

ANGLIA RUSKIN UNIVERSITY

An Investigation into the Relationship between Stock Prices and  
Financial Performance of Commercial Banks listed on the Trinidad  
and Tobago Stock Exchange

A Major Project in partial fulfillment of the requirements of Anglia  
Ruskin University for the degree of Bachelor of Science (Hons) in  
Banking and Finance

Submitted: April 2023

ANGLIA RUSKIN UNIVERSITY

## Dissertation Declaration

Title of Award:

Bachelor of Science (Hons) in Banking and Finance

Date: April 2023

SID Number:

Name of Supervisor: Dr. Andre Samuel

Title of Dissertation:

An Investigation in the Relationship between Stock Prices and  
Financial Performance of Commercial Banks listed on the Trinidad  
and Tobago Stock Exchange

Word Count: 6000

DECLARATION: I declare that the above work is my own and that the material contained herein has not been substantially used in any other submission for an academic award.

Signed:

Date: 28.04.23

All dissertations, projects etc, submitted as part of an assessment process for a degree become University property once handed in, and are not normally available to be returned. It is therefore recommended that candidates retain a personal copy. The submitted copy may be retained by the University for Reference by others.

## **Acknowledgements**

The researcher would like to give gratitude to the following for their invaluable help and support towards this study:

To God, who gave wisdom, strength, health and knowledge to pursue this study.

To my guardians for providing unconditional emotional support and encouragement to pursue this study.

To Dr. Samuel, my academic supervisor, for guiding me throughout this entire process of this research; giving solid solutions, advice and ideas to complete this study.

And finally, to anyone who assisted by giving opinions and ideas, especially colleagues and close friends, as without them, this study would not be possible.

ANGLIA RUSKIN UNIVERSITY

ABSTRACT

FACULTY OF BUSINESS AND LAW

Bachelor of Science (Hons) in Banking and Finance

An Investigation in the Relationship between Stock Prices and  
Financial Performance of Commercial Banks listed on the Trinidad  
and Tobago Stock Exchange

By:

April 2023

The purpose of this study was to establish whether a relationship exist between financial performance, measured by financial ratios, is related to share prices of commercial banks listed on the Trinidad and Tobago Stock Exchange. A multi-linear regression was conducted where earnings per share, dividends per share and liquidity were all independent variables and regressed against share price as the dependent variable. Financial ratios were calculated using data from the bank's annual company reports, while historical prices were obtained straight from the Trinidad and Tobago Stock Exchange's website.

The population of the research included five commercial banks who were all listed continuously during the period 2013 to 2022. The study excluded 3 commercial banks due to not being continuously listed on the exchange.

The study found that all three dependent variables to be statistically significantly impact share price for commercial banks listed on the TTSE. Both earnings per share and dividends per share were at the 1% level ( $p$ -value=0.01) whereas liquidity was as at the 10% level ( $p$ -value=0.1). This regression equation was created to explain share price "Share Price =  $-4.004 + 8.304EPS + 11.738DPS + 0.778LIQ + \epsilon$ ". The results indicated that this model explain 94.3% in the variation of share price for commercial banks listed on Trinidad and Tobago Stock Exchange.

## Table of Contents

Acknowledgement .....	ii
Declaration Page .....	iii
Abstract .....	iv
Table of Contents .....	v
Definition of Terms and Abbreviations .....	viii
List of Tables .....	ix
List of Figures .....	x
<b>Chapter 1- Introduction .....</b>	<b>1</b>
1.1 Background to Study.....	1
1.2 Research Context and Issue .....	1
1.3Rationale .....	2
1.4 Research Question .....	2
1.5 Research Aim and Objectives.....	3
1.6 Dissertation Structure.....	3
<b>Chapter 2- Literature Review .....</b>	<b>5</b>
2.1 Introduction.....	5
2.2 Review of Theoretical Literature .....	5
2.2.1Tax Preference Theory.....	5
2.2.2 Capital Asset Pricing Theory .....	6
2.2.3 Efficient Market Hypothesis Theory .....	7
2.3 Financial Performance Analysis .....	8
2.4 Review of Empirical Studies .....	9
2.5 Summary and Conclusion.....	10
<b>Chapter 3- Methodology.....</b>	<b>11</b>
3.1 Introduction.....	11

3.2 Research Paradigm.....	12
3.2.1 Research Philosophy.....	12
3.2.2 Research Approach.....	14
3.2.3 Research Strategy.....	14
3.3 Research Design.....	14
3.3.1 Research Population.....	15
3.4 Data Collection .....	16
3.5 Data Analysis .....	17
3.6 Ethics.....	18
3.7 Limitations of Methodology .....	19
3.8 Summary of Chapter .....	19
<b>Chapter 4- Findings and Discussion.....</b>	<b>20</b>
4.1 Introduction.....	20
4.2 Hypothesis.....	20
4.3 Summary Descriptive Statistics of the Variables.....	21
4.4 Research Question .....	22
4.5 Research Aim and Objectives.....	23
4.6 Anova.....	24
4.7 Regression Results and Interpretation .....	25
4.8 Discussion of Findings.....	26
4.9 Summary .....	27
<b>Chapter 5- Conclusion and Recommendations.....</b>	<b>28</b>
5.1 Introduction.....	28
5.2 Summary .....	29
5.3 Conclusion .....	29
5.4 Limitations.....	29
5.5 Recommendations.....	29

5.6 Suggestions for Further Research .....	30
<b>References</b> .....	<b>31</b>
<b>Appendix</b> .....	<b>36</b>

## **Definition of Terms and Abbreviations**

TTSE- Trinidad and Tobago Stock Exchange

CAPM- Capital Asset Pricing Model

CBTT- Central Bank of Trinidad and Tobago

EPS- Earnings per Share Ratio

DPS- Dividends per Share Ratio

LIQ- Liquidity Ratio

EMH- Efficient Market Hypothesis

ROI- Return on Investment

IFRS- International Financial Reporting Standards

IAS-International Accounting Standards

RFHL- Republic Financial Holdings Limited

FCGFH- First Citizens Group Financial Holdings

SBTT- Scotia Bank of Trinidad and Tobago

FCI- First Caribbean International Bank

NCBFG- National Commerce Bank Financial Group

IBM-International Business Machines Corporation

SPSS-Statistical Package for Social Sciences

TTD- Trinidad and Tobago Dollars

ANOVA-Analysis of Variance

VIF-Variance Inflation Factor

## **List of Tables**

Table 3.1 Resource Type and Source for Data Collection.

Table 4.2 Descriptive Statistics Summary.

Table 4.3 Pearson Correlation Matrix.

Table 4.4 Regression Model Summary.

Table 4.5 Anova Results.

Table 4.6 Regression Results.

Table 4.7 Hypothesis Results.

## **List of Figures**

Figure 1.1 shows the roadmap for the dissertation structure.

Figure 2.2 represents the proposed conceptual framework diagram.

Figure 3.3 shows the Honeycomb Model of Research Methodology.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Study

The financial performance of a company is a crucial indicator of its success and future prospects and it is measured by various metrics such as revenue, earnings, and profitability. A company's stock price, reflects the overall market sentiment and investors' perception of its financial performance. Commercial banks in Trinidad and Tobago have experienced increasing profits along with constant growth of their stock which is seamlessly unaffected by the state of the economy (Christopher, 2022). Commercial banks' stocks continue to be the most traded stock listed on Trinidad and Tobago Stock Exchange (TTSE).

Moving forward, this chapter will seek to present the research context alongside its issue, dictate a rationale for the topic selected and identify the research question. Subsequently, aims and objectives will be declared and the structure for the study will be discussed.

### 1.2 Research Context and Issue

The relationship between financial performance and stock return volatility has been the focus of substantial research in finance in recent years. Its foundation can be attributed to Osbourne (1959), whom created a model known as Geometric Brownian Motion, which was used to describe the movement of stock prices due to multiple factors such as economic news, investor's sentiment and market volatility. Additionally, this model stated that random movement of stock prices make it difficult for investors to make predictions about future stock prices, which can create uncertainty in the market (Osbourne, 1959). Conversely, theorists such as Markowitz and Tobin, later simplified by Sharpe argued that the expected return of a stock can be quantified given a level of systematic risk forming a model known as the Capital Asset Pricing Model (CAPM). In simple terms, the CAPM states that the expected return on an investment is equal to the risk-free rate plus the beta multiplied by the difference between the expected market return and the risk-free rate (Ruhani, 2018).

Furthermore, in Trinidad and Tobago, all commercial banks listed on the TTSE have consistently declared abnormal accounting profits over the last 5 years according to the Financial Stability Report published in 2022 by Central Bank of Trinidad and Tobago (CBTT, 2022). For instance, Republic Financial Holdings Limited declared the highest profits in Trinidad and Tobago, subsequently their stock was the best performing stock listed on the TTSE. However, strangely enough, it is amongst low dividend payout firms (RFHL, 2022).

### **1.3 Rationale**

In addition, as discussed above, commercial banks listed on the TTSE stock, pricing mechanisms do not reflect their financial performance therefore contradicting conventional theories of stock price and financial performance. As a result, the researcher has been motivated to investigate the relationship between financial performance and stock prices, specifically for commercial banks traded on the TTSE.

This study seeks to establish how revenue growth, profitability and dividend yield all work together to influence the stock return of TTSE listed commercial banks. It will be practically significant to the following stakeholders:

**Scholars-**to academia this study will provide further research and literature in the topic.

**Regulatory Boards-**to agencies that govern the financial sphere in Trinidad and Tobago, such as CBTT and TTSE, this study will allow these regulators to create and implement policies that will enhance the informational and operational efficiency of capital markets, notably the TTSE.

**Investors-** to shareholders this study will allow them to modify their investment plans in accordance with financial performance as it assesses appropriateness of the market pricing.

**Management-** to executive management, this study will provide them the ability to develop tactics that would improve market share performance.

Furthermore, there is little research into the effect of financial performance on stock prices in developing countries (Dailami & Atkin, 2010), more specially Trinidad and Tobago. Therefore, this study seeks to examine the effect of financial performance on stock prices in relation to the Trinidad and Tobago economy.

## **1.4 Research Question**

In light of preceding information, the researcher has derived this research question “To what extent does Financial Performance affect stock price for Commercial Banks Listed on the TTSE”.

## **1.5 Aims and Objectives**

The aim of this study is to determine whether a relationship between financial performance and stock price exists for Commercial Banks listed on the TTSE.

The objectives of this study are as follows:

1. To evaluate the effect DPS on share price.
2. To evaluate the effect EPS on share price.
3. To evaluate the effect LIQ on share price.

## **1.6 Dissertation Structure**

As shown in the dissertation roadmap in figure 1 below, this study is divided into five chapters. The research problem, justification and objectives are introduced in the first chapter. The researcher will evaluate previously published studies on financial performance and stock prices in the second chapter. The third chapter provides details on the study's methodology and research strategy. The analysis and study results will then be covered in the fourth chapter and finally, the fifth chapter will provide a conclusion, as well as any limitations and suggestions for further research.

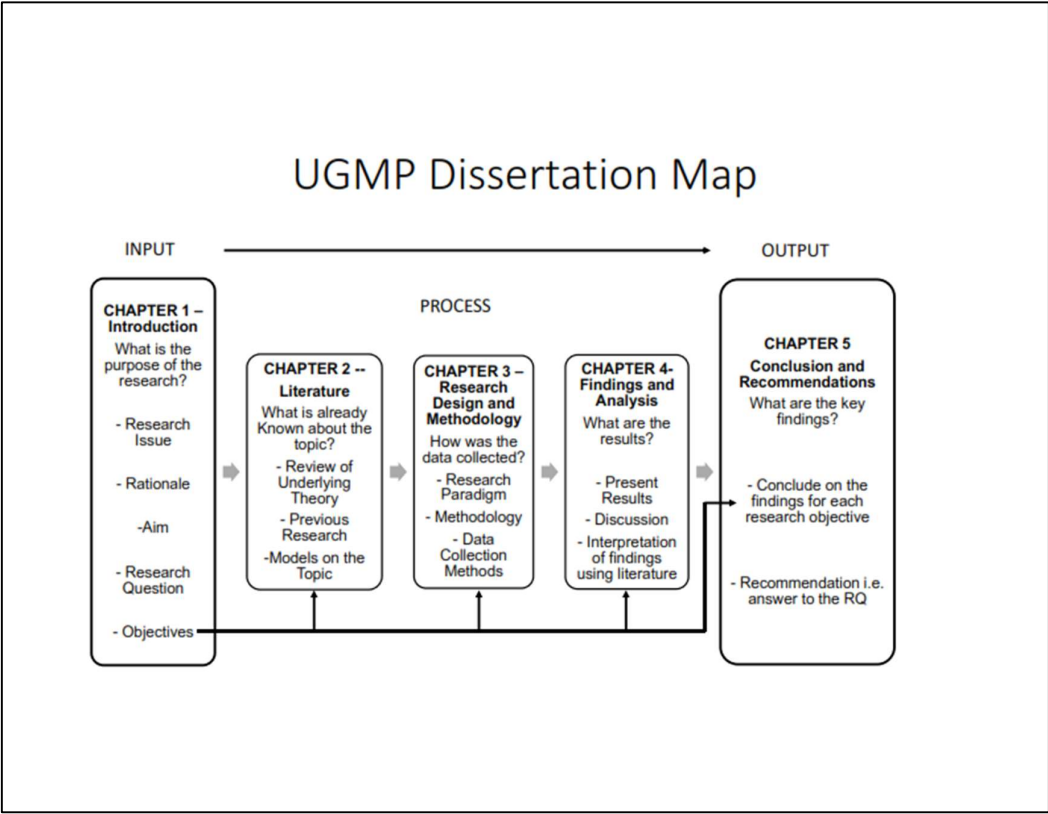


Figure 1.1 represents the dissertation structure (Samuel, 2023).

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Firstly, this chapter will delve into the theoretical literature and empirical studies that are related and relevant to stock pricing and financial performance. This literature review's objectives are to present a thorough understanding of the existing research and identify any gaps in the existing scholastic literature. Theoretical literature such as theories, models and conceptual frameworks will be reviewed in conjunction with empirical studies such as past work and reports on stock pricing and financial performance will be assessed. By analyzing both theoretical literatures coupled with empirical studies, the researcher will gather evidence to support or refute theoretical claims, as well as develop a greater grasp of the issue whilst identifying future research directions.

#### **2.2 Review of Theoretical Literature**

The stock market is an intricate system that is influenced by a variety of variables, making it challenging to consistently predict its behavior with precision. Yet over time, a number of underpinning theories have been created to explain and evaluate the tendencies and movements of the stock market. These theories base their forecasts of future market behavior on various presumptions, models, and methodologies. In this regard, the researcher will be exploring the following theories: Tax Preference Theory, Capital Asset Pricing Theory, Efficient Market Hypothesis also discussing financial performance analysis techniques.

##### **2.2.1 Tax Preference Theory**

Litzenberger and Ramaswamy proposed the tax preference theory in 1979, noting that the tax rate on dividends is greater than the rate on capital gains. Therefore, this theory implies that a company that declares and distributes dividends will have a lesser value since shareholders will pay taxes on the dividend (Ramaswamy & Litzenberger, 1979) . According to this theory, investors tend to favor low dividend payout firms over a high dividend payout firm, due to

dividends having a higher tax rate in comparison to the taxes on capital gains; additionally, taxes on capital gains can be deferred (Ramaswamy & Litzenberger, 1979).

Furthermore, it was noted that tax incentives may be utilized to promote social and economic goals such as environmental conservation and income inequality reduction. But nevertheless, it also points out that tax breaks can result in inefficiencies and unforeseen effects, such as market distortions (Slemrod, 1990).

Ultimately, tax preference theory shows that the tax code may be an effective instrument for directing economic behavior and predictor for investor behavior but it also emphasizes the possible downsides and trade-offs associated with employing tax preferences as a policy tool.

## **2.2.2 Capital Asset Pricing Theory**

The capital asset pricing model (CAPM), developed by William Sharpe (1964) and John Lintner (1965), is a financial equity pricing model used to calculate expected return on investments. The model states that the asset return in equilibrium is the sum of the risk-free rate plus beta times the excess return (Zainul Kisman, 2015).

According to (Bodie, et al., 2008), the following is the simplified and most used formula to calculate Expected Return of an Investment via CAPM:

“Expected Return = Risk-Free Rate + Beta x (Expected Market Return - Risk-Free Rate)”

Where:

- Expected Return: the expected return on investment from the asset.
- Risk-Free Rate: the return on a risk-free investment, typically Government issued Bonds or Treasury Bills.
- Beta: the responsiveness of the asset to market fluctuations.
- Expected Market Return: the market's overall projected return.

Since its first proposal in 1964 by William Sharpe, this model has become a widely recognized financial model in equity pricing theories over the years and it is now used by theorists and financial professionals for estimating expected return of an assets and valuing risky securities, given the systematic risk and cost of capital associated with the aforementioned assets and securities.(Zainul Kisman, 2015). The CAPM's central premise is that investors typically are

risk adverse and rational, implying that under traditional market conditions, investors expect additional remuneration (higher returns on their investment) as more risk is taken on (Sharpe, 1964).

In contrast, some theorists have criticized the CAPM, claiming that it dictates several unrealistic and unattainable assumptions, such as investors having similar expectations, readily available market and financial information (no distribution of asymmetric information), market stability and efficiency, no taxation, inflation or transaction costs exists and the relationship between risk and return is linearly related (Chung, et al., 2006). Notwithstanding these concerns, the CAPM remains a commonly used model in finance due to its simplicity and ease of application (Pacho, 2014).

### **2.2.3 Efficient Market Hypothesis**

Moreover, the Efficient Market Hypothesis, proposed by Eugene Fama (1970), is a financial economic theory that claims securities markets are “informationally efficient”. This infers that a security’s market price is reflected by all accessible information (no dissemination of asymmetric information) and an investor cannot realistically consistently achieve an abnormal return greater than market average with just utilizing publicly available information since markets should only respond to new information (Fama, 1970). It was then demonstrated that there are three sub-versions of The Efficient Market Hypothesis theory, which are as follows;

- **Weak Form-** This form asserts that current market stock prices already reflect all available information such as past returns, interests and volume traded, and implies that future expected returns has no correlation with historical market data. Henceforth, this theory predicts that an investor should expect little to no excess market returns from trading using a rule that examines a stock based on past returns or any past market security data (Reilly & Brown, 2011).
- **Semi-Strong Form-** This form suggests that the stock price has already been influenced by all publicly accessible information (beyond historical data) in relation to the company's prospects. It stated that if an investor based their decision on any publicly accessible information, they should not consistently obtain above-average risk adjusted returns because the price already represents all publicly available information (Bodie, et al., 2008).
- **Form Strong-** Lastly, the strong form of the EMH specifies that stock prices are inclusive of private information (insider knowledge) and that access to this private

information cannot result in above-market gains. This implies that no investor, including business directors, will have monopolistic access to information in terms of price formation. The strong form of EMH contains both the weak and semi-strong form hypotheses. Furthermore, the strong form of EMH assumes that perfect markets exist in which all information is accessible and freely available to the general population, implying that stock prices adapt directly to the dissemination of new information (Mishkin, 2004).

Contrastingly, EMH has been heavily criticized and disputed both empirically and theoretically amongst economists, due to its assumptions and irrationalities such as: behavioral biasness among investors, fair symmetric distribution of information, market manipulation and disregard for technical analysis (Rosenberg, et al., 1985). Moreover, the EMH is a valuable framework for understanding financial markets, although it has faults and limits. Several investors and scholars are still debating the EMH's validity and its implications for investing strategy.

## **2.3 Financial Performance Analysis**

Financial performance analysis is a critical tool, used to summarize, evaluate and compare the performance and financial health of a firm, typically via the use of financial ratios and financial instruments (Elliott & Elliott, 2013). Stakeholders of a company such as managers, investors, analysts and creditors, frequently use performance analysis to identify, trends, strengths and weaknesses in order to influence their decision-making regarding investments, risk and other financial matters (Jonick, 2017). In relation to this study, the following financial performance analysis tools (financial ratios) are relevant:

- **Earnings Per Share (EPS)**- EPS is a financial ratio that measures how much a firm earns in net income for each of its outstanding common stock, calculated by dividing net income by number of shares. Traditionally, further analysis is required for EPS to be interpreted, as high and low EPS ratios can represent either the firm is performing profitably or at a loss (Elliott & Elliott, 2013).
- **Dividends Per Share (DPS)**- DPS is a measurement of a company's declared and paid dividends for each share of common stock that has been issued. It is computed by dividing the total dividends paid out by the number of outstanding shares. Typically, a

company in excellent financial standing has a DPS ratio between two and six percent (Elliott & Elliott, 2013).

- **Liquidity (LIQ)**- A company's capacity to pay off its short-term obligations with cash and cash equivalents or by selling off assets without impairing the market value of those assets or suffering a loss is known as liquidity or current ratio. A business should often aim for a "1 or 2:1" ratio, which is determined by dividing current assets by current liabilities (Elliott & Elliott, 2013).

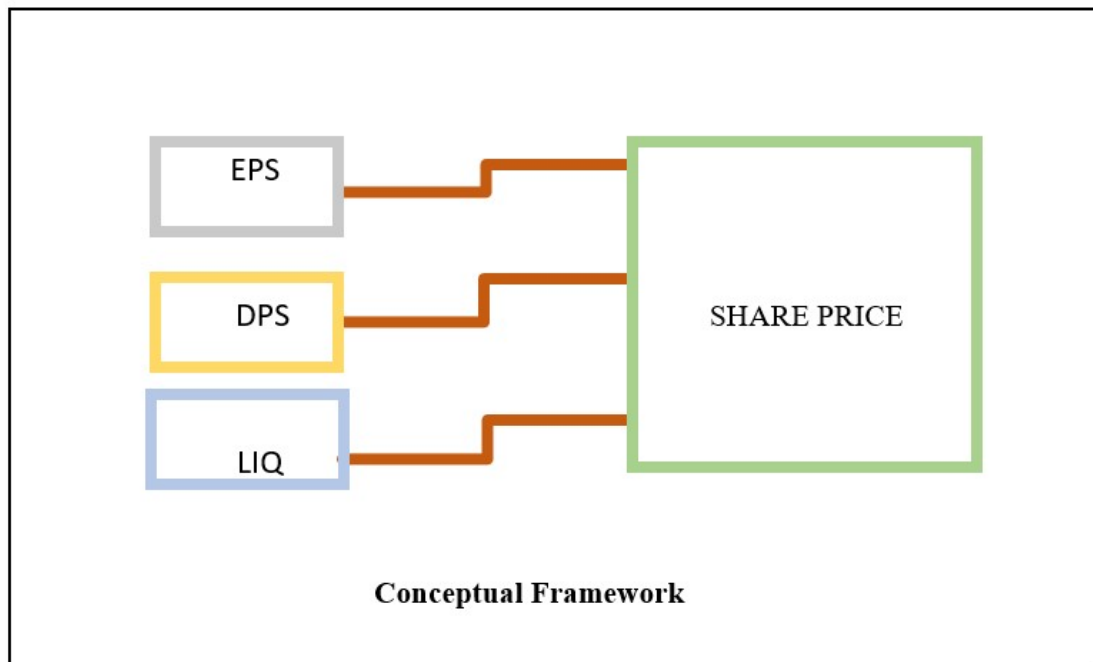
## 2.4 Review of Empirical Studies

Financial ratios such EPS, DPS, debt-to-equity, net profit margin and return on assets were chosen in a research by (Obala & Olweny, 2018) and regressed against share price returns for commercial banks listed on the Nairobi Stock Exchange. The analysis found that all ratios were connected and that their relationship with stock prices was positively skewed. A comparable quantitative research that postulated at the connection between stock price and financial performance of companies listed on the Zimbabwe Stock Exchange was done ( Hove, et al., 2020)The price of market stocks indicated to be significantly influenced by return on investment (ROI). In addition, six industries were examined in (Srinivasan, 2012) to enquire if fundamental variables like financial ratios will affect stock prices. It was shown that, while DPS had a negative effect on share prices in the market, EPS and price-earnings ratios were important factors in determining stock prices for the commercial banking industry. These three studies mentioned above, directly aligns with traditional theoretical theory.

Comparatively, a study by (Puspitaningtyas, 2018) examined the effect of liquidity, profitability, growth and market valuation on the share prices of businesses listed on the Indonesia Stock Exchange using a fundamental analytical method. At the 0.05 level of significance, the study indicated that market value significantly influenced share price but not by financial factors. In order to determine if there was co-integration between stock prices, economic activity, interest rates and exchange rates for thirteen banks listed on the India Stock Exchange, (Narayan, et al., 2014) also conducted a Granger causality test. Evidence gathered from the research suggested that rising interest rates (profitability) had a detrimental effect on stock values. The findings of the research mentioned above challenges and contradicts the majority of theoretical literature's tenets.

## 2.5 Summary and Conclusion

In conclusion, the theories discussed above assist to explain investor behavior and market efficiency but they are difficult to put into reality due to their inherent flaws and presumptions. Furthermore, the tax preference theory illustrates how taxes may affect investor behavior and business valuation. In addition to, the CAPM offers a condensed model for calculating anticipated returns, although some have criticized it for making unreasonable assumptions. The EMH is heavily contested and criticized for its presumptions on market efficiency and investor behavior, which claim that securities markets are informationally efficient. The most accurate method for determining a company's financial health is still financial performance analysis, and it has no drawbacks. Lastly, empirical research reviewed has produced mixed findings, regardless of the firms or economies that were studied.



*Figure 2.2 represents the proposed conceptual framework diagram (The Researcher, 2023).*

## **CHAPTER 3**

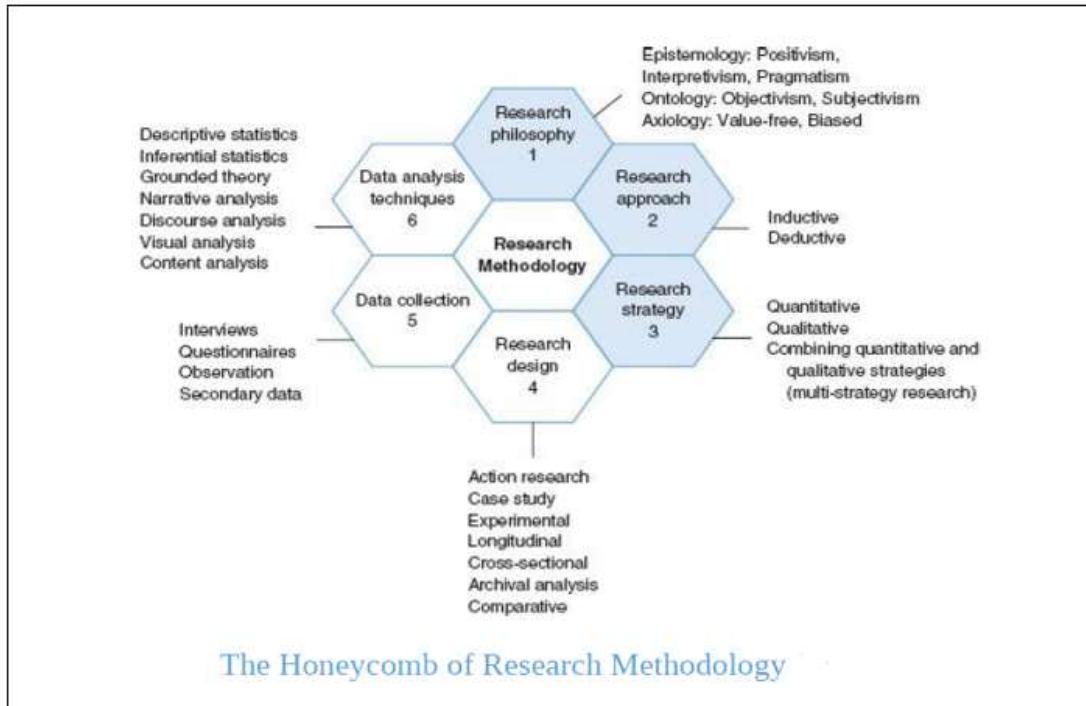
### **METHODOLOGY**

#### **3.1 Introduction**

Research design involves making a number of decisions on who will provide the data and how it will be gathered, when and how it will be analyzed and interpreted (Bryman & Bell, 2015). Research Design is a crucial aspect of research that consists of frameworks, structures and processes that researchers utilize to collect and analyze data in order to direct the research process and determine the validity and reliability of the study.

The researcher chose to employ the Honeycomb Model (Wilson, 2014) as a director to structure this methodology. Therefore, the research methodology will be analyzed in this chapter along with the research paradigm (approach, strategy, and philosophy), study design, population, data collection tools, and data analysis techniques.

The aim of this chapter is to give a concise and logical description of the research design and methodologies that was applied to the study. Additionally, it will aid readers in comprehending the researcher's strategy, the justification for the methodology chosen and list any potential limitations of this study.



*Figure 3.3 shows the Honeycomb Model of Research Methodology (Wilson, 2014).*

## 3.2 Research Paradigm

A research paradigm, is a collection of ideas, principles, customs and unfounded assumptions (theoretical and philosophical) that guide a researcher's approach, inquiries, strategies and interpretations (Creswell & Creswell, 2018). Essentially, choosing an appropriate research paradigm is crucial as it will influence how research questions are formed, how data is collected and analyzed, and how research findings are interpreted and applied (Neuman, 2006).

### 3.2.1 Research Philosophy

Epistemology refers to a subfield of philosophy that examines the origin, nature and boundaries of human understanding (Burrell & Morgan, 1979). It examines the methods by which humans obtain information, the standards by which knowledge claims are assessed and the connection between knowledge and reality. With reference to research, epistemology, directs the formation of research question, methods and interpretation of findings (Mertens, 2014). Positivism,

interpretivism and pragmatism are the three basic ideologies that exist on the spectrum of epistemology (Wilson, 2014).

Furthermore, positivism reiterates the importance of using empirical evidence and scientific methods for acquiring knowledge. Additionally, it claims that in order to stay impartial, it overlooks the many social and cultural elements (qualitative data) and instead uses observations, experiments, and measurement (quantitative data), producing a credible and objective method of acquiring knowledge (Guba & Lincoln, 1994). Contrarily, interpretivism contends that the best method for acquiring knowledge is to ignore objective-based evidence because it is believed that knowledge is subjective, context-dependent and produced via the interaction between individuals and their social and cultural interests (Creswell, 2013). Alternatively, pragmatism incorporates both positivism and interpretivism, and relies on the researcher to use a mix of both ideologies in order to acquire knowledge (Wilson, 2014). With the intention of collecting objective data for the analysis to answer the research question, the researcher employed a positivistic strategy, which involved conducting the study without having any impact on the subject matter. This method was adopted in order to produce an equation that uses precise financial performance data to express stock price with the least amount of inaccuracy possible.

Additionally, expanding on epistemology, ontology asserts that the aspect of reality is totally dependent on how the researcher views their objective, branching off to the subjective and objective approach (Smith & Osborn, 2008). Henceforth, the objective view contends that reality exists independently of individual perception and interpretation and can be observed and measured through the use of systematic, objective methods, in contrast to the subjective view, which contends that reality is constructed by the individual based on their own experiences, beliefs, and values (Smith & Osborn, 2008). The researcher applied an objectivistic perspective, due to its similarity with the positivistic ideology as well as to remain unbiased and due to substantial amount of numerical data that was utilized in developing an equation to compute stock price of Commercial Banks listed on the TTSE. The next step was for the researcher to select a research strategy.

### **3.2.2 Research Approach**

Research approach theory states that based on the characteristics of the research problem, the researcher must select a suitable approach, either deductive or inductive, to collect data. It begins with specific observations before moving on to the identification of patterns, themes and categories onto generalizations and theories (Creswell, 2013). The deductive method, conversely, concentrates on accuracy, emphasizes making observations and drawing conclusions from testing such as surveys, experiments and statistical analysis of datasets (Bryman, 2016). Therefore, since the study deals with quantitative data, the researcher chose the deductive method for statistical analysis, allowing precision and removing bias. The research strategy comes next.

### **3.2.3 Research Strategy**

Fundamentally, the three types of research strategies available to the researcher for data collecting are qualitative, quantitative and mixed-method approaches. Qualitative approach is defined as data collection via in-depth interviews, focus groups, observations and document analysis whereas quantitative approach involves identifying relationships between control and dependent variables to guarantee validity of data collected (Wilson, 2014). Moreover, the mixed method approach is a combination of both qualitative and quantitative analysis. The researcher chose to implement the quantitative strategy, as statistical data was derived from annual reports of Commercial Banks listed on TTSE and correlation was tested through statistical analysis.

### **3.3 Research Design**

Research design, as discussed above, refers to a plan a researcher will utilize as a guide throughout the research process to achieve their research goals (Bryman & Bell, 2015). In addition to, there is a variety of research design approaches available that a researcher can adopt, such as case study, experimental, archival, comparative cross-sectional and longitudinal design. However, the researcher must first establish which direction the research is heading either descriptive study, exploratory or casual.

Firstly, descriptive research involves describing a phenomenon, typically the goal of descriptive research is to provide a snapshot perspective of a certain circumstance or population at a specific point in time. Both quantitative and qualitative methods can be utilized for conducting descriptive research as it is useful for comparisons, trend analysis and pattern recognition (Neuman, 2006).

Secondly, exploratory research deals with investigating an idea or topic that is fairly new and little is known about. The purpose is to create points, ideas and hypothesizes that can be used for further research. As a consequence of the researcher's lack of expertise about the issue, this type of research is typically conducted using qualitative methods such as focus groups, observation, and interviews (Creswell, 2013).

Lastly, casual research looks into a cause-and-effect link by changing one or more variables (independent variables) and documenting the effect on another variable (dependent variable). In casual research, experiments are used to investigate factors contributing to a particular result (Campbell & Stanley, 2015).

Consequently, the researcher has employed a casual approach to research as the study involved investigating whether the financial performance of a commercial bank is related to its share price. The researcher adopted a longitudinal design, examined published financial and annual reports over a ten-year period (which was deemed long enough to establish a trend), to assess the financial health of the of commercial banks then obtained historical stock data directly from the TTSE, in order to conduct a regression analysis to ascertain a relationship between the two variables.

### **3.3.1 Population of Study**

The target population for this study was the eight regulated (by CBTT) commercial banks operational in Trinidad and Tobago, however only five of these eight were selected by the researcher because these five banks trade their stock on TTSE whereas the remaining banks are listed on other stock exchanges (CBTT, 2023). The five commercial banks selected were: Republic Financial Holdings Limited (RFHL), First Citizens Group Holdings Limited (FCGFH), Scotiabank Trinidad and Tobago (SBTT), First Caribbean International Bank Limited (FCI) and NCB Financial Group Limited (NCBFG).

### **3.4 Data Collection**

Data collecting is the process of gathering and sourcing information about a certain variable of interest in order to test hypotheses and answer research questions (Bryman & Bell, 2015). The researcher was tasked with the choice of primary data and secondary data. Subsequently, due to the nature of this study, the researcher chose to apply the use of solely secondary data which allowed a simultaneous investigation of 3 variables in comparison to stock prices.

Additionally, secondary data is information that has previously been acquired and evaluated by researchers (person, group, or organization) for their own study interests; for instance, annual reports, government statistics, academic journals, company documentation and newspaper articles are all examples of widely used sources of secondary data (Wilson, 2014). Additionally, in the majority of research, secondary data prevails over primary data due to the following: cost and time effectiveness, nature of topic being research, allows larger sample size and historical data (used to analyze trends over time) (Wilson, 2014). Secondary data in comparison can be limited due to the following factors: the data may be too old and irrelevant, data may be summarized, incomplete or limited data may not contain all required variables needed for the study and the data may be biased (modified to fit previous researcher's narrative) (Wilson, 2014).

Furthermore, the researcher employed internal sources of secondary data in the use of annual company reports of the five aforementioned commercial banks: RFHL, FCGFL, SBTT, NCBFH and FCI as well as historical stock price data from TTSE. These annual company reports are audited both internally and externally to ensure these reports are accurate and reliable in respect to the IFRS accounting standard. These reports annual contained statements of comprehensive income, statements of financial position and statements of changes in equity; where the researcher gathered necessary data to conduct the required financial ratios in turn was then used for the regression analysis. Whereas, the historical stock prices data are deemed accurate and dependable because they are released directly from Trinidad and Tobago's governing organization for securities (TTSE). The researcher used the TTSE's website's historical data database to collect stock prices for certain dates in order to perform the regression. In terms of external secondary data, CBTT publishes annual banking industry reports, however this did not contain any information relevant to this study therefore not utilized. The documents utilized for data collection are as follows:

**Table 3.1 Resource Type and Source used for Data Collection.**

Resource Type	Source
Historical Stock Prices	<ul style="list-style-type: none"> <li>• <a href="http://www.stockex.co.tt">www.stockex.co.tt</a></li> <li>• <a href="http://www.ttsec.org.tt">www.ttsec.org.tt</a></li> </ul>
Annual Company Reports	<ul style="list-style-type: none"> <li>• <a href="https://www.rfhl.com/group-annual-reports/">https://www.rfhl.com/group-annual-reports/</a></li> <li>• <a href="https://www.firstcitizensgroup.com/tt/investor-relations-2/">https://www.firstcitizensgroup.com/tt/investor-relations-2/</a></li> <li>• <a href="https://tt.scotiabank.com/about-scotiabank/investor-relations.html">https://tt.scotiabank.com/about-scotiabank/investor-relations.html</a></li> <li>• <a href="https://www.cibcfib.com/about-us/investor-relations">https://www.cibcfib.com/about-us/investor-relations</a></li> <li>• <a href="https://www.myncb.com/Investor-Relations">https://www.myncb.com/Investor-Relations</a></li> </ul>

*Source: The Researcher, 2023.*

### 3.5 Data Analysis

In terms of the analysis, data was collected and systemically arranged in order to complete the regression; which was completed using statistical software IBM SPSS 28.

The first test was a Pearson’s coefficient ( $r$ ) test, which was done to examine whether a linear relation exist amongst data. The  $r$  displayed this linear relationship to be either positive or negative as well as weak or strong.

Then, a multi-variable regression model was constructed to investigate the relationship between stock prices and financial performance. In terms of financial performance, it was measured using, EPS, DPS and LIQ ratios. Followed by a F-Test which tested the statistical significance level of the model. The equation derived from this model in algebraic terms is:

$$SP = \alpha + \beta^1EPS + \beta^2DPS + \beta^3LIQ + \varepsilon$$

Where: SP = Share Price (Dependent variable)

$\alpha$  = Regression constant

$\beta$  = Coefficient of correlation

EPS = Earnings per Share of commercial bank for a specific year

DPS = Dividend per Share of commercial bank for a specific year

LIQ = Liquidity Ratio of commercial bank for a specific year

$\varepsilon$  = Error Term

The dependent variable was share price whereas the independent variables were EPS, DPS and LIQ.

### **3.6 Ethics**

Ethics in research refers to researchers conducting work in a transparent and responsible manner, such that the welfare and rights of all participants are protected and the work is beneficial to society (Gregory, 2003). Ethical issues associated with secondary data include; data being de-identified, informed consent to use data and attribution to source (Alderson & Morrow, 2020). In this study, the researcher used published annual reports (which is a mandate of a publicly traded corporation registered on the TTSE), indicating that its goal is to be used as a secondary source by researchers. Similarly, the same circumstance arose for historical stock values obtained from TTSE; the researcher also properly referenced and cited any secondary sources of data utilised for this study. Therefore, the ethical issues linked with the use of the secondary data in this study was mitigated and to deepen their grasp of this issue, the researcher additionally conducted a research ethics quiz through ARU which was a mandate for this research study (see attached in appendix). Another aspect of research methodology is understanding its limits, the researcher will now discuss limitations associated with this study.

### **3.7 Limitations in Research Methodology**

The researcher met a restriction in that the data obtained is not transient; because the study only dealt with historical data, it may not be useful to the future because it only considers historical data. Additionally, the researcher was plagued with the restrictions of running a regression analysis which included overfitting, multicollinearity, linearity and causality (Gelman & Hill, 2006). The researcher acknowledged that both limitations mentioned above, can possibly hinder the overall validity and reliability of this study.

### **3.8 Summary of Chapter**

Finally, in terms of epistemology, the researcher adopted a positivist attitude with the ontological stance of objectivity through deductive means. As a result, a quantitative technique coupled with casual research employing a longitudinal method was developed. Additionally, IBM SPSS was utilized to do a regression analysis using secondary data only, which eliminated ethical concerns but posed the limits of using historical data. The next chapter will report on the study findings.

## FINDINGS AND DISCUSSION

### 4.1 Introduction

The primary goal of this chapter was to establish whether there is a link between financial performance and stock prices. This study's population consisted of five commercial banks, whose financial performance and historical prices were examined from 2013 through 2022. The research was carried out using IBM SPSS to generate a multiple regression model.

This chapter shows the findings of the data collection and analysis; it includes descriptive statistics, a correlation matrix, regression results, and an interpretation of the research findings.

### 4.2 Hypothesis

The expectation of this study was that stronger financial success as measured by EPS, DPS, and LIQ will result in higher stock prices. Therefore, the researcher derived the following hypotheses:

H<sub>1</sub>- EPS has a significant positive impact on share price.

H<sub>2</sub>- DPS has a significant positive impact on share price.

H<sub>3</sub>- LIQ has a significant positive impact on share price.

### 4.3 Summary of Descriptive Statistics of the Variables

*Table 4.2 Descriptive Statistics Summary.*

Descriptive Statistics						
Variable	Maximum	Minimum	Mean	Standard Deviation	N	Shapiro-Wilkin
S.PRICE	139.4000	0.7200	47.5750	44.1709	50	<0.001
EPS	-0.6800	9.7500	2.9340	2.4719	50	<0.001
DPS	0.0300	4.5000	1.7433	1.5973	50	<0.001
LIQ	25.6106	2.1600	8.6776	4.9944	50	<0.001

*Source: The researcher, 2023.*

Firstly, the descriptive statistics summary can be observed in Table 4.2; It should be noted that the N value of 50 in the results indicates that all four variables have 50 observations.

The stock price of a commercial bank is represented by S. PRICE, and Table 4.2 reveals that the highest price is 139.4, the minimum price is 0.72, and the mean price is 47.5750. The stock price's standard deviation is 44.1709, indicating that it is very volatile. The EPS value reflects the commercial bank's profits per share, and Table 4.2 shows that the greatest EPS value is 9.75, the minimum is -0.68, and the mean EPS value is 2.9340. The standard deviation of profits per share is 2.4719, indicating that EPS is also very changeable. The DPS number depicts the dividend per share of a commercial bank, and Table 4.2 shows that the greatest DPS value is 4.5, the minimum is 0.03, and the mean DPS value is 1.7433. The standard deviation of DPS is 1.5973, showing that dividend per share is widely distributed among commercial banks. The liquidity ratio of a commercial bank is represented by LIQ, and Table 4.2 reveals that the greatest liquidity ratio is 2.16, the minimum is 25.6106, and the mean liquidity ratio is 8.6776. The liquidity ratio has a standard deviation of 4.9944, indicating that it is likewise extremely unpredictable (Aljandali & Tatahi, 2018). Subsequently, a Shapiro-Wilkin test was done to determine the population dispersion; results indicated a <0.001 value for all variables therefore it can be specified that the population is normally distributed.

Overall, these descriptive statistics give a summary of the variables of interest which describe the dispersion, central tendency and range of the data (Aljandali & Tatahi, 2018). The next test is a Pearson coefficient test.

## 4.4 Pearson Correlation

*Table 4.3 Pearson Correlation Matrix.*

		Correlations			
		Share Price	EPS	DPS	LIQ
Share Price	Pearson Correlation	1	.964**	.945**	.512**
	Sig. (2-tailed)		<.001	<.001	<.001
EPS	Pearson Correlation	.964**	1	.945**	.522**
	Sig. (2-tailed)	<.001		<.001	<.001
DPS	Pearson Correlation	.945**	.947**	1	.365**
	Sig. (2-tailed)	<.001	<.001		.009
LIQ	Pearson Correlation	.512**	.522**	.365**	1
	Sig. (2-tailed)	<.001	<.001	0.009	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*Source: The researcher, 2023.*

Furthermore, the Pearson correlation matrix provided in Table 4.3 shows the correlation coefficients between four variables: Share Price, EPS (Earnings Per Share), DPS (Dividends Per Share), and LIQ (Liquidity). The values in the matrix represent the strength and direction of the linear relationship between each pair of variables.

Additionally, looking at the matrix in Figure 4.3, it can be seen that all of the variables are statistically significant at the 0.01 level (2-tailed), indicating that these correlations are extremely unlikely to be attributable to chance. The strongest correlations are between Share Price and EPS (0.964) and EPS and DPS (0.947), indicating a very strong positive linear link

between these two variables. This indicates that as either variable (Share Price or EPS) rises, the other typically tends to rise as well (Aljandali & Tatahi, 2018).

Similarly, the relationship between share price and DPS is also a strong positive relationship (.945), but slightly weaker than the correlation between Share Price and EPS. The correlation between EPS and LIQ (.522), display a moderate positive relationship, whereas on the other hand a weak positive relationship exists between LIQ and DPS (.365).

Notably, share price (dependent variable) is correlated with EPS, DPS and LIQ (independent variable), however it cannot be assumed that a change in one variable is responsible for a change in the other variable since coefficients only measures linear relationships and other types of relationships (which cannot be explained with coefficients) may exist between these variables (Aljandali & Tatahi, 2018). Following is the model summary.

## 4.5 Model Summary

*Table 4.4 Regression Model Summary.*

Model Summary <sup>b</sup>					
R	R Square	Adj. R Square	Std. Error of the Estimate	Durbin-Watson	VIF
0.971 <sup>a</sup>	0.943	0.939	10.90377	1.549	14.996 EPS 12.578 DPS 1.777 LIQ

a. Predictors: (Constant), LIQ, DPS, EPS

b. Dependent Variable: Share Price

*Source: The researcher, 2023.*

Moreover, table 4.4 displays a model summary for the regression analysis, which offers information on the strength and quality of the association between the share price (dependent variable) and EPS, DPS, and LIQ (independent variable). It can be noted that the R square value was 0.943, indicating that 94.3% of the variance of share price can be explained with EPS, DPS and LIQ whereas the difference 6.7% can be attributed to extraneous factors. This indicates that the model fits the data well and that the independent variables (EPS, DPS and LIQ)

accurately predict the dependent variable (share price). Similarly, the Adjusted R square value was 0.939, which is quite close to the R square value, indicating that the model was not overfitting the data (Aljandali & Tatahi, 2018). The difference between the R square and the Adjusted R square was (.004) which is insignificant thus implying no unnecessary variables were utilised to predict the model. In contrast, the standard error of the estimate for the model was 10.90377, thus implying that on average, the model may deviate from the share price by 10.90377 TTD. Likewise, a Durbin-Watson test was done to examine auto-correlation; results indicated a 1.549 figure implying that positive autocorrelation exists within the model. A VIF test was also performed to determine multi-collinearity amongst variables; the results showed a score of 14.996 for EPS, 12.578 for DPS, and 1.777 for LIQ, indicating that severe multicollinearity exists between EPS, DPS, and other variables in the model, whereas for LIQ minor to little multicollinearity exists, as indicated by the figure 1.777. Furthering this is an ANOVA (F-test).

## 4.6 Anova

*Table 4.5 shows ANOVA results.*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90133.203	3	30044.401	252.703	<.001 <sup>b</sup>
	Residual	5469.044	46	118.892		
	Total	95602.247	49			

a. Dependent Variable: Share Price

b. Predictors: (Constant), LIQ, DPS, EPS

*Source: The researcher, 2023.*

Subsequently, an ANOVA test is shown in table 4.5. The dependent variable (share price) was regressed against the predictor variables EPS, DPS, and LIQ. As seen in table 4.5, the three independent factors predict share price significantly,  $F(3, 46) = 252.703$ ,  $p < .001$ , indicating that the three variables have a considerable influence on share price.

## 4.7 Regression Results and Interpretation

*Table 4.6 Regression Results.*

Report Multi Regression Result	
Variables	Share Price
EPS	8.304** (2.200)
DPS	11.738** (3.459)
LIQ	.778* (0.416)
Observations	50
Constant	-4.004
R	0.971
R Square	0.943
Adjusted R Square	0.939
Sig	0.01

\*\*Correlation is significant at the 0.01 (1%) level (2-tailed).

\*Correlation is significant at the 0.1 (10%) level (2-tailed).

*Source: The researcher, 2023.*

Additionally, coefficients were further regressed to ascertain the influence of each independent variable (EPS, DPS and LIQ) on the dependent variable (share price). The results in table 4.6 reveal that EPS had a significant and positive impact on share price (B=8.304, t=3.775, p=<.001). Hence H<sub>1</sub> was supported. H<sub>2</sub> evaluated whether DPS had a significant impact on share price; results indicate that DPS has a significant positive impact on share price (B=11.738, t=3.394, p= <.001), consequently H<sub>2</sub> was supported. H<sub>3</sub> evaluates whether LIQ has a significant positive impact on share price; results indicate LIQ may have a small impact on share price however it is statistically significant at the 10% level (B=.778, t=1.871, p=.068) therefore we fail to accept H<sub>3</sub>. It must be noted that the intercept (constant = -4.004), when all three independent variables were set to zero, share price would be equal to the intercept.

**Table 4.7 Hypothesis Results.**

<b>Hypothesis Results</b>					
Hypothesis	Regression Weights	B	t	p-value	Results
H1	EPS→Share Price	8.304	3.775	<.001*	Supported
H2	EPS→Share Price	11.738	3.394	<.001*	Supported
H3	LIQ→Share Price	.778	1.871	.068	Supported
R	0.971				
F (3,46)	252.703				

Note: \*p < 0.01.

Source: *The researcher, 2023.*

At last, using the data derived above in table 4.7, share price of commercial banks listed on TTSE can be expressed using this regression equation:

$$\text{Share Price} = -4.004 + 8.304_{\text{EPS}} + 11.738_{\text{DPS}} + 0.778_{\text{LIQ}} + \epsilon$$

This equation shows that a one-unit increase in EPS and DPS, while maintaining all other variables fixed, increases the dependent variable by 8.304 and 11.738 TTD, respectively. LIQ has a lesser influence on the dependent variable because a one-unit increase in LIQ increases the dependent variable by only 0.778 TTD when all other factors are held constant. Conversely, it should be noted that this equation should only be utilized to generate predictions within the range of the data (RFHL, SBTT, NCBFG, FCI, FCGFL) used to build the model. Extrapolation beyond this range may result in inaccuracies.

## **4.8 Discussion of Findings**

In comparing your regression results to the results of three similar studies, a study done by (Kamonye, 2009) where the Nairobi Securities Exchange in Kenya was examined, one by (Obala & Olweny, 2018) where the Nairobi Securities Exchange in Kenya was examined and finally another study examined the Zimbabwe Securities Exchange which was done by ( Hove,

et al., 2020). It can be seen that this study had the highest R-squared value of 0.943, indicating that this model explains a larger portion of the variance in the dependent variable compared to the other studies. This study also had positive coefficients for all independent variables, which is different from the coefficients in ( Hove, et al., 2020) study, where the coefficients for both EPS and DPS were negative. Additionally, this study had a negative constant, while (Obala & Olweny, 2018) study had a positive constant.

The study by (Kamonye, 2009) had the most negative constant value. Moreover, (Obala & Olweny, 2018) study only used LIQ as a comparable variable, other financial ratios were utilized in that study. Overall, the differences in R-squared values, coefficients, and constants suggest that the factors affecting the dependent variable in each study may be different. Nevertheless, each study has contributed to the understanding of the relationship between the dependent and independent variables in its specific context.

#### **4.9 Summary of Chapter**

To conclude, this chapter discussed a study that aimed to determine if there is a relationship between financial performance and stock prices of five commercial banks over the period 2013-2022. The study created a multiple regression model with IBM SPSS and generated three hypotheses. The findings were interpreted and discussed then a regression equation was developed which can be used to describe share prices for commercial banks listed on TTSE.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter will present a study summary, offer a conclusion, address study limitations, and provide recommendations for further research.

## **5.2 Summary**

This study intended to evaluate if financial performance (EPS, DPS, and LIQ) has a positive significant influence on share price for commercial banks trading on the TTSE. This study examined capital asset pricing theory, tax preference theory, and efficient market hypothesis theory to investigate the link between financial performance and share price. The dependent variable was share price whereas the dependent variables used were EPS, DPS and LIQ. The population of the study included five commercial banks listed on the TTSE. In this analysis, only secondary data was used; historical share prices were obtained directly from TTSE's website, and the EPS, DPS, and LIQ ratios were computed using data from the five commercial banks published annual reports.

Furthermore, the summary descriptive statistics indicated mean share price for the listed firms was 47.5750 whereas the mean EPS was 2.9340, mean DPS was 1.7433 and finally mean LIQ was 8.6776. Correlation analysis was conducted to examine the strength between the variables in the regression model. The results indicated that a strong positive relationship exist amongst share price against EPS and DPS, on the other hand, the relationship between LIQ and share price was weak but positive. Additionally, the research discovered that the R square (0.943) showed that the research variables (EPS, DPS, and LIQ) explain 94.3% of the share price of the listed organizations. The ANOVA indicated a significant relationship between variables. A Shapiro-Wilkin test revealed that all data is positively distributed, but a Durbin-Watson test revealed that the model has considerable autocorrelation. Finally, the regression coefficients discovered a substantial positive relationship between EPS, DPS, LIQ, and share price for commercial banks listed on the TTSE.

## **5.3 Conclusion**

This study found that a positive significant relationship existing between financial performance and share prices of commercial banks listed on the TTSE. This study concludes that there a direct relationship between financial performance and share price therefore an increase in

financial performance will result in an increase in stock prices for commercial banks listed on TTSE.

## **5.4 Recommendations**

Based on the results of this study the following are recommended:

- CBTT as the highest authority in the banking sector can implement regulation that mandate the publishing of financial performance ratios (EPS, DPS, LIQ) on annual financial reports for commercial banks since it was established that the ratios are a key indicator for share price.
- Management at commercial banks listed on TTSE, should strive to improve financial performance resulting in increased share prices since maximizing shareholder wealth goes in line with higher share prices.
- Executive management should create an optimal dividend payout policy which maximizes shareholder wealth since DPS influences share price.
- Investment firms and individual investors should consider EPS, DPS and LIQ ratios when making investment decisions relating buying or selling of commercial banks listed on the TTSE shares.

## **5.5 Limitations**

This study examined the relationship between financial performance and stock returns of commercial banks listed at the TTSE. As a result, the results were based on commercial banks listed on the TTSE and may not be applicable to other firms listed on the TTSE or other stock exchanges. Furthermore, this study only utilized secondary, which poses the assumption that information is disseminated instantly which may not necessarily hold. Also, only three financial ratios were utilised in the study however there are many other financial measures that could be used.

## **5.6 Suggestions for Further Research**

A similar study can be done using quarterly data instead of annual data since information of the quarterly reports may be reflected in share price.

A study using more financial ratios as variables can be conducted. Ratios such as core capital to customer deposits, return on investment, return on capital employed and return on equity are suggestions.

A study can be done using primary data which would increase the accuracy of the findings.

A study can be done where the population is expanded such that, firms operating in all sectors who are listed on the TTSE be included.

## **REFERENCES**

Hove, . K. et al., 2020. Correlation Between Stock Price And Financial Performance Of Zse Quoted Banking Financial Institutions. epra International Journal of Economics, Business and Management Studies (EBMS), 7(3), pp. 28-42.

Alderson, P. & Morrow, V., 2020. The Ethics of Research with Children and Young People: A Practical Handbook. 1 ed. London, UK: Sage Publications.

Aljandali, A. & Tatahi, . M., 2018. Statistics and Econometrics for Finance. 2nd ed. London, UK: Springer.

Bodie, Z., Kane, A. & Marcus, A., 2008. Capital Asset Pricing and Arbitrage Pricing Theory. In: 7th, ed. Essentials of Investments. Boston, USA: McGraw-Hill Irwin, pp. 191-199.

Bryman, A., 2016. Social Research Methods. 1st ed. UK: Oxford University Press.

Bryman, A. & Bell, E., 2015. Business Research Methods. 1st ed. UK: Oxford University Press.

Burrell, G. & Morgan, G., 1979. Sociological Paradigms and Organisational Analysis. 2nd ed. UK: Routledge.

Campbell, D. T. & Stanley, J. C., 2015. Experimental and Quasi-Experimental Designs for Research. 2nd ed. USA: Ravenio Books.

CBTT, 2022. Financial Stability Report 2021, Port of Spain: Central Bank of Trinidad and Tobago.

CBTT, 2023. Central Bank of Trinidad and Tobago. [Online] Available at: <https://www.central-bank.org.tt/core-functions/regulated-commercial-banks> [Accessed 21 03 2023].

Christopher, P., 2022. Banking sector strong, still developing. Trinidad and Tobago Guardian, 30 August.

Chung, P., Johnson, H. & Schill, M., 2006. Asset Pricing When Returns are Nonnormal: Fama-French Factors vs. Higher-Order Systematic Co-Moments. The Journal of Buiness, 79(2), pp. 923-940.

Creswell, J. W., 2013. Qualitative inquiry and research design.. 3rd ed. London, UK: Wise.

Creswell, J. W. & Creswell, J. D., 2018. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 5TH ed. UK: Sage.

Dailami, M. & Atkin, M., 2010. Stock markets in developing countries : key issues and a research agenda (English). Policy, Research, and External Affairs working paper, Washington, USA: The World Bank Group.

Damodaran, A., 2012. Investment Valuation: Tools and Techniques for Determining the Value of Any Asset. 3rd ed. s.l.:Wiley Finance.

Elliott, B. & Elliott, J., 2013. Financial Accounting and Reporting. 16 ed. London, UK: Pearson.

Fama, E., 1970. Efficient Capital Markets: A Review of Theory and Empirical Work. Journal of Finance, 25(2), pp. 383-417.

FCGHL, 2023. First Citizens Group. [Online] Available at: <https://www.firstcitizensgroup.com/tt/investor-relations-2/> [Accessed 10 03 2023].

FCIB, 2023. First Caribbean International Bank. [Online] Available at: <https://www.cibfcib.com/about-us/investor-relations> [Accessed 10 03 2023].

Gelman, A. & Hill, J., 2006. Data analysis using regression and multilevel/hierarchical models. 6th ed. Cambridge, UK: Cambridge University Press.

Gordon, M., 1962. The investment, financing, and valuation of the corporation. Economics Journal of Finance , 41(2), pp. 99-105.

Gregory, I., 2003. Ethics in Research. 2nd ed. London, UK: Continuum Research Methods.

Guba, E. & Lincoln, Y., 1994. Competing paradigms in qualitative research.. Handbook of Qualitative Research, SAGE, Thousand Oaks, 2(1), pp. 105-117.

Jonick, C., 2017. Principles of Managerial Accounting. 1ST ed. Georgia, USA: University of North Georgia Press.

Kamonye, B., 2009. The Relationship Between Equity Prices And Financial, Nairobi: University of Nairobi.

Lazonick, W., 2018. The Function and Fallacies of the Stock Market. In: C. D. a. G. Thompson, ed. Corporate Governance in Contention. United Kingdom: Oxford University Press, pp. 125-129.

Mertens, D. M., 2014. Research and Evaluation in Education and Psychology: Integrating Diversity With Quantitative, Qualitative, and Mixed Methods. 4th ed. Washington , USA: Sage.

Mishkin, F., 2004. The Economics of Money, Banking and Financial Markets. 7th ed. Boston, USA: Pearson.

Narayan, P., Narayan, S. & Singh, H., 2014. The Determinants of Stock Prices: New Evidence from the Indian Banking Sector. Emerging Markets Finance and Trade, 50(2), pp. 5-15.

NCB, 2023. National Commerce Bank. [Online] Available at: <https://www.myncb.com/Investor-Relations> [Accessed 12 03 2023].

Neuman, W. L., 2006. Social Research Methods: Qualitative and Quantitative Approaches. 6th ed. USA: Pearson.

Obala, F. & Olweny, T., 2018. Financial Performance And Stock. International Journal of Economics, Commerce and Management, 4(5), pp. 292-300.

Osbourne, M. F. M., 1959. Brownian Motion in the Stock Market. Operations Research, 7(2), pp. 145-273.

Pacho, F., 2014. Capital Asset Pricing Model (CAPM) Testability and its Validity. Research Journal of Finance and Accounting, 5(21), pp. 192-198.

Palepu, K. & Healy, P. M., 2012. Business Valuation and Analysis. 4th ed. Ohio, USA: South-Western Cengage Learning.

Pratt, S. P., Rilley, R. F. & Schwiehs, R. P., 2000. The Analysis and Appraisal of Closely Held Companies. 2nd ed. s.l.:McGraw-Hill.

Puspitaningtyas, Z., 2018. Is Financial Performance Reflected in Stock Prices. Advances in Economics, Business and Management Research, 40(1), pp. 17-28.

Ramaswamy, K. & Litzenberger, R. H., 1979. The effect of personal taxes and dividends on capital asset prices: Theory and empirical evidence. *Journal of Financial Economics*, 7(2), pp. 163-166.

Reilly, F. & Brown, K., 2011. *Investment Analysis and Portfolio Management*. 10 ed. Illinois, USA: Cengage Learning.

RFHL, 2022. *Annual Report for Republic Financial Holdings Limited*, Port of Spain: s.n.

RFHL, 2023. Republic Financial Holdings Limited. [Online] Available at: <https://www.rfhl.com/group-annual-reports/> [Accessed 11 03 2023].

Rosenberg, B., Reid, K. & Lanstein, R., 1985. Persuasive evidence of market inefficiency. *The Journal of Portfolio Management*, 11(3), pp. 9-16.

Ruhani, F., 2018. Theories Explaining Stock Price Behavior: A Review of the Literature. *International Journal of Islamic Banking and Finance Research*, 2(2), pp. 20-29.

SCBTT, 2023. Scotiabank TT. [Online] Available at: <https://tt.scotiabank.com/about-scotiabank/investor-relations.html> [Accessed 10 03 2023].

Sharpe, W., 1964. Capital Asset Prices: A Theory Of Market Equilibrium Under Conditions Of Risk. *The Journal of the American Finance Association*, 19(3), pp. 425-442.

Slemrod, J., 1990. Optimal Taxation and Optimal Tax Systems,. *Journal of Economic Perspectives*, 4(1), pp. 157-178.

Smith, J. & Osborn, M., 2008. *Interpretative phenomenological analysis. Qualitative research in psychology: Expanding perspectives in methodology and design*, Volume 2.

Srinivasan, P., 2012. Determinants of Equity Share. *The Romanian Economic Journal*, 25(46), p. 205.

TTSE, 2023. Stock Exchange of Trinidad and Tobago. [Online] Available at: [www.stockex.co.tt](http://www.stockex.co.tt) [Accessed 10 03 2023].

TTSEC, 2023. Trinidad and Tobago Stock Exchange Comission. [Online] Available at: [www.ttsec.org.tt](http://www.ttsec.org.tt) [Accessed 10 03 2023].

Wilson, J., 2014. Essentials of Business Research. 2nd ed. UK: Sage.

Zainul Kisman, S. R., 2015. The Validity of Capital Asset Pricing Model (CAPM). American Journal of Economics, Finance and Management, 1(3), pp. 184-189.

# APPENDIX

## 1. Supervisor Log

Supervisor Log - Word

Table Tools

Sign in

File Home Insert Design Layout References Mailings Review View Help Nitro Pro 10 Design Layout Tell me what you want to do Share


**SUPERVISOR CONTACT LOG**

Student Number: 2024185














Degree Programme: BSc (Hons) Banking and Finance

Proposed Dissertation Title (as submitted to Office):  
An Investigation in the Relationship between Stock Prices and Financial Performance of Commercial Banks listed on the Trinidad and Tobago Stock Exchange

Agreed Title (as agreed with supervisor):  
An Investigation in the Relationship between Stock Prices and Financial Performance of Commercial Banks listed on the Trinidad and Tobago Stock Exchange

Supervisor's Signature: 

Date: 25/04/2023

Date and time of Meeting	Notes	Supervisor's initials
21/01/2023	Provided an overview of entire Dissertation Process and discussion of writing research question and objectives	
28/01/2023	Provide guidelines to Chapter 1 and review research topics	
04/02/2023	Review Drafts Chapter 1	
11/02/2023	Discussion and guidelines to Chapter 2	
25/02/2023	Review Drafts Chapter 2	
04/03/2023	Discussion and guidelines to Chapter 3	
11/03/2023	Review of Drafts Chapter 1-3	
18/03/2023	Review of Drafts Chapter 1-3	
25/03/2023	Discussion and guidelines to complete Chapter 4	
01/04/2023	Review of Drafts Chapter 1-4	
15/04/2023	Discussions and guidelines for chapter 5, Formatting document for submission	
23/04/2023	Review of Drafts	
23/04/2023	Review of Final Drafts	

*This form is to be submitted for signature by your supervisor on every occasion that you consult him or her regarding your dissertation. The completed log must be submitted with your dissertation.*

Page 1 of 1 209 words English (United Kingdom) 70%

## 2. Ethics Certificate of Completion

Ethics Certificate



**Certificate of Completion**

This certifies that

**Sharaz Ali**

has successfully completed the CPD Course:

**Introduction to Research and Professional Ethics**

Delivered by Anglia Ruskin University

Date:

11/03/2023

640bec971b8c5452f30285

### 3. Excel Data (Used to Calculate Financial Ratios)

Ch4 documents - Excel

File Home Insert Page Layout Formulas Data Review View Help Nitro Pro 10 Tell me what you want to do

Rank	Period	Share Price	EPS	DPS	LTD	Net Income	Dividend	Share Count	Current Asset	Current Liability	SP	
1	RFPL	2022	159.39	9.37	4.5	15,215		12,215	1609966	1563000	0.32	
2	RFPL	2021	159.40	8.05	4	15,642		15,642	22000990	1406506	IP	139.4
3	RFPL	2020	159.39	5.57	2.7	20,617		20,617	22064631	1105449	qpt	-0.63
4	RFPL	2019	151.22	3.75	4.5	25,636		25,636	17634700	630716	qpt	3.75
5	RFPL	2018	197.26	8.17	4.4	10,085		10,085	12044448	118495	qpt	0.93
6	RFPL	2017	101.50	7.75	4.4	8,751		8,751	1487438	138938	qpt	4.5
7	RFPL	2016	104.44	5.07	4.35	10,230		10,230	192246	197703	hq	2.36
8	RFPL	2015	113.33	7.53	4.25	12,671		12,671	1490772	112661	hq	25.66
9	RFPL	2014	119.74	7.42	4.25	12,337		12,337	1374427	106247		
10	RFPL	2013	116.64	7.18	4.25	11,019		11,019	1894244	106404		
12	IBTT	2022	18.11	3.87	3.5	2,311	6.84E+00	3.8E+00	176E+00	2,311	6.1E+00	203379000
13	IBTT	2021	68.50	3.42	3.5	3,349	6.04E+00	5.4E+00	176E+00	3,349	7.7E+00	194393000
14	IBTT	2020	58.00	2.35	2.25	4,532	5.2E+00	5.2E+00	176E+00	4,532	4.8E+00	184242000
15	IBTT	2019	61.00	3.78	3	4,387	6.68E+00	5.1E+00	176E+00	4,387	7.5E+00	179324000
16	IBTT	2018	64.25	3.65	3	4,254	6.4E+00		4,254	7E+00	164526000	
17	IBTT	2017	60.70	3.72	3	5,264	6.5E+00		5,264	6.3E+00	164810000	
18	IBTT	2016	58.84	3.54	3	5,078	6.4E+00		5,078	7.3E+00	143734000	
19	IBTT	2015	67.84	3.21	3	5,073	6.5E+00		5,073	6.5E+00	123934000	
20	IBTT	2014	61.52	3.17	3	4,093	6.4E+00		4,093	7E+00	115550000	
21	IBTT	2013	72.55	3.16	3	8,093	6.09E+00		8,093	7.4E+00	92279000	
23	FCOFP	2022	52.00	2.31	1.57	15,181	3.22E+00	3.3E+00	2.5E+00	15,181	1.53E+00	173379000
24	FCOFP	2021	62.28	2.64	1.44	16,389	3.02E+00	3.1E+00	2.5E+00	16,389	1.80E+00	177649000
25	FCOFP	2020	43.03	2.4	1.37	11,033	3.5E+00	2.5E+00	11,033	1.0E+00	1.9E+00	31939000
26	FCOFP	2019	44.50	2.38	1.67	3,155	4.2E+00	2.5E+00	3.165	1.88E+00		12178000
27	FCOFP	2018	53.37	2.67	1.71	3,364	4.5E+00	2.5E+00	3,364	302502		306087
28	FCOFP	2017	52.00	2.54	1.34	10,338	3.4E+00	2.5E+00	10,338	102779		64495
29	FCOFP	2016	34.38	2.52	1.4	16,327	3.5E+00	2.5E+00	16,327	866000		52730
30	FCOFP	2015	35.00	2.5	1.19	2,203	3E+00	2.5E+00	2,203	644474		50312
31	FCOFP	2014	37.06	2.5	1.66	14,651	4.2E+00	2.5E+00	14,651	820771		56728
32	FCOFP	2013	40.25	2.42	0.77	8,238	1.8E+00	2.5E+00	8,238	887433		107096
34	NCFBG	2022	3.51	0.51	0.32	3.88						
35	NCFBG	2021	5.28	0.34	0.32	4.25						
36	NCFBG	2020	6.38	0.27	0.11	3.52						
37	NCFBG	2019	8.63	0.54	0.1	4.42						
38	NCFBG	2018	6.56	0.44	0.05	3.18						
39	NCFBG	2017	4.37	0.41	0.05	3.14						
40	NCFBG	2016	2.20	0.41	0.05	2.23						
41	NCFBG	2015	1.75	0.45	0.04	4.09						
42	NCFBG	2014	0.89	0.37	0.04	4.24						
43	NCFBG	2013	0.72	0.35	0.03	2.36						
44	NCFBG	2012	0.31	0.33	0.03	3.09						
45	FCI	2022	5.80	0.74	0.29	11.51						
46	FCI	2021	6.4	0.52	0.06	11.73						
47	FCI	2020	7.04	-0.68	0.35	1.51						
48	FCI	2019	7.30	0.71	0.28	8.51						
49	FCI	2018	8.31	0.41	0.37	8.36						
50	FCI	2017	9.5	1.01	0.46	12.01						
51	FCI	2016	8.50	0.38	0.35	3.1						
52	FCI	2015	5.01	0.43	0.23	8.9						
53	FCI	2014	5.00	0.43	0.21	3.3						
54	FCI	2013	6.50	0.61	0.31	8.7						
55	FCI	2012	7.50	0.81	0.4	3.7						

Ready

Ch4 documents - Excel

File Home Insert Page Layout Formulas Data Review View Help Nitro Pro 10 Tell me what you want to do

Rank	Period	Share Price	EPS	DPS	LTD	Net Income	Dividend	Share Count	Current Asset	Current Liability	SP	
1	RFPL	2022	159.39	9.37	4.5	15,215		12,215	1609966	1563000	0.32	
2	RFPL	2021	159.40	8.05	4	15,642		15,642	22000990	1406506	IP	139.4
3	RFPL	2020	159.39	5.57	2.7	20,617		20,617	22064631	1105449	qpt	-0.63
4	RFPL	2019	151.22	3.75	4.5	25,636		25,636	17634700	630716	qpt	3.75
5	RFPL	2018	197.26	8.17	4.4	10,085		10,085	12044448	118495	qpt	0.93
6	RFPL	2017	101.50	7.75	4.4	8,751		8,751	1487438	138938	qpt	4.5
7	RFPL	2016	104.44	5.07	4.35	10,230		10,230	192246	197703	hq	2.36
8	RFPL	2015	113.33	7.53	4.25	12,671		12,671	1490772	112661	hq	25.66
9	RFPL	2014	119.74	7.42	4.25	12,337		12,337	1374427	106247		
10	RFPL	2013	116.64	7.18	4.25	11,019		11,019	1894244	106404		
12	IBTT	2022	18.11	3.87	3.5	2,311	6.84E+00	3.8E+00	176E+00	2,311	6.1E+00	203379000
13	IBTT	2021	68.50	3.42	3.5	3,349	6.04E+00	5.4E+00	176E+00	3,349	7.7E+00	194393000
14	IBTT	2020	58.00	2.35	2.25	4,532	5.2E+00	5.2E+00	176E+00	4,532	4.8E+00	184242000
15	IBTT	2019	61.00	3.78	3	4,387	6.68E+00	5.1E+00	176E+00	4,387	7.5E+00	179324000
16	IBTT	2018	64.25	3.65	3	4,254	6.4E+00		4,254	7E+00	164526000	
17	IBTT	2017	60.70	3.72	3	5,264	6.5E+00		5,264	6.3E+00	164810000	
18	IBTT	2016	58.84	3.54	3	5,078	6.4E+00		5,078	7.3E+00	143734000	
19	IBTT	2015	67.84	3.21	3	5,073	6.5E+00		5,073	6.5E+00	123934000	
20	IBTT	2014	61.52	3.17	3	4,093	6.4E+00		4,093	7E+00	115550000	
21	IBTT	2013	72.55	3.16	3	8,093	6.09E+00		8,093	7.4E+00	92279000	
23	FCOFP	2022	52.00	2.31	1.57	15,181	3.22E+00	3.3E+00	2.5E+00	15,181	1.53E+00	173379000
24	FCOFP	2021	62.28	2.64	1.44	16,389	3.02E+00	3.1E+00	2.5E+00	16,389	1.80E+00	177649000
25	FCOFP	2020	43.03	2.4	1.37	11,033	3.5E+00	2.5E+00	11,033	1.0E+00	1.9E+00	31939000
26	FCOFP	2019	44.50	2.38	1.67	3,155	4.2E+00	2.5E+00	3.165	1.88E+00		12178000
27	FCOFP	2018	53.37	2.67	1.71	3,364	4.5E+00	2.5E+00	3,364	302502		306087
28	FCOFP	2017	52.00	2.54	1.34	10,338	3.4E+00	2.5E+00	10,338	102779		64495
29	FCOFP	2016	34.38	2.52	1.4	16,327	3.5E+00	2.5E+00	16,327	866000		52730
30	FCOFP	2015	35.00	2.5	1.19	2,203	3E+00	2.5E+00	2,203	644474		50312
31	FCOFP	2014	37.06	2.5	1.66	14,651	4.2E+00	2.5E+00	14,651	820771		56728
32	FCOFP	2013	40.25	2.42	0.77	8,238	1.8E+00	2.5E+00	8,238	887433		107096
34	NCFBG	2022	3.51	0.51	0.32	3.88						
35	NCFBG	2021	5.28	0.34	0.32	4.25						
36	NCFBG	2020	6.38	0.27	0.11	3.52						
37	NCFBG	2019	8.63	0.54	0.1	4.42						
38	NCFBG	2018	6.56	0.44	0.05	3.18						
39	NCFBG	2017	4.37	0.41	0.05	3.14						
40	NCFBG	2016	2.20	0.41	0.05	2.23						
41	NCFBG	2015	1.75	0.45	0.04	4.09						
42	NCFBG	2014	0.89	0.37	0.04	4.24						
43	NCFBG	2013	0.72	0.35	0.03	2.36						
44	NCFBG	2012	0.31	0.33	0.03	3.09						
45	FCI	2022	5.80	0.74	0.29	11.51						
46	FCI	2021	6.4	0.52	0.06	11.73						
47	FCI	2020	7.04	-0.68	0.35	1.51						
48	FCI	2019	7.30	0.71	0.28	8.51						
49	FCI	2018	8.31	0.41	0.37	8.36						
50	FCI	2017	9.5	1.01	0.46	12.01						
51	FCI	2016	8.50	0.38	0.35	3.1						
52	FCI	2015	5.01	0.43	0.23	8.9						
53	FCI	2014	5.00	0.43	0.21	3.3						
54	FCI	2013	6.50	0.61	0.31	8.7						
55	FCI	2012	7.50	0.81	0.4	3.7						

Ready

#### 4. Linear Regression using IBM SPSS- Input Data

Number	Bank	Period	SharePrice	EPS	DPS	LIQ
1	RFHL	2022	138.99	9.37	4.50	13.21
2	RFHL	2021	139.40	8.05	4.00	15.64
3	RFHL	2020	134.99	5.57	2.70	20.67
4	RFHL	2019	131.22	9.75	4.50	25.62
5	RFHL	2018	107.26	8.17	4.40	10.09
6	RFHL	2017	101.50	7.75	4.40	8.72
7	RFHL	2016	108.44	5.87	4.35	10.30
8	RFHL	2015	111.93	7.59	4.25	12.67
9	RFHL	2014	119.74	7.42	4.25	12.94
10	RFHL	2013	115.84	7.18	4.25	11.02
11	SBTT	2022	78.11	3.87	3.50	2.91
12	SBTT	2021	68.50	3.42	3.15	3.95
13	SBTT	2020	58.00	2.95	2.25	4.56
14	SBTT	2019	61.00	3.78	3.00	4.39
15	SBTT	2018	64.25	3.65	3.00	4.25
16	SBTT	2017	60.10	3.72	3.00	5.36
17	SBTT	2016	58.84	3.54	3.00	5.08
18	SBTT	2015	61.94	3.21	3.00	5.01
19	SBTT	2014	61.52	3.17	1.90	4.08
20	SBTT	2013	72.55	3.16	1.90	8.02
21	FCGFH	2022	52.00	2.91	1.56	15.18
22	FCGFH	2021	62.29	2.64	1.45	14.19
23	FCGFH	2020	43.03	2.40	1.38	11.03
24	FCGFH	2019	44.50	2.98	1.65	9.75
25	FCGFH	2018	33.97	2.67	1.79	9.96
26	FCGFH	2017	32.00	2.54	1.34	10.34
27	FCGFH	2016	34.98	2.52	1.40	16.93

Number	Bank	Period	SharePrice	EPS	DPS	LIQ
28	FCGFH	2015	35.00	2.50	1.19	2.21
29	FCGFH	2014	37.06	2.50	1.66	14.65
30	FCGFH	2013	40.25	2.42	.77	8.23
31	NCBFG	2022	3.51	.51	.12	3.88
32	NCBFG	2021	5.28	.34	.12	4.25
33	NCBFG	2020	6.38	.27	.11	3.52
34	NCBFG	2019	8.63	.54	.10	4.42
35	NCBFG	2018	6.56	.44	.05	3.78
36	NCBFG	2017	4.37	.41	.05	3.74
37	NCBFG	2016	2.20	.47	.05	3.23
38	NCBFG	2015	1.75	.45	.04	4.09
39	NCBFG	2014	.80	.37	.04	4.24
40	NCBFG	2013	.72	.35	.09	2.16
41	FCI	2022	5.80	.74	.29	11.51
42	FCI	2021	6.14	.52	.06	11.73
43	FCI	2020	7.04	-.68	.35	7.51
44	FCI	2019	7.90	.71	.28	8.51
45	FCI	2018	8.31	.41	.37	8.36
46	FCI	2017	9.15	1.01	.46	12.01
47	FCI	2016	8.50	.98	.35	9.10
48	FCI	2015	5.01	.49	.23	8.90
49	FCI	2014	5.00	.49	.21	9.30
50	FCI	2013	6.50	.61	.31	8.70
51	.	.	.	.	.	.
52	.	.	.	.	.	.
53	.	.	.	.	.	.
54	.	.	.	.	.	.

CH4 Input.sav [DataSet1] - IBM SPSS Statistics Data Editor

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	Number	Numeric	2	0		None	None	12	Right	Scale	Input
2	Bank	String	5	0		None	None	5	Left	Nominal	Input
3	Period	Numeric	5	0	Period	None	None	12	Right	Scale	Input
4	SharePrice	Numeric	31	2	Share Price	None	None	12	Right	Scale	Input
5	EPS	Numeric	5	2		None	None	12	Right	Scale	Input
6	DPS	Numeric	17	2		None	None	16	Right	Scale	Input
7	LIQ	Numeric	18	2		None	None	16	Right	Scale	Input
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											

Data View Variable View

## 5. Linear Regression using IBM SPSS- Output

\*Output4.sps [Document1] - IBM SPSS Statistics Viewer

Regression

[DataSet1] C:\Users\USER\Desktop\Bachelors\Year 3\Major Project\Documents\Chapter 4\CH4 Input.sav

**Descriptive Statistics**

	Mean	Std. Deviation	N
Share Price	47.5750	44.17088	50
EPS	2.9340	2.74191	50
DPS	1.7433	1.59728	50
LIQ	8.6776	4.99438	50

**Correlations**

	Share Price	EPS	DPS	LIQ	
Pearson Correlation	Share Price	1.000	.964	.945	.512
	EPS	.964	1.000	.947	.522
	DPS	.945	.947	1.000	.365
	LIQ	.512	.522	.365	1.000
Sig. (1-tailed)	Share Price	.	<.001	<.001	<.001
	EPS	.000	.	.000	.000
	DPS	.000	.000	.	.005
	LIQ	.000	.000	.005	.
N	Share Price	50	50	50	50
	EPS	50	50	50	50
	DPS	50	50	50	50
	LIQ	50	50	50	50

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	LIQ, DPS, EPS <sup>b</sup>		Enter

IBM SPSS Statistics Viewer - Output4.spv [Document1]

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Regression
  - Title
  - Notes
  - Active Dataset
  - Descriptive Statistics
  - Correlations
  - Variables Entered/Removed
  - Model Summary
  - ANOVA
  - Coefficients
  - Coefficient Correlation
  - Collinearity Diagnostics
  - Residuals Statistics
- Explore
- Explore
- Explore
  - Title
  - Notes
  - Case Processing Summary
  - Descriptives
  - Extreme Values
  - Tests of Normality
  - Share Price
  - EPS
  - DPS
  - LIQ

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.971 <sup>a</sup>	.943	.939	10.90377	1.549

a. Predictors: (Constant), LIQ, DPS, EPS  
b. Dependent Variable: Share Price

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90133.203	3	30044.401	252.703	<.001 <sup>b</sup>
	Residual	5469.044	46	118.892		
	Total	95602.247	49			

a. Dependent Variable: Share Price  
b. Predictors: (Constant), LIQ, DPS, EPS

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-4.004	3.511		-1.140	.260	-11.072	3.064		
	EPS	8.304	2.200	.515	3.775	<.001	3.876	12.732	.067	14.996
	DPS	11.738	3.459	.424	3.394	.001	4.776	18.700	.080	12.578
	LIQ	.778	.416	.088	1.871	.068	-.059	1.615	.563	1.777

a. Dependent Variable: Share Price

**Coefficient Correlations<sup>a</sup>**

Model		LIQ	DPS	EPS	
1	Correlations	LIQ	1.000	.476	-.592
		DPS	.476	1.000	-.953
		EPS	-.592	-.953	1.000
	Covariances	LIQ	.173	.684	-.542
		DPS	.684	11.962	-7.252
		EPS	-.542	-7.252	4.840

a. Dependent Variable: Share Price

IBM SPSS Statistics Viewer - Output4.spv [Document1]

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Regression
  - Title
  - Notes
  - Active Dataset
  - Descriptive Statistics
  - Correlations
  - Variables Entered/Removed
  - Model Summary
  - ANOVA
  - Coefficients
  - Coefficient Correlation
  - Collinearity Diagnostics
  - Residuals Statistics
- Explore
- Explore
- Explore
  - Title
  - Notes
  - Case Processing Summary
  - Descriptives
  - Extreme Values
  - Tests of Normality
  - Share Price
  - EPS
  - DPS
  - LIQ

**Coefficient Correlations<sup>a</sup>**

Model		LIQ	DPS	EPS	
1	Correlations	LIQ	1.000	.476	-.592
		DPS	.476	1.000	-.953
		EPS	-.592	-.953	1.000
	Covariances	LIQ	.173	.684	-.542
		DPS	.684	11.962	-7.252
		EPS	-.542	-7.252	4.840

a. Dependent Variable: Share Price

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	EPS	DPS	LIQ
1	1	3.450	1.000	.01	.00	.00	.01
	2	.400	2.937	.17	.02	.02	.06
	3	.134	5.081	.56	.00	.02	.55
	4	.016	14.691	.25	.98	.96	.38

a. Dependent Variable: Share Price

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.3008	149.7139	47.5750	42.88885	50
Residual	-18.49394	44.96446	.00000	10.56471	50
Std. Predicted Value	-1.102	2.381	.000	1.000	50
Std. Residual	-1.696	4.124	.000	.969	50

a. Dependent Variable: Share Price

**Explore**

IBM SPSS Statistics Viewer - \*Output4.spv [Document1]

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

**Explore**

**Case Processing Summary**

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Share Price	50	98.0%	1	2.0%	51	100.0%
EPS	50	98.0%	1	2.0%	51	100.0%
DPS	50	98.0%	1	2.0%	51	100.0%
LIQ	50	98.0%	1	2.0%	51	100.0%

**Descriptives**

Variable	Statistic	Std. Error	
Share Price	Mean	47.5750	6.24671
	95% Confidence Interval for Mean	Lower Bound: 35.0218	
		Upper Bound: 60.1282	
	5% Trimmed Mean	45.1216	
	Median	38.6550	
	Variance	1951.066	
	Std. Deviation	44.17088	
	Minimum	.72	
	Maximum	139.40	
	Range	138.68	
EPS	Mean	2.9340	.38776
	95% Confidence Interval for Mean	Lower Bound: 2.1548	
		Upper Bound: 3.7132	
	5% Trimmed Mean	2.7497	
	Median	2.6300	
	Variance	7.518	
	Std. Deviation	2.74191	
	Minimum	-.68	
	Maximum	9.75	
	Range	10.43	
DPS	Mean	1.7433	.22589
	95% Confidence Interval for Mean	Lower Bound: 1.2893	
		Upper Bound: 2.1972	
	5% Trimmed Mean	1.6857	
	Median	1.4233	
	Variance	2.551	
	Std. Deviation	1.59728	
	Minimum	.04	
	Maximum	4.50	
	Range	4.46	
LIQ	Mean	8.6776	.70631
	95% Confidence Interval for Mean	Lower Bound: 7.2582	
		Upper Bound: 10.0970	
	5% Trimmed Mean	8.2957	
	Median	8.6050	
	Variance	24.944	
	Std. Deviation	4.99438	
	Minimum	2.16	
	Maximum	25.62	
	Range	23.46	

IBM SPSS Statistics Viewer - \*Output4.spv [Document1]

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

**Explore**

Share Price	Mean	47.5750	6.24671
	95% Confidence Interval for Mean	Lower Bound: 35.0218	
		Upper Bound: 60.1282	
	5% Trimmed Mean	45.1216	
	Median	38.6550	
	Variance	1951.066	
	Std. Deviation	44.17088	
	Minimum	.72	
	Maximum	139.40	
	Range	138.68	
EPS	Mean	2.9340	.38776
	95% Confidence Interval for Mean	Lower Bound: 2.1548	
		Upper Bound: 3.7132	
	5% Trimmed Mean	2.7497	
	Median	2.6300	
	Variance	7.518	
	Std. Deviation	2.74191	
	Minimum	-.68	
	Maximum	9.75	
	Range	10.43	
DPS	Mean	1.7433	.22589
	95% Confidence Interval for Mean	Lower Bound: 1.2893	
		Upper Bound: 2.1972	
	5% Trimmed Mean	1.6857	
	Median	1.4233	
	Variance	2.551	
	Std. Deviation	1.59728	
	Minimum	.04	
	Maximum	4.50	
	Range	4.46	
LIQ	Mean	8.6776	.70631
	95% Confidence Interval for Mean	Lower Bound: 7.2582	
		Upper Bound: 10.0970	
	5% Trimmed Mean	8.2957	
	Median	8.6050	
	Variance	24.944	
	Std. Deviation	4.99438	
	Minimum	2.16	
	Maximum	25.62	
	Range	23.46	

\*Output4.spv [Document1] - IBM SPSS Statistics Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Regression
  - Title
  - Notes
  - Active Dataset
  - Descriptive Statistics
  - Correlations
  - Variables Entered/Removed
  - Model Summary
  - ANOVA
  - Coefficients
  - Coefficient Correlations
  - Collinearity Diagnostics
  - Residuals Statistics
- Explore
- Explore
  - Title
  - Notes
  - Case Processing Summary
  - Descriptives
  - Extreme Values
  - Tests of Normality
- Share Price
- EPS
- DPS
- LIQ

Range	23.46	
Interquartile Range	7.32	
Skewness	1.057	.337
Kurtosis	1.525	.662

### Extreme Values

		Case Number		Value
		1	2	
Share Price	Highest	1	2	139.40
		2	1	138.99
		3	3	134.99
		4	4	131.22
		5	9	119.74
	Lowest	1	40	.72
		2	39	.80
		3	38	1.75
		4	37	2.20
		5	31	3.51
EPS	Highest	1	4	9.75
		2	1	9.37
		3	5	8.17
		4	2	8.05
		5	6	7.75
	Lowest	1	43	-.68
		2	33	.27
		3	32	.34
		4	40	.35
		5	39	.37
DPS	Highest	1	1	4.50
		2	4	4.50
		3	5	4.40

\*Output4.spv [Document1] - IBM SPSS Statistics Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Regression
  - Title
  - Notes
  - Active Dataset
  - Descriptive Statistics
  - Correlations
  - Variables Entered/Removed
  - Model Summary
  - ANOVA
  - Coefficients
  - Coefficient Correlations
  - Collinearity Diagnostics
  - Residuals Statistics
- Explore
- Explore
  - Title
  - Notes
  - Case Processing Summary
  - Descriptives
  - Extreme Values
  - Tests of Normality
- Share Price
- EPS
- DPS
- LIQ

DPS	Highest	1	1	4.50
		2	4	4.50
		3	5	4.40
		4	6	4.40
		5	7	4.35
	Lowest	1	39	.04
		2	38	.04
		3	37	.05
		4	36	.05
		5	35	.05
LIQ	Highest	1	4	25.62
		2	3	20.67
		3	27	16.93
		4	2	15.64
		5	21	15.18
	Lowest	1	40	2.16
		2	28	2.21
		3	11	2.91
		4	37	3.23
		5	33	3.52

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Share Price	.208	50	<.001	.868	50	<.001
EPS	.166	50	.001	.862	50	<.001
DPS	.189	50	<.001	.860	50	<.001
LIQ	.147	50	.009	.911	50	.001

a. Lilliefors Significance Correction