THE EFFECT OF PROFIT ANNOUNCEMENT ON SHARE PRICE REACTION IN JOHANNESBURG STOCK EXCHANGE TOP 40 FINANCIAL SERVICE FIRMS

by

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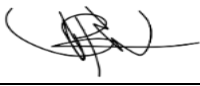Turfloop Graduate School of Leadership

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Declaration

I, Promise Thabile Mondlane, hereby certify that this dissertation is my own work and that all the materials that I have used and referenced have been specified and acknowledged with all correct and complete referencing, and that this research was never formerly submitted before for any other degree at any other institution.

Promise Thabile Mondlane

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Abstract

This research examined the effect of profit announcements on share price reactions in the top 40 listed financial services firms on the JSE. Therefore, the objectives of this study were (1) to determine the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 listed financial services firms and (2) to assess the effect of profit announcements on share price reactions after one month of profit announcements in the JSE's top 40 listed financial services firms. This study employed a positivist research paradigm, a quantitative method, and a correlational research design. The sample size for this study contained five (5) of the best-performing Top 40 JSE-listed financial services firms from 2010 to 2022 for thirteen (13) years. The study utilised secondary data from various sources. This study used a random effects model.

The study found a positive relationship between net profit and share price within and after the month of profit announcements. However, the results revealed that net profit has a highly positive relationship with share price a month after the announcement compared to within the month of the announcement. Furthermore, the findings are aligned with empirical literature, which has determined exchange rates, stock market capitalisation, inflation, GDP, and market indexes as other key variables affecting share price reactions on profit announcements. The results of the controlling variables discovered that the correlation between share prices and the exchange rate is positive but weak. Likewise, the same can be said about stock market capitalisation.

In contrast, inflation and GDP have a negative relationship with share prices. The study recommendation for future researchers is to use a larger sample size of companies in the Top 40 JSE-listed financial services firms, as it would be interesting to assess if increasing the sample size would generate results that differ. This study also recommends that investors pay attention to profit announcements to make informed investment choices.

Keywords: Share Price, Net Profit, Profit Announcement, Efficient market hypothesis.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1 Introduction

Share price reaction to corporate announcements has been increasing worldwide. For example, share buyback announcements reached 60.8 per cent of firms in the United States in 2018 alone. Share buybacks, or repurchases, are an alternative to cash dividends firms pay their shareholders (Nyere and Wesson, 2019). According to Pandey and Kumari (2022), the global outbreak of the Coronavirus (COVID-19) has affected the profitability of listed financial services. Thus, as a consequence of heightened uncertainty, it resulted in a record-breaking decrease in investor confidence and earnings. According to Pandey and Kumari's study, there is a significant rise in economic stress and an overall decline in economic mood among investors regarding the correlation between profit announcements and share prices for financial services firms. Kamoet (2022) asserts that profit disclosures of listed companies have moved after the first instance of COVID-19 was made public in both the Kenyan and South African markets. As an illustration, in March 2023, the price of shares on the Johannesburg Stock Exchange (JSE) dropped by 9.72%, Namibian Shares by 8.81%, Casablanca Shares by 6.70%, and Nairobi Shares plunged by 15%.

According to Pandey and Sharma (2018), the top 40 financial service firms in South Africa accounted for 40 of the approximately 400 shares listed on study events recorded in 2018, indicating more than 80% of the aggregate market value of all JSE-listed shares. According to Pandey and Kumari (2022), profit announcements generate a share price reaction and signal investors' high expectations. Yet, pandemic issues in the fourth quarter of 2020 have prompted some publicly traded companies to delay dividend payments to shareholders. Jwara (2022) asserts that the top 40 Johannesburg Stock Exchange (JSE) financial services firms offer an adequate view of what is happening in the South African stock market in its entirety. Despite having only 40 of the approximately 400 JSE-listed shares, it contributes to more than 80% of the entire market value of all JSE-listed firms. Various scholars have researched a comparable issue with conflicting

results. This study aimed to investigate the effect of profit announcements on share price reactions among the top 40 listed financial service firms on the JSE. To determine the impact of profit announcements on share price reactions within the month of the announcement in the JSE's top-listed 40 financial services firms. Also, the effect of profit announcements on share price reactions after one month of the announcement in the JSE's top 40 listed financial services firms for thirteen (13) years.

1.2 Research Problem Statement

According to Swaleh and Ochieng'Elly (2017), profit announcements for listed financial services companies are a statement made publicly by an entity to declare its profitability and performance over a specific period, usually quarterly, semi-annually or annually. The relationship between the share price and the profit announcement of financial services organisations has long been a concern for investors, creditors, government agencies, and other stakeholders (Wu, Ock, and Su, 2023). For instance, while assessing a company's operations, investors or creditors are more concerned with the impact of a profit statement on the share price reaction. The share price could experience a positive anomalous return if the company's announced profits are positive. Agustini and Sumarna (2023) state that the share prices of publicly listed companies fluctuate constantly due to market volatility and changes in share demand and supply affected by a company's profit announcement. Ledley, McCoy, Vaughan and Cleary (2020) highlight that share price may react to the recently announced profit by listed financial services firms. The correlation between profit announcements and share prices for financial firms influences every aspect of corporate businesses and the contemporary financial market (Agustini and Sumarna,2023).

Meanwhile, corporate management implements various profit announcement strategies to attract investors, like earnings and dividend announcements, and interact with multiple company stakeholders (Nikkha and Grover, 2022). According to Alyani, Satria and Wahyoeni (2023), corporations' aim to improve their financial image in the stock market has resulted in the manipulation of financial statements by certain companies, such as Enron, Global Crossing, and WorldCom. This, however, has been subject to diverse opinions from various finance scholars. This study intended to examine the effect of earnings announcements on share price fluctuations among the top 40 financial service

firms on the JSE. This study focused on the impact of profit announcements on share price reactions within a month of the announcement in the JSE's top 40 financial services firms. Furthermore, we assessed the effect of profit announcements on share price reactions in the JSE's top 40 financial services firms one month after the announcement.

]1.3 Purpose of the Study

1.3.1. Aim of the study

This study investigates the effect of profit announcements on share price reactions in the top 40 financial services firms on the JSE.

1.3.2. Objectives of the Study

This study seeks to achieve the following objectives:

- To determine the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 financial services firms.
- To assess the effect of profit announcements on share price reactions after one month of profit announcements in the JSE's top 40 financial services firms.

1.4 Research Questions

The study seeks to answer the following research questions:

- What is the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 financial services firms?
- How do profit announcements affect share price reactions after one month of profit announcements in the JSE's top 40 financial services firms?

1.5 Motivation/Rationale for the Study

According to Taha, Al-Omush, and Al-Nimer (2023), the share price of listed financial services companies fluctuates substantially due to various effects of the global financial crisis. This influences the nature of investment decisions for investors to purchase or sell shares. In contrast, corporate profits determine the liquidity of shares as the share price increases. As a result, this study's motivation or rationale contributes to the existing

literature by selecting the current state of related studies to achieve the study's objectives. The objective was to examine the relationship between two independent and dependent variables, specifically profit announcements and share price reactions, in the top 40 financial services firms listed on the JSE. Furthermore, it aims to eliminate the gaps that various scholars have researched, which have provided conflicting results. Also, this study seeks to assist investors, creditors, government agencies, and other stakeholders in arriving at choices for improving the quality of financial sustainability and increasing the likelihood of maximising the company's profitability and market share price.

1.6 significance of the Study

This study is essential to guide investors on the influence of profit announcements on share price reactions in the top 40 financial service firms listed on the JSE. This research will contribute to the body of knowledge regarding the relationship between the two primary factors: profit announcements and share price. Finally, the findings will help scholars who want to probe similar subjects for future research.

1.7 Definition of Concepts

1.7.1 Profit Announcement

A profit announcement is a signal instrument business executives use to communicate information about a firm's future, like profits. If profitability statements by publicly listed financial services firms contain meaningful information, share price shifts will occur promptly after the announcement. Likewise, readers of financial statements anticipate profit announcements to be a measure of value rather than an increase or decrease in value. Profit announcements provide vital information to shareholders regarding the company's previous accomplishments and are often used in calculating the company's future earnings and the price of shares. Profit announcements for JSE-listed financial services firms operate primarily to provide some forecasting information about future profits, and this information should be helpful for both current and potential investors to make rational investment decisions about these companies (Badenhorst and von, 2023).

1.7.2 Share Price

Amanda, Akhyar, and Ilham (2023) describe share price as the value of a share on the stock exchange or stock market, which is set by those who trade depending on the amount of demand or supply on the capital market itself. A share has a monetary value, often known as a price. The value of a share is classified into three forms based on its function: notional value, the value printed on the shares for accounting purposes, and the price mentioned in the applicable share certificate. The second is the base price, the original price used to create the stock price index. The price here will fluctuate based on the issuer's activities for additional shares, like rights issues, stock splits, base prices, and initial prices. The third is the market price, which happens to be the actual price and the simplest to calculate since if the cost of the shares is on the open market and the market is closed, that price is the closing price. JSE shares must have a nominal share value for one type of share; in a company, they must also have one kind of nominal value. A fair property of an efficient capital market, according to Luthuli (2022), is that share prices reflect investors' expectations of the volume and timing of future earnings. When an investor's expectations for a profit announcement change, they alter. For instance, when listed companies face economic uncertainty, investment confidence decreases as investors expect a return on investment.

1.8 Outline of the Dissertation

The research is divided into five distinctive chapters referred to as follows:

Chapter 1: Introduction to the Study

The chapter introduces the study and furnishes a roadmap for the five chapters by providing the historical background, research problem, research questions, and dissertation objectives.

Chapter 2: Literature Review

This chapter looked at Fama's (1970) marketing hypothesis, which is the foundation of the study. It also examined the conceptual framework and empirical studies on the relationship between profit announcements and stock prices. The literature review gives

different arguments on other scholars' topics. It also allows for an in-depth examination of the data and methodology used by other authors to achieve these kinds of findings.

Chapter 3: Research Design and Methodology

This chapter examines the research paradigm, research design, sample, data collection, data analysis, validity, and reliability followed to answer the research questions.

Chapter 4: Presentation of the Research Findings

The study's findings, analysis, and interpretation were provided in this chapter. The findings were explained and related to the studied literature. This study aimed to determine whether or not the research questions were answered and the objectives were met.

Chapter 5: Summary of the Findings, Conclusions and Recommendations

This chapter summarises the findings, conclusions, and recommendations. The decisions are the consequence of the analysis of the results. The findings are tied to the literature review, goals, and objectives. The outcomes of the findings will also be investigated.

1.9 Chapter Summary

This chapter has presented an overview of the research and its context. Furthermore, it gave the problem statement, justification of the study, relevance of the research, research objectives, research questions, definition, and structuring of the study's chapters. This study examines the effect of profit announcements on share price movements in the JSE's top 40 financial services firms and established market reactions. This research is appropriate and relevant considering the JSE's top 40 listed financial services. Subsequently, announced profit significantly impacts investors, creditors, and stakeholders, enhancing financial sustainability, maximising firm profitability, and increasing market share price as it influences economic sustainability decisions.

CHAPTER TWO

LITERATURE REVIEW

This section discusses the theoretical framework and literature review on the effect of profit announcements and share price reaction.

2.1 Introduction

The literature review presents the theoretical framework of Fama's efficient market hypothesis. The efficient market hypothesis has been chosen for this study to guide and assist in providing ideas on resolving the effect of share price reactions on profit announcements. After that, the section examines the empirical literature on the main concepts related to the research topic, which is the impact of net profit on the share price within the month and a month following the annual profit announcement while controlling for economic growth, exchange rate, market index, economic growth, inflation, and stock market capitalisation. The empirical literature justifies their use as determinants of net profit for listed companies. It then goes into empirical research on event studies and shared price reactions outside the JSE.

2.2 Theoretical Framework

The term theoretical framework refers to the fundamental concepts of a study in which significant personal beliefs and ideologies about the nature and existence of knowledge are constructed to address a study. It establishes a framework for the research and describes how well the research will be directed philosophically and methodologically (Enwereji and Uwizeyimana, 2019). The following theory has been chosen for this study to guide and assist in providing ideas on resolving the phenomenon under investigation, as discussed below.

2.2.1 The origin of the Efficient Market Hypothesis

According to Delcey (2019), Fama was the first to develop the concept of an efficient market in 1965, in one of his early papers (which summarised his Ph.D. dissertation) titled Behavioural of Stock market price and published in the journal of Business. Fama conducted quantitative studies on the behaviour of share price reactions and established

the independence of share price fluctuations. The study aimed to articulate the independence of share price alters, and it is how Fama established and articulated the theory of an efficient market. The study also finds that Fama classified the intrinsic value of an asset as the company's profit announcements, which are tied to economic and political considerations. Fama believed the share market was made up of Sophisticated traders. As an illustration, certain investors may be significantly better than others at predicting the arrival of new information and estimating its effects on the intrinsic value. Meanwhile, some may be far better at statistically examining pricing movements. Jovanovski and Tanevska (2019) state that Eugene Fama originated the efficient market hypothesis (EMH) in 1960-1970, a theory arguing that financial markets are information efficient. Based on the efficient market theory, the share price represents all available information. New data about firms is made public randomly, causing the share price to fluctuate. Fama contends that shares always trade at fair value, making it impractical for investors to trade low-priced shares or sell financial assets at a more favourable price. Those mentioned above lived on further EMH development in the 1970s and 1980s after the 1965 publication. In the early 1970s, widespread adoption of the EMH led to a profound shift in trading patterns (Delcy,2019). Loredana (2019) highlights significant components of the EMH effect and argues that the primary basis of EMH is that share market security prices always incorporate and represent all relevant information. This study disputes this by emphasising one essential point: the Efficient Market Hypothesis involves three dimensions: Investor rationality, uncorrelated errors, and the presumption that trading has no limitations. Mihajlovic and Mizdrakovi (2023) hold that the efficient market hypothesis first appeared in the work of the French Mathematiker Bachelier (1900) Théorie de la speculation and refers to the informational efficiency of the market, measuring the speed and accuracy of the market's reaction to newly arrived information. The basic premise is that all past, present, and discounted future events are factored into pricing in the market, even if they have no direct relationship with price fluctuations.

Abdullahi (2021) supports the abovementioned rationale by concurring with the most classic hypothesis statement. Fama 1970 suggested that markets that fully absorb every relevant information into the price of securities are referred to as efficient markets. In basic

terms, a market player, whether professional or nonprofessional, cannot consistently beat or influence the market, and the resources and effort invested by these individuals in selecting and evaluating trading equities are fruitless. It is preferable to approach the marketplace passively rather than actively, which is more expensive and riskier. Indeed, if the efficient market theory is correct, the market genuinely knows best.

According to Lhan, Emre, Evket, and Asm (2023), market efficiency is widely employed to analyse share price market performance. Furthermore, under the efficient market hypothesis (EMH), financial asset prices consider all accessible information. In an efficient market, prices indicate every data item, and investors cannot produce exceptional profits or forecast the future using historical share price data, as the random walk approach does. A share price estimated using a random walk process that includes the unit root process confirms the efficient market hypothesis. The efficient market hypothesis (EMH) was initially put forward by Fama, who claimed that in a transparent market, share price reactions would fully, quickly and accurately reflect the market concerning all new information impacting it. Fama also believed that the financial market reflects information effectively (Xu,2021). According to Abdullahi (2021), Stock market efficiency can be applied and established by utilising the three varieties of the Efficient Market Hypothesis, namely the weak, semi-strong, and vigorous. In his foundational review published in 1970, Fama completed observational research to establish empirical notification of market efficiency at a given period for each of all three versions of the EHM. Different scholars have varied perspectives on the theory; however, this theory is relevant to this study since the share price is determined using a unit root method, which confirms the efficient market hypothesis.

2.2.2 Different applications of the efficient market hypothesis.

Bosnjak (2023) identifies three versions of the efficient market hypothesis: weak, semi-strong, and strong. The weak form implies that share prices represent prior pricing knowledge and demand information, making outperforming the market more difficult. The semi-strong form suggests that stock prices represent all available private, public, and historical information, making it more difficult to outperform the market. The strong form implies that stock prices reflect all available private and public information obtained from an in-depth examination of the firm and economy. As a result, even those with inside

information are unlikely to outperform the market. Ejem et al. (2020) argue that the theory categorizes markets into weak, semi-strong, and strong, with highly efficient markets having inside information, knowledgeable investors, accessible information, unexpected events, and quick investor responses. Ying, Yousaf, Ain, Akhtara, and Rasheed (2019) suggest that the origin of the efficient market hypothesis is uncertain for academic theories and incontrollable for empirical evidence. The efficient market hypothesis (EMH) is a cornerstone of financial theory, according to Brouty and Garcin (2023), in which prices always fully reflect available information. Depending on how the information set is defined, multiple kinds of economic effectiveness can be distinguished. According to the weak form of market efficiency, present rates represent all of the knowledge contained in historical prices.

Public information, such as profit announcements, is also included in the semi-strength form. The strong form also contains private information from some investors. Tiwari, Jena, Abakah, and Yoon (2023) challenge Fama's position on market efficiency, noting the effects of market microstructure, noise trading, information technology, regulation, deficiencies, and psychological biases. Pardal, Dias, Teixeira, and Horta (2023) highlight the EMH as a significant economic and financial concept; nevertheless, scholars question its validity due to financial anomalies.

2.2.3 Application of the efficient market hypothesis to profit announcements.

According to Mijailovic and Mizdraković (2023), the efficient market hypothesis in the stock market ensures perfect and efficient trading, allowing investors to achieve average profits by estimating fluctuations in financial asset prices. Delcey (2019) and Jwara (2022) both support the efficient markets theory in finance, asserting that markets that fully incorporate all available information into securities prices are considered efficient. This means that market participants, whether professional or nonprofessional, cannot reliably beat or influence the market, and the resources and effort invested in selecting and evaluating trading stocks are fruitless. Ying, Yousaf, Ain, Akhtar, and Rasheed (2019) argue that price fluctuation in an informationally efficient market should be unpredictable if prices are correctly projected. Dhankar (2019) finds variance returns from an empirical

test based on the joint null hypothesis of financial markets being informationally efficient and consistent with predefined valuation models.

Sandubete, Belea, and Garca-Villalobos (2023) make an intriguing observation about the applications of efficient market theory to profit announcements. This study discovers that variations in currency values generate opportunities for profit and share price increases in the market, even though earnings for shares are produced by purchasing low and exchanging high. According to Jokar, Nourani, and Akhlaghi Yazdinejad (2023), investors who enter the capital market seek techniques to win and generate more significant profit. This viewpoint, however, is diametrically opposed to the market efficiency hypothesis, which asserts that there is no clear trend or pattern in the performance of securities prices and that price behaviour is random and unpredictable. Momentum trading methods are classified into several sorts. Profit acceleration is one of the most popular trading strategies. The debate in finance revolves around the Efficient Market Hypothesis and behavioural finance theories. EMH asserts market efficiency, while behavioural finance develops the adaptive markets hypothesis (AMH), which posits that market efficiency fluctuates over time. However, this study's efficient market hypothesis is vital as it influences earnings announcements, share prices, and trade volume (Messo, Tibbs, and Byaruhanga, 2020).

2.3 The imperatives of corporate profit announcements.

Corporations are mandated to announce their profits by publishing audited annual financial statements. This must be done through mandates based on guidelines similar to statutory standards and encourage the uniform and logical growth of IFRS (International Financial Reporting Standards) to provide significant information concerning corporate financial performances to a wide range of stakeholders and investors so they can make informed investment decisions (Jwara, 2023). According to Christensen, Timmermann, and Veliyev (2023), corporation profit announcement imperatives are the most essential source of firm-level information for stock market investors, and they play an important role in share price reaction. These are significant events when companies release audited financial statements to share their views on

economic prospects with investors and the broader public. In addition, profit statements may be projected at a time when news processes are volatile. With such information, investors are more likely to significantly alter their posterior estimates of business valuations, raising the possibility of substantial price changes.

According to Luthuli (2023), the Johannesburg Stock Exchange (JSE) and the Financial Sector Conduct Authority (FSCA) are agencies with laws governing the publication of market-sensitive information. In this regard, JSE-listed financial services firms must publish financial statements not less than twice a year. This is carried out through an interim report and financial statements. Furthermore, the JSE requires listed financial services firms to issue hazardous warnings if they become aware of any price-sensitive information where a level of confidentiality can no longer be maintained or is currently being breached. This might involve moral misconduct that affects a company's share price reaction.

Chen (2023) observes that share price reactions to financial reporting are becoming increasingly important. A detailed grasp of this subject provides information to various stakeholders, including management, shareholders, debt holders, and regulators. In theory, prices are supposed to aggregate private signals traders obtain during an earnings announcement. Christensen, Timmermann, and Veliyev (2023) assert that corporate profit announcements are the most essential way for stock market investors to get corporate information, and they play a critical role in share price reactions. Corporates must report earnings through the release of audited financial statements and communicate their views regarding financial forecasts with investors and the general public.

Du, Ao, Chai, and Ge's 2023 study examined the information efficiency of stock prices in China's stock market, finding that financial service investors behave similarly to ordinary investors. The study found that policy improvements for listed firms did not mitigate the adverse effects of profit announcements on stock price information efficiency. Chen (2023) disputes that this makes sense when market participants possess comparable beliefs. However, emerging evidence reveals that traders are susceptible to developing distinct opinions while being given equal information. Given the belief that diversity is vital

for pricing efficiency, the relationship between these variables, profit announcement and share price, remains uncertain.

2.4 Factors affecting share price reactions.

2.4.1 Inflation

Ndlovu (2023) explains that inflation rates impact share price reactions, with a negative link in short-term periods and favourable returns in longer-term periods. Firms can forecast revenues as an inflation hedge, making the stock market immune to inflationary pressures. Amanda, Akhyar, and Ilham (2023) describe inflation as a loss in a currency's purchasing power, with higher prices reducing its value. The economy's shrinkage significantly impacted inflation, with a 0.10% inflation rate in March 2020 affecting the share price reactions of listed financial services. Further, in December 2020, the inflation rate increased to 0.45%, indicating inflation's positive impact on stock prices. Ramelli and Wagner (2020) researched how the Corona virus disease, COVID-19, impacts market reactions; the study revealed how inflation affects share price reactions. Global enterprises initially suffered, especially those who trade with China. Corporate debt and cash holdings became key value drivers as the virus expanded, even after the Fed intervened in the bond market. Baker, Bloom, Davis, Kost, Sammon, and Viratyosin (2020) remark that the COVID-19 pandemic led to a significant drop in equities and increased market volatility globally. In the US, volatility levels reached pre-pandemic levels. The study investigates the impact of COVID-19 changes on stock market behaviour and compares it to earlier infectious illness epidemics.

2.4.2 The exchange rates

The exchange rate significantly impacts stock price responsiveness and is crucial in an open economy, affecting current account balance and macroeconomic indicators. The rupiah-dollar exchange rate is the most commonly used, as the dollar is a stable economic currency (Amanda, Akhyar and Ilham, 2023). Ruhiyat and Terzaghi (2023) suggest that exchange rate fluctuations, particularly foreign exchange investment, can impact stock prices and companies' performance. Inflation can lead to decreased investor confidence

and the weakening of exchange rates. Mehmedi, Zdravkoski, Xhaferi, and Nikolovski (2023) found a negative correlation between exchange rate and share price reaction in India, indicating that share price reactions are volatile due to economic factors like rising prices of precious commodities.

2.4.3 Stock Market Capitalisation

According to Liang, Galiano, and Zhou (2023), stock market capitalisation is a market cap used to determine the size of a corporation. It indicates the total weighting of a company's existing stock. It also includes publicly traded and restricted shares held by stockholders and investors. Kuvshinov and Zimmermann (2022) examined stock market capitalisation trends in 17 advanced study economies and found that between 1870 and the 1980s, stock market capitalisation increased with GDP. However, compared with recent expansion, it has been driven by equities prices and a profit shift towards listed companies. Anh and Gan (2021) argue that stock market capitalisation does not affect share price reactions. Yet, it also operates in the opposite direction. Stock market capitalisation is calculated by multiplying the share price by the number of outstanding shares. Azeem, Naseem, Hassan, Butt, Aslam, Ali, and Jadoon (2023) discovered that stock market capitalisation (SMC) provides companies with increased share prices and access to greener technologies and renewable energy sources. As investor confidence grows, businesses can secure affordable funding, reducing costs and emissions and promoting environmental sustainability. Van Vuuren, Ward, and Muller (2023) suggest that public corporations can increase capital by issuing new equity through rights issues. These issues allow shareholders to purchase new shares at a discounted rate but can lead to share dilution and negative short-term returns, affecting the company's share price reaction.

2.4.4 Market index on share price reactions within the month of profit announcements

A market index is a hypothetical investment portfolio representing a financial market segment, with the Dow Jones, Nasdaq composite, and S&P 500 index being the most

popular. Moreover, index values are determined by stock market capitalisation, revenue, float, and fundamental weighting. Batrancea's (2021) study analysed the factors influencing market index and share prices for 80 Spanish healthcare providers from 2008-2015. The study reveals that liquidity ratio, debt-to-equity ratio, GDP per capita, population density, and corporate social responsibility indicators significantly impact the market index and share price. Pholohane, Ajuwon, and Wesson (2020) state that investors trade differently in stock markets due to the time lag between profit announcements and market index adjustments. This offers them a profit opportunity but violates the EMH in an efficient market. Index trackers strive to reduce tracking errors and trade on the day changes become effective, thereby decreasing tracking errors and maintaining a fair market.

2.4.5 Market index on share price reactions after one month of profit announcements

The stock market index trend forecasts the future price movement, assisting investors in minimizing risks and increasing returns. Traditional statistical models, machine learning, and artificial neural networks are among the approaches created by researchers. Deep learning has developed several algorithms for forecasting market indexes and share prices after firm earnings statements (Bhandari, Rimal, Pokhrel, Rimal, Dahal, and Khatrim,2022). Nyakurukwa and Seetharam (2023) explored the interconnection of JSE investible trades using wavelet multi-correlation. The findings demonstrate that homogenous investors control the intra-week, weekly, and fortnightly scales, while investor faces developing more varied as monthly frequencies increase. Major events rise wavelet correlations, creating diversity that is not as necessary during a crisis. Ferreira, Mohlamme, Van Vuuren, and Dickason (2019) examined the impact of listed financial services events on past earnings and changes after profit announcements. It found that reactions to these events vary based on market capitalisation, event type, and time horizon, impacting portfolio diversification. Further, the results found that small-market capitalisation stocks can earn above-average returns due to market efficiency.

2.5 The effect of profit announcements on share price reactions within the month of profit announcements.

Kumar, Soni, Hawaldar, Vyas, and Yadav (2020) conducted an event study on the Indian stock market, identifying firms with at least 20% foreign ownership, and found the market inefficient under the semi-strong efficient market hypothesis. This implies that pre- and post-announcement outcomes are often statistically insignificant. Irrespective of previous studies into the Swiss market, departures from researchers' estimated earnings cause considerable parallel changes in share prices, as predicted by the semi-strong efficient market theory. Puertas, Clara-Rahola, Sánchez-Granero, de las Nieves, and Trinidad-Segovia (2023) claim that efficient markets respond to rapid and unvarying log-price fluctuations. They found that the reaction is efficient in the oil-US-Dollar system, but in Hong Kong-Dollar versus US-Dollar or Bitcoin markets, restoring equilibrium takes longer, resulting in a temporary loss of efficiency. However, lower efficiency may be due to the central bank's varying economic policies. Nevertheless, as in the case of Bitcoin, the financial literature supports the findings observed. As a result, the underlying causes of this inefficiency may require further examination to establish whether it is related to a lack of market oversight, volume of trading, or the amount of time needed for validating and registering operations on the chain of transactions.

According to Karaömer and Kakilli Acaravci (2023), the weak effective market theory has been examined in Germany's financial markets. The papers investigate the evolution and current state of the efficient market hypothesis, emphasising anomalies and disproportionate gains. Investors routinely neglect surplus gains. However, market inconsistencies have been found, and share prices have drifted away from their underlying value thus far. Furthermore, the evolution of market efficacy is explored, as is its current state. Jwara (2022) finds a rise in financial restatements, raising concerns about the integrity of financial reporting and impacting market activity. These restatements, often due to fraudulent content, negatively affect investor confidence, as they are crucial for investment choices making.

According to Mehta (2021), a crucial attribute of beneficial corporate citizens, such as corporations involved in socially responsible projects, is that they serve diverse

stakeholders, not only their shareholders. This emphasis on a wide range of stakeholders helps socially accountable businesses respond favourably to share price reactions. Socially conscious companies can increase the sustainability of their shares' price by incorporating these varied stakeholders' interests into their company's aims and strategy. Poor corporate governance harms share prices. It is practically daily that we read about scandals that have destroyed firms' share prices as a result of poor corporate governance.

Furthermore, poor corporate governance impacts more than just the share price reaction. However, the outcome could have consequences for several facets of society. As an illustration, investors' capital can be lost suddenly, unemployment can occur, and so on (Kyere and Ausloos, 2021). Luthuli (2023) raises an interesting point, arguing that in today's environment, large corporations, mainly publicly traded corporations, cannot enable scenarios of ethical misconduct to go unnoticed. Furthermore, this study believes this is primarily due to globalisation and the rapid flow of information, incorporating that even little happenings can gain significant media coverage.

Moreover, the study reveals that a company's share price may fall following the announcement of a scandal. Previous studies have found that effective corporate governance increases a company's profitability and share price. The effective corporate governance of publicly traded financial services plays a vital role in the steadiness of the monetary system and the avoidance of financial mismanagement occurrences (Komath, Doan, and Saylr, 2023).

2.6 The effect of profit announcement on share price reactions after one month of profit announcements.

The Jwara (2022) study examined the profit announcements and market reactions of South Africa's top 40 publicly traded companies. Accounting mistakes, the adoption of new standards, anomalies, and changes in accounting techniques were identified as critical reasons for the restatements in the study. The study also discovered a -7.55 % reduction in share values following announcements, indicating a substantial market reaction. Stephans (2021) claims that the profit announcement profoundly impacts the decision to buy shares. Investors base their selections on individual security

characteristics and share price reactions a month after profit announcements for publicly traded companies. Market mood shifts throughout time, signalling greater or lower prices relative to previous prices and the investor's predicted holding duration.

Obi, Waweru, and Nyangu (2023) studied market irregularities during the Russia-Ukraine crisis 2022 using event analysis techniques and the EGARCH model. They found that African nations remained neutral, and abnormal losses were more significant and persistent in G7 markets. This challenged the belief that developed markets are more efficient than emerging markets. The study also highlighted the impact of rising commodity prices on African economies, which rely heavily on US-dollar food and fuel imports. Amal (2023) states that dividend announcements, on the other hand, might impact share prices, either positively or negatively.

Further, companies that pay dividends typically can attract new investors and strengthen their stock's value. According to Halife and Karroum (2023), dividends are crucial for a company's financial image and long-term growth, as they are an absolute form of profit for investors and a dependable determinant of the company's value. When a firm announces its dividend payment policy, the price of its shares fluctuates, and dividend announcements affect the stock's trading volume. Piispanen (2023) observes that every type of dividend announcement affects the market's share price reaction, indicating that investors are more interested in the company's net profit growth and share price.

Dube's (2023) study examined the impact of profit announcements on share price reaction using market quality criteria. Results showed a slight decrease in transaction costs and trade activity six months post-cross-listing, with potential differences depending on pre-cross-listing liquidity characteristics. It has been established that variations in market quality are not significantly different from the influence of share price movements on profit announcements. According to Laine (2023), monetary policy affects stock prices by partially controlling risk-free rates. Monetary policy can also influence dividend expectations, for example, through firm output. There are reasons to suspect that expansionary monetary policy reduces risk premia, as many studies give empirical evidence that expansionary monetary policy causes an early surge in equity prices followed by a period of lower-than-normal excess return. Altavilla, Brugnolini, Gürkaynak

Motto, and Ragusa (2019) argue that monetary policy, for better or worse, has been at the forefront of cyclical policymaking throughout the last two decades, particularly during the Great Recession and the sovereign debt crisis. Although the United States' monetary policy is well understood, its financial market implications have yet to manifest. This is partly due to the lack of a systematic database of high-frequency intraday data for a broad class of asset prices in the eurozone, as has been used in the United States for over a decade.

2.7 Share price and profit announcement study events.

An event study is classified as an occurrence if it impacts a company's financial condition and can be measured. Dolley published the first event study in 1933, which found that price growth occurred in 57 cases and declined in 26 cases. (Messo, Tibbs, and Byaruhanga, 2020). Ferreira, Mohlamme, Van Vuuren, and Dickason (2019) confirm the argument above by asserting that Dolley was the first to investigate the price effects of stock splits by analysing the swings in the stock at the time of the split. The level of sophistication in this research increased considerably with advancements between 1930 and 1960, such as reducing overall share price reactions and isolating confounding events. Moreover, a profit announcement is a financial event that can cause a share price to rise or fall. However, recent studies have found varying results on the association between share price and profit announcement events.

According to Nyakurukwa and Seetharam (2023), global events such as the European debt crisis, Brexit, and the COVID-19 pandemic have created infectious patterns in financial markets, raising the likelihood of risks spreading across countries, markets, and industries and potentially harming capital markets since the 2008 Global Financial Crisis. Understanding risk transmission across financial markets is critical, especially given the increasing emphasis on determining the source of interconnection. Van Vuuren, Ward, and Muller (2023) examined the period 2005–2022, and an event study was implemented to determine the effect of a rights issue and its announcement for companies listed on the Johannesburg Stock Exchange. This study's findings indicate that share prices typically drop below the 5th percentile after a rights issue announcement and remain low for 30 days. Once implemented, share prices increase beyond the 95th percentile and stay high.

Finally, resource companies are more prone to rights-issue activities when compared to non-resource companies, while growth (versus value) companies are more negatively influenced.

Oyadeyi, Arogundade, and Biyase (2023) followed an occasion study line to objectively investigate the influence of the COVID-19 epidemic on the share prices of major Chinese enterprises. According to the analysis, the COVID-19 pandemic negatively impacted the Shanghai Stock Exchange and positively impacted the Shenzhen Stock Exchange. It negatively impacted conventional industries like transportation, mining, electricity, heating, and the environment but positively impacted manufacturing, information technology, education, and health. China's economy, infrastructure, and strong support capabilities contributed to rapid development. Garanina (2023) examined the relationship between profit announcements and firms' share price values in Russian companies, focusing on the role of corporate social responsibility (CSR) disclosure and state ownership. The research was conducted on 223 publicly listed firms from 2012 to 2018. This study found that firms with more CSR information had a weaker negative relationship with share price value. This effect was even more vulnerable for state-owned companies, as investors and stakeholders viewed their positive CSR image positively. The Liu (2023) study used 379 annual samples from the S&P Capital IQ database to analyse the impact of prospect theory on earnings management. Results show that enterprises with earnings above zero are risk lovers, while those below zero are risk averters. Most South African listed enterprises have earnings above zero.

2.8 Share price reaction outside JSE

The strength of the US economy substantially impacts emerging markets through macroeconomic announcements, which supply economic information and influence share price reactions. Globalisation enables larger economies to influence emerging markets, improving investment decisions. The COVID-19 pandemic did not affect the JSE, according to GARCH models (Alfonso, Botha, and Pelcher, 2023). Sauzet (2023) presents a framework to explain the international portfolio problem, a long-standing issue in international finance. The framework defines the share price reaction to profit announcements for financial services firms, highlighting the organic evolution of a global

financial cycle in risk payments and explaining the reserve currency paradox. The model supports the fundamental underlying mechanisms, with portfolio levels, dynamics, and asset price tests empirically consistent with theoretical predictions. Using a structural model, Ndlovu (2023) observed the long-term relationship between macroeconomic factors and stock market index levels.

Data from sources like Bloomberg and I-Net was analysed over twenty years. Engle and Granger cointegration and the error correction model examined the relationship and deviation from long-run market equilibrium. Results show cointegration between macroeconomic variables and stock market index levels but a deviation from long-term equilibrium. According to Sun and Zhang (2023), the global stock markets have undergone significant fluctuation since the outbreak of the Russia-Ukraine war. Considering data from eighty-six diverse countries, this study does a detailed analysis to uncover the roles of geopolitical, economic, institutional, humanitarian, industrial, and firm-related factors in explaining the varied anomalous returns for listed firms around the epidemic of the struggle. Jwara (2022) found that stock exchanges in Japan, the United Kingdom, and the United States have significantly impacted the investment process in developing countries by serving as locations for selling and issuing securities. Therefore, the stock exchange boosts the trade of stocks, bonds, and other assets; buying and selling shares on the stock exchange is vital for enhancing national economic growth. Moreover, it is a crucial component of governmental infrastructure that promotes fiscal and monetary development.

2.9 Chapter Summary

This chapter's discussion has been centred around Fama's marketing hypothesis, the study's theory, and empirical studies on the relationship between profit announcements and share price reactions. Empirical studies found exchange, stock market capitalisation, inflation, the GDP (gross domestic product), and market indexes to be significant variables affecting share price reactions and profit announcements. Further to that, the chapter also examined event studies and shared price reactions outside the JSE. However, literature from various sources shows different findings on the outcomes, with

some showing a positive correlation and others a negative correlation between net profit and share price.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter 3 discusses the research paradigm, study design, methodology, sampling, data collection, data analysis, validity, reliability, and bias used to conduct the study. The study used descriptive statistical analysis to determine share prices' response to profit announcements. Secondary data was collected from the yearly financial statements of the five (5) sampled JSE-listed companies, the Johannesburg Stock Exchange website, the World Bank website, and Federal Reserve Economic Data (FRED). Ethics and consent procedures followed when collecting the data were also classified. This approach has ensured that the research becomes an effective solution to a problem and contributes to understanding the subject matter.

3.2. Research Paradigm

A research paradigm is a broad view of how to conduct research. It is based on philosophical assumptions like ontology and epistemology and guides methodological decisions (Gannon, Taheri, and Azer, 2022). This study conformed to the paradigm of positivist research. According to Leedy and Ormrod (2023), the positivist research paradigm uses scientific approaches whereby genuine, accurate, and objective events may be analysed and observed objectively and empirically. This is further explained by articulate, logical inquiry and interpretation that aligns with the positivist model. The positivist research paradigm was deemed relevant for this study because the objectives include quantitative dependent and independent variables (net profit and share price).

3.3 Research Method

A research method is used to collect and analyse data for an identified discipline of study to address a research problem (Leedy and Ormrod, 2015). Three broad categories of research methods exist: qualitative, quantitative, and mixed techniques. The quantitative approach involves gathering quantitative data. It deals with numbers and all data that can be measured using graphic basics like percentages, tables, charts, and graphs. Whereas a qualitative research method is an examination instrument used in various academic

fields to obtain a complete understanding of appropriate issues such as human behaviour and the probable sources that govern it (Mathebula, 2023), there is also a mixed-methods approach. According to Luthuli (2022), a mixed method combines quantitative and qualitative data collection techniques. Further, it analyses the data collected simultaneously (in parallel) or one after the other (sequentially) but not in combination. A quantitative research method was chosen for this study. The quantitative research method was adopted for this study, given that the research paradigm is positivist and involves measuring relationships between dependent and independent variables through static analysis.

3.4 Research Design

A research design gives the overall structure for the methods the researcher will follow; in other words, a research design is planning (Leedy and Ormrod, 2015). There are four types of quantitative research designs: descriptive/survey, experimental research, correlational research, and casual comparative research. This study used a correlational research design, including statistical analysis. This type of research design is a tool that is used to establish the extent of a relationship between two or more variables. It is a statistical analysis that aims to determine the direction and degree of a relationship between variables under investigation (Modiba, 2022). Therefore, as described in the method section, the correlation design and the positivist research paradigm align with the quantitative approach used in this study. Therefore, a correlational design is suitable for this study since the correlation between the dependent and independent variables is determined using quantitative statistical analysis.

3.5 Study Area

According to Chettry and Surawar (2021), a study area is a land surface region mapped and statistically sampled. It includes the entire region within the site boundary and the areas between the next few kilometers from the research site. The study area for this research was Johannesburg, specifically the Johannesburg Stock Exchange (JSE). According to Jwara (2022), the Johannesburg Stock Exchange (JSE) amalgamated with the World Federation of Exchanges and Markets in 1963. The Johannesburg Stock Exchange (JSE) evolved from a regular trading platform to an automated trading system

in 1990 and was governed by the Financial Markets Act No. 19 of 2012. This study was chosen since all the companies examined are listed on the JSE, where they are regulated and must submit their profit announcements.
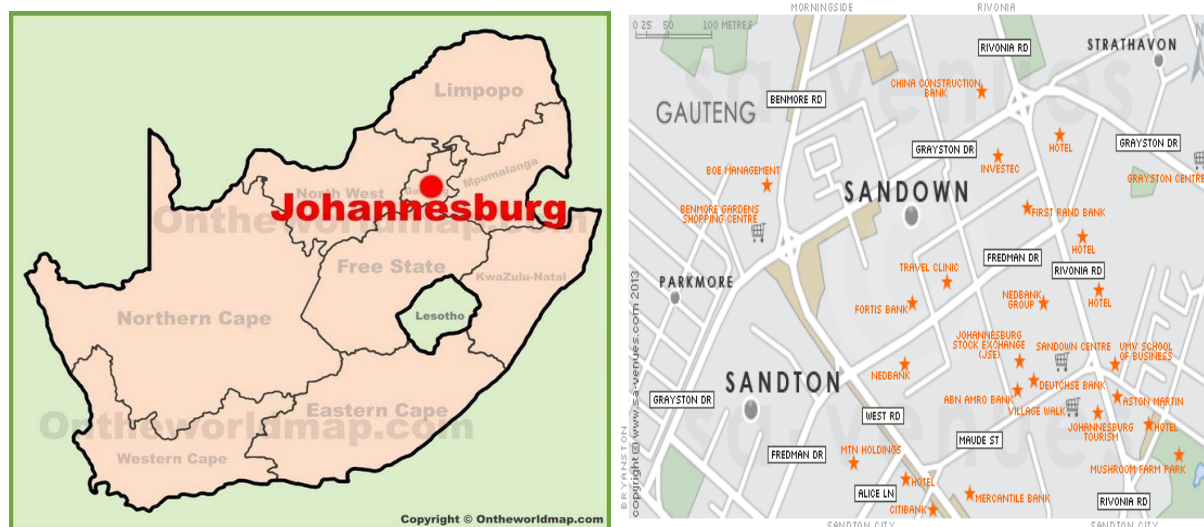
Figure 3.1 Map of Johannesburg (Gauteng Province).

Source: Google Maps (2023)

3.6 Population

Modiba (2022) describes a population as a whole unit from which a sample is chosen. Mathebula (2023) asserts the above statement, which defines population as the total number of substances or themes used in a study with specific features and traits chosen for research. This study population consisted of all companies listed in the top 40 Johannesburg Stock Exchange (JSE) that announced their profits to determine the effect of the share price on profit announcements for listed financial services.

3.7 Sampling Technique and Sampling Size

The procedure of selecting a sample size from the complete population to participate in a study is sampling (Jwara, 2022). The study followed a purposive sampling technique. Purposive sampling is the procedure of picking a particular sample for a specific purpose. The sample size for this study consisted of five (5) of the best-performing Top 40 JSE-listed financial services firms for 13 years from 2010 to 2022. The sample size for this study has been explicitly stated in the table below:

Table 3.1: Sample size table

Company	Sector	Annual profit announcement date
1. Anglo America plc	Industrial Metals and Mining	31-Dec
2. NASPERS	Software and Computer Services	31-Mar
3. FirstRand limited	Banking	30-Jun
4. Standard bank group	Banking	31-Dec
5. MTN group	Telecommunications	31-Dec

Source: Author's compilation

3.8 Data Collection

This study collected secondary data from various sources, including annual financial statements from sampled companies' websites, the Johannesburg Stock Exchange, the World Bank, the Federal Reserve Economic Data (FRED), and the McGregor BFA library. Additionally, published articles by scholars were gathered from similar sources. The data was collected for free and easily accessible, increasing the researcher's chances of collecting all necessary information for the study. As a result, it has increased the probability of the researcher's ability to collect all the data required for the study (Jwara, 2022).

3.9 Data Analysis

Data analysis includes several steps, namely examination, elimination, modification, and model-based data analysis, according to Sibanda and Ndlela (2018). Quantitative research establishes an understanding of a phenomenon by collecting and analysing mathematical data. The aim is to assess meaningful facts, offer suggestions, and support decision-making. A descriptive statistical analysis was utilised to determine how share prices respond to profit announcements. This study adopted a random data analysis model confirming the main objectives of the study, represented below.

3.9.1 Model Specification

This study used a random effects model to examine the impact of net profit on the share price within the month and a month following the profit announcement while controlling for economic growth, US to Rand exchange rate, market index, economic growth, inflation

and stock market capitalisation. Table 3.1 describes these variables, while the literature review chapter justifies their use as determinants of net profit for listed companies.

Table 3.2: Variables description and sources

Variables	Description	Source
Net profit	Annual net profit in US$ million	Annual financial statements
Exchange rate	Average US/Rand exchange rate per annum	Exchange rates UK
Share price within an announcement	Share price within the month of annual profit announcement in US$	JSE
Share price after the announcement	Share price a month after the announcement of the annual profit in US$	JSE
The market index within the announcement	JSE all index within the month of annual profit announcement	JSE
The market index after the announcement	JSE all index a month after the announcement of the annual profit	JSE
GDP	GDP growth (annual %)	World Bank
Inflation	Consumer Price Index (annual %)	World Bank
Stock market capitalisation (SMC)	Stock market capitalisation (% GDP)	Federal Reserve Economic Data (FRED)

Source: Author's compilation

According to Gelman and Hill (2006), "the statistical literature is full of confusing and contradictory advice." They also advised that "you should always use random effects." This study followed this recommendation. However, the Hausman test confirmed whether Gelman and Hill's (2006) recommendation is appropriate for the study's dataset. The primary advantage of using the random effects model is that it accurately reflects the actual effect from one study to the next due to the heterogeneity of the studies. In other words, random effects effectively extract more information from the sample and allocate variance in the model. This benefit is appropriate for this study, given the sample size of five companies, as revealed in Table 3.1.

In general, the built-in safety is that if no real group-level information or random effects are present, the random effects estimates will revert to fixed effects estimates. Equation (1) depicts the general econometric specification of random effects in panel data.

$$y_{it} = \propto + \beta x'_{it} + \varepsilon_{it} + \mu_i \qquad (1)$$

Where y_{it} is the net profit of company i at time t, $\propto$ is a constant that captures the mean of all company-specific unobservable effects, x' is a vector of explanatory variables indicated above, ε_t the balance amount of error from all other sources introduced for company i at time t, and μ_i is a time-invariant variance of unit-specific effect for company i. The subscript β represents the estimated coefficient of each explanatory variable. For this study, Equation one is split into two, one that estimates the impact of share price within(spw) the month of net profit announcement [Equation (2)],

$$y_{it} = \propto + \varphi spw_{it} + \beta x'_{it} + \varepsilon_{it} + \mu_i \qquad (2)$$

and the other that estimates the impact of share price one month (spa) following the month net profit announcement [Equation (3)]

$$y_{it} = \propto + \varphi spa_{it} + \beta x'_{it} + \varepsilon_{it} + \mu_i \qquad (3)$$

Both equations 2 and 3 have the same control vectors. The primary analysis was carried out using the Random-effects general least squares (GLS) model, and the robustness was tested using the Random-effects maximum likelihood estimation (MLE) model. GLS regression extends the normal linear model's ordinary least-squares (OLS) estimation by allowing for potentially unequal error variances and correlations between errors. These characteristics are frequently found in real-world data sets, making GLS a helpful alternative to OLS estimation. The OLS method is considered deterministic because it makes no assumptions about the probabilistic nature of the variables. The parameters in maximum likelihood estimation are chosen to maximise the likelihood that the assumed model produces the observed data.

3.10 Ethical Considerations

This section discusses the ethics and consent procedures used in this study. Ethical concerns pervade every stage of the research process; they are typically addressed as part of the procedures (Soboan et al., 2019).

3.10.1 Permission to Conduct Research and Ethical Approval

A research proposal for this study was presented to the Turfloop Graduate School of Leadership's Research Higher Degree Committee. Subsequently, the researcher has

sought ethical approval from the University of Limpopo's Research and Ethics Committee for permission to conduct the study.

3.10.2 Informed Consent

This study was conducted using secondary data obtained from publicly available information. Therefore, the involved companies did not require informed consent, privacy, and confidentiality.

3.10.3 Acknowledgement of Resources Used

Articles by scholars, documents, and any other materials this study consulted were acknowledged, cited, and referenced. Moreover, the quantitative method and purposive sampling that the study aimed to follow have ensured reliability and objectivity in its findings since they were based on tangible evidence (Modiba, 2022).

3.10.4 Professionalism and Honesty

The quantitative method and purposive sampling that this study followed have ensured reliability and objectivity in the study's findings since they were based on tangible evidence (Modiba, 2022).

3.10.5 Validity and Reliability.

Validity is concerned with determining the factors identified by the instrument and the relevance of the results. The homogeneity and consistency of research tools measure reliability. This study emphasised reliability and validity significantly to reduce the probability of receiving an incorrect response (Jwara, 2022). To ensure the reliability of the data, this study relied on numerous reputable studies of financial reporting and stock markets. Several evidence resources were used to increase the level of validity. As the study relied on profit announcements from JSE-listed companies for historical data, subjectivity was eliminated, and the data was coded.

3.11 Chapter Summary

This chapter has presented the study's methodology through a detailed research paradigm, study design, sample, data collection, data analysis, validity, reliability, and bias that were employed to address the study's objectives. In addition, the chapter

discussed the empirical data and quantitative approach used. The data for this study was gathered from secondary sources. Second, data was compiled from sampled companies' annual financial statements, the Johannesburg Stock Exchange (JSE), the World Bank, and the Federal Reserve. Economic data (FRED) was available on the firms' websites and the McGregor BFA library. Considering the results and findings of the study were based on actual materials, professionalism and honesty in the data were ensured, as well as trustworthiness and objectivity. Finally, the chapter demonstrated that this empirical research was carried out ethically.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents a data analysis and presentation of findings on the effect of profit announcements on share price reactions. The study sampled the top five best-performing firms out of the top 40 JSE-listed firms from 2010 to 2022. This chapter analyses secondary data obtained from various sources, including financial statements from companies' websites, the Johannesburg Stock Exchange, the World Bank, the Federal Reserve Economic Data (FRED), and the McGregor BFA library. Share prices, net profit, exchange rates, stock market capitalisation, inflation, the GDP (gross domestic product), and market indexes are all the statistical descriptive variables of raw data collected to be analysed. Research objectives are outlined in Chapter 1.3 of the study. Hence, the data analysis and presentation of the findings provided solutions to the study's subsequent objectives:

Research objective 1: To determine the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 financial services firms.

Research objective 2: To assess the effect of profit announcements on share price reactions after one month of profit announcements in the JSE's top 40 financial services firms.

The findings were presented in four (4) sections: descriptive statistics, correlation matrix, estimated results, and discussion of the findings. Also, the findings regarding both objectives were discussed in the empirical literature.

4.2 Descriptive statistics

Table 4.1 displays descriptive statistics for all variables used in this study. The statistics of interests are the mean, minimum (min), and maximum (max) of the variables of interest, which are net profit and share prices within and a month after the net profit announcement.

Table 4.1: Descriptive statistics

Variable	Number of observations	Mean	Standard Deviation	Min	Max
Net profit	55	3.987	9.918	-9.808	70.723
Exchange rate	55	11.658	3.066	7.257	16.472
Share price within the announcement	55	29.730	42.550	2.283	201.056
Share price after the announcement	55	30.996	44.025	2.267	186.243
The market index within the announcement	55	46339.000	9438.292	26764.610	59772.830
The market index after the announcement	55	47365.250	9501.415	28355.210	59506.120
GDP	55	1.012	2.511	-6.342	3.169
Inflation	55	4.988	0.970	3.210	6.571
SMC	55	270.618	50.921	189.482	352.156

Source: Author's computation

Table 4.1 shows that from 2010 to 2020, the sampled companies in Table 3.2 made an average profit of US$3.99 million, with a loss of US$9.81 million and a maximum profit of US$70.72 million. Within the month of the net profit announcement, the average share price was US$ 29.73, ranging from US$ 2.28 to US$ 201.06. One month after a profit announcement, the average share price was around US$40.00, with prices ranging from US$2.27 to US$186.24. Although there is a marginal variance in the average share price within a month after the announcement of the net profit, the former share price is lower. This research aims to determine whether or not this variation can be attributed to net profit announcements. Before presenting the main findings, the study showed the correlation matrix to determine the relationship among the variables used, specifically the net profit and share prices before and after the profit announcement.

4.3 Correlation matrix

A correlation matrix is a statistical technique to assess the relationship between two variables in a data set. The correlation coefficient ranges from -1 to 1, with 1 indicating a strong relationship between variables, 0 indicating a neutral relationship, and -1 showing a weak relationship. In general, if the estimated correlation is close to zero, the relationship is considered weak.

Table 4.2: Correlation matrix

	Net profit	Exchange rate	Share price within the announcement	Share price after the announcement	The market index within the announcement	The market index after the announcement	GDP	Inflation	SMC
Net profit	1								
Exchange rate	0.030	1							
Share price within the announcement	0.146	0.151	1						
Share price after the announcement	0.131	0.164	0.988**	1					
The market index within the announcement	0.045	0.858**	0.160	0.157	1				
The market index after the announcement	0.081	0.875**	0.166	0.170	0.988**	1			
GDP	0.063	-0.762**	-0.108	-0.114	-0.447**	-0.471**	1		
Inflation	-0.087	-0.258	-0.112	-0.119	-0.032	-0.027	0.519**	1	
SMC	-0.136	0.760**	0.072	0.108	0.614**	0.639**	-0.675**	-0.112	1

Note: ** denotes a significant level at 5%.
Source: Author's computation

According to Table 4.2, there is a positive but weak correlation between net profit and share price within and one month after the announcement of the net profit. The correlation between market indices and share prices is positive, albeit weak, and the magnitude of the correlation coefficients is marginal. The correlation between share prices and the exchange rate is positive but weak. The same is true for stock market capitalisation. Inflation and GDP, on the other hand, have a negative relationship with share prices.

4.4 Estimated results

The estimated result for each objective was preceded by the Hausman test, which was used to determine the best estimation technique between fixed and random effects models. The null hypothesis (H_0) is that the preferred model is random effects, while the alternative (H_1) is fixed effects. Hausman test tests whether the unique errors correlate with the explanatory variables; the null hypothesis is that they do not.

4.4.1 Estimated results of the first objective

Table 4.3 shows the Hausman test output for the first objective.

Table 4.3: Hausman test of the first objective

Dependent variable: Share price within the announcement

	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fixed	.	Difference	S.E.
log(Net profit)	0.183	0.183	0.000	0.002
log(Exchange rate)	-1.841	1.835	-0.006	0.012
log(Market index within announcement)	2.122	2.115	0.007	0.013
log(GDP)	-0.017	0.017	0.000	0.000
log(Stock market capitalisation)	0.161	0.160	0.001	0.002
log(inflation)	-0.386	-0.385	-0.001	0.002

Notes: b = consistent under H_0 and H_1; obtained from xtreg, and B = inconsistent under H_1, efficient under H_0; obtained from xtreg. H_0: difference in coefficients not systematic. Chi^2 = 0.30, and *p*-value = 0.859.

Source: Author's estimation using STATA

The study fails to reject H_0 in this specification because the *p*-value of the Chi^2 is greater than 0.05, implying that the two models are not systematically different. As shown in Table 4.3, the *p*-value is supported by the marginal variance between the estimated coefficients. As a result, a random-effects model adequately models the individual-level effects. The estimates of the random effects are provided in Table 4.4 below. The Random-effects ML regression was conducted to check the robustness of the Random-effects GLS regression output. It was performed with the inclusion of sectorial dummies while the constant was suppressed. This was done for both objectives.

Table 4.4: Main findings of the first objective

Dependent variable: Share price within the announcement

	Random-effects GLS regression	Random-effects ML regression
log(Net profit)	0.183***	0.183***
	(0.049)	(0.057)
log(Exchange rate)	-1.835***	-1.884***
	(0.716)	(0.695)
log(Market index within announcement)	2.115***	2.171***
	(0.888)	(0.716)
log(GDP)	-0.017	-0.018
	(0.034)	(0.045)
log(Stock market capitalisation)	0.160	0.166
	(0.226)	(0.465)
log(inflation)	-0.385	-0.391
	(0.350)	(0.372)
Constant	-16.239*	
	(8.894)	
Industrial Metals and Mining		-16.271**
		(6.766)
Banking		-17.629***
		(6.752)
Telecommunication		-17.109***
		(6.764)
Software and Computer Services		-15.054**
		(6.739)
R-sq (within)	0.295	
Number of observations	55	55
Log-likelihood		-32.425
Wald Chi^2		319.61
p-value (Wald Chi^2)		0.000

Notes: *, **and *** denote significant levels at 10%, 5% and 1%, respectively—standard errors in parenthesis. Only Random-effects GLS regression standard errors are robust.
Source: Author's estimation using STATA.

Table 4.4 reveals that the estimated coefficient of net profit as a determinant of share price within the month of the announcement is positive and highly significant. Precisely, a 1% increase in net profit increases share price by 0.183% within the month of the announcement while controlling for the market index, GDP, stock market, capitalisation, exchange, and inflation. This positive net profit impact on the share price within the month of the announcement corresponds to the result of the correlation matrix shown in Table

4.2. The results of the control variables show that only the estimated coefficients of the exchange rate and the market index are significant. The estimated coefficient of the market index enters the model as predicted in Table 4.2, whereas the estimated coefficient of the exchange rate is negative. This implies that a rise in the market index positively affects the share price within a month of the announcement of net profit, whereas a rise in the exchange rate harms the share price. Based on this finding, it is reasonable to argue that the positive correlation between the exchange rate and share prices in Table 4.2 runs from the share price to the exchange rate rather than vice versa, and that correlation does not imply causality. These findings are consistent with the results of the random-effects ML regression. Similarly to the constant in the random-effects GLS regression output, the random-effects ML output shows that all sectorial dummies significantly negatively impact the share price.

4.4.2 Estimated results of the second objective
The Hausaman test output of the second objective is presented in Table 4.5 below.

Table 4.5: Hausman test of the second objective

Dependent variable: Share price after announcement

	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fixed	.	Difference	S.E.
log(Net profit)	0.221	0.222	0.000	0.002
log(Exchange rate)	-2.113	-2.108	-0.005	0.017
log(Market index after announcement)	2.358	2.353	0.005	0.019
log(GDP)	-0.012	-0.012	0.000	0.000
log(Stock market capitalisation)	0.448	0.447	0.001	0.002
log(inflation)	-0.395	-0.394	-0.001	0.002

Notes: b = consistent under H_0 and H_1; obtained from xtreg, and B = inconsistent under H_1, efficient under H_0; obtained from xtreg. H_0: difference in coefficients not systematic. $Chi^2 = 0.08$, and *p*-value = 0.962.
Source: Author's estimation using STATA

The study fails to reject H_0 in this specification because the *p*-value of the Chi^2 is greater than 0.05, implying that the two models are not systematically different. As shown in Table 4.5, the *p*-value is supported by the marginal variance between the estimated coefficients. As a result, a random-effects model adequately models the individual-level effects. The calculated results of the second objective are represented in Table 4.6 below.

Table 4.6: Main results of the second objective

Dependent variable: Share price after announcement

	Random-effects GLS regression	Random-effects ML regression
log(Net profit)	0.222***	0.221***
	(0.063)	(0.059)
log(Exchange rate)	-2.108***	-2.189***
	(0.676)	(0.751)
log(Market index after announcement)	2.353***	2.448***
	(0.837)	(0.806)
log(GDP)	-0.012	-0.014
	(0.030)	(0.046)
log(Stock market capitalisation)	0.447	0.453
	(0.276)	(0.475)
log(inflation)	-0.394	-0.406
	(0.372)	(0.386)
Constant	-19.839**	
	(8.492)	
Industrial Metals and Mining		-20.185***
		(7.446)
Banking		-21.549***
		(7.423)
Telecommunications		-21.111***
		(7.437)
Software and Computer Services		-18.994***
		(7.408)
R-sq (within)	0.369	
Number of observations	55	
Log-likelihood		-33.519
Wald Chi2		362.08
p-value (Wald Chi2)		0.000

Notes: *, **and *** denote significant levels at 10%, 5% and 1%, respectively—standard errors in parenthesis. Only Random-effects GLS regression standard errors are robust.
Source: Author's estimation using STATA.

While the results in Table 4.4 are parallel to the current results in Table 4.6, it is worth noting that the former (0.183) has a lower net profit estimated coefficient than the latter (0.222). This implies that net profit has a greater impact on the share price a month after than during the announcement. In other words, the share price reacts to net profit after it is announced. These findings are discussed in the section that follows.

4.5 Discussion of findings

This study aimed to look into the relationship between share price reactions and profit announcements. To fulfil the study's goal, the findings of the two (2) research objectives in the context of the literature were discussed as follows:

Objective 1: To determine the effect of profit announcement on share price reaction in the JSE's top 40 financial services firms within the month of profit announcement.

As shown in Table 4.4, the study findings illustrate a positive correlation between net profit and share price within one month after the announcement. The results reveal that a 1% rise in net profit increases share price by 0.183% while adjusting for market index, GDP, stock market, capitalisation, exchange rate, and inflation. The correlation matrix data in Table 4.2 maintain this positive relationship. This finding is also asserted by Jwara's (2022) previous study, which revealed a positive correlation between share price behaviour and profit announcements within the month of announcement. According to Arogundade and Biyase (2023), an adverse relationship is influenced by inflation and GDP within a month of the profit announcement. Given the discussion of these findings, the objective of determining the effect of profit announcements on share price reactions within the month of profit announcements in the JSE top 40 financial services firms was achieved.

Objective 2: To assess the effect of profit announcement on share price reaction after one month of profit announcement in the JSE top 40 financial services firms.

Based on Table 4.4, the study's findings resulted in a positive and significant relationship between share price and net profit after a one-month announcement. While the results in Table 4.4 are equivalent to the current results in Table 4.6, it is worth noting that the former (0.183) has a lower net profit estimated coefficient than the latter (0.222). This implies that net profit has a more significant impact on the share price a month after than within the announcement. In other words, the share price reacts highly positively to net

profit after it is announced rather than before. Wesson (2020) asserts that the value of the shares reacts more to net profit after they are announced than before. Amal (2023) disputes that the relationship between share price and profit announcements after a month can affect share prices positively or negatively. Companies that pay dividends attract new investors and increase stock value, while those without the ability to pay dividends have lower investment confidence. Stephans (2021) claims that investors' decisions about their investments in stock markets are primarily affected by future expectations, which are based on prior share price reactions after a company's earnings announcements. The objective to assess the effect of a profit announcement on share price reaction after one month of a profit announcement in the JSE top 40 listed financial services firms was achieved based on the discussion of the findings.

4.6 Chapter Summary

The purpose of this chapter was to analyse the data and present the findings on the relationship between profit announcements and share price reactions. The discussion of data analysis and presentation of findings was based on descriptive statistics, a correlation matrix, estimated results, and a discussion of the findings. Before presenting the main findings, the study presented the correlation matrix to determine the relationship between the variables used, specifically the net profit and share prices, before and after the profit announcement. Furthermore, the chapter discussed the findings of both objectives concerning the empirical literature. The study's findings showed that net profit has a more significant impact on share price a month after than during the announcement. In other words, the share price reacts to net profit after it is announced rather than before. The study's findings also presented results on the control variables, namely exchange rate, market index, GDP, stock market capitalisation, and inflation. The results of the controlling variables revealed that the correlation between share prices and the exchange rate is positive but weak. The same is true for stock market capitalisation. Inflation and GDP, on the other hand, have a negative relationship with share prices. The results of the control variables show that only the estimated coefficients of the exchange rate and the market index are significant. However, the positive correlation between exchange rate and share prices in Table 4.2 is not causal. It runs from share price to exchange rate, and all sectorial dummies significantly negatively impact the share price. These findings are

consistent with random-effects ML regression results. With all these research findings, the objective of determining the effect of profit announcements on share price reactions within the month of profit announcements in the JSE top 40 financial services firms was achieved.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the findings, conclusions, and recommendations. The findings were linked to the study's aims, objectives and literature review. The results of the previous chapter informed the summary and recommendations. Conclusions serve as the final results, emphasising the study's contribution.

5.2 Summary of study

This section examines the study's summary concerning the research objectives and literature findings as follows:

5.2.1 Summary of Literature

Eugene Fama introduced the concept of an efficient market in 1965, focusing on share price reactions and the independence of fluctuations. The Efficient Market Hypothesis (EMH) emerged in the 1970s and 1980s, arguing that financial markets are information-efficient, with share prices representing all available information. The EMH has three variants: weak, semi-strong, and strong. The EMH has been a significant proposition in finance for over five decades, allowing investors to achieve average profits by predicting price fluctuations with a certain probability. The adaptive market hypothesis (AMH) argues that EMH and behavioural finance are equally efficient, with market efficiency fluctuating over time. Nevertheless, the study's findings are consistent with the efficient market theory, which holds that the share price in the stock market represents all accessible information in the larger market.

The summary of findings in an empirical literature review reveals no agreement on the association between share price and profit announcements. In empirical investigations, Exchange, stock market size, inflation, GDP (gross domestic product), and market indices were key variables influencing share price reactions to profit announcements. In addition, the chapter looked at event studies and shared price reactions outside of the JSE. However, literature from various sources shows varying results, with some indicating a

positive correlation and others suggesting a negative correlation between net profit and share price within and after a month of profit announcement.

5.2.2 Summary of research objectives

The study has displayed a descriptive statistic for all variables used in this study. Net profit, exchange rate, market index, GDP, stock market capitalisation, and inflation are all the variables used in this study. The statistics of interests are the mean, minimum (min), and maximum (max) of the variables of interest, which are net profit and share prices within and a month after the net profit announcement. The summary of the study objectives was presented as follows:

To determine the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 financial services firms.

According to Table 4.2, the correlation results from this study found a positive but weak correlation between net profit and share price within one month of the announcement. The results imply that the correlation coefficient ranges from -1 to 1, with 1 indicating a strong relationship, 0 indicating a neutral one, and -1 indicating a weak one. A close correlation is considered weak. The estimated results revealed that the estimated coefficient of net profit as a determinant of share price within the month of the announcement is positive and highly significant. More specifically, a 1% rise in net profit raises the share price by 0.183% within one month of the announcement while adjusting for market index, GDP, stock market, capitalisation, exchange, and inflation. However, the control variables show only significant exchange rate coefficients and market index coefficients. A rise in the market index has a positive effect on share price, while a rise in the exchange rate has a negative effect. This suggests that the positive correlation between exchange rate and share prices runs from share price to exchange rate, not vice versa. The findings are consistent with the random-effects ML regression and show that all sectorial dummies significantly negatively impact the share price. Furthermore, the study's findings conform to the efficient market hypothesis, which contends that the share price in the stock market reflects all available information on the broader market. As a result, given that profit announcements positively impacted the share prices of the

selected JSE-listed companies, the efficient market hypothesis, as the theory underlying the study, has attained significance due to this research.

To assess the effect of profit announcements on share price reactions after one month of profit announcements in the JSE's top 40 financial services firms

The correlation results of this study also found a positive correlation between net profit and share price after one month of the announcement. This implies that the estimated correlation of both objectives is close to zero, so the relationship is considered weak. The correlation results between market indices and share prices are weak, with marginal correlation coefficients. The same is true for exchange rates and stock market capitalisation. However, inflation and GDP have a negative relationship with share prices. The estimated coefficient results found a positive and highly significant relationship between share price and net profit after one month of profit announcements. This implies that a 1% increase in net profit will increase the share price by 0.222% one month after the announcement. However, it is significant to note that the estimated results after one month of the announcement of 0.222% were greater than those within one month of 0.183%. As a result, the summary of this research objective indicates that net profit has a more significant effect on the share price a month after the announcement than within one month before the announcement. Furthermore, the study's findings conform to the efficient market hypothesis, which contends that the share price in the stock market reflects all available information on the broader market. As a result, given that profit announcements positively impacted the share prices of the selected JSE-listed companies, the efficient market hypothesis, as the theory underlying the study, has attained significance due to this research.

5.3 Limitations

This study has acknowledged potential weaknesses and limitations that may have affected the quality of the research results, findings, and conclusions by identifying them as follows: The sample size and sample period for this study were limited to five (5) of the JSE Top 40 listed financial services firms and 13 years, from 2010 to 2022, as it would be interesting to assess if increasing the sample size and sample period would generate

results that differ. Furthermore, purposive sampling is naturally biased; it excluded some JSE-listed financial services firms from the data sampled. The study objectives focused only on the major variables, which are share price and net profit; however, exchange, stock market capitalisation, inflation, GDP, and market indexes were found to be other significant variables affecting share price reactions to profit announcements. Nevertheless, the time to complete the study was limited since it was meant to be completed in a short period, approximately less than a year. Regardless of these limitations, the researcher made a fair and honest effort to complete the study.

5.4 Recommendations

Grounded on the study's results, the following recommendations are suggested to help investors, creditors, government agencies, and other stakeholders determine how to improve the quality of financial sustainability and increase the likelihood of maximising the company's profitability and market share price value.

Scholars

The sample size for this study was limited to five (5) out of the total population for the Top 40 JSE-listed financial services firms over 13 years, from 2010 to 2022. Therefore, a recommendation for future researchers is to use more companies among the Top 40 JSE-listed financial services firms, as it would be interesting to assess if increasing the sample size and the window period would generate results that differ.

Investors

According to the findings of this study, net profit has a more significant favourable effect on share price a month after an announcement than within one month of an announcement. As a recommendation, investors should pay attention to profit announcements. Thus, they can determine when to invest and reinvest. This suggests that if the profit announced is strong, there's a likelihood that the share price will increase in the market, enabling investors to take action easily, and that is when investors should invest more.

Body of Knowledge

One of the prominent findings of this study is that exchange, stock market capitalisation, inflation, GDP, and market indexes were found to be other significant variables affecting share price reactions to profit announcements within and after a month. Despite the study's primary objectives of focusing on net profit within a month and after profit announcements, as a recommendation, future academics could contribute more by evaluating the significance of these variables on the effect of profit announcements on share price reactions.

5.5 Conclusion

Investors, creditors, and stakeholders have been concerned about the relationship between share price reactions and profit announcements. In this regard, investors or creditors are more concerned with profit statements and share price reactions when assessing a company's performance. Also, if a company's announced profits are positive, the share price is projected to rise. Several scholars have investigated a comparable problem; however, their findings have proven inconsistent thus far. This study aimed to examine the effect of profit announcements on share price reactions in the top 40 listed financial services firms on the JSE. The study pursued two objectives. Firstly, the study aimed to determine the effect of profit announcements on share price reactions within the month of profit announcements in the JSE's top 40 financial services firms. The abovementioned objective was achieved since the study found a positive correlation between net profit and share price within the month of the announcement while controlling for market index, GDP, stock market, capitalisation, exchange, and inflation. The second objective was to assess the effect of profit announcements on share price reactions after one month of profit announcements in the JSE's top 40 financial services firms. This objective above was also achieved. However, the estimated results found that net profit had a greater effect on the share price a month after the announcement than within one month of the announcement. The study also contributed to the existing literature; hence, empirical studies found exchange, stock market capitalisation, inflation, the GDP (gross domestic product), and market indexes to be significant variables affecting share price reactions to profit announcements. The results of the control variables found that market

indices and share prices are weak, with marginal correlation coefficients. The same is true for exchange rates and stock market capitalisation. However, inflation and GDP have a negative relationship with share prices. The main conclusion drawn by the study is that net profit has a greater effect on the share price a month after the announcement than within one month of the announcement.

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