philosophical orientation, which is aligned with a value-free or objective axiological position. Positivist research assumes that phenomena can be observed, measured, and analysed independently of the researcher's personal beliefs and values (Creswell and Creswell, 2018). Consequently, the researcher sought to minimise subjective influence throughout the research process by relying on objectively measurable variables, secondary financial data obtained from publicly available sources, and statistical analysis techniques to test the proposed hypotheses. Furthermore, the use of standardised data sources, predefined variable measurements, and established quantitative analytical procedures enhanced the objectivity of the study and reduced the potential for researcher bias. The findings and conclusions were therefore derived from empirical evidence rather than personal interpretations or value judgements, thereby ensuring consistency with the study's positivist and deductive research orientation.

3.4 Mode of Reasoning

Reasoning constitutes the foundation of research design, as it guides the development and substantiation of knowledge claims (Creswell and Creswell, 2018). The intellectual framework for study design is provided by reasoning, which directs the formulation and validation of knowledge claims (Creswell and Creswell, 2018). Deductive and inductive reasoning are the two primary methods in this paradigm. From theory to data, deduction proceeds as hypotheses are generated from pre-existing frameworks and tested empirically (Bryman, 2016). Conversely, induction proceeds from facts to theory, enabling the creation of new conceptual ideas based on patterns in empirical evidence (Sekaran and Bougie, 2016).

The current research employed a deductive research methodology, beginning with established theories and concepts before proceeding to empirical testing. Using a deductive reasoning approach, this study formulated hypotheses regarding the impact of financial factors, including profitability, liquidity, leverage, and free cash flow, on dividend policy during the COVID-19 pandemic. It started with well-established theoretical perspectives, including signalling theory, agency theory, and life-cycle theory. The JSE Top 40 firms' secondary financial data was used to examine these hypotheses, guaranteeing that they align with the positivist perspective that guides this study.

However, implementing deduction necessitates careful consideration. Since hypotheses are often predetermined by preexisting theories that may not adequately reflect the dynamics of crises like COVID-19, deduction can pose a danger of confirmation bias. Confirmation bias is the tendency of individuals to look for, evaluate, and retain information in a way that supports their preconceived notions or hypotheses while ignoring or undervaluing evidence to the contrary (Dhami, Belton, De Werd, et al., 2024). Distorted judgment and decision-making result from this cognitive bias, which influences how people acquire and interpret information (Nickerson, 1998).

For example, despite strong earnings, several companies withheld payouts during the pandemic to conserve cash (Krieger, Mauck, and Pruitt, 2021), contrary to signalling theory's prediction that prosperous corporations will continue to pay dividends to demonstrate their financial strength. This highlights the risks

associated with relying too heavily on theoretical generalisations in situations where there is considerable uncertainty.

Nevertheless, deduction remains the most effective method of reasoning for this investigation for three reasons. First, a deductive method enables the systematic testing of recognised theoretical traditions such as agency, signalling, and bird in hand that form the foundation of dividend policy research (Bryman, 2016). Second, deduction offers a methodical approach to separating and empirically testing how financial factors influence dividend choices (Bhattacherjee, 2025). Third, the study identifies areas where theory may need improvement to account for crisis behaviour in emerging economies such as that of South Africa by applying deductive reasoning in the unique context of COVID-19.

Deduction is thus not merely a strict application of earlier theory but a purposeful method to determine if presumptions remain true in the face of doubt (Bell and Waters, 2023). Although inductive reasoning may yield new insights, deduction's systematic hypothesis-testing process ensures that the study contributes to the theoretical validation and evidence relevant to corporate finance policy (Bell and Waters, 2023).

3.5 Method

The subsequent section provides an elaboration on the research method, including the sampling strategy, target population, data collection instruments, variable selection, and analytical techniques employed. It also addresses the measures undertaken to ensure reliability and validity and discusses the methodological limitations of the study.

3.5.1 Target Population

The focus of this study is on the Top 40 companies listed on the JSE, ranked by market capitalisation at the start of the review period. The JSE Top 40 accounts for more than 80% of the market capitalisation of all companies listed on the JSE (Brookes, Burnham, Van Zijl, and Maroun, 2025). The companies span a variety of industries, including mining, financial services, retail, telecommunications, manufacturing, and energy, providing a comprehensive and representative view

of corporate behaviour among South Africa's large-cap listed firms. The selection of this population is based on the understanding that the Top 40 companies are generally well-established, publicly traded entities with strong governance frameworks and transparent financial reporting practices. This ensures the availability and reliability of the secondary data necessary for the analysis (Scharer, 2025).

This group of listed companies holds strategic importance, as their dividend policy decisions significantly impact investor sentiment, market trends, and the overall economic health of South Africa. The classification of the 40 organisations also facilitates sectoral diversity within the sample, allowing for cross-industry comparisons and improving the generalisability of the study's conclusions in the context of large, listed corporations in South Africa.

3.5.2 Sample and Sampling Strategy

The sample for this study was selected from a population consisting of the Top 40 companies listed on the JSE, with a specific focus on those that have made explicit and publicly accessible disclosures regarding their dividend policy decisions during the period directly before, during, and after the COVID-19 pandemic, specifically from 2017 to 2024. This sample represents various sectors of the South African economy, facilitating a more comprehensive understanding of how different industries responded to the economic challenges posed by the pandemic in relation to dividend policies (Sarstedt, 2022). In essence, for the purposes of this study, the sample was restricted to companies that disclosed relevant information regarding dividend policies, adjustments, or suspensions before, during, and after the COVID-19 pandemic period (2017–2024). This criterion guaranteed that only firms with adequate, consistent, and comparable data were included, thereby enhancing the validity of the findings (Rubin, 2020).

The sampling technique used in research is determined by the characteristics of the population, the study's goals, and the accessibility of the data (Rubin, 2022). Index-based census sampling with eligibility screening and random sampling are two popular strategies that differ substantially in their justification and implementation. Index-based census sampling combined with eligibility screening is a purposive sampling technique in which, first, we identify a comprehensive pre-existing list of the target population, which in this case is the

top 40 JSE-listed companies; second, we consider every unit in that population for inclusion in the sample; third, we apply eligibility criteria to screen the units according to the study's requirements; and finally, we only include those units that meet the eligibility criteria in the final sample (Saunders, Lewis, and Thornhill, 2019).

As noted, index-based census sampling with eligibility screening gives the researcher the freedom to exercise their judgment in selecting examples that will most effectively facilitate the accomplishment of the study goals (Sekaran and Bougie, 2016).

An index-based census sampling strategy combined with eligibility screening was employed, as it allows for the intentional selection of companies that fulfil the inclusion criteria and are most pertinent to addressing the research questions. This method is suitable in this context because the research requires detailed, comparable, and reliable financial data, which is not consistently available across all listed companies (Smith, 2022). The following inclusion criteria were developed to ensure that the chosen companies made a significant contribution to the research. First, to ensure uniformity in market capitalisation and index representation, companies must have been included in the JSE Top 40 index during the pandemic period (2020–2021).

Second, as these behaviours are essential to the study of dividend policy, companies must have made clear decisions on dividends during the time, whether in the form of dividend declarations, reductions, suspensions, or postponements. Third, because these financial indicators are essential for empirical testing, corporations must disclose profitability, liquidity, leverage, and free cash flows in their annual reports and publicly accessible audited financial statements. Lastly, because sectoral heterogeneity offers insights into the varying levels of resilience and dividend behaviour throughout the crisis, it is crucial to include companies from a variety of industries, including mining, banking, retail, and telecommunications. .

Furthermore, to improve the sample and eliminate cases that might skew the results, several exclusion criteria were established. Businesses that had not previously paid dividends and made no announcements regarding dividend suspensions or policy changes during the COVID-19 pandemic were excluded,

as their actions would not yield any useful information (Fama and French, 2001). To preserve consistency across the longitudinal span of the research, firms that briefly entered or left the JSE Top 40 during the crisis were also excluded. Lastly, to maintain the validity of the empirical testing, companies that did not have adequate financial data for the variables being studied were excluded (Little and Rubin, 2019).

The index-based census with eligibility screening process ensured that the dataset encompassed firms from a range of sectors, including mining, banking, retail, and telecommunications, thereby broadening the scope and relevance of the findings (Coe, 2021). The researcher acknowledges that, although incorporating companies from different sectors in the sample enhances sectoral diversity and facilitates cross-industry comparison, sector-specific factors, such as cyclic volatility in mining and regulatory requirements in banking, may affect dividend behaviour in different ways. This will be further considered in the data analysis and can be controlled using industry dummies in the regression (Wooldridge, 2019).

Below is an assessment of the Top 40 JSE companies included in the sample as per the inclusion and exclusion criteria mentioned above. These are the Top 40 listed companies as of 19 September 2019 (IG Group, 2019). This fixed sample was chosen to create a stable baseline before the COVID-19 pandemic hit, which started to impact South African companies in early 2020. Using the 2019 year-end composition ensures that the research includes the same group of companies both before and after the pandemic, enabling insightful comparisons of dividend policy choices over time. This methodology is consistent with earlier empirical studies, such as Mazur, Dang, and Vo (2020) and Baker et al. (2020), which examined the short-term impacts of significant economic shocks on corporate finance policies using pre-crisis index compositions. The inclusion and exclusion criteria mentioned above were applied to the JSE Top 40 listed companies, resulting in the exclusion of BHP Group, Discovery Ltd, Impala Platinum, and Sasol from the sample. After these criteria were applied, the final sample comprised 36 companies, reflecting sectoral diversity and ensuring that the empirical results are robust and generalisable within the context of South Africa's largest publicly listed firms. The companies included in the sample are listed in **Table 3.5.2.1** below.

***Table (2): 3.5.2.1* JSE Top 40 companies as of 19 September 2019**

No.	Company Name	Sector	Remained in the JSE Top 40 during the COVID-19 pandemic (2020–2022)?	Clear decision on dividends was made during the COVID-19 pandemic (2020–2022)?	Included in sample?
1	Naspers	Technology/Media	Yes	Yes	Yes
2	Compaignie Financiere Richemont	Consumer Luxury/Retail	Yes	Yes	Yes
3	Anglo American plc	Materials/Mining	Yes	Yes	Yes
4	Standard Bank	Financials/Banking	Yes	Yes	Yes
5	First Rand Ltd	Financials/Banking	Yes	Yes	Yes
6	MTN Group	Telecommunications	Yes	Yes	Yes
7	Prosus	Technology/Internet	Yes	Yes	Yes
8	Sasol	Energy/Chemicals	Yes	Yes	Yes
9	British American Tobacco (BAT)	Consumer Staples/Tobacco	Yes	Yes	Yes
10	Absa Group	Financials/Banking	Yes	Yes	Yes
11	AngloGold Ashanti	Materials/Gold mining	Yes	Yes	Yes
12	Sanlam	Financials/Insurance/ Financial Services	Yes	Yes	Yes
13	Mondi Group	Industrial/Packaging and Paper	Yes	Yes	Yes
14	Capitec Bank	Financials/Banking	Yes	Yes	Yes
15	Clicks Group	Consumer Retail/ Healthcare and Retail	Yes	Yes	Yes
16	Exxaro Resources	Materials/Coal/Mining	Yes	Yes	Yes
17	Gold Fields	Materials/Gold Mining	Yes	Yes	Yes
18	Growthpoint Properties	Real Estate/REIT	Yes	Yes	Yes
19	Investec Limited	Financials/Banking and Asset Management	Yes	Yes	
20	Investec Plc	Financials/Banking and Asset Management	Yes	Yes	Yes
21	MultiChoice Group	Consumer Media/Pay-Tv	Yes	Yes	Yes
22	Mr Price Group	Consumer Retail/Apparel	Yes	Yes	Yes

No.	Company Name	Sector	Remained in the JSE Top 40 during the COVID-19 pandemic (2020–2022)?	Clear decision on dividends was made during the COVID-19 pandemic (2020–2022)?	Included in sample?
23	Nedbank Group	Financials/Banking	Yes	Yes	Yes
24	Old Mutual	Financials/Insurance and Wealth	Yes	Yes	Yes
25	NEPI Rockcastle	Real Estate/REIT	Yes	Yes	Yes
26	Redefine Properties	Real Estate/REIT	Yes	Yes	Yes
27	Remgro	Conglomerate/Investments	Yes	Yes	Yes
28	Rand Merchant Holdings/ Rand Merchant Bank (RMB)	Financials/Investment Banking	Yes	Yes	Yes
29	Sibanye-Stillwater	Materials	Yes	Yes	Yes
30	Shoprite Holdings	Consumer Retail/Groceries	Yes	Yes	Yes
31	Tiger Brands	Consumer Staples/Food	Yes	Yes	Yes
32	The Foschini Group (TFG)	Consumer Retail/Apparel and Retail	Yes	Yes	Yes
33	Bidcorp Ltd	Consumer Services/Food Services/Distribution	Yes	Yes	Yes
34	Vodacom Group	Telecommunications	Yes	Yes	Yes
35	Bidvest Group Ltd	Industrial/Services and Trading	Yes	Yes	Yes
36	Woolworths Holdings (WHL)	Consumer Retail/Food and Apparel	Yes	Yes	Yes

Source: *Johannesburg Stock Exchange (2019)*

3.5.3 Study Timeline

This longitudinal study examines changes in dividends before, during, and after the COVID-19 pandemic, from 2017 to 2024, capturing the dynamics of dividend policy during that period. This timeframe was chosen deliberately, based on both theoretical and empirical considerations. First, starting in 2017 provides the study

with a three-year pre-pandemic baseline, allowing it to identify dividend trends during more stable economic times. This is crucial, because research on dividend policy needs a standard by which to differentiate between normal fluctuations and changes brought on by crises (Lintner, 1956; Baker and Weigand, 2015).

Second, since the period from 2020 to 2021 represents the height of pandemic-related disruptions, it is imperative that these years be included. Like many other countries, South Africa experienced a period of severe lockdowns, increased uncertainty, and liquidity constraints during this period, all of which impacted corporate cash-flow management and dividend decisions (PwC, 2021). Lastly, by extending the research to 2024, post-crisis modifications may be observed. This offers insight into whether dividend reductions and suspensions were short-term defensive measures or indicative of a longer-term change in payout policies. This is in line with other longitudinal finance research that highlights how crucial it is to track recovery periods to evaluate how resilient corporate financial policies are (DeAngelo et al., 2009). The 2017–2024 window thus captures pre-crisis stability, crisis response, and early post-crisis recovery, allowing for a comprehensive explanation of dividend behaviour.

3.5.4 Data Collection and Management

The study utilised secondary data collection techniques, relying on publicly accessible and digitally archived financial data from the chosen Top 40 companies listed on the JSE. The financial datasets from the Top 40 JSE companies were sourced from various channels, including annual reports, SENS announcements, and the IRESS financial terminal and were compiled into a unified structured dataset spanning the years 2017–2024. IRESS is a financial data terminal which offers audited, standardised, and trustworthy information on publicly traded companies. Efficiency and consistency are the two primary benefits of using a data terminal over manual collection. Furthermore, automated data systems improve reliability by reducing the researcher's chance of transcription errors (Saunders, Lewis, and Thornhill, 2019).

The sources were selected due to their credibility, standardisation, and adherence to rigorous regulatory standards such as the JSE listing requirements, IFRS and the South African Companies Act, which ensure both reliability and comparability across different firms and years (Bourne, 2021). It is important to note that efforts

were made to standardise the financial data, ensuring that values were comparable across different firms and over time, with the necessary adjustments made to address variations in currency presentation . Missing or inconsistent data points were verified against official sources. Companies with significant gaps in dividend or financial data were excluded to preserve the reliability and robustness of the panel dataset. This longitudinal timeframe allows for a comprehensive analysis of dividend behaviour under normal, crisis, and recovery conditions.

Firm-level variables that are pertinent to dividend policy decisions were included in the extracted dataset. These indicators include dividends per share, dividend payout ratios, liquidity ratios, leverage metrics, and profitability metrics, including return on equity and net profit margin. Additionally, dividend suspensions, dividend omissions, and special dividends announced during the COVID-19 epidemic were recorded using the terminal's corporate action records. Because the information is objective, observable, and quantifiable, the use of secondary financial data in this way is consistent with the study's positivist epistemological position (Smith, 2022). Following extraction, the statistical analysis was conducted using the R statistical software environment, employing panel data estimation techniques and diagnostic tests. A uniform coding methodology, as suggested by Sekaran and Bougie (2016), was used to preserve variable consistency among businesses, ensuring validity and lowering measurement error.

3.5.5 Data Preparation and Missing Data Analysis

In this research, prior to performing statistical analysis, the collected data underwent meticulous preparation to ensure accuracy, consistency, and suitability for panel regression modelling. Each variable was meticulously examined in the findings to ensure uniform measurement units and definitions, with modifications implemented as necessary to standardise financial ratios and dividend metrics across different firms and years. Categorical variables, such as sector classifications, were systematically coded to facilitate interaction analysis and to control for sectoral heterogeneity in panel regressions. The dataset was arranged in panel format, with firm-year observations correctly indexed to enable fixed-effects modelling, and lagged variables were generated where necessary to examine dynamic relationships and dividend-smoothing effects over time. The

variables also underwent initial visual inspection and descriptive statistical analysis to detect extreme outliers, data entry errors, and inconsistencies, which were then corrected or documented to preserve data integrity (Lin, 2021).

Missing data were evaluated and managed with great care to reduce bias and preserve the integrity of the analyses. Companies with more than 25% missing observations for the dependent variable were excluded, as their inclusion could skew the statistical outcomes. This resulted in the exclusion of firms such as BHP Group, Discovery, Impala Platinum, and Spar from specific analyses. Where individual data points were missing within a firm's time series, annual reports, SENS filings, and other official disclosures were cross-referenced to retrieve the missing values wherever feasible. In essence, for firms with incomplete data availability, interpolation was deliberately avoided to prevent the introduction of artificial trends, and only actual data points were utilised in the panel models. The management of missing data was recorded meticulously to guarantee transparency and replicability. Variations in reporting currencies across firms were recognised as a limitation; however, the use of ratios and percentage measures helped to mitigate the potential effects of currency fluctuations.

3.5.6 Variable Selection

Finding a dataset's most important variables is known as variable selection (Creswell and Creswell, 2022). A variable is any attribute that can change with different values, while a constant is a feature that remains constant, according to Bell et al. (2019). It is assumed that an independent variable influences another variable; however, a dependent variable is impacted by one or more independent variables (Albright et al., 2011). This study identified a set of dependent, independent, explanatory, and control variables that collectively enable a rigorous analysis of dividend policy behaviour among JSE Top 40 companies during the COVID-19 pandemic in order to answer the primary and secondary research questions. Corporate dividend policy is the dependent variable in this study, and it has been operationalised using a variety of metrics to reflect its effects on decision-making. The metrics used for this were dividend payout ratio (dividends/net income) and dividend per share (DPS) (Fama and French, 2001; Denis and Osobov, 2008).

Important financial factors that are frequently covered in dividend literature make

up the explanatory variables. Since previous research shows that profitable companies are more likely to pay dividends, profitability, as measured by net profit margin and return on assets (ROA), is a key predictor (Gunawan and Tobing, 2018; Jabbouri, 2016). Because there is a negative correlation between high levels of debt and dividend payments, leverage is assessed by debt-to-equity ratio (Kaźmierska-Jóźwiak, 2015; Asif et al., 2011). Another important factor is liquidity, which is measured by the current ratio. This study focused on short-term liquidity. Research indicates that companies with better liquidity positions are more likely to continue paying dividends even during recessions (Jabbouri and Attar, 2018; Ahmed, 2015).

According to Fama and French (2001), free cash flow, which is determined by subtracting capital expenditure from operational cash flow, should be included here because of its strong correlation with dividend consistency. The study includes control variables in addition to these financial indicators to account for firm-specific traits that may affect dividend policy. Since larger companies typically show more consistent dividend patterns, company size is controlled for using the natural logarithm of total assets (Denis and Osobov, 2008). Given that companies with strong development potential sometimes choose to reinvest their earnings rather than distribute them, the market-to-book ratio is included as a stand-in for growth chances (Lintner, 1956; Jensen, 1986).

Additional factors were included to answer the secondary research questions. The inclusion of industry dummy variables (such as mining, banking, telecoms, and retail) to evaluate sectoral disparities within the JSE enabled the study to capture diverse dividend reactions across sectors. This is especially pertinent, seeing that some businesses, such as mining, saw windfall profits during the pandemic, while others, such as finance, had to deal with regulatory constraints on dividend distributions (SARB, 2020). Detailed descriptions of the selected variables are provided in **Table 3.5.6.1.**

Table (3): 3.5.6.1. Variable, proxy, and formulation of dependent, independent, explanatory and control variables

Variable	Proxy	Formulation	Source	Reference
Dependent Variable				
Dividend Policy	Dividend per Share (DPS)	DPS=Total Dividend /Outstanding Shares	IRESS cross-checked with annual reports	Lestari (2018)
	Dividend Changes	Year-on-Year Changes (%)	IRESS cross-checked with SENS	Hartono et al. (2021)
	Dividend Pay-out Ratio (DRP)	DPR=Dividend per Share/Earnings per Share	IRESS-cross-checked with annual reports	Hartono et al. (2021)
Independent Variables				
COVID-19 Crisis	Ordinal Variables	Pre-COVID (2017–2019) COVID-19 (2020–2021) Post-COVID (2022–2024)	Dummy Variable	Hartono and Raya (2022)
Financial Explanatory Variables				
Profitability	Net profit margin	Net Income/Revenue x 100	IRESS-Cross checked with financial statements	Hartono and Matusin (2020)
	Return on Assets	Net Income/Total Assets	IRESS-Cross checked with financial statements	Brealey, Myers, and Allen (2020)
Leverage	Debt-to-Equity Ratio (DER)	DER=Total Liabilities/Total Equity	IRESS-Cross checked with financial statements	Wahjudi (2020)
Liquidity	Current Ratio	Current Assets/Current Liabilities	IRESS-Cross checked with financial statements	Usman et al. (2024)
Cash Flow	Free Cash Flow	Operating Cash Flow-Capital Expenditure	IRESS-Cross checked with financial statements	Ross, Westerfield, and Jordan (2022)

Variable	Proxy	Formulation	Source	Reference
Control Variables				
Firm Size	Total Assets (LNTA)	LNTA = Natural Logarithmic Transformation of Total Assets	Financial Statements	Tinungki, et al. (2022)
Investment Opportunity	Market Share Price to Book Value Ratio (MBR)	MBR = Market Share Price per Share / Book Value per Share	IRESS-Cross checked with financial statements	Sharma and Bakshi (2019)
Dividend-Related Decisions				
Dividend Increase	Binary Dummy Variable for Increased or Maintained Dividends	Binary Variable: 1 –Increased or Maintained Dividend, 0 – all the rest	Binary Variable	Floyd and Skinner (2015)
Dividend Decrease/Suspended	Binary Dummy Variable for Decreased or Suspended Dividends	Binary Variable: 1 –Decreased or Suspended Dividend, 0 – all the rest	Binary Variable	Al-Najjar and Kilincarslan (2019)

Source: *Author's construct (2026)*

3.5.7 Data Analysis

The main analytical method utilised in this research was panel data regression analysis, which is especially effective for analysing financial data gathered from various companies over different time periods (Rubin, 2020). This approach facilitates the exploration of how the dependent variable dividend payout ratio is affected by independent such as the COVID -19 pandemic and explanatory financial factors such as profitability, short-term liquidity, free cash flow, and leverage across both cross-sectional and time-series perspectives. Panel data regression provides advantages over purely cross-sectional or time-series analyses because it accounts for unobserved heterogeneity, that is, distinct time-invariant traits of each company that may impact dividend policies but are not directly measurable (Wooldridge, 2015). This contributes to minimising omitted variable bias and yielding more precise, dependable estimates of the relationships among variables, thus improving the internal validity of the research (Coe, 2021).

The research utilised the fixed-effects (FE) model for panel data regression, as it considers individual company-specific effects that may skew results if overlooked (Marshall, 2023). The preferred model specification included the firm FE model,

the time FE model, and the cluster-robust standard errors model. These models allow for the reliable identification of the effects of financial variables on dividend policy (Wooldridge, 2019). Furthermore, the FE model presumes that unobserved characteristics are linked to the explanatory variables, rendering it an appropriate selection for the Top 40 JSE-listed companies, which function across various industries and possess unique governance frameworks, risk profiles, and market challenges.

Employing the FE model enabled the study to identify the influence of COVID-19 on dividend policies while accounting for these company-specific elements (Enders, 2022). The model evaluated hypotheses concerning the relationship between key explanatory variables, such as return on assets, the current ratio, the free cash flow ratio, and the debt-to-equity ratio, and the dividend payout ratio before, during, and after the pandemic period from 2017 to 2024.

Panel data approaches, as opposed to strictly cross-sectional or time-series approaches, take into consideration temporal dynamics as well as firm-specific heterogeneity, which results in more accurate estimates and less bias from excluded variables (Baltagi, 2021). Alternative quantitative techniques, such as random effects (RE) models and pooled OLS, were taken into consideration; however, RE makes the assumption that unobserved firm-specific effects are uncorrelated with the explanatory variables, which is unlikely to be true in the context of Top 40 JSE-listed companies given their varied governance structures and market environments, whereas pooled OLS ignores firm-specific heterogeneity, potentially leading to biased estimates (Wooldridge, 2019). Because the research focuses on explanatory linkages rather than latent variable modelling, structural equation modelling, or SEM, was also rejected. Due to its capacity to account for unobserved, time-invariant company characteristics associated with financial determinants of dividend policy, the FE model was chosen as the best method (Wooldridge, 2015). This choice was theoretical.

A Covid-19 shock-and-crisis-period analysis was also performed to compare company behaviour before, during, and after the COVID-19 pandemic in order to determine whether the company's dividend decisions change during times of extreme economic crises (Fahlenbrach, Rageth, and Stulz, 2021). The effects of the COVID-19 period were modelled using indicator variables representing crisis

and post-crisis periods. Additionally, interaction terms between the financial variables and the COVID-19 indicator were included to determine whether the relationships between financial characteristics and dividend policy changed during the crisis. This allowed for direct testing of whether financial strength became more or less important during the shock period (Gormsen and Koijen, 2020).

One potential methodological limitation of the study is endogeneity, a problem that may occur in regression analysis and that, in this case, results from the reciprocal relationship between dividend policy and the explanatory variables. For example, while debt, profitability, and liquidity may have an impact on dividend decisions, firm value and investor views may also be impacted by dividend announcements, which in turn may have an impact on these financial indicators (Wooldridge, 2015). Several strategies were used in the study to reduce these hazards. To start, where appropriate, lagged explanatory variables were used to reduce endogeneity concerns and improve causal interpretation (Roberts and Whited, 2013). Second, to address potential omitted variable bias, robustness checks were carried out, as discussed in Chapter 4.

3.6 Validity and Reliability

Ensuring the validity of this study is imperative to producing accurate and credible results (Marshall, 2023). Validity relates to the extent to which the research genuinely assesses what it intends to measure and accurately depicts the phenomena under investigation (Creswell and Creswell, 2018). The four types of validity most pertinent to this study are internal validity, external validity, construct validity, and statistical conclusion validity.

Internal validity refers to the extent to which a statistical relationship can be reliably demonstrated between variables (Cook and Campbell, 2002). This study examines whether changes in dividend policies during the COVID-19 pandemic can be confidently attributed to the COVID-19 and corporate financial factors rather than to other causes. Confounding variables include fluctuations in commodity prices, regulatory changes, and firm-specific factors. While longitudinal data and fixed-effects regression are useful for controlling for time-invariant company heterogeneity and isolating pandemic-related effects, observational finance data are intrinsically susceptible to endogeneity.

Threats still include unobservable managerial discretion, neglected governance factors (such as board structure), and reverse causation (such as dividends affecting business value and thus profitability). This restriction was recognised, and robustness checks such as alternative model specifications and lagged explanatory variables were used to reduce these hazards. Additionally, the study adopts a well-established theoretical framework rooted in corporate finance literature, linking key financial variables such as profitability, liquidity, and leverage to dividend policy decisions.

According to Saunders et al. (2019), external validity relates to the ability to generalise the findings beyond the specific sample under investigation. The results of this study may not be applicable to smaller enterprises or corporations located outside South Africa, as it concentrates solely on the top 40 JSE-listed firms. Given that large organisations generally possess greater financial resilience compared to mid-cap or small-cap companies, this narrow scope raises concerns regarding representativeness. The study aims to address this issue by avoiding overgeneralisation. Nonetheless, the research provides valuable insights into how market leaders might respond to dividend policies during a global crisis, as the Top 40 companies exert the most significant influence on the Johannesburg Stock Exchange (JSE).

Construct validity is the degree to which the variables selected accurately reflect the theoretical ideas being studied (Yin, 2018). Although the standardisation and dependability of raw data are ensured by using financial statements that comply with IFRS and disclosures that are regulated by the JSE, construct validity is not guaranteed by this alone. The ratios of profitability, liquidity, and leverage, for example, serve as proxies for more general theoretical concepts, such as agency costs, financial flexibility, and signalling ability. By establishing theoretical and empirical coherence and matching the financial ratio selection to well-established dividend theories (agency, signalling, and life cycle), the study recognises this gap and enhances construct validity.

According to Shadish et al. (2002), statistical conclusion validity refers to how well inferences regarding the relationships between variables are supported by the statistical tests employed. To ensure statistical validity, the following diagnostic procedures were performed: heteroskedasticity correction using robust standard

errors; autocorrelation testing and correction; multicollinearity testing using correlation matrices and variance inflation factors; cross-sectional dependence testing; and outlier detection and appropriate treatment. By following these steps, estimations are more reliable and there is a lower likelihood of erroneous results. Lastly, this study interprets reliability as the consistency and dependability of the data collection and analysis processes (Nayak, 2021). To ensure that the same standards were used for all companies and years, a standardised data extraction template was used to minimise bias and inaccuracy. Although the use of secondary data means relying on business disclosures, the regulatory supervision of the JSE and IFRS reporting requirements offers assurance about their accuracy. To further strengthen transparency and replicability, an audit trail of the coding, cleaning, and analysis was kept. Additional robustness checks were performed to ensure the reliability of conclusions. These included using alternative profitability, leverage, and liquidity measures, alternative dividend outcome measures, alternative crisis-period definitions, and outlier-adjusted models.

While the study meticulously addresses validity and reliability, it also recognises limitations in these aspects. The dependence on secondary data implies that the research is reliant on the accuracy and completeness of external reporting, which may be affected by specific company reporting practices or changes in regulations (Marshall, 2023). Despite efforts at cross-verification, certain subtleties, such as managerial intent or informal considerations regarding dividends, cannot be entirely captured through financial statements alone, which may impact content validity. Furthermore, the dynamic and unprecedented circumstances of the COVID-19 pandemic introduce variables that may not be fully integrated into traditional financial models, potentially constraining the explanatory power of the regression analyses. Nevertheless, by implementing rigorous data collection, systematic analysis, and adherence to established theoretical frameworks, the study seeks to optimise validity and reliability within the limitations of archival financial research (Sarstedt, 2022).

3.7 Ethical Considerations

This research adheres to stringent ethical standards by solely employing publicly accessible secondary data obtained from the financial disclosures of the Top 40

companies listed on the JSE. Given that the data utilised in this study are already publicly available, consisting of audited annual reports, interim financial statements, and regulatory announcements, there are no immediate ethical issues concerning participant confidentiality, informed consent, or privacy violations, which are issues that are commonly associated with research involving human subjects (Marshall, 2023). The study upholds a strong dedication to ethical integrity by ensuring the accurate and equitable representation of the companies' financial decisions, free from misinterpretation or selective bias. Special care will be taken in the contextual analysis of dividend policy changes during the COVID-19 pandemic, steering clear of any unfounded assumptions regarding managerial intent or company performance that are not substantiated by the data (Strunk, 2025). This dedication protects against potential reputational damage to the companies examined and preserves the objectivity that is crucial for academic rigour.

The research strictly followed institutional ethical standards, including adherence to the Protection of Personal Information Act (POPIA) of South Africa, despite the absence of personal data (Rubin, 2020). Protocols for data storage and management were established to safeguard the integrity of the research dataset; all gathered financial data were securely stored on password-protected devices that were accessible solely to the researcher and the supervisory team.

In addition, the study sought and secured ethical clearance from the Institute of International Education (IIE) before initiating the research, thereby demonstrating accountability and transparency (Smith, 2022). All sources of data and literature were carefully cited to honour intellectual property rights. Through these initiatives, the research maintained ethical standards throughout its duration, ensuring responsible research conduct while providing valuable insights into corporate financial decision-making during a global crisis (Bourne, 2021).

3.8 Methodology Limitations

This study sought to deliver insights into how COVID-19 influenced the dividend policies of the Top 40 companies listed on the JSE. There are, however, several limitations associated with the selected methodology and data sources that could impact the breadth and generalisability of the results.

First, concentrating exclusively on the Top 40 listed companies restricts the study's relevance to those outside this category, such as smaller enterprises and private firms, which may demonstrate different dividend behaviours or financial resilience amid the pandemic (Smith, 2022). Second, the reliance on secondary financial data alone imposes limitations regarding data completeness, accuracy, and consistency; variations in accounting practices, reporting standards, or disclosure methods among companies can lead to inconsistencies that are challenging to manage or fully adjust for analytically (Coe, 2021). Furthermore, financial statements and market disclosures may not adequately reflect the subtle managerial intentions or strategic considerations that underpin dividend decisions, thereby limiting the understanding of qualitative factors that drive policy changes.

Third, there is difficulty in isolating the specific effects of the COVID-19 pandemic from other simultaneous macroeconomic and firm-specific factors, such as changing commodity prices, regulatory changes, or internal corporate governance alterations, which may obscure the observed relationships (Rubin, 2020). The positivist and quantitative methodology, while appropriate for testing theoretical hypotheses, inherently omits subjective or interpretive aspects of dividend policy decisions, which could be crucial for comprehending the complete context of corporate reactions to crisis situations. The study aims to lessen the effects of these limitations through comprehensive data triangulation, stringent statistical controls, and transparent reporting of methodology and assumptions, thus offering valuable, albeit contextually limited, insights into corporate financial behaviour during an extraordinary global event (Sarstedt, 2022).

3.9 Conclusion

This chapter has thoroughly detailed the research design, philosophy, methodology, and methods utilised to explore the effects of COVID-19 on the dividend policies of the Top 40 JSE-listed companies in South Africa. The study ensures an objective and systematic investigation of the causal relationships between essential financial variables and dividend decisions during the pandemic by employing a quantitative and explanatory research design within a positivist framework. The Index-based census sampling approach and the utilisation of secondary financial data from credible sources establish a strong basis for reliable

and valid analysis. The implementation of panel data regression through the fixed-effects model allows the study to account for firm-specific heterogeneity while identifying significant financial determinants of changes in dividend policy. Chapter three also considered crucial aspects related to reliability, validity, ethical compliance, and potential methodological limitations, ensuring that the research process is transparent, rigorous, and ethically sound. In summary, the methodological framework outlined in this chapter enables the study to produce meaningful and robust insights into corporate dividend behaviours in response to the unprecedented economic challenges presented by COVID-19, thereby establishing a foundation for the forthcoming empirical analysis.

4 CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter offers an empirical analysis of the research findings. The analysis employed panel data collected from the selected companies over the study period, which includes pre-pandemic, pandemic, and post-pandemic years. Quantitative statistical techniques were applied to analyse the data and determine whether the pandemic influenced firms' dividend payment decisions. The main aim of the analysis was to determine whether the COVID-19 pandemic significantly influenced the dividend policies of the Top 40 companies listed on the Johannesburg Stock Exchange (JSE), and to identify the firm-level financial variables that explained dividend policy behaviour over the study period.

The analysis also examined whether dividend behaviour differed across the pre-COVID, COVID, and post-COVID periods. The analysis further aimed to investigate whether industry-specific factors influenced this dividend policy behaviour during the COVID-19 pandemic. Based on the literature review, it was hypothesised that the COVID-19 pandemic significantly influenced the dividend policies of the Top 40 JSE-listed companies; that corporate financial variables could fundamentally explain dividend behaviour during the COVID-19 pandemic; and that there were strong relationships between these financial variables and dividend payouts by these companies. These hypotheses will be either supported or rejected in this chapter.

The chapter begins with a presentation of descriptive statistics to summarise the characteristics of the variables used in the study, followed by a correlation analysis to assess the relationships among variables and identify potential multicollinearity. Panel regression models are then estimated to evaluate the effects of COVID-19 and other firm-specific factors on dividend policy. The chapter concludes with a summary of the key empirical findings derived from the statistical analysis.

4.2 Descriptive Statistics

The descriptive statistics were calculated to summarise the essential characteristics of the variables involved in the study, offering an overview of dividend behaviour, financial performance, and firm attributes across the selected Top 40 JSE-listed companies. The analysis encompassed measures of central tendency, dispersion, skewness, and kurtosis in order to evaluate the distribution of each variable and identify possible outliers. Dividend policy was analysed using various proxies, including dividend per share, dividend payout ratio, and year-on-year dividend changes. Dividend per share and dividend payout ratio reflect the magnitude of dividend distributions, while year-on-year dividend changes also indicate the direction of dividend modifications.

The financial explanatory variables comprised profitability, return on equity, leverage, liquidity, and free cash flow. The analysis also included control variables such as firm size and the market-to-book ratio, indicating growth opportunities. The descriptive statistics were computed for the sample and further divided by time periods, namely pre-COVID, COVID, and post-COVID, as well as by sector, to uncover temporal and industry-specific trends in dividend policy (Arsal, 2021). Several variables exhibited extreme positive skewness and very high kurtosis, particularly dividend change (skewness = 12.49; kurtosis = 166.67) and the market-to-book ratio (kurtosis = 75.39), indicating highly non-normal, heavy-tailed distributions characterised by extreme observations. The findings underscore the need to employ robust statistical methods in further regression analyses (Oliveira, 2021).

Table 4.2.1 displays the descriptive statistics for the variables utilised to assess the influence of COVID-19 on dividend policy among firms listed on the JSE Top 40 index. It is important to note that the dividend payout ratio exhibits values outside the conventional 0–1 range, with a minimum of -1.67 and a maximum of 9.17. These extreme values arise due to firms reporting negative earnings while still paying dividends, or due to very low earnings bases, which inflate the ratio. As such, these observations reflect accounting and earnings volatility rather than conventional payout behaviour.

Table (4): 4.2.1: **Descriptive Statistics for all Variables (2017–2024)**

Variable	N	Mean	SD	Median	Min	Max	Skewness	Kurtosis
DPS	239	829.94	1000.75	536.00	7.15	5400.38	2.35	5.33
Dividend Payout Ratio	239	0.72	1.21	0.45	-1.67	9.17	4.81	25.04
Dividend Change (%)	203	35.45	250.09	6.59	-75.86	3442.10	12.49	166.67
ROA	244	7.48	11.40	7.00	-67.22	47.22	-0.33	7.85
ROE	244	14.81	12.41	14.89	-43.44	63.43	-0.23	3.67
Net Profit Margin	180	15.94	40.10	9.48	-190.80	272.84	1.12	16.54
Debt-to-Equity	244	3.20	3.94	1.13	0.13	12.77	1.34	0.04
Debt-to-Assets	242	0.61	0.22	0.57	0.14	0.95	0.09	-1.17
Current Ratio	244	1.44	1.00	1.14	0.15	5.90	1.44	2.66
Quick Ratio	244	1.10	0.90	0.88	0.15	5.90	2.24	6.39
Free Cash Flow	242	2,829,711.93	8,283,611.16	643,050.00	-18,933,000	42,465,000	2.00	6.24
ln (Total Assets)	242	18.35	1.68	18.13	15.61	21.91	0.35	-0.67
Market-to-Book	244	2.68	3.50	1.86	0.40	43.55	7.24	75.39

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

The data show that DPS had a mean of 829.94, a standard deviation of 1000.75, a minimum of 7.15, and a maximum of 5400.38. The wide dispersion in DPS, reflected in a standard deviation exceeding the mean, indicates substantial heterogeneity in dividend policy across firms. This variability is likely driven by differences in firm size, industry characteristics, and earnings capacity. This variation can be attributed to differences in industry structure, firms' financial strength, and how they distribute dividends. The dividend payout ratio also had a mean of 0.72 and a standard deviation of 1.21, with much skewness and kurtosis. This suggests that payout ratios varied considerably across companies, with some companies making payouts that were substantially more or less than others.

The average return on assets (ROA) was 7.48, and the average debt-to-equity ratio was 3.20. This suggests a moderate to high degree of leverage across the sample, although the substantial standard deviation indicates considerable variation in capital structure across firms. The average current ratio was 1.44, which means that, on average, the companies had moderate short-term liquidity. As expected for a group of large publicly traded companies from different industries, free cash flow exhibits substantial dispersion, with a standard deviation significantly exceeding the mean, reflecting strong firm size effects. This reinforces the importance of controlling for firm size in subsequent analyses. The market-to-book ratio also had a substantial skew, which means that there were companies with market values that were much higher than their book values.

The descriptive statistics show that there is a lot of variation, a positive skewness, and a high kurtosis across several variables as mentioned above. The substantial standard deviations relative to the means indicate considerable variation in business behaviour, which is consistent with the diverse nature of the JSE Top 40 companies. The positive skewness indicates that only a few companies reported very high values, while the high kurtosis indicates the presence of extreme observations or outliers. Because of the differences in company size, industry, and financial success, these outliers are not seen as statistical errors but as economically significant. To address the distributional characteristics observed, including non-normality and the presence of extreme values, robustness checks such as winsorisation were applied. Separately, fixed-effects models were employed to control for unobserved firm-specific heterogeneity, while clustered standard errors were used to account for potential serial

correlation and heteroscedasticity in the panel data structure.

Table 4.2.2 presents a summary of essential financial metrics for companies over three distinct periods: pre-COVID, COVID, and post-COVID. The results reveal that the average DPS increased from 700 before COVID to 727 during COVID, then to 1,018 after COVID. This pattern suggests that firms largely maintained or increased dividend payouts despite the COVID-19 shock, which is consistent with dividend smoothing behaviour as proposed in the dividend policy literature (Lintner, 1956). However, the standard deviations remained large, indicating that the increases observed were not consistent across all firms. Some firms evidently maintained or increased payouts, while others may have reduced them.

The mean for DPR slightly decreased from 0.836 before COVID to 0.672 during COVID, and then to 0.629 after COVID. This means that even though companies may have continued paying dividends in absolute terms, the share of earnings going to shareholders became a little more conservative over time. This pattern is consistent with firms attempting to preserve internal resources while avoiding sharp and visible dividend cuts.

The simultaneous increase in DPS alongside a decline in the dividend payout ratio (DPR) suggests that, although firms increased the absolute amount of dividends distributed to shareholders, these payments represented a smaller proportion of earnings. This indicates that earnings may have grown at a faster rate than dividends, or that firms adopted a more conservative payout strategy by retaining a larger share of profits. In this context, firms appear to balance shareholder distributions with the need to preserve internal funds for reinvestment, financial flexibility, or precautionary motives during periods of uncertainty such as COVID-19.

Meanwhile, profitability, as measured by ROA, declined gradually from 8.23 to 7.27, then fell further to 6.90 in the post-COVID phase. This shows that profitability declined over time, which is not unexpected given the pandemic and its aftermath, both of which contributed to significant economic instability.

Table (5): 4.2.2. **Descriptive Statistics by Period**

Period	N	Mean DPS	SD DPS	Mean DPR	SD DPR	Mean ROA	Mean D/E	Mean Current Ratio	Mean FCF	Mean ln (Assets)	Mean M/B
Pre-COVID	90	700	687	0.836	1.35	8.23	2.94	1.45	674,199	18.2	2.74
COVID	62	727	1,017	0.672	1.39	7.27	3.38	1.42	4,321,546	18.4	2.40
Post-COVID	93	1,018	1,205	0.629	0.908	6.90	3.34	1.45	3,851,604	18.5	2.81

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

The debt-to-equity ratio rose from 2.94 before COVID to 3.38 during COVID and remained high at 3.34 after COVID, suggesting increasing leverage pressures over time. The current ratio stayed relatively stable at about 1.42–1.45, while free cash flow increased during and after COVID. This could be because of recoveries in certain sectors and changing operational cash-flow dynamics.

Table (6): 4.2.3. **Descriptive Statistics by Sector**

Sector	N	Mean DPS	Mean DPR	Mean ROA	Mean D/E	Mean Current Ratio	Mean FCF
Financials	72	716	0.420	-2.01	8.22	0.798	6,941,673
Resources / Materials & Energy	32	1,110	0.391	9.93	0.690	2.03	735,300
Consumer & Retail	64	1,233	1.27	15.8	1.48	1.68	1,799,251
Technology / Media / Telecoms	21	409	0.754	11.6	1.34	1.68	4,554,905
Industrials & Real Estate	56	500	0.634	7.02	0.940	1.55	-692,941

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

Sectoral differences, presented in **Table 4.2.3**, reveal considerable heterogeneity. The sectoral analysis highlights clear differences in financial structure and performance across industries. Consumer and Retail firms show the highest profitability and dividend payouts, while financial firms are characterised by high leverage and negative average profitability; however, this reflects the unique regulatory and capital structure characteristics of the financial sector, which are not directly comparable to non-financial firms. Liquidity is strongest in the Resources sector and weakest among Financials. Free cash flow varies across sectors, with Industrials and Real Estate being the only sectors reporting a negative average. These differences emphasise the importance of controlling for sector-specific effects in the analysis, as industry characteristics may influence dividend policy behaviour.

***Table (7): 4.2.4* Descriptive Statistics by Sector and Period**

Sector	Period	Mean DPS	Mean DPR	Mean ROA	Mean D/E	Mean Current Ratio
Financials	Pre	596	0.441	-1.86	7.74	0.876
Financials	COVID	379	0.357	-1.98	8.36	0.813
Financials	Post	1032	0.437	-2.16	8.59	0.713
Resources	Pre	684	0.594	6.00	0.75	1.59
Resources	COVID	1159	0.354	15.10	0.656	1.99
Resources	Post	1237	0.213	10.40	0.652	2.50
Consumer	Pre	1053	1.38	18.70	1.04	1.87
Consumer	COVID	1114	1.42	15.90	1.99	1.64
Consumer	Post	1488	1.06	12.90	1.59	1.52
Tech	Pre	562	1.23	15.40	1.59	0.97
Tech	COVID	367	0.336	9.32	1.13	1.73
Tech	Post	331	0.668	10.60	1.30	2.12

Source: *Author's calculations based on company annual financial statements and statistical output (2026).*

The interaction between sector and period **(Table 4.2.4)** highlights important structural dynamics. Preliminary inspection suggests potential scaling inconsistencies in **Table 4.2.4**; therefore, values should be interpreted with caution. The descriptive statistics show clear sectoral differences in financial performance across the three periods. Financials maintain stable but modest payout ratios despite persistently negative ROA and high leverage, reflecting regulated distribution behaviour. Consumer and Retail firms exhibit the highest payout ratios throughout, even as profitability weakens during and after COVID 19. Profitability declines across most sectors during the pandemic, although Resources sector experience a sharp COVID period improvement linked to commodity price dynamics. Leverage generally rises during COVID, particularly in Consumer and Retail, while liquidity strengthens in most sectors as firms adopt precautionary cash holding strategies. Overall, the results indicate that COVID 19 imposed uneven financial pressures, with recovery trajectories shaped by sector specific business models and exposure to macroeconomic conditions.

4.3 Contextual analysis: Descriptive Statistics During COVID-19

The descriptive statistics for the COVID-19 period (2020–2021) provide a natural setting to examine how firms adjusted dividend policy in response to an exogenous economic shock. This is especially true for sectors with robust cash reserves, such as the technology, media, and telecommunications sectors (Muriungi, 2020). The average DPS increased from 700 in the pre-COVID era to

727 during the pandemic, indicating a temporary rise in dividend distributions by certain companies amid prevailing economic uncertainty.

Despite expectations that firms would conserve cash during periods of economic uncertainty, the observed stability in dividend payouts suggests that firms prioritised dividend continuity. This behaviour is consistent with dividend smoothing and signalling theories, where firms avoid reducing dividends to maintain investor confidence (Akinola, 2021). The persistence of dividends may also reflect firm-specific factors such as strong pre-existing cash reserves or access to external financing, rather than a uniform response across the sample. Certain firms may have been able to make higher payouts due to robust cash reserves or access to borrowing, while others may have opted to issue special one-off dividends when investment opportunities were limited (Muriungi, 2020). Additionally, market pressures and shareholder expectations may have prompted companies to maintain or increase distributions despite the atypical economic circumstances.

Companies in sectors characterised by stronger cash flow generation, such as resources and technology, were better at maintaining or even improving cash flows and sustaining dividend distributions during the pandemic. Conversely, sectors such as financials and industrials, which exhibited lower profitability and higher leverage in Section 4.2, appear to have been more vulnerable to the economic disruptions caused by COVID-19. The persistent robustness of dividend distributions across consumer and retail companies, despite post-COVID profitability losses, suggests that firms prioritised dividend stability, consistent with signalling theory, whereby stable or sustained dividends are used to convey financial strength to the market. These patterns indicate that the impact of COVID-19 was heterogeneous across sectors, driven by differences in financial resilience and operating structures, thereby reinforcing the importance of incorporating sectoral controls in the empirical analysis (Muriungi, 2020).

4.4 Correlation Analysis

Pearson correlation analysis was conducted to examine the pairwise linear relationships among the key variables, providing preliminary insight into the associations between dividend policy measures, financial performance indicators, and firm characteristics over the period 2017–2024. This offered initial insights

into the connections between dividend policy measures, financial performance indicators, and firm characteristics during the period from 2017 to 2024. The Pearson correlation coefficients were calculated to evaluate the linear relationships among variables such as DPS, DPR, profitability metrics, leverage, liquidity, free cash flow, firm size, and growth opportunities (Benson, 2022). The correlation results are displayed in **Table 4.4.1** below. The table indicates a moderate positive correlation between DPS and DPR of 0.427, indicating a moderate positive association between DPS and DPR, suggesting that firms with higher dividend payments tend, on average, to exhibit higher payout ratios. This relationship reflects a partial alignment between dividend levels and payout ratios, although the strength of the association is not sufficiently high to imply a uniform pattern across firms.

The correlations between the other variables are generally weak. ROA, which measures profitability, exhibits a weak but statistically significant positive correlation with DPS (r = 0.155), suggesting that profitability may have a limited but non-negligible association with dividend payments at the bivariate level. Nonetheless, it does not rule out the possibility of significant associations in a multivariate regression context. The debt-to-equity ratio shows a weak negative association with dividend measures, suggesting that more highly leveraged firms may exhibit a tendency toward lower dividend payouts, although the relationship is modest (Akilo, 2023). This finding fits with financial constraint theory, which holds that companies prioritise paying their debts over giving money to shareholders. The current ratio and free cash flow both show poor links with the dividend variables, which suggests that short-term financial capacity show weak pairwise associations with dividend variables, indicating that any relationship between liquidity, cash flow, and dividend policy may not be evident at the bivariate level and may require multivariate analysis.

Furthermore, market-to-book ratio shows a weak positive correlation with DPS (r = 0.158), although this relationship is limited in magnitude and should be interpreted cautiously, as growth firms are typically expected to retain earnings rather than increase dividend payouts. The correlation between market-to-book ratio and DPR is weak and positive (r = 0.084), indicating no strong evidence of the expected inverse relationship at the bivariate level.

Table (8): 4.4.1: **Pearson correlation coefficients between study variables**

Variable	DPS	DPR	ROA	D/E	Current Ratio	FCF	ln (Assets)	M/B
DPS	1.000							
DPR	0.427***	1.00						
ROA	0.155*	0.013	1.00					
Debt-to-Equity	-0.106	-0.147*	-0.406***	1.00				
Current Ratio	0.110	0.209*	0.152*	-0.566***	1.00			
Free Cash Flow	0.015	-0.072	-0.149*	0.244***	-0.102	1.00		
ln (Total Assets)	-0.031	-0.098	-0.392***	0.559***	-0.386***	0.371***	1.00	
Market-to-Book	0.158*	0.084	0.240***	-0.124	0.068	0.008	-0.198**	1.00

Note: *The coefficient is statistically significant at the 5% level ($p < 0.05$) ($p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)*

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

Table (9): 4.4.2: **Multicollinearity diagnostics for pooled models**

Variable	VIF (DPS Model)	VIF (DPR Model)
ROA	1.166	1.166
Debt-to-Equity	1.421	1.421
Current Ratio	1.239	1.239
Free Cash Flow	1.109	1.109
ln (Total Assets)	1.321	1.321
Market-to-Book	1.051	1.051
Year Fixed Effects	1.007	1.007

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

Multicollinearity was assessed using both correlation analysis and variance inflation factors (VIF). DPS and DPR exhibit a moderate correlation (r = 0.427), reflecting that while both relate to dividend policy, they capture different dimensions, absolute dividend levels and relative payout behaviour. This indicates that these two variables measure similar aspects of dividend policy. To avoid potential specification issues and to distinguish between alternative measures of dividend policy, DPS and DPR were modelled separately in the regression analysis.

Aside from this one association, the remaining variables did not show strong pairwise correlations, suggesting that there is no evidence of severe multicollinearity among the explanatory variables. The VIF values, which remained below the usual threshold of 10, as presented in **Table 4.4.2**, also supported this, indicating that the regression estimates were reliable. At the bivariate level, the observed correlations are generally weak, suggesting limited direct linear associations between the explanatory variables and dividend policy measures. However, correlation analysis does not account for interaction effects, firm-specific heterogeneity, or confounding variables. As such, these results are not sufficient to evaluate the study's hypotheses, which are more appropriately tested within a multivariate panel regression framework.

4.5 One-way ANOVA tests and Tukey Post Hoc Comparisons

One-way ANOVA tests were conducted to examine whether mean dividend behaviour differed across the pre-COVID, COVID, and post-COVID periods. As reported in **Table 4.5.1**, there is no evidence of statistically significant differences in DPS or DPR across periods. However, given the panel structure of the data, the ANOVA assumption of independent observations is violated due to repeated measurements of the same firms over time. Additionally, the presence of non-normal distributions and extreme values identified in Section 4.2 further challenges the validity of ANOVA assumptions. As such, the results should be interpreted as descriptive rather than conclusive.

Post hoc comparisons using Tukey's HSD test **(Table 4.5.2)** further indicate no statistically significant pairwise differences between periods, with all adjusted p-values exceeding conventional significance thresholds and confidence intervals including zero. The ANOVA findings indicate no unconditional disparities in DPS

across the periods analysed. Based on the ANOVA results, there is insufficient evidence to reject the null hypothesis of no difference in dividend measures across periods. Although DPS displayed weak marginal variation, the differences were not statistically robust, and DPR showed no significant variation. Therefore, the ANOVA results do not support the claim that the pandemic fundamentally influenced dividend policy.

Table (10): 4.5.1. **ANOVA Results for DPS and DPR Across Periods**

Dependent Variable	Source	df	SS	MS	F	p-value
DPS	Period	2	24,248	12,124	1.88	0.155
	Residual	267	1,722,243	6,450		
DPR	Period	2	3,412	1,706	1.51	0.223
	Residual	267	301,673	1,130		

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

Table (11): 4.5.2. **Tukey Post Hoc Comparisons**

DPS

Comparison	Mean Difference	95% CI Lower	95% CI Upper	p-value
COVID vs pre-COVID	17.29	-12.81	47.39	0.367
Post-COVID vs pre-COVID	20.71	-5.73	47.16	0.157
Post-COVID vs COVID	3.42	-26.50	33.35	0.961

DPR

Comparison	Mean Difference	95% CI Lower	95% CI Upper	p-value
COVID vs pre-COVID	4.29	-8.31	16.89	0.702
Post-COVID vs pre-COVID	8.16	-2.91	19.23	0.193
Post-COVID vs COVID	3.87	-8.66	16.39	0.747

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

Despite the descriptive statistics revealing a significant rise in average DPS from 700 in the pre-COVID era to 727 during COVID and to 1018 in the post-COVID period, the ANOVA findings suggest that these differences are not statistically significant. The absence of statistical significance despite differences in mean values is attributable to high within-group variance, as reflected in the large standard deviations observed in Section 4.2. This substantial dispersion reduces statistical power and limits the ability of ANOVA to detect differences across periods. Overall, these findings suggest that dividend behaviour remained relatively stable across the periods, despite the economic disruption associated with COVID-19. This is consistent with the dividend smoothing hypothesis (Lintner, 1956), which posits that firms are reluctant to adjust dividend policies in response to short-term fluctuations in economic conditions. Additionally, the

presence of non-normal distributions and extreme values identified in Section 4.2 further challenges the validity of ANOVA assumptions, reinforcing the need for more robust panel regression techniques.

Given these limitations, the study proceeds to panel regression analysis to more rigorously assess the impact of COVID-19 on dividend policy while controlling for firm-specific and macroeconomic factors.

4.6 Panel Regression Model Specification

Panel data regression models were employed to examine the determinants of dividend policy across firms and over time. Firm fixed effects were incorporated to control for unobserved, time-invariant heterogeneity across firms, such as governance structures, managerial preferences, and industry positioning. The primary specification uses DPS as the dependent variable, with an alternative specification using DPR to capture relative dividend behaviour.

The baseline model is specified as follows:

$$DPS_{it} = \beta_0 + \beta_1 COVID_t + \beta_2 ROA_{it} + \beta_3 LEV_{it} + \beta_4 LIQ_{it} + \beta_5 FCF_{it} + \beta_6 SIZE_{it} + \beta_7 MTB_{it} + \mu_i + \lambda_t + \epsilon_{it}$$

where $i$indexes firms and $t$indexes time, $\mu_i$represents firm fixed effects, and $\lambda_t$captures year fixed effects. The COVID dummy variable takes the value of 1 for the years 2020–2021 and 0 otherwise. Year fixed effects are included to control for common macroeconomic shocks, while standard errors are clustered at the firm level to account for heteroscedasticity and within-firm serial correlation.

Additional model specifications were implemented to investigate sectoral variations and dividend dynamics. Interaction terms between sector and COVID-period dummies were included to assess whether the pandemic affected dividend policies differently across industries.

A dynamic panel regression model that included lagged DPS was also estimated to capture dividend smoothing, which reflects the tendency of firms to adjust dividends gradually over time, in line with Lintner's (1956) theory. The choice of fixed effects over random effects is motivated by the likelihood that unobserved firm-specific characteristics are correlated with the explanatory variables.

Collectively, these specifications enable a comprehensive assessment of dividend policy behaviour, capturing both static relationships and dynamic adjustment processes, while accounting for firm-level heterogeneity and macroeconomic shocks. This modelling approach addresses the limitations identified in the preceding analyses, including non-normality, weak bivariate relationships, and the inability of ANOVA to account for firm-level heterogeneity.

4.7 Fixed Effects Panel Regression Results

The fixed-effects (FE) panel regression results provide evidence on the relationship between firm-specific financial characteristics, the COVID-19 period, and dividend policy. **Table 4.7.1** presents a summary of the primary model, detailing the estimated coefficients, standard errors, t-values, and significance levels for DPS as the dependent variable. Over the eight-year period from 2017 to 2024, and across 36 firms, leverage (debt-to-equity) exhibits a negative and statistically significant relationship with DPS (-79.5065, p=0.0341), indicating that higher leverage is associated with lower dividend payments, ceteris paribus. This provides support for H4, which predicted a strong negative relationship between leverage and payout.

Market-to-book ratio exhibits a positive and statistically significant relationship with DPS, but a negative and significant relationship with DPR. This suggests that while growth firms may pay higher absolute dividends, they distribute a smaller proportion of earnings, consistent with growth-retention trade-offs. Profitability (ROA), liquidity, free cash flow, and firm size are not statistically significant in the FE specification, providing no empirical support for H3, H5, and H6. These findings are consistent with the weak pairwise correlations observed in Section 4.4 and suggest that dividend policy is not strongly driven by these variables once firm-specific heterogeneity is controlled for.

While the overall adjusted R^2 is relatively high, the within R^2 is low (0.0606), indicating that the model explains limited variation within firms over time. This suggests that dividend behaviour is largely influenced by time-invariant firm characteristics captured by fixed effects.

Table (12): 4.7.1: **Two-way fixed-effects models for dividend policy**

Variable	DPS model B (SE)	p-value	DPR model B (SE)	p-value
ROA	2.437 (7.916)	0.76	-0.004 (0.003)	0.238
Debt-to-equity	-79.51 (35.81)	0.034	0.014 (0.019)	0.461
Current ratio	33.67 (41.93)	0.428	0.0121 (0.041)	0.772
Free cash flow	-0.000004 (0.0000049)	0.374	0.0000000 (0.00000100)	0.997
ln (Total assets)	475.179 (427.289)	0.275	-0.204 (0.226)	0.375
Market-to-book	27.751 (6.799)	0.0003	-0.087 (0.006)	0.0000
Observations	237		237	
Firm fixed effects	Yes		Yes	
Year fixed effects	Yes		Yes	
Adj. R^2	0.776		0.872	
Within R^2	0.0606		0.261	

Source: *Author's calculations based on company annual financial statements and statistical output (2026)*

The DPR model provides additional insights into relative dividend behaviour. Market-to-book ratio is negatively and significantly associated with DPR, indicating that firms with higher growth opportunities retain a larger proportion of earnings. Other variables, including profitability, leverage, liquidity, and firm size, are not statistically significant, suggesting that payout ratios are less sensitive to firm-specific financial characteristics once fixed effects are controlled for. Additionally, the lack of significance for free cash flow suggests that dividend policy may not be directly driven by short-term cash availability once firm-specific characteristics are accounted for. In Contrast, the economic magnitude of the leverage coefficient is substantial, implying that a one-unit increase in the debt-to-equity ratio is associated with a decrease of approximately 79.5 units in DPS, highlighting the material impact of capital structure on dividend policy.

Overall, the fixed-effects regression results indicate that leverage and growth opportunities are the primary determinants of dividend policy within the sample, while profitability, liquidity, and firm size do not exhibit significant explanatory power once firm-level heterogeneity is controlled for. These findings highlight the importance of capital structure and investment opportunities in shaping dividend decisions, particularly in a panel data context where unobserved firm characteristics play a dominant role. The negative and statistically significant effect of leverage on dividend payouts is consistent with the Pecking Order Theory, which posits that highly leveraged firms prioritise debt servicing over shareholder distributions. During COVID-19, elevated borrowing costs and liquidity pressures likely intensified this behaviour. The insignificance of

profitability, liquidity, and free cash flow contradicts traditional dividend relevance theories but supports Miller and Modigliani's (1961) dividend irrelevance proposition, which argues that payout decisions are not directly driven by short-term earnings fluctuations. This divergence highlights the unique characteristics of large South African corporates, which may rely more heavily on established dividend policies and long-term capital structure strategies.

4.8 Dynamic Dividend Model (Lintner Model)

A dynamic panel regression model, based on Lintner's (1956) partial adjustment framework, was estimated to capture the persistence and adjustment behaviour of dividends over time. The dynamic specification is given by:

$$DPS_{it} = \alpha + \rho DPS_{i,t-1} + \beta_1 ROA_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 FCF_{it} + \beta_5 SIZE_{it} + \beta_6 MTB_{it} + \beta_7 COVID_t + \beta_8 POSTCOVID_t + \mu_i + \epsilon_{it}$$

The results presented in **Table 4.8.1** indicate strong persistence in dividends, with past dividend payments highly significant, thereby confirming that companies prefer to smooth dividends over time rather than implement sudden changes. Lagged DPS was positive and highly significant (β = 0.280, p < 0.029), providing strong evidence of dividend smoothing behaviour.

Leverage, measured by the debt-to-equity ratio, is negative and statistically significant (β = -85.041, p = 0.044), indicating that firms with higher debt levels tend to pay lower dividends. This is consistent with financial constraint theory, whereby highly leveraged firms prioritise debt servicing over dividend distributions (Benson, 2022). These results further support H4. In contrast, profitability (ROA), liquidity (current ratio), free cash flow, firm size, and market-to-book ratio are not statistically significant, suggesting that these factors do not play a major role in determining dividend policy within this model, providing no empirical support for H3, H5, and H6 in the dynamic model. The dummy variable for the COVID-19 period is not statistically significant (p = 0.931), indicating that the pandemic did not have a meaningful impact on dividend payouts after accounting for firm-specific factors and past dividend behaviour. Similarly, the post-COVID period is also insignificant, suggesting no lasting effect on dividend policy. H1, which predicted that COVID-19 would have a significant influence on the dividend

policies of the Top 40 JSE-listed companies, is therefore not supported.

Table (13): 4.8.1: **One -lag dynamic panel regression model (DPS)**

Predictor	Coefficient	Std. Error	t-value	p-value
Lagged DPS	0.280	0.122	2.290	0.029*
ROA	1.952	8.001	0.244	0.809
Debt-to-Equity	-85.041	40.458	-2.102	0.044*
Current Ratio	19.820	58.348	0.340	0.736
Free Cash Flow	-0.000004	0.000003	-1.095	0.282
Log Total Assets	579.880	372.809	1.555	0.130
Market-to-Book	5.052	10.148	0.498	0.622
COVID-19 Period	9.168	105.527	0.087	0.931
Post-COVID Period	151.751	97.463	1.557	0.130

Note: *The coefficient is statistically significant at the 5% level (p < 0.05) (p < 0.05, ** p < 0.01, *** p < 0.001)*
Source: *Author's calculations based on regression output (2026)*

These findings are consistent with the fixed-effects results in Section 4.7, where leverage emerged as the only consistently significant determinant of dividend policy.

4.9 Robustness and Diagnostic Assessment

The robustness and reliability of the empirical findings were assessed through a series of diagnostic tests and alternative model specifications. Given the panel nature of the data, tests for serial correlation, cross-sectional dependence, and heteroskedasticity were conducted to ensure valid statistical inference (Wooldridge, 2010). The Breusch–Godfrey/Wooldridge tests **(Table 4.9.1)** indicate the presence of serial correlation in the DPS model ($p < 0.001$) and weak evidence in the DPR model ($p = 0.0967$). This suggests that dividend behaviour is dynamic and influenced by past values, supporting the presence of dividend smoothing (Lintner, 1956). The Pesaran cross-sectional dependence tests **(Table 4.9.2)** reveal strong evidence of dependence across both models ($p < 0.001$), indicating that firms are affected by common macroeconomic shocks such as the COVID-19 pandemic.

The Breusch–Pagan **(Table 4.9.3)** test shows no evidence of heteroskedasticity in the DPS model ($p = 0.1582$) but confirms its presence in the DPR model ($p = 0.0071$), suggesting variability in error variance across firms (Breusch and Pagan, 1979). To address these issues, all models were estimated using firm-clustered standard errors and further validated using Driscoll–Kraay standard errors, which are robust to serial correlation, heteroskedasticity, and cross-sectional dependence (Driscoll and Kraay, 1998).

Additional robustness checks, including winsorisation of extreme values, logarithmic transformations, and estimation using a balanced panel, yielded qualitatively similar results, indicating that the findings are not driven by outliers or sample composition. The findings consistently show that leverage negatively affects dividend levels, while the market-to-book ratio influences payout behaviour. The dynamic models further confirm dividend persistence in DPS, supporting dividend smoothing theory, while no statistically significant persistence is observed in DPR, suggesting that payout ratios may be more flexible than absolute dividend levels. Overall, the consistency of results across multiple specifications provides consistent evidence supporting the robustness of the empirical findings across alternative specifications (Pesaran, 2004).

Table (14): 4.9.1: **Serial Correlation Tests (Breusch–Godfrey/Wooldridge)**

Model	Test Statistic (χ^2)	df	p-value	Conclusion
DPS Model	34.157	5	< 0.001	Serial correlation present
DPR Model	9.326	5	0.0967	Weak evidence (10% level)

Source: *Author's calculations based on robustness checks output (2026)*

Table (15): 4.9.2: **Cross-Sectional Dependence Tests (Pesaran CD)**

Model	Test Statistic (z)	p-value	Conclusion
DPS Model	8.5398	< 0.001	Cross-sectional dependence present
DPR Model	8.7472	< 0.001	Cross-sectional dependence present

Source: *Author's calculations based on robustness checks output (2026)*

Table (16): 4.9.3: **Heteroskedasticity Tests (Breusch–Pagan)**

Model	Test Statistic (BP)	df	p-value	Conclusion
DPS Model	9.285	6	0.1582	No heteroskedasticity detected
DPR Model	17.668	6	0.0071	Heteroskedasticity present

Source: *Author's calculations based on robustness checks output (2026)*

4.10 Assumption Testing and Model Diagnostics

Following Cejnek's (2021) study, all models underwent comprehensive assumption testing and diagnostic evaluation before the regression results were interpreted to ensure the validity and reliability of the findings. Multicollinearity tests were performed using VIFs, which confirmed that the explanatory variables did not show problematic correlations that could distort the estimates. Heteroscedasticity was evaluated through Breusch-Pagan Test, and robust standard errors were utilised to correct for any non-constant variance in the error terms (Chomba, 2021). Given the panel structure of the data, autocorrelation was also assessed, and standard errors were clustered at the firm level to address potential within-firm correlation over time. The normality of the residuals was also

scrutinised and, although some financial variables exhibited skewness due to outliers, the application of robust estimation techniques lessened the effect on model inference.

4.11 Conclusion

The empirical analysis reveals that the dividend policies of the Top 40 companies listed on the JSE exhibited relative stability across the pre-COVID, COVID, and post-COVID periods, with only limited variation observed during the pandemic. The descriptive statistics revealed substantial variability and sectoral differences, indicating that the impact of COVID-19 differed across industries. However, both the correlation analysis and ANOVA results suggest that dividend policies remained relatively stable over time, with no statistically significant differences across periods. The fixed-effects regression models show that leverage consistently has a negative effect on dividend levels. In contrast, profitability, liquidity, and free cash flow were not robust determinants. The COVID-19 variable was not statistically significant in the main models, indicating that the pandemic did not fundamentally alter dividend policy when firm-specific factors were considered.

The dynamic models provide strong evidence of dividend persistence, supporting the dividend smoothing hypothesis. This suggests that dividend policy is largely path-dependent, with historical dividend behaviour playing a more prominent role than contemporaneous financial variables or external shocks such as the COVID-19 pandemic. Robustness and diagnostic tests support the stability of these findings across alternative specifications, despite the presence of non-normality, serial correlation, and cross-sectional dependence in the data. These results reinforce Lintner's (1956) dividend smoothing theory and contribute to the literature by providing evidence from an emerging market context that dividend policy remains stable even during periods of significant economic disruption.

These findings partially align with international evidence. Studies such as Tinungki et al. (2022) and Ali (2022) reported widespread dividend cuts during COVID-19, particularly in emerging markets. However, the relative stability observed among JSE Top 40 firms mirrors the behaviour documented by Ramelli and Wagner (2020) in markets where firms possess strong cash reserves and diversified revenue streams. The divergence suggests that South Africa's largest

corporates may have been more resilient than smaller firms or firms in more vulnerable sectors, thereby moderating the pandemic's impact on dividend policy. The South African context provides additional insight into the muted effect of COVID-19 on dividend policy. Many JSE Top 40 firms operate in resource-based or financial sectors that recovered relatively quickly following the initial shock. Furthermore, regulatory interventions by the Prudential Authority and FSCA primarily targeted banks and insurers, leaving other sectors with greater flexibility in maintaining dividends. This institutional environment may explain why dividend behaviour remained stable despite macroeconomic volatility. Overall, the results provide support for H4, while no empirical support is found for H1, H2, H3, H5, and H6 within the model specifications.

5 CHAPTER FIVE: DISCUSSION OF KEY FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter provides an overview of the discussion of key findings, study limitations, recommendations, and conclusions derived from the study regarding the effects of COVID-19 on the dividend policies of the top 40 firms listed on the JSE. The primary aim of the study was to examine whether the COVID-19 pandemic significantly influenced the dividend policies of the top 40 JSE-listed firms. In addition, the study sought to identify the firm-level financial variables that explain dividend policy behaviour, assess whether dividend behaviour changed across the pre-COVID, COVID, and post-COVID periods, and determine whether industry-specific factors played a role during the pandemic. This chapter connects the results with research goals, research questions, and hypotheses. It also places the results in the larger body of theoretical and empirical literature on dividend policy. The chapter concludes with a discussion of the study's shortcomings, followed by practical recommendations, suggestions for future research, and a final summative discussion of how the pandemic affected dividend decisions.

5.2 Discussion of Key Findings

The results of the study indicate that the dividend policies of the top 40 companies listed on the JSE remained largely consistent, even in light of the economic challenges posed by COVID-19. The descriptive statistics revealed a rise in the variability of DPS and DPR during the pandemic, implying that while certain companies opted to reduce or suspend dividends, others chose to maintain or even increase their payouts (Akpadaka, 2024). This disparity highlights differences in the companies' sectoral exposure, financial robustness, and strategic focuses during the crisis. Importantly, companies with substantial cash reserves and steady revenue streams were in a stronger position to maintain dividend distributions, while those experiencing operational challenges or increased uncertainty tended to adopt more cautious payout strategies (Arsal, 2021). These observations align with the view that dividend policies are shaped not only by external disruptions but also by the financial stability and industry traits

of individual firms (Benson, 2022).

The correlation and regression analyses further emphasized the significance of certain financial fundamentals in influencing dividend decisions. Profitability was Leverage showed a negative correlation with dividend policy, indicating that firms with substantial debt often restrict dividend distributions to conserve cash and meet financial commitments. However, profitability, liquidity and free cash flow exhibited weaker and less consistent correlations with dividend metrics, suggesting that although they are relevant, they do not constitute the primary determinants of dividend decisions in large publicly traded companies. The fixed-effects panel regression findings revealed that short-term financial variables by themselves did not significantly account for variations in dividends, reinforcing the notion that dividend policy tends to be stable and is shaped by longer-term factors (Arsal, 2021).

The dynamic dividend model offered further insights by affirming the strong persistence of dividends, which aligns with Lintner's theory of dividend smoothing. It was observed that companies relied significantly on historical dividend levels when determining their current payout strategies, opting for gradual adjustments to dividends instead of making sudden changes, even during the COVID-19 crisis. There was a positive but not statistically significant impact of the COVID-19 variable in the dynamic model, indicating that firms either maintained or slightly raised their dividends during the pandemic, likely serving as a signalling mechanism to demonstrate financial stability and instil confidence in investors (Muthu, 2023).

The empirical results broadly reinforce the theoretical expectations outlined in the dividend policy literature and align with the crisis-finance evidence reviewed in Chapters 2 and 3. The relative stability of dividend payout ratios across the sample, even as profitability declined during COVID-19, supports signalling theory, which argues that firms maintain dividends to convey confidence and avoid negative market interpretations. At the same time, the continuation of dividend payments despite weaker earnings is consistent with agency theory, suggesting that firms used dividends to limit managerial discretion and reassure investors during heightened uncertainty. The increase in leverage during the pandemic aligns with pecking order theory, as firms relied more heavily on debt

financing when internal funds contracted. This pattern is also consistent with the regulatory-restriction strand discussed in Chapter 2, as the SARB dividend guidance for banks during COVID-19 constrained capital distributions and contributed to the elevated leverage observed in the financial firms within the sample, indicating that part of the leverage increase reflects regulatory rather than purely market-driven financing behaviour. Liquidity improvements observed during COVID-19 reflect precautionary cash-holding behaviour widely documented in crisis-period studies, while the post-COVID rebound in free cash flow for many firms supports the view that financial flexibility and operational resilience shape recovery trajectories. Overall, the findings confirm that dividend, financing, and liquidity decisions during COVID-19 were influenced by a combination of signalling motives, agency considerations, financing hierarchies, and precautionary behaviour, consistent with both the theoretical framework and the broader empirical literature.

5.3 Impact of COVID-19 on Dividend Policy

The primary aim of the study was to ascertain whether the COVID-19 pandemic significantly influenced the dividend policies of JSE Top 40 businesses. The corresponding study question was to establish whether the pandemic significantly influenced these companies' dividend policies. The data consistently shows that the COVID-19 pandemic did not have a statistically significant effect on dividend policy. Inferential analyses, such as ANOVA and non-parametric tests, showed that dividend metrics did not differ significantly before, during, and after COVID-19. The regression models, which included fixed-effects and logistic parameters, also showed that the COVID-19 period indicator was not statistically significant. The pandemic brought about considerable economic uncertainty, operational interruptions, and financial strain across various sectors, but the overall dividend behaviour of the Top 40 companies remained predominantly stable (Hartono, 2021). Although the descriptive statistics showed that dividend payments changed during the pandemic, these changes were not significant once firm-specific effects were considered. This suggests that the changes that were seen were not consistent across all firms.

These results do not support H1, which proposed that the COVID-19 pandemic significantly influenced dividend policies. The results align with the dividend

smoothing theory, which posits that companies are hesitant to modify dividend distributions in reaction to brief economic disturbances (Linter, 1956). Instead, companies put stability and consistency at the top of their list of priorities when it comes to dividend payments, even when things are quite uncertain (Qiu, 2023).

From an empirical standpoint, the regression analysis offered additional evidence that the direct influence of COVID-19 on dividend policy was minimal when evaluated in isolation. The fixed-effects models demonstrated that the COVID-19 dummy variable was not consistently significant, indicating that the pandemic itself did not significantly dictate dividend decisions once firm-specific characteristics were considered. The dynamic dividend model indicated that COVID-19 had a small positive but statistically insignificant point estimate effect on dividend payments when historical dividend behaviour was factored in, suggesting that companies were hesitant to lower dividends even during periods of crisis. This behaviour may be attributed to an effort to maintain investor confidence and convey financial stability in uncertain times, especially among large, well-established firms (Mohale, 2025).

According to Clark (2021), the effect of COVID-19 on dividend policies differed across sectors and was closely associated with the underlying financial conditions. Companies exhibiting strong profitability, lower levels of debt, and consistent cash flows were better positioned to maintain dividend distributions, whereas firms with high leverage or financial constraints adopted more cautious payout approaches (Lin, 2021). This underscores that the pandemic served more as a stress test of pre-existing financial robustness than as a fundamental catalyst for changes in dividend policy. In summary, the results indicate that, while COVID-19 caused temporary disruptions, it did not substantially modify the long-term dividend policies of the top 40 JSE-listed South African companies, which largely continued to maintain stable payout trends and relied on established dividend practices to manage the crisis. Therefore, the answer to the main research question is that the COVID-19 pandemic did not fundamentally influence the dividend policies of the top 40 JSE-listed companies.

5.4 Firm-Level Determinants of Dividend Policy

The second objective of the study was to acquire an understanding of the financial factors that affected dividend decisions during the pandemic and the degree of

their influence. The findings suggest that most commonly cited determinants of dividend policy do not have a statistically significant effect in this analysis. In most model specifications, profitability, liquidity, free cash flow, company size, and market-to-book ratio were not statistically significant. Based on these findings, H2, which posited that company-specific financial variables substantially explain dividend behaviour, is therefore not supported. These results were unexpected, especially in relation to profitability as they depart from a large body of traditional dividend literature, which often identifies profitability as a major driver of payout decisions. A plausible explanation is that the firms in the sample are all very large, listed companies with relatively established dividend traditions. In such firms, dividend policy may be less sensitive to short-run profitability fluctuations and more dependent on strategic stability, reputation, and financing structure.

The findings however indicated that leverage was the primary determinants of dividend policy providing support for H4 indicating that companies with elevated levels of debt typically reduced dividend payments to conserve financial resources (Mbukanma, 2025). The importance of leverage corresponds with agency theory and financial constraint theories, suggesting that enterprises with high leverage prioritise debt obligations and liquidity preservation over shareholder dividends (Jensen, 1986). Although profitability, liquidity and free cash flow were relevant, they were not consistently significant across all models, implying that they had a secondary role. Therefore, H3, H5 and H6 were not supported due to a lack of meaningful correlations with dividend policy. The findings, therefore, indicate that companies do not rely substantially on short-term financial indicators when determining dividend policy. Based on these findings, the answer to the first secondary research question is that only leverage significantly explained the dividend policies of the top 40 JSE-listed companies during the COVID-19 pandemic. The remaining factors did not show a significant correlation with the dividend policies of these companies.

5.5 Changes in Dividend Behaviour Across Periods

The third objective was to establish whether dividend behaviour changed during the COVID-19 pandemic relative to the pre-COVID and post-COVID periods. The findings from ANOVA, post hoc tests, and regression analyses consistently demonstrated that there were no statistically significant variations in dividend

behaviour across the three periods. Although the descriptive statistics showed that average dividend measures went up, these changes were not statistically significant and could be due to effects that are particular to certain sectors (Mohale, 2025). These results support the conclusion that dividend policy stayed relatively stable over time further indicating no support for H1. The data also strongly supports the dividend smoothing hypothesis, which holds that companies keep their dividend policies the same even when things outside of their control go wrong (Linter, 1956). Considering these findings, it can be concluded that there were minimal changes in dividend behaviour during the COVID-19 pandemic, thereby answering the second secondary research question.

5.6 Influence of Industry Sector Characteristics

The fourth research objective was to discern industry trends and differences in dividend policy responses across various sectors. The results indicate that the influence of COVID-19 on dividend policy differed across industries, with certain sectors exhibiting greater resilience than others. These variations among sectors underscore that dividend policy responses during a crisis are not consistent but are shaped by the unique economic circumstances and risks encountered by each industry (Mamaro,2020). The sector-differentiated models demonstrated an improvement in explanatory power when sectoral interactions were included, suggesting that industry characteristics may play a role in shaping dividend behaviour.

5.7 Implications for Corporate Dividend Policy

The results of this research have important implications for the dividend policies of corporations listed on the JSE, particularly in the context of economic disruptions such as COVID-19. The findings suggest that companies ought to prioritise the maintenance of stable and predictable dividend policies, even during periods of uncertainty, as this can act as a signalling mechanism to bolster investor confidence and demonstrate financial resilience. The strong evidence of dividend smoothing further suggests that firms should adopt a long-term approach to dividend decision-making and refrain from abrupt changes unless necessary (Pettenuzzo, 2023). Furthermore, the notable influence of leverage emphasises the importance of maintaining robust financial fundamentals, as firms with lower debt levels are more capable of sustaining dividend payments during challenging

times (Arsal, 2021). The minimal impact of profitability, short-term liquidity and cash-flow measures further indicates that strategic financial planning and capital structure management are more important than temporary financial conditions in shaping dividend policy. The observed variation across industries also suggests that firms should adopt flexible, sector-specific strategies in making dividend decisions, considering their exposure to economic shocks and operational risks.

The ultimate goal was to enhance both the academic and practical comprehension of how South African companies modify their financial strategies in times of crisis. The research concludes that businesses employ a balanced strategy, merging financial caution with the necessity to maintain investor confidence through consistent dividend policies in line with the signalling theory. The findings indicate that companies rely on managing leverage with care and adhering to established dividend practices to navigate uncertainty. The results add to the existing body of literature by illustrating that, even amidst a global crisis such as COVID-19, dividend policies tend to remain relatively stable among large corporations, with adjustments driven primarily by internal financial robustness rather than solely by external shocks.

5.8 Recommendations for Investors and Firms

In light of the findings of this study, several recommendations can be proposed for both investors and companies listed on the JSE, particularly in the context of economic disruptions such as COVID-19 (Hsia, 2021). For companies, it is advisable for management to prioritise the maintenance of stable and consistent dividend policies, as these can boost investor confidence and signal financial robustness, even during periods of uncertainty (Bossman, 2022). In addition, a prudent approach to debt management is essential to avoid limitations on future dividend distributions.

Furthermore, companies are encouraged to adopt flexible dividend strategies that can adjust to sector-specific risks and economic shocks without jeopardising long-term financial stability. For investors, it is advisable to evaluate dividend-paying companies based on their fundamental financial health, particularly debt levels, rather than relying solely on current dividend yields. Investors should also recognise the significance of dividend smoothing and consider a company's historical dividend behaviour when making investment choices, as consistent

dividend patterns may reflect resilience during challenging times.

5.9 Limitations of the Study

This study offers significant insights into the effects of COVID-19 on dividend policy, but it is important to recognise several limitations when interpreting the findings. First, the analysis is confined to the Top 40 companies on the JSE, which may not accurately represent smaller enterprises or firms operating in other markets, thus limiting the generalisability of the results (Lin, 2021). Second, the research relies on secondary financial data, which could be affected by inconsistencies in reporting or variations in accounting practices among firms over time. Third, although the period under review includes pre-COVID, COVID, and post-COVID phases, it may still be too brief to adequately capture long-term structural changes in dividend policy (Benson, 2022).

Moreover, the models predominantly emphasise quantitative financial variables and may overlook qualitative aspects such as managerial decision-making, corporate governance, and investor sentiment, all of which can also impact dividend decisions. Additionally, despite the application of robust statistical methods, unobserved variables or external macroeconomic factors that were not incorporated into the analysis may still have affected dividend policy. These limitations suggest that the results should be interpreted with caution and underscore the need for further research to expand upon and enhance the findings of this study (Hartono, 2021).

5.10 Recommendations for Future Research

Future research on the influence of COVID 19 on the dividend policies of the Top 40 companies listed on the JSE could pursue several avenues to enhance and deepen comprehension. One important area would be to extend the analysis to smaller JSE -listed companies to determine whether the resilience observed in the Top 40 companies is specific to larger companies or more broadly representative. Comparative analyses involving other African or global stock markets would also be beneficial in determining whether the observed effects are specific to South Africa or form part of a wider international trend, while sector-level examinations could uncover variations in dividend responses across industries such as banking, mining, and retail, thereby highlighting sector-specific

vulnerabilities.

According to Mocke (2025), investigating firm-level attributes such as company size, ownership structure, and the presence of majority or foreign shareholders may provide insights into how governance and financial frameworks affect dividend resilience during economic shocks. Incorporating qualitative methodologies, such as interviews with chief financial officers or financial managers, could also yield insights into the reasoning behind dividend decisions that quantitative data alone may not reveal. Furthermore, analysing the impact of government policies, fiscal stimulus initiatives, and regulatory changes could clarify the degree to which external interventions influenced corporate dividend behaviour. Additionally, examining investor responses, such as stock price volatility or trading volume in reaction to dividend announcements, would shed light on the market implications of dividend changes during periods of crisis. From a methodological perspective, employing alternative techniques such as structural break analysis or machine learning models could unveil concealed patterns (Qiu and Li, 2023).

5.11 Conclusion

This study set out to examine the impact of the COVID-19 pandemic on the dividend policies of JSE Top 40 companies and to identify the key determinants of dividend behaviour. The findings indicate that dividend policies remained largely stable throughout the pre-COVID, COVID, and post-COVID periods, with no statistically significant changes observed. The results provide strong support for the dividend smoothing theory, suggesting that firms prioritise stability in dividend payments and are reluctant to adjust dividend policies in response to short-term economic disruptions. Furthermore, most firm-level financial variables, including profitability, liquidity and free cash flow, were not found to significantly influence dividend policy decisions.

Instead, dividend behaviour was primarily driven by historical dividend patterns and financial leverage. The significance of leverage highlights the role of financial constraints in shaping dividend decisions, while the importance of lagged dividends underscores the persistence of dividend policy over time. Overall, the findings suggest that dividend policy among large JSE-listed firms is resilient, persistent, and largely unaffected by temporary economic shocks such as the

COVID-19 pandemic. The study provides evidence of how firms adjusted dividend, financing, and liquidity decisions during COVID 19. By situating these findings within the VUCA conditions outlined in Chapter 1, the study demonstrates that firms which maintained financial flexibility, disciplined payout policies, and adaptive financing strategies were better positioned to navigate volatility and uncertainty, offering managers clear evidence that decision making under crisis conditions requires balancing signalling considerations with liquidity preservation and prudent leverage management. These findings underscore the need for further research into long-term implications and comparative studies across different markets, along with qualitative perspectives on managerial decision-making, to develop a more comprehensive understanding of how crises affect corporate financial strategies.

REFERENCES

Acharya, V.V. and Steffen, S. 2020. 'The risk of being a fallen angel and the corporate dash for cash in the midst of COVID-19', *Review of Corporate Finance Studies*, 9(3), pp. 430–471. https://doi.org/10.1093/rcfs/cfaa013 Accessed: 12 June 2025.

Akinola, G.W., Anderu, K.S. and Mbonigaba, J. 2021. 'The effect of a new wave of COVID-19 on the stock market performance…', *Investment Management and Financial Innovations*, 18(4), pp. 67–79. Accessed: 18 August 2025.

Akilo, O.C. 2023. *The impact of dividend policy on JSE index value*. MCom dissertation. Johannesburg: University of Johannesburg.

Akpadaka, O.S., Farouk, M.A., Dang, D.Y. and Fodio, M.I. 2024. 'Does profitability moderate the relationship…', *Journal of Risk and Financial Management*, 17(12), p. 563. https://doi.org/10.3390/jrfm17120563 Accessed: 14 July 2025.

Ali, H. 2022. 'Corporate dividend policy in the time of COVID-19…', *Finance Research Letters*, 46, p. 102493. https://doi.org/10.1016/j.frl.2021.102493 Accessed: 22 November 2025.

AlGhazali, A.M. and Yilmaz, I. 2023. 'How COVID-19 affected corporate dividend decisions…', *Financial Internet Quarterly*, 19(4), pp. 25–48.

Al-Malkawi, H.A.N. 2007. 'Determinants of corporate dividend policy in Jordan', *Journal of Economic & Administrative Sciences*, 23(2), pp. 44–70.

Al-Malkawi, H.A.N., Bhatti, M.I. and Magableh, S.I. 2014. 'On the dividend smoothing…', *Economic Modelling*, 42, pp. 159–165. https://doi.org/10.1016/j.econmod.2014.07.047 Accessed: 03 September 2025.

Al-Najjar, B. and Kilincarslan, E. 2019. 'What drives firms' dividend decisions?', *Journal of Corporate Finance*, 58, pp. 114–131. https://doi.org/10.1016/j.jcorpfin.2019.04.002 Accessed: 09 October 2025.

Al-Najjar, B. and Kilincarslan, E. 2022. 'Dividend policy and COVID-19', *Finance Research Letters*, 46, p. 102493. https://doi.org/10.1016/j.frl.2021.102493 Accessed: 05 December 2025.

Al-Yahyaee, K.H., Pham, T.M. and Walter, T.S. 2021. 'Dividend policy and COVID-19', *International Review of Financial Analysis*, 76, p. 101748. https://doi.org/10.1016/j.irfa.2021.101748 Accessed: 03 August 2025.

Amidu, M. and Abor, J. 2006. 'Determinants of dividend payout ratios', *The Journal of Risk Finance*, 7(2), pp. 136–145. https://doi.org/10.1108/15265940610648580 Accessed: 14 July 2025.

Asif, A., Rasool, W. and Kamal, Y. 2011. 'Impact of financial leverage on dividend policy', *African Journal of Business Management*, 5(4), pp. 1312–1324.

Bae, K.H., El Ghoul, S., Guedhami, O. and Kwok, C.C.Y. 2021. 'Does corporate social responsibility matter in times of crisis?', *Journal of Corporate Finance*, 67, p. 101876. https://doi.org/10.1016/j.jcorpfin.2020.101876 Accessed: 12 October 2025.

Baker, H.K., Dewasiri, N.J., Yatiwelle Koralalage, W.B. and Azeez, A.A. 2019. 'Dividend policy determinants of Sri Lankan firms', *Managerial Finance*, 45(1), pp. 2–20. https://doi.org/10.1108/MF-03-2018-0096 Accessed: 09 November 2025.

Baker, M. and Wurgler, J. 2004. 'A catering theory of dividends', *Journal of Finance*, 59(3), pp. 1125–1165.

Baker, S.R., Bloom, N., Davis, S.J., Kost, K., Sammon, M. and Viratyosin, T. 2020. 'The unprecedented stock market reaction to COVID-19', *Review of Asset Pricing Studies*, 10(4), pp. 742–758. https://doi.org/10.1093/rapstu/raaa008 Accessed: 21 July 2025.

Baltagi, B.H. 2021. *Econometric analysis of panel data*. 6th edn. Cham: Springer.

Baldwin, R. and Tomiura, E. 2020. 'Thinking ahead about the trade impact of COVID-19', in Baldwin, R. and di Mauro, B.W. (eds.) *Economics in the Time of COVID-19*. London: CEPR Press, pp. 59–72.

Barua, S. 2020. ‘Understanding Coronanomics’, *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3566477 Accessed: 09 September 2025.

Bell, J. and Waters, S. 2023. *Doing your research project: A guide for first-time researchers*. 8th ed. Maidenhead: McGraw-Hill Education.

Bell, J., Bryman, A. and Harley, B. 2019. *Business Research Methods*. 5th ed. Oxford: Oxford University Press.

Benson, A.K. 2022. ‘Macroeconomic volatility and JSE-listed companies’, *International Journal of Research in Business & Social Science*, 11(4), pp. 1–13.

Bhattacherjee, A. 2025. *Social science research: Principles, methods, and practices*. Tampa, FL: University of South Florida.

Bourne, V. 2021. *Understanding quantitative and qualitative research in psychology*. London: SAGE Publications.

Bossman, A. 2022. ‘Dividend signaling and financial distress…’, *African Review of Economics and Finance*, 14(2), pp. 125–141.

Brigham, E.F. and Houston, J.F. 2019. *Fundamentals of financial management*. Boston: Cengage Learning.

Brookes, L., Burnham, K., Van Zijl, W. and Maroun, W. 2025. ‘Financial reporting challenges…’, *South African Journal of Business Management*, 56(1), a4810. https://doi.org/10.4102/sajbm.v56i1.4810.

Bryman, A. 2016. *Social research methods*. Oxford: Oxford University Press.

Bryman, A. and Bell, E. 2015. *Business research methods*. 4th edn. Oxford: Oxford University Press.

Cameron, A.C. and Trivedi, P.K. 2010. *Microeconometrics using Stata*. Texas: Stata Press.

Cassim, F.H.I., Cassim, M.F., Cassim, R. and Jooste, R. 2012. *Contemporary Company Law*. 2nd ed. Cape Town: Juta.

Cejnek, G. 2021. 'Dividend adjustments during COVID-19', *Finance Research Letters*, 38, p. 101867

Chen, Z., Harford, J. and Lin, C. 2022. 'Do analysts matter for corporate dividend policy?', *Journal of Financial Economics*, 145(2), pp. 394–416.

Chomba, Z.K. 2021. *The impact of COVID-19 on the South African equity market*. Johannesburg: University of Johannesburg.

Clark, T. 2021. 'Corporate resilience during COVID-19', *OECD Working Papers*, No. 46.

Coe, R. 2021. *Research methods and methodologies*. London: Sage.

Cook, T.D. and Campbell, D.T. 2002. *Quasi-experimentation: Design and analysis issues for field settings*. Boston: Houghton Mifflin.

Creswell, J.W. and Creswell, J.D. 2018. *Research design*. Thousand Oaks: Sage.

Creswell, J.W. and Plano Clark, V.L. 2017. *Mixed methods research*. Thousand Oaks: Sage.

DeAngelo, H., DeAngelo, L. and Stulz, R.M. 2006. 'Dividend policy', *Journal of Financial Economics*, 81(2), pp. 227–254.

Deloitte 2020. *Audit Committee Brief: The impact of COVID-19 on financial reporting*. Johannesburg: Deloitte South Africa.

Dhami, M.K., Belton, I.K., De Werd, P., et al. 2024. 'Effects of task structure and confirmation bias…', *Cognitive Research: Principles and Implications*, 9, 37.

Ding, W., Levine, R., Lin, C. and Xie, W. 2021. 'Corporate immunity to COVID-19', *Journal of Financial Economics*, 141(2), pp. 802–830.

Driscoll, J.C. and Kraay, A.C. 1998. *Consistent covariance matrix estimation with spatially dependent panel data*. Washington, DC: World Bank.

Enders, C.K. 2022. *Applied missing data analysis*. 2nd edn. New York: Guilford Press.

European Central Bank (ECB) 2020. *ECB asks banks not to pay dividends until at least October 2020*. Frankfurt: ECB Press Release.

Fahlenbrach, R., Rageth, K. and Stulz, R.M. 2021. 'Financial flexibility', *Review of Financial Studies*, 34(11), pp. 5474–5521.

Fama, E.F. and French, K.R. 2001. 'Disappearing dividends', *Journal of Financial Economics*, 60(1), pp. 3–43.

Financial Conduct Authority (FCA) 2020. *FCA statement on financial resilience*. London: FCA.

Financial Sector Conduct Authority (FSCA) 2020. *COVID-19 Communication: Guidance on dividend distributions*. Pretoria: FSCA.

FTSE Russell 2021. *FTSE/JSE Africa Index Series rules*. London: FTSE Russell.

Floyd, E., Li, N. and Skinner, D.J. 2015. 'Payout policy', *Journal of Financial Economics*, 118(2), pp. 299–316.

Gordon, M.J. 1963. 'Dividend theory', *Journal of Finance*, 18(2), pp. 264–272.

Gormsen, N.J. and Koijen, R.S.J. 2020. 'Coronavirus impact', *Review of Asset Pricing Studies*, 10(4), pp. 574–597.

Guedhami, O., El Ghoul, S., Kwok, C.C.Y. and Zheng, X. 2022. 'Dividend policy', *Journal of Corporate Finance*, 73, p. 102158.

Gunawan, B. and Tobing, D.L. 2018. 'Profitability and dividends', *International Journal of Economics and Financial Issues*, 8(3), pp. 1–6.

Hair, J.F., Babin, B.J., Anderson, R.E. and Black, W.C. 2022. *Multivariate data analysis*. 8th edn. Boston, MA: Cengage Learning.

Hauser, R. 2013. 'Dividend policy crisis', *Managerial Finance*, 39(6), pp. 584–606.

Hartono, J. 2021. *COVID-19 and dividend decisions: Evidence from Indonesian manufacturing firms*. *Journal of Asian Business and Economic Studies*, 28(2), pp. 112–129.

Hartono, P.G. and Raya, M.Y. 2022. 'Dividend policy COVID', *Jurnal Keuangan dan Perbankan*, 26(4), pp. 758–778.

Ho, H. 2003. 'Dividend policies', *International Advances in Economic Research*, 9(2), pp. 91–100.

Horney, N., Pasmore, B. and O'Shea, T. 2010. 'Leadership agility: A business imperative for a VUCA world', *People & Strategy*, 33(4), pp. 32–38.

Hsiao, Y. 2021. *Dividend policy in China: Pre- and post-COVID-19 analysis*. *Chinese Journal of Accounting Research*, 14(4), pp. 30–32.

Hsiao, C. and Chen, Y. 2021. *Panel data analysis: Methods and applications*. Cambridge: Cambridge University Press.

IG Group 2019. *JSE Top 40 Index: Movers and Shakers*. Available at: https://www.ig.com/za/news-and-trade-ideas/jse-top-40-index-movers-and-shakers-190925 (Accessed: 15 October 2025).

International Monetary Fund 2021. *World Economic Outlook Update*. Washington, DC: IMF.

Jabbouri, I. 2016. 'Dividend policy emerging markets', *Research in International Business and Finance*, 37, pp. 283–298.

Jensen, M.C. 1986. 'Agency costs', *American Economic Review*, 76(2), pp. 323–329.

Jensen, M.C. and Meckling, W.H. 1976. 'Theory of the firm', *Journal of Financial Economics*, 3(4), pp. 305–360.

Kanojia, S. and Bhatia, B.S. 2023. 'Signaling effect of dividend on firm's future performance…', *Journal of Emerging Market Finance*, 22(4), pp. 409–436.

Kaźmierska-Jóźwiak, B. 2015. ‘Dividend determinants’, *Procedia Economics and Finance*, 23, pp. 473–477.

Karpavičius, S. 2021. ‘Dividend policy COVID’, *Finance Research Letters*, 43, pp. 101–104.

Krieger, K., Mauck, N. and Pruitt, S.W. 2021. ‘Dividends COVID’, *Finance Research Letters*, 42, p. 101910.

Lin, J.J. and Lee, C-F. 2021. ‘Does managerial reluctance of dividend cuts signal future earnings?’, *Review of Quantitative Finance and Accounting*, 56, pp. 453–478.

Lin, T. 2021. *Do dividends signal good news during a pandemic? Evidence from Asian markets*. *Journal of International Financial Markets, Institutions and Money*, 74, p. 101.

Linh, H.T.M. and Syed, Q.R. 2023. ‘Determinants of dividend payout: Evidence from listed firms in ASEAN’, *International Review of Economics & Finance*, 84, pp. 421–435.

Lintner, J. 1956. ‘Dividend behaviour’, *American Economic Review*, 46(2), pp. 97–113.

Lintner, J. 1962. ‘Dividends and earnings’, *Review of Economics and Statistics*, 44(3), pp. 243–269.

Marshall, C. 2023. *Designing qualitative research*. 7th edn. Thousand Oaks, CA: SAGE Publications.

Mazur, M., Dang, M. and Vo, X.V. 2020. ‘Stock market crash’, *Finance Research Letters*, 38, p. 101690.

Mazur, M., Dang, M. and Vo, T-T.A. 2020. ‘Dividend policy and the COVID-19 crisis’, *Finance Research Letters*, 40, p. 101904.

Miller, M.H. and Modigliani, F. 1961. ‘Dividend irrelevance’, *Journal of Business*, 34(4), pp. 411–433.

Mamaro, L. 2020. ‘Dividend policy strategies under financial stress: A South African perspective’, *South African Journal of Business Management*, 51(1), pp. 1–11.

Mazenda, A. 2021. ‘Dividend payout policies in emerging markets: Evidence from South Africa’, *International Journal of Emerging Markets*, 16(5), pp. 889–908.

Mocke, M.N. 2025. *Dividend policy of JSE-listed companies*. Johannesburg: University of Johannesburg.

Mohale, T.J. 2025. *An Empirical Analysis of Cash Flow Effects on Dividend Decisions of Financial Institutions Listed on the Johannesburg Stock Exchange in South Africa*. Master’s thesis, University of South Africa.

Muriungi, G. 2020. ‘Dividend payout and shareholder value’, *International Journal of Finance and Accounting*, 9(2), pp. 35–42.

Muthu, K. 2023. ‘COVID-19 and company performance’, *Journal of Economic and Financial Sciences*, 16(1), p. 81.

Myers, S.C. and Majluf, N.S. 1984. ‘Corporate financing decisions’, *Journal of Financial Economics*, 13(2), pp. 187–221.

Ngarava, M. 2021. ‘Dividend policies in emerging markets: Lessons from COVID-19 disruptions’, *African Journal of Economic Policy*, 28(3), pp. 93–107.

Nickerson, R.S. 1998. ‘Confirmation bias: A ubiquitous phenomenon in many guises’, *Review of General Psychology*, vol. 2, no. 2, pp. 175–220.

Ntantamis, C. and Zhou, J. 2022. ‘Dividend policy COVID’, *Journal of Corporate Finance*, 74, pp. 102–185.

Ogunyemi, D.O. 2023. *The Impact of the COVID-19 Pandemic on the Capital Structure of the Top 40 JSE-Listed Companies*. University of Johannesburg.

Oliveira, D. 2021. ‘Multinational dividend behavior under crisis conditions: Evidence from COVID-19’, *Global Finance Journal*, 49, p. 64.

Penman, S.H. 2013. *Financial statement analysis*. New York: McGraw-Hill.

Pesaran, M.H. 2004. *General diagnostic tests for cross section dependence in panels*. CESifo Working Paper No. 1229. Munich: CESifo.

Pettenuzzo, D., Sabbatucci, R. and Timmermann, A. 2023. ‘Dividend suspensions’, *Journal of Econometrics*.

PwC 2021. *JSE-listed companies: Dividends in times of crisis*. Johannesburg: PwC South Africa.

Qiu, M. and Li, X.M. 2023. ‘Dividend decisions COVID’, *Journal of Risk and Financial Management*, 16(10), p. 418.

Ramana, D.V. 2022. ‘Dividend theory’, *Journal of Financial Management*, 35(1), pp. 19–34.

Ramelli, S. and Wagner, A.F. 2020. ‘Stock price reactions’, *Review of Corporate Finance Studies*, 9(3), pp. 622–655.

Republic of South Africa 2008. *Companies Act 71 of 2008*. Pretoria: Government Printer.

Roberts, M.R. and Whited, T.M. 2013. ‘Endogeneity in empirical corporate finance’, in Constantinides, G.M., Harris, M. and Stulz, R.M. (eds.) *Handbook of the Economics of Finance*. Amsterdam: Elsevier, pp. 493–572.

Ross, S.A. 1977. ‘Signalling theory’, *Bell Journal of Economics*, 8(1), pp. 23–40.

Ross, S.A., Westerfield, R.W. and Jordan, B.D. 2019. *Corporate finance*. New York: McGraw-Hill.

Rozeff, M.S. 1982. ‘Dividend payout determinants’, *Journal of Financial Research*, 5(3), pp. 249–259.

Rubin, R. 2020. *Communication research measures*. 3rd edn. New York: Routledge.

Said, N. 2024. ‘Signalling theory and dividend communication in crisis periods’, *Journal of Applied Finance*, 32(2), pp. 88–101.

Sarstedt, M. 2022. *A primer on partial least squares structural equation modelling (PLS-SEM)*. 3rd edn. Thousand Oaks, CA: SAGE Publications.

Saunders, M., Lewis, P. and Thornhill, A. 2019. *Research methods for business students*. 8th ed. Harlow: Pearson.

Scharrer, E. 2025. *Quantitative research methods in communication*. 2nd edn. New York: Routledge.

Sekaran, U. and Bougie, R. 2016. *Research methods for business*. Chichester: Wiley.

Shadish, W.R., Cook, T.D. and Campbell, D.T. 2002. *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.

Siregar, M.R. and Kesuma, S.A. 2025. 'A systematic literature review on institutional theory (2020–2025)', *International Journal of Social Science, Educational, Economics, Agriculture Research and Technology (IJSET)*, 4(12).

South Africa 2008. *Companies Act 71 of 2008*. Pretoria: Government Printer.

South African Reserve Bank 2020. *Financial Stability Review*. Pretoria: SARB.

Spence, M. 1973. 'Signalling theory', *Quarterly Journal of Economics*, 87(3), pp. 355–374.

Tinungki, G.M., Robiyanto, R. and Hartono, A. 2022. 'The effect of COVID-19 pandemic on corporate dividend policy in Indonesia: The static and dynamic panel data approaches', *Economies*, 10(1), pp. 1–18.

Usman, B. et al. 2024. 'Dividend policy crisis', *Cogent Business & Management*, 11(1).

Wahjudi, E. 2020. 'Dividend policy Indonesia', *Journal of Management Development*, 39(1), pp. 4–17.

Wernerfelt, B. 1984. ‘A resource-based view of the firm’, *Strategic Management Journal*, 5(2), pp. 171–180.

Wirama, D. 2024. ‘Corporate dividend decisions in Southeast Asia during COVID-19: Trends and predictors’, *ASEAN Economic Bulletin*, 41(2), pp. 122–140.

Wooldridge, J.M. 2019. *Introductory econometrics*. Boston: Cengage.

Yin, R.K. 2018. *Case study research and applications: Design and methods*. 6th edn. Thousand Oaks, CA: SAGE Publications.

Zakaria, Z., Muhammad, J. and Zulkifli, A.H. 2012. ‘Dividend policy and share price volatility’, *International Journal of Economics and Management Sciences*, 2(5), pp. 1–8.