Student Conference in Finance 2023

Proceedings

Department of Finance
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura

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28th April 2023

The ideas expressed are the ideas of the authors and the Department of Finance cannot be held responsible.

Proceedings of the Student Conference in Finance
Department of Finance
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura
Sri Lanka

ISSN: ISSN 2659 – 2304

Edited by: Prof. R P C R Rajapakse

Cover Design: Prof A G C Gunathilaka

Print: Cybergate, Wijerama

Published by:

The Department of Finance
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura
Sri Lanka

Tel: 0112801118 Email: finance@sjp.ac.lk

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Message from the Acting Vice-Chancellor

I am happy to extend this congratulatory message for the Sixth Student Conference in Finance (SCF) 2023 organized by the Department of Finance, Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura.

The University of Sri Jayewardenepura provides an environment that imparts knowledge through teaching together with innovative research across multiple academic disciplines as it has identified that research is essential and crucial in academics. The impactful research outcomes are useful for decision makers to make effective decisions that will lead towards national and global development.

The Department of Finance, since its inception has been keen on strengthening research and development by encouraging undergraduates to engage more in research and scholarly discussion. Regardless of the challenges posed by the prevailing economic crisis, the department continues with the Student Conference by adopting digital technology while overcoming the setbacks in field-based data collection. This Conference creates a platform for academics, research scholars, industry experts and undergraduates to discuss and develop new ideas and networks in the field of finance.

I am glad to see the enthusiasm and continued commitment of all the staff and undergraduate students of the Department of Finance in their endeavor to engage in research and come up with new initiatives which will lead towards the development of our country. I congratulate all the undergraduates who are presenting their valuable research ideas and findings. I wish the Sixth Student Conference in Finance a great success.

Prof. Upul Subasinghe
Acting Vice-Chancellor
University of Sri Jayewardenepura

Message from the Dean
Faculty of Management Studies and Commerce

It brings me a great pleasure to write a message for the Undergraduate Research Symposium of the Department of Finance, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. First and foremost, I would like to applaud the Department for organizing this event with the intention of giving a forum for students to present and discuss their research findings to enhance the research skills of our graduates.

This exercise will undoubtedly train students to recognize problems, collect relevant data, and analyze the data scientifically to generate more unique and creative solutions to many of the problems and challenges faced by businesses and society. The research component of our Degree Programmes is a unique feature that provides students with a competitive advantage to compete with other professionals in the job market, and it will definitely assist them in investigating the environment more rationally so that they can effectively contribute to the sustainable development of organizations and the country as a whole.

Finally, I would like to congratulate all the students who present in today's symposium, and I'd like to express my gratitude to the staff members and the Department Head for their unwavering commitment in making this event successful.

I wish you all the best!

Prof. P.D. Nimal
Dean
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura

Message from the Head of the Department

As a pioneering finance faculty of Sri Lanka, we are committed to increasing the potential of our undergraduates through continuous improvements in the curriculum, teaching, knowledge creation, and dissemination. There are more people engaged in finance today than ever engaged, industry practitioners, policymakers, and so on.

Given the cost-of-living crisis felt globally today, and the rising concerns about climate action failure, it is a must that we focus on a more inclusive, resilient, and sustainable future. Among the many, Fintech, Proptech, and Edtech firms are the frontline start-ups in Asia today. Asian countries show different engines of growth, each with its own talents and area of expertise. It is this diversity that provides it resilience as well as strength. It requires people to solve problems that are unique to our country and leverage their talents to drive homegrown innovations. For us to make such a positive societal impact, (1) a policy push and (2) an industry-academic mix in strategic decisions would be important inputs.

It is in this process that the student conference is organized where the young finance researchers' talents are recognized. I congratulate the organizing team, young researchers, and stakeholders of this conference.

Prof. A G C Gunathilaka
Head
Department of Finance
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura

Message from the Conference Chairperson/ Coordinator

I take this as an obligation as well as an honor to chair/ coordinate the Student Conference in Finance (SCF), as the coordinator of the research study/ project of the Department of Finance. SCF is organized by the department for the sixth consecutive year at which 15 papers will be presented.

Fintech (application of digital technology to financial services) is reshaping the future of finance. The ongoing digitization of financial services and money creates opportunities to build more inclusive and efficient financial services and promote economic development. Fintech is transforming the financial sector landscape rapidly and is blurring the boundaries of both financial firms and the financial sector. As a responsible academic department, we are dedicated to producing graduates who are capable of adapting themselves to these developments. Research and publication including studies on these latest developments is one important way of preparing students to face challenges presented by the financial environment.

The support of the Head: Department of Finance, the Dean: Faculty of Management Studies and Commerce and the Vice chancellor of University of Sri Jayewardenepura in organizing this event is sincerely appreciated. My genuine thanks are also extended to, the Keynote Speaker of the sixth SCF, Professor K L W Perera and the reviewers of the conference papers. Further, I'm obliged to the support of the conference organizing team and the technical support staff of the Faculty of Management Studies and Commerce for their untiring support in making this event a success.

Prof. R P C R Rajapakse
Conference Chairperson/ Coordinator
Department of Finance
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Contents

The Impact of Macro Economic Variables on the Stock Market Performance: Evidence from Listed Real Estate Companies in Sri Lanka

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Keywords: Real Estate, Listed Firms, Stock Market Performance, Macroeconomic Variables

Introduction

The real estate industry in Sri Lanka has grown rapidly over the past few years, attracting both local and foreign investors. The developments in the real estate industry have directly contributed to the economic growth of the country. The real estate sector is very susceptible to macroeconomic changes and can be affected by both positive and negative movements in macroeconomic factors, whereas the performance of the stock market is influenced by macroeconomic variables. Hence, it is critical to examine the impact of macroeconomic variables on the stock market performance of real estate companies. Therefore, this study examines the effect of macroeconomic variables on the stock market performance of real estate companies listed on the Colombo Stock Exchange in Sri Lanka by contributing to the current literature, fulfilling the existing research gap.

Literature Review

Past researchers have found that with the advancements the real estate sector has made to date, it is critical to study this industry. According to Hirata, et al. (2013), real estate plays an important role in modern civilization. Asmirantho (2012) has found out, the industry has been the subject of research because it has witnessed expansion during the financial crisis and is beginning to show its commitment to economic growth in recent years. These findings have depicted that studying the real estate sector is decisive.

The stock market performance is measured using the stock price movement. According to Natarajan (2020) the price of a stock reflects the present value of cash flows that is available to its owners. Stock returns are used to measure the performance of a company's stocks. Using the theories such as Arbitrage Pricing Theory and Shareholder Value Theory have provided the researcher with an understanding of the current and relevant theories related to the research area. Stock market performance is influenced by macroeconomic environment. Gan, et al. (2006), suggested that economic factors that influence the expected future cash flow and required rate of return affect the share price. Macroeconomic factors are significant and fundamental determinants over the long investment horizon because, as expressed by King (1966), share prices are subject to the impact of macroeconomic factors by an average of 50%.

According to the studies of Issah & Antwi (2017), Alkali, et al (2018), and Broadstock, et al, (2011) it is important to use variables that capture the macro economy to measure the impact of macroeconomic variables. Hence, the following variables have been used.

Table 1: A Summary of Literature Review

Variable	Literature Finding	Literature
Exchange Rate	Mixed Evidence	In Japan, exchange rates have a positive impact on stock values according to Kurihara (2006), Bahmani-Oskooee & Sohrabian, (1992). Šimáková (2017) and Sitinjak & Kurniasari (2003) study's findings revealed a negative relationship between the exchange rate and the value of listed companies. Stavarek (2005), Soenen & Hennigar (1988), Ajayi & Mougoue (1996) and He & Ng (1998) have revealed that there is no statistically significant link between the stock return and exchange rates.
Interest Rate	Mixed Evidence	Pangestuti & Tindangen (2020), Nurdin (1999), Joseph (2002) found that interest rates and stock returns have an inverse connection. According to Titman & Warga (1989),

		Fama (1981) and Asmirantho (2012) interest rates have a positive effect on stock returns.
Inflation	Mixed Evidence	Nurdin (1999) and Fama (1981) found that inflation has a negative effect on stock returns. Boudoukh & Richardson (1993), Kim & In, (2005) and Agrawalla & Suteja (2008), Titman & Warga (1989) have found that inflation is positive and significant to stock returns.
Economic Growth	Mixed Evidence	Thorsten, et al. (2002) and Smith & Watts (1992) have suggested a positive association between GDP growth and stock returns. Djalilov & Piesse (2016), Mohammed & Usman (2016), and Tan & Floros (2012) found that GDP growth has a detrimental impact.

Source: Compiled by the Author

Based on the findings of the past researchers, the lack of research on real estate sector in Sri Lankan context was identified as the research gap of the study.

Problem Statement and Research Questions

Problem Statement of the study is as follows:

> The impact of macro-economic variables on the stock market performance based on the evidence from the Real Estate market in Sri Lanka.

Based on the main research problem, the researcher has identified research questions as follows:

> What is the impact of considered Macroeconomic variables; Exchange Rate, Inflation, Interest Rate and Real GDP Growth Rate on the stock market performance of Sri Lankan Real Estate firms?

Objectives

This research study attempts to achieve the following objective as its main objective.

> To investigate the influence of macroeconomic factors on the stock market performance of listed Sri Lankan Real Estate Companies.

More specifically the study will try to achieve the following sub-objectives,

> To investigate whether the considered Macroeconomic variables; Exchange Rate, Inflation, Interest Rate, and Real GDP Growth Rate have an impact on the stock market performance of listed Sri Lankan Real Estate firms.

Research Methodology

The population of this study is all the listed real estate companies in the Colombo Stock Exchange of Sri Lanka. Currently, the industry has 18 listed real estate companies, and the sample of this study has been limited to 12 listed real estate companies in CSE due to several limitations. The data is collected from the secondary sources. The financial information that is related to each company in the sample is taken from the quarterly published financial statements that are available in the Colombo Stock Exchange (CSE) website.

Table 2: Operationalization of Factors

Variable	Definition	Measurement
Dependent Variable		

Stock Market Performance *D(LOG_MV/BV)*	Value creation of a company's stock, in terms of stock price	Log Value of Price to Book Ratio (First Difference) Price to Book Ratio = $\frac{\text{Market value of stock}}{\text{Book value of stock}}$
Independent Variables		
Exchange Rate *RESI_EXR*	The amount of money in one currency that may be exchanged for units of another country's currency	Reciprocal Value of Quarter end figure of LKR/US$ rate
Interest Rate *LOG_INT*	Treasury bill yield is the return an investor will receive by investing in a short-term Treasury bill.	Log Value of Quarter end figure of Treasury bill yields, 364 days
Inflation *LOG_INF*	Inflation is the process of continuously raising general prices of products and services.	Log Value of Quarter end figure of NCPI headline inflation rate
Economic Growth *RGDP*	GDP growth is the rate at which a country's gross domestic product (GDP) increases over a period of time.	Quarterly published Real GDP Growth %
Control Variables		
Board Size *D(NDRT)*	-	Quarter end figure of number of Directors in the BOD (First Difference)
Firm Size *NLGAS*	-	Quarter end figure of natural logarithm of the firm's book value of assets
Growth *SALG*	-	Quarter end figure of sales growth %

Source: Compiled by the author

A panel data regression model which includes both time series data and cross-sectional data has been used along with diagnostic tests; Skewness test, Unit Root test, Multicollinearity test, and Robustness test for performing statistical calculations E-views software had been used. The robustness test is done by using the natural logarithm of stock value as the dependent variable.

Following is the model of the study.

$$D\,(LOG\_MV/BV)_{it} = \beta_0 + \beta_1 RESI\_EXR_{it} + \beta_2 LOG\_INF_{it} + \beta_3 LOG\_INT_{it} + \beta_4 RGDP_{it} + \beta_5 D\,(NDRT_{it}) + \beta_6 NLGAS_{it} + \beta_7 SALG_{it} + u_{it}$$

Findings and Conclusions

The coefficient of determination of the model is 50.76% which represents that the considered independent variables collectively capture the significant changes in the dependent variable of Price to Book Value ratio which measures the stock market performance. According to the model results, only interest rate variable has the significant impact on stock market performance of listed real estate companies in Sri Lanka. Additionally, firm size from the category of control variables has a significant impact on the stock market performance. However, none of the other considered independent variables depict a significant impact on stock market performance of listed Sri Lankan real estate companies. Hence, the study accepts the hypotheses of at least one variable has a significant impact on determining the stock market performance of listed real estate companies in local context. The results of the Robustness test are also aligned with the findings of the main study.

The importance of this research study may be in several ways. As a developing country, the need of considering the macroeconomic variable in policy making is essential. On the other hand, for a developing nation real estate sector has a crucial impact. To attract foreign investments, to enhance tourism industry and most importantly to provide shelter to growing population a robust real estate industry is a must. Hence, it is recommended that the policy makers must maintain a healthy interest rate, exchange rate, inflation, and GDP growth to ensure a strong real estate industry in Sri Lanka. Further the study was limited to general macroeconomic variables and did not include firm performance measuring criteria. Therefore, for future research it is suggested to incorporate industry specific macroeconomic factors, use firm performance measuring criteria, and use several sectors to identify similar findings or different conclusions.

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A Study of the Relationship between Corporate Social Responsibility Disclosures and Performance of Licensed Commercial Banks in Sri Lanka

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Keywords: Corporate Social Responsibility Disclosures, Financial Performance, Licensed Commercial Banks, Return on Assets, Earnings per Share

Introduction

Background of the study

Corporate Social Responsibility (CSR) is a recent concept that takes an important place in an organization. Corporate social responsibility refers to the company's effects on the environment and its impact on social welfare. According to most researchers' agreed definition, CSR is a concept whereby companies integrate social and environmental concerns in their business operations and their interaction with their stakeholders on a voluntary basis. (European Commission, 2001). The fundamental objective of this research is to examine the relationship between corporate social responsibility disclosures on the financial performance of Sri Lanka's commercial banking sector. As a result of a dearth of research in this area in Sri Lanka, measuring and demonstrating the relationship between CSR and financial performance is selected for the Commercial Banking industry to evaluate the relationship between CSR and financial performance.

Theoretical Significance and Practical Significance

CSR is a vital management control tool that enables management to make better decisions regarding resource allocation and prioritization within an organization. Organizations are responsible for different stakeholder groups such as employees, suppliers, customers, the community, and shareholders. CSR is an important concept of marketing management, and it is not the only effect in financial performance as well as Effect on non-financial performance. (Velde et al., 2005). Most firms do not allocate money for CSR because their management is unaware of how it affects financial performance. Understanding how the concept of CSR could be used as a tool to improve the financial performance of Sri Lanka's commercial banking sector is the main objective of this study. Examining the origins of CSR in the commercial banking sector of Sri Lanka as well as a thorough analysis of all the benefits. The researcher examines the goals and objectives of every CSR concept in Sri Lanka's commercial banking sector for the success of the decision-making of the management.

Literature Review

Different authors have given different definitions for key words of this study. The empirical studies conducted on CSR and Financial Performance (FP) has never been in agreement, some studies resulted in a negative relationship between CSR and FP, some determined a positive relationship, meanwhile, some studies had neutral relationships. E. g Nimsith & Mafaza & Safna (2016), Elif and Halil (2017), Cheung & Mak (2010). The banking industry in Sri Lanka has been evolving throughout time. Most developed countries have been the subject of earlier research. In less developed nations like Sri Lanka, less research has been done on determining the relationship between corporate social responsibility and financial Performance. The majority of organizations in less developed countries do not yet completely understand the significance of corporate social responsibility and do not give it any thought. Further, several studies have also been conducted in other countries, including Kenya, Pakistan, and Romania. However, no similar study has been conducted in the Sri Lankan context. As a result, to fill this research gap, the purpose of this study is to seek to examine the relationship between CSR and the financial performance of Licensed Commercial Banks in Sri Lanka.

Problem Statement and Research Questions

Problem Statement

> Is there any relationship between Corporate Social Responsibility Disclosures (Independent Variable) and Financial Performance (Dependent Variable) of the commercial banks in Sri Lanka?

Research Questions

1) What is the relationship between CSR Disclosures & Financial Performance of Commercial Banks in Sri Lanka? (Positive, Negative or No Relationship) – Some studies resulted in a negative relationship between CSR and FP, some determined a positive relationship, and meanwhile, some studies had neutral relationships.
2) Does CSR Disclosures impact on Financial Performance of Commercial Banks in Sri Lanka? - This study aims to examine the impact of CSR on the company's financial performance, with the bank size and leverage as moderating variables
3) What is the current level of CSR Disclosure in Sri Lankan Commercial Banks?
4) What are the new CSR Activities being practiced in the Sri Lankan Commercial Banking industry? – By referencing Annual Reports of Commercial Banks
5) Does the impact of CSR Disclosures on financial performance varies according to Firm size and Leverage?

Objectives

Main Objective:

> The main objective of the research is to examine the relationship between CSR disclosures (Independent Variable) and financial performance (Dependent Variable) of Sri Lankan Licensed Commercial Banks from 2012 to 2021.

Sub Objectives:

1) To recognize and understand the current level of CSR disclosure in Sri Lankan Commercial Banks.
2) To find out and examine the new CSR activities being practiced in Sri Lankan Commercial Banks.
3) To identify the impact of CSR Disclosures on the Financial Performance of Sri Lankan Commercial Banks.
4) To identify whether the impact of CSR Disclosures on FP varies according to firm size.
5) To identify whether the impact of CSR Disclosures on FP varies according to leverage.

Research Methodology

Data

Data were collected from the secondary source which is the annual reports of the 10 licensed commercial banks. Further, this is conducted as a time series analysis since data are gathered from end of every 10 years from 2012 to 2021.

Data Analysis

E Views software was used for the statistical analysis. In this study, Descriptive statistics were used to graphically present the behaviors of main variables throughout the 10 years period. Regression analysis was used to see whether the hypotheses and the objective were related. The correlation coefficient measured how strongly two ranked or quantified variables were correlated. Additionally, panel least squared analysis was carried out in order to comprehend the relationship between the independent and dependent variables, as well as the influence of the study's control variables. The results were computed to evaluate the strength and direction of the relationship between these variables.

Findings and Conclusions

According to the findings CSR disclosure positively and significantly impacts on financial performance measured by ROA. The Net profit and CSR disclosures also show positive and significant relationship. But CSR disclosure does not show any significant relationship with ROE. Further, CSR disclosure does not significantly impact on financial performance of EPS. However, CSR disclosure significantly impacts on financial performance of Tobin's Q, there is a negative relationship. Anyhow, Findings of this reveal that CSR disclosures are positively affected to the ROA, Net profit and EPS while negatively affected to the Tobin's Q and ROA with the control variables bank size and leverage. However, the ROA and NP indicates a positive and significant relationship because their P-values are less than 0.05. But considering the beta coefficient CSR towards ROA, NP, and EPS. It proves that these three relationships are positive while the other two are negative. So, CSR disclosure has a partly positive and significant impact on financial performance in the banking industry.

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Impact of Key Economic Indicators and Other Factors on Foreign Employment in Sri Lanka

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Keywords: Key Economic Indicators, Employment, Unemployment, Sri Lankan Foreign Employment, Migration and Remittances

Introduction

Macroeconomic policies have a significant impact on employment performance and public policy can mitigate the effects of those factors that are unavoidable. This study primarily focuses on Sri Lankan foreign employment as well as key economic indicators and their effects on employment. Macroeconomics' overarching goals are to maximize living standards and achieve stable economic growth. These goals are achieved by objectives such as reducing unemployment, increasing productivity, controlling inflation and exchange rates, and others. Key economic indicators can affect not only the development but also for the downturn and the survival as well. Hence, it becomes a major concerning area and a problem that we going to address and the purpose of doing the study is to analyze impact of Sri Lankan foreign employment and key economic factors for decision-making purposes and to identify the way of using them for the development of the country. Therefore, it has focused on macro-economic scope to study the research and has indicated using a range of time periods. Next section will be a survey of the theoretical concept, literature on foreign employment development; the ways different economic variables influence the area, theoretical findings and the research gap. Third section explains the research design, hypothesis development, reason for using specific variables, data collection, and analysis methods, and the model formulation. Then it provides a comprehensive evaluation of the topic using regression and other data analyses and the discussion. The final section is an explanation of the suggestions on it and a summary of the overall study.

Literature Review

This section covers the related literature on different macro-economic indicators and their impact on foreign employment and its' development. This section has evaluated empirical findings for all variables separately and previous research studies have given mixed results in front of Sri Lankan foreign employment. When finding the relationship between Employment and Gross Domestic Production Growth (Swane, 2006), (Halit Basbuga, 2022) (Oluyomi, 2011) have received positive results while (SODIPE, 2011) got negative results. Foreign Exchange Rate Fluctuation had given positive results to (KIM, 2005), (Filiztekin, 2004) but (Halit Basbuga, 2022) and (HUA, 2007) got negative. (Habanabakize, 2020) showed a negative influence on Interest Rates. (Abdullah, 2011) received positively with Government expenditure & Net Lending Rate and (Zeng, et al., 2011) got the same relationship with Terms of Trade. Studies were distinguished from the above factors as well as purpose, objectives, time period concerned, number of variables, data collection methods, method of analyzing etc. Walrasian general equilibrium model and AD-AS Model were studied as the theoretical bases for future analysis. As it was understood through the empirical findings and theoretical findings, less empirical attention has been paid to foreign employment and to the factors that influence on it and for a country like Sri Lanka which currently faces an economic and financial crisis is essential to pay deep attention to developing foreign employment.

Problem Statement and Research Questions

Among other macroeconomic goals, achieving full employment is important in many developing countries where unemployment and underemployment have been a major cause and consequence of widespread poverty. Nonetheless, despite the very high-sounding electioneering promises of political leaders in many poor countries around the world, achieving impressive growth, sufficient GDP and

GNI, controllable exchange and inflation rates, and decent employment remains a mirage. Economic downturn has an impact on people's lives by increasing unemployment, decreasing income and wealth, and creating uncertainty about future jobs and earnings.

When the value of a currency rises, imports of goods become more affordable, local investments and imports rise, and demand for local products falls, local industry employment suffers, but foreign employment suffers. However, the value of foreign employment income falls as a result of this appreciation. These situations provide examples of how much economic indicators effect on employment especially for foreign employment. Here it is aimed to find solutions for the problem whether economic indicators are essential to control or whether they are important to improve country's employment and what are the other factors cause on development of foreign employment. Therefore, in this research it is supposed to identify the effect of key economic variables on the Sri Lankan foreign employment using rest years behaviors.

1) Whether there is a relationship between Sri Lankan foreign employment and key economic factors and effectiveness for decision making purposes and development of the country.
2) How about the behavior and the causality effect Sri Lankan foreign employment from key economic indicators?
3) How gender behaviors, top destination countries for labor and worker remittance effect on foreign employment development.

Objective of the Study

Main Objective

To analyze relationship between Sri Lankan foreign employment and key economic factors for decision making purposes and to identify the way of using them for the development of the country.

Sub Objectives:

1) To investigate the behavior and the causality effect for Sri Lankan foreign employment from key economic indicators.
2) To examine how gender behaviors, top destination countries for labor, and worker remittance affect foreign employment development.

Research Methodology

This section describes the study's research methods. According to the technique of research onion it has been explained all stages which are philosophy, research approach, strategy, choices of methods, time horizons and data collection and analysis. The study used a systematic approach to analyze the data collected and a time series analysis has planned to prepare, and descriptive research approach will be used. The quantitative analysis was carried out using secondary data sources from 1995 to 2021 covering 27 years. This study has used mono method, which called using only one method, as quantitative method and has used data observational for several years, which is longitudinal After that the conceptual framework has created and eight hypotheses has been built up covering all macroeconomic variables which were selected. Dependent Variable, Foreign employment measures the percentage change of labor migration against Sri Lankan population. Exchange rate fluctuation rate is measured using percentage change of Sri Lankan foreign exchange rate against U.S. Dollar per year. Inflation rate has used Colombo Consumer Price Index (CCPI). GDP Growth is measured by the percentage change of gross domestic production for the period. GNI per capita is taken dividing the GNI in U.S Dollar by mid- year population of the country. Interest rate is represented by Commercial banks' average weighted deposit rate per year (AWDR). Government expenditure rate is measured as a percentage of Gross Domestic Production of the country. Unemployment is taken as a percentage of the labor force per year and terms of trade is measured by as the ratio between the index of export prices and the index of import prices. Data were collected from CBSL reports, Foreign Employment Bureau of SL and the diagnostic testing methods that has been used are descriptive statistics, unit root test and multicollinearity test. Multiple regression analysis, gender analysis, analysis for employee remittances and destinations has done as analysis methods. Finally, a model has been created for the analysis to test the hypothesis.

Findings and Conclusions

Study carried out a multiple regression analysis to fulfill the main objective of the study, dropping government expenditure rate and gross domestic production growth which has multicollinearity problem. The null hypothesis of the model was rejected and concluded that there is a statistically significant relationship between key economic indicators and Foreign Employment. Interest Rate, GNI Per capita and Terms of Trade showed a positive relationship with foreign employment while Exchange Rate Fluctuation, Inflation Rate and Unemployment Rate showed a negative relationship. R-squared value indicated that the independent variables are compensating for some of the variation in the dependent variable’s mean, regardless of the variable's significance, implying that the identified independent variable, while significant, is accounting for much of the dependent variable's mean. Finally, the analysis focused on investigating gender analysis of the departures and major destinations for foreign employment, remittances earned by migrant workers and the impact on economic growth and country development as the other factors affect for foreign employment. There it was found that percentage of women migration is decreasing with time and the percentage of males is increasing. Especially, the demand for professional and skilled labor is moving up. Most of the Sri Lankan labor ranging from unskilled housemaids, professional and skilled and semi-skilled are gradually opting to receive foreign employment to Saudi Arabiya, Kuwait, U.A.E, Qatar, Oman, South Korea and Maldives. It was realized that due to its significant contribution to the Gross Domestic Product/Gross National Income and as a means of easing the country's pressure on unemployment, foreign employee remittances are a significant source of income for Sri Lanka. When recalling the main research problem, it has been solved from the analyses and states that economic indicators have an impact on foreign employment and should concern with maintaining and controlling variables effectively. As the importance of the other factors which were analyzed, Country should improve labor skills, policy implementations and manage remittance income to develop foreign employment of the country.

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Impact of Computerized Accounting on Quality of Financial Reporting of Listed Companies in Sri Lanka

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Keywords: Financial Reports Quality, Computerized Accounting Systems, Financial Reports Reliability

Introduction

Accounting is an essential part of any business, large or small owners, profit making or not for profit organizations, listed companies, and non-listed companies. The aim of this study is to research the impact of computerized accounting on quality of financial reports. This study will add to the body of knowledge regarding the effect of Computerized Accounting Systems on the quality of financial reports of particular listed companies in Sri Lanka. Study will also serve as a catalyst and steppingstone for upcoming researchers and academicians by outlining places where additional research on the same or related themes needs to be done. Study will be helpful for other businesses looking forward to use computerized accounting systems as it will help them recognize obstacles that may arise while applying best practices and learn how to overcome them.

Literature Review

Most of the research related with computerized accounting and quality of financial reports of banks, manufacturing firms and commercial banks. In Sri Lanka, according to Bandara (2020), using annual reports from Sri Lankan listed companies, measured quality of financial reports. And the researcher summarized that understandability has the highest direct contribution to Financial Report Quality (FRQ) from all qualitative characteristics. A study on the Influence of Computerized Accounting System on Financial Reporting in the Rwandan Ministry of Local Government was conducted in by Murungi and Kayigamb (2015). Keeping correct accounting records is essential for financial reporting in every firm, according to Abdel-Salam (2001). Magdalene (2011) conducted a study to determine the impact of computerized accounting and financial reporting, and the results showed that financial reporting refers to the way that financial information is recorded, processed, and communicated to the end users of this information. (SUGUT, 2012) Conducted research and the results demonstrated how significantly the caliber of computerized accounting systems influences the financial reports of NGOs. A study by Mutiso and Kamau (2013) on the banking industry in Kenya's financial reporting preparation factors that influence complexity. Thus, it has been identified that there is a research gap in the area of the impact of computerized accounting on the quality of financial reports in listed companies Sri Lanka.

Problem Statement and Research Questions

Problem Statement

The main issue facing the company is the difficulty in regulating the quality of data while presenting financial results for a number of different reasons. Due to individuals who are not sufficiently trained to manage computers, computerized accounting does not receive proper attention or acknowledgment. Second, even when produced in good faith, estimates and judgment calls that are necessary for business financial statements can be significantly wrong. Managers and executives frequently face powerful incentives to purposefully introduce mistakes into financial accounts. Businesses find it challenging to comprehend how they might expand due to a lack of high-quality data.

Research Questions

1) What is the effect of Accounting Data Processing on the quality of financial reports of selected listed companies in the Colombo Stock Exchange?

2) What is the effect of Accounting Data storage on the quality of financial reports of selected listed companies in the Colombo Stock Exchange?
3) What is the effect of Accounting Data retrieval on the quality of financial reports of selected listed companies in the Colombo Stock Exchange?

Objectives of the Research

The study was guided by the main objectives that is to measure the impact of Computerized accounting storage (CAS) on FRQ. Sub objectives are,

1) To establish the effect of Accounting Data Processing on the quality of financial reports of selected listed companies in the Colombo Stock Exchange Sri Lanka.
2) To establish the effect of Accounting Data storage on the quality of financial reports of selected listed companies in the Colombo Stock Exchange Sri Lanka.
3) To establish the effect of Accounting Data retrieval on the quality of financial reports of selected listed companies in the Colombo Stock Exchange Sri Lanka.

Research Methodology

The study population consisted of mainly employees who use the computerized accounting software. The target study population was 150 which involved Management, Accounting department of the case study who actually record and even use the same information generated by the system. The researcher used primary sources of data. Three components made up the questionnaire. The respondents' biographical information is covered in Section A, while the independent variable, computerized accounting systems, and is covered in Section B. The quality of financial reporting is the dependent variable that is covered in section C.

Table 1: Operationalization of Factors

Independent Variable (Computerized accounting system)	Dependent Variable (Quality of financial reports
Accounting Data processing	Relevancy
Accounting data storage	Reliability
Accounting data Retrieval	Understandability

The study's purpose was to investigate how computerized accounting systems affected the financial reporting of a few selected listed companies on Sri Lanka's Colombo Stock Exchange and used questionnaires, to obtain up-to-date information.

Under analysis the respondent rate analysis, outliers, missing values, descriptive data analysis of demographic characteristics, descriptive data analysis of dependent and independent variables, validity and reliability of the data, preliminary statistical analysis, and the testing of hypotheses was carried out to address the research question of this study.

Findings and Conclusion

The results show that accounting data processing significantly improves the quality of the financial reports produced by a few chosen listed companies in Sri Lanka. The quality of financial reports produced by a chosen group of listed companies thus significantly influenced by accounting data processing. Accounting data storage plays a major role in the accuracy of the financial reports of listed companies. The results clearly show that accounting data retrieval has a favorable considerable impact on the caliber of financial reports of particular listed companies.

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Impact of Financial Crisis on the Profitability of Licensed Commercial Banks in Sri Lanka

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Keywords: Profitability, Financial Crisis, Licensed Commercial Banks, Sri Lanka, Non-performing Loans

Introduction

The stability of the financial system is a key driver of the economic development of a country. A collapse of the financial system leads to a financial crisis, which is a situation where financial institutions lack sufficient cash or convertible assets to fund projects and immediate needs due to the significant decrease in the value of financial instruments and assets. Some of the most devastating financial crises that the world went through in different eras impacted Sri Lanka too and resulted in various negative outcomes. Sri Lanka has been experiencing a severe financial crisis since the year 2021 and as a result, the gross official reserves of the country had depleted by 46 percent, headline inflation rose to 29.8 percent, the current account deficit widened significantly to US$3.3 billion, the exchange rate depreciated by 80 percent, the overall fiscal balance deteriorated by 12.2 percent and the government debt shock increased to 104.6 percent (Central Bank of Sri Lanka – CBSL, 2021). This study examines the impact of this financial crisis on the performance of local Licensed Commercial Banks (LCBs) as they dominate the financial system with the highest market share of assets of the entire financial system. The collapse of large LCBs tends to be more disruptive and could lead to systemic risk as it generates liquidity stress in the entire banking system and due to the fact that their activities which rely on economies of scale and scope cannot easily be replaced by small banks. This was evidenced in the past through the collapse of an American global financial services firm and the fourth large investment bank in the USA, Lehman Brothers, which was considered the climax of the Global Financial Crisis (GFC) during the period 2007-2009. Furthermore, this study identifies the major impacts a financial crisis could have on an economy and how it results in macroeconomic instability. This also discusses how related macroeconomic policies could be formulated to prevent a crisis in the future.

Literature Review

Even though various similar studies have been conducted in different contexts around the world for different eras, only a limited number of studies based on local context are available. Omar (2009), using panel data regression analysis has found that during the period 1996-2005 in Malaysia credit risk had a significant impact on both conventional and Islamic banks due to the financial crisis, however, the interest rate risk was weakly significant for conventional banks and was insignificant for Islamic banks. According to Habibullah (2010), the Asian financial crisis exerted a negative and significant impact on the profitability of Indonesian banks while it further reflected that the Indonesian banks have been relatively more profitable during the pre-crisis compared to the post-crisis period. It further emphasizes that the banks' profitability was affected positively due to income diversification and capitalization while the size and overhead costs negatively impacted profitability. One of the greatest financial crises which impacted the entire world was the GFC during 2007-2009 which originated via the securitization of subprime mortgage loans, and which had a huge impact on the commercial banks in USA. Stoica (2019) has found that large commercial banks in the USA were significantly affected as their efficiency declined substantially and their banks changed their portfolios. Sujata (2015) has examined the impact of the credit risk of the commercial banks in Ethiopia using a panel data regression model and has found that non-performing loans (NPL), loan loss provision and capital adequacy have had a significant impact on the performance of the banks. Alfarisi (2015) has examined the impact of GFC on ASEAN-5 countries; Indonesia, Malaysia, Singapore, Thailand, and Philippines based on 136 commercial banks, the study has found that during the crisis period commercial banks earn relatively lower non-interest income and Islamic banks earn a relatively lower income than the conventional banks and their non-traditional incomes were significantly different to each other. Ursu (2016), based on 783 European banks for the period 2004-2010, has identified that the impact of a financial crisis was very high for the private commercial banks than for the public banks in the Euro-zone. Further, the study has found that the crisis has had a significant impact on both the cost and the profit inefficiencies of commercial banks, and the impact has been higher than that of the Euro-zone banks.

Problem Statement and Research Questions

Financial crises generally include stock market crashes, bursting of financial bubbles, currency crises, sovereign defaults etc. The impact of a financial crisis is not merely limited to a specific country, a specific bank, or a market. As in the case of GFC, the impact a financial crisis has on a particular country could spread across globe if proper remedies are not taken. A financial crisis could also affect individuals, firms, markets, financial institutions, and even the government. Out of the financial institutions in the financial system of a country, the banking sector could be influenced to a greater extent. If a bank is stable, it enables the smooth financial intermediation process which facilitates the flow of funds between the surplus units (savers) and deficit units (borrowers), thereby ensuring that financial resources are allocated efficiently and effectively towards the economic growth and development of a country. During a financial crisis, borrowers tend to default on loans. In the local context, in a situation where there is high inflation in the economy, CBSL increases interest rates with an aim of decreasing the level of borrowings of households and businesses. Further, in times of financial crises, CBSL increases the minimum capital requirement to reduce the bank’s risk and to enable the LCBs to absorb financial shocks. This was evident during the past few years when CBSL increased the Standing Lending Facility Rate (SLFR) by 100 basis points to 16.5 percent.

A limited number of studies have been carried out under the Sri Lankan context about the impact of the financial crisis on the profitability of LCBs, therefore, in an era in which the country is facing a severe financial crisis, it is essential to address the impacts of different variables such as the interest rate, NPL, and total capital ratio on the profitability of the LCBs. Accordingly, three separate research questions were formed to address the impacts of these variables on the profitability of LCBs during the period of the financial crisis as follows.

1) Do changes in interest rates cause an impact on the profitability of the LCBs
2) Does NPL influence the credit risk and profitability of the LCBs
3) Do changes in capital adequacy have an impact on the profitability of the LCBs

Research Objectives

The main objective of this study is to investigate the impact of the prevailing financial crisis on the profitability of LCBs in Sri Lanka. Based on the first research question, the objective is to identify the impact of bank profitability as a result of lower interest rates. The second research question, is intended to examine the effects of provision for loan losses on the profitability of the LCBs. In accordance with the third research question, the objective is to examine whether the total capital ratio of the LCBs contributes to banks’ profitability. Accordingly, three hypotheses were formulated to investigate how the performance of LCBs was affected due to the financial crisis.

Research Methodology

This study investigates the impact of the financial crisis on the performance of the LCBs in the local context. It is quantitative in nature. The sample was selected primarily based on the availability of data. Foreign LCBs were excluded as they are generally involved in wholesale banking operations. Accordingly, the sample comprises 11 LCBs. Secondary data were collected for this sample for a period of six years from 2016 to 2021, mainly from sources such as the Colombo Stock Exchange (CSE)Data Library, CSE Website, CBSL Data Library, the CBSL Website, and Websites of LCBs. The independent variables selected for this study to measure the profitability of LCBs are Return on Equity (ROE), Return on Assets (ROA), and Net Interest Margin (NIM), while the dependent variables are provision for loan losses, interest rate, and total capital ratio. The analysis was mainly carried out using panel data regression and three models were formed based on the dependent variables. The E-Views 12 (SV) software was used to facilitate the model formation and obtain the regression outputs.

Findings

The relationship between the independent and dependent variables of this study was analyzed using three models based on ROE, ROA, and NIM. Based on the Hausman Test, NIM was run through the fixed effects model as the probability value was less than 5% level of significance, while the other two models (ROE and ROA) were run through the random effects model as the probability values were greater than 5% level of significance. Since these models were run using panel data, certain assumptions such as normality, multicollinearity, autocorrelation, and heteroscedasticity were also tested. Based on tests the sample was found to be normally distributed and none of the independent variables were highly correlated. To prevent the problem of autocorrelation, a one-year lag of ROA was taken and to prevent the problem of heteroskedasticity, the log form of the positive variables was considered. Table 1 below indicates the summary of the findings.

Table 1: Summary of Findings

Independent variables	**Dependent Variables**		
	NIM	**ROE**	**ROA**
Capital adequacy	Significantly positive	Insignificantly negative	Insignificantly negative
Provision for loan losses	Significantly negative	Insignificantly negative	Insignificantly negative
Interest rate	Significantly negative	Insignificantly positive	Insignificantly positive

Source: Compiled by the Author

Conclusion and Recommendations

It can be concluded that, when the interest rate rises, the demand for deposits decreases relative to loans and therefore the NIM increases. Due to the crisis, the purchasing power of people was reduced, and borrowers tend to default on their loan obligations, thereby creating a higher NPL. A bank's capital adequacy has a robust significant influence on LCBs' performance, whereas NPL and interest rates have an antithetical impact on bank performance. The prevailing financial crisis in Sri Lanka has significantly affected the profitability of the LCBs. Therefore, CBSL as the main regulatory authority in the financial system and as the governing body of LCBs should pay attention to the following aspects.

- Offering extensive liquidity support: this is a part of their traditional role as the lender of last resort.
- Applying the contractionary monetary policy in response to the projected decrease in aggregate demand to move the neutral level of the observed real policy rate closer to the new equilibrium value.
- Strengthening the supervision of LCBs: LCBs should maintain a high credit standard while other organizations such as the Ministry of Finance, Sri Lanka Accounting and Auditing Standards Monitoring Board should maintain high surveillance on LCBs' credit operations.
- Monitoring whether LCBs maintain the capital requirement in the future more than the minimum expected amount as it acts as a cushion against absorbing sudden shocks in the economy.
- As an ineffective interest rate policy could increase the level of interest rates and consequently the NPLs, LCBs should also perform periodic credit risk monitoring on their customers and loan portfolios.

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The Impact of Macroeconomic Variables on Stock Market Performance in Sri Lanka

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Keywords: Macroeconomic Variables, All Share Price Index, Stock Market Performance, Colombo Stock Exchange, Sri Lanka

Introduction

The stock market plays a vital role in an economy, and it contributes to economic development. Underdeveloped stock markets negatively impact on country's economic growth. The stock market is generally considered the growth indicator of a country's economy (Levine and Zervos, 1998). Hence it is important to investigate the performance of the stock market and the factors that impact on the performance of the stock market. This study was conducted to identify the impact of macroeconomic variables on stock market performance in Sri Lanka. The Colombo Stock Exchange (CSE) is the only stock market that operates in Sri Lanka, and which is controlled and regulated by the Securities and Exchange Commission in Sri Lanka. After the Civil War of Sri Lanka, the CSE showed rapid growth and attract both local and foreign investors. However, during recent period the CSE indicate lower performance. Therefore, it is important to examine the performance of CSE. This study has selected four macroeconomic variables which are Exchange Rate (ER), Total Imports (IMP), Inflation Rate (INF), and Interest Rate (INTR) as independent variables. The All-Share Price Index (ASPI) is used to measure the stock market performance and it is used as the dependent variable. Secondary data was collected from January 2012 to December 2021 on monthly basis. Data collected from the CBSL monthly bulletin, CBSL annual reports, CSE website and the publications of the Department of Census and Statistics. This study would help both investors and policymakers to get some awareness and knowledge about the relationship between macroeconomic variables and stock market performance. Especially it will encourage stock market investors to focus on macroeconomic variables for making a rational, optimal, and effective investment decisions to enhance their benefits from stock market investments.

Literature Review

During the past few years most of local and foreign researchers have investigated the impact of macroeconomic variables on stock market return in different economies. According to Chen et al., 1986, stock market performance is significantly influenced by macroeconomic variables. As well as using annual data from 1985 to 2009, Nkoro and Uko (2013) examined the relationship between stock market return and macroeconomic variables. In addition to that Kuwornu (2011) investigated the effect of macroeconomic variables on stock market return in Ghana and found that there is a significant relationship between inflation and stock return, but the exchange rate and Treasury bill rate are not significantly affected by stock returns in Ghana Stock Exchange. In Sri Lankan context there are several studies conducted to measure the impact of macroeconomic variables on the performance of CSE such as Madurapperuma (2022), Balagobei (2017), Pallegedara (2012), and Menike (2006). Nijam, Ismile & Musthafa (2015) found that exchange rate and GDP have a positive relationship with stock market performance and inflation has a negative relationship with stock market performance. Different authors have used different variables and different sample periods for their studies and therefore the results and findings may differ and give mixed results. Hence, it encourages to do further studies on this area.

Problem Statement

Stock market plays a crucial role in an economy. Performance of the CSE vary due to different types of factors and conditions. Macroeconomic factors are such factors which are influenced on the performance of CSE. Therefore, it is crucial to investigate the influence of macroeconomic variables on stock market performance. There are numerous studies that have been conducted to investigate the relationship between stock market performance and macroeconomic variables such as H.M. Nijam et. al - 2015, Sin-Yu Ho and Nicholas M. Odhiambo - 2019, Menike - 2006, Kulathunaga - 2015, and Madurapperuma - 2022. This study was conducted to examine how selected macroeconomic variables are affected on the stock market performance.

Research Questions

This research study addresses the following research questions.

1) At what extent the selected macroeconomic variables are affected by the stock market performance?

2) What is the influence of selected macroeconomic variables to the stock market performance?

Research Objective

To investigate the impact of macroeconomic variables on stock market performance in Sri Lanka.

Research Methodology

There are four hypotheses developed to conduct the study.

H1: There is a relationship between Exchange Rate and Stock Market Performance

H2: There is a relationship between Total Imports and Stock Market Performance.

H3: There is a relationship between Inflation Rate and Stock Market Performance.

H4: There is a relationship between Interest Rate and Stock Market Performance.

Multiple linear regression analysis employed to find the relationship between performance of CSE and macroeconomic variables based on the Ordinary Least Square method. The Augmented Dicky Fuller unit root test was conducted to check the stationarity of the selected time series data set. The results of the ADF unit root test of all the variables can be summarized as follows.

Table 1: ADF unit root test results

Variable	Level		Stationarity	First Difference	
	ADF	P-Value		ADF	P-Value
ASPI	-9.813666	0.0000	Stationary	-	-
ER	-1.723376	0.4169	Not Stationary	-9.036699	0.0000
IMP	-3.001650	0.0376	Stationary	-	-
INF	-2.099534	0.2453	Not Stationary	-8.758943	0.0000
INTR	-2.069340	0.2575	Not Stationary	-8.384281	0.0000

Findings and Conclusion

According to the multiple linear regression analysis Exchange Rate, Total Imports and Interest Rate have a negative relationship with ASPI. The Inflation Rate shows a positive relationship with ASPI However, the study revealed that there is no statistically significant relationship between selected macroeconomic variables and the performance of the CSE.

The findings of this study may be helpful for investors, policymakers, shareholders, other stakeholders, scholars, and future researchers as well. As well as it can be encouraged future researchers to do further studies based on this research area to update and extend the results and findings of current literature.

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The Exchange Rate Overshooting and Financial Panic: The Sri Lankan Perspective

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Keywords: Exchange Rate Overshooting, Financial Panic, Foreign Currency, Macroeconomic Fundamentals, Monetary Model

Introduction

Exchange rate determination has become one of the crucial areas of research in international finance and financial economics. However, there are a number of exchange rate determination models that have been developed and thereafter modified, one of these is a monetary model of the exchange rate which attempted to explain the exchange rate through macroeconomic fundamentals. In relation to this (Dornbusch, 1976) introduced the sticky-price model, which explains the fluctuations in the exchange rate and contains an 'overshooting' hypothesis. Exchange rate overshooting explains the mechanism whereby the short-run response of the exchange rate to a shock surpasses its long-run response. Provided that there is an unanticipated monetary expansion, the exchange rate will depreciate in the short run, toward a higher level than its long-run equilibrium. Thus, this paper predominantly attempts to examine the validity or availability of (Dornbusch, 1976) 'overshooting' hypothesis on the United States Dollar-Sri Lanka Rupee (LKR/USD) exchange rate. Further, it is intended to find out the other possible variables that can affect exchange rate overshooting together with the macroeconomic fundamentals.

When it comes to the importance of this study,

- We can observe that there is a massive volatility and depreciation in Sri Lankan exchange rate in recent years. Hence this study will assist us to understand the real causes behind this unwell situation in the country.
- Moreover, investigating the presence of exchange rate overshooting could clearly assist in explaining the exchange rate volatility currently prevailing in Sri Lanka.
- Investigating the exact factors which affect LKR/USD exchange rate overshooting.

Literature Review

The empirical literature presented in the study has been divided into a few sections. First, it is dedicated to the literature which supports Dornbusch's overshooting model. When it comes to (Bahmani-Oskooee & Kara, 2000), it has used the autoregressive distributed lag (ARDL) procedure on the Turkish Lira/USD exchange rate and provided evidence for the long-term overshooting phenomena whereas the origin of the overshooting model is in the short-run nature. On the other hand, Nieh & Wang, (2005) used the conventional Johansen's cointegration approach and ARDL procedure on the bilateral Taiwan-USA exchange rate and found evidence of overshooting. Daniel, et al., (2017), proposed an approach that has been used to model a small open economy (Mexico). And this allowed them to identify the evidence consistent with Dornbusch's overshooting hypothesis. Other than that, (Park, 2002), (Pratomo, 2005), (Pratomo, 2005) support the above view. Secondly, researchers such as (Pham, 2019), (Mkenda, 2001), (Mungule, 2004), and (Lau, 2022) have rejected Dornbusch's overshooting hypothesis.

However, by going through the literature, it is found very insufficient evidence for the overshooting pertinent to Sri Lankan context though most of the Asian countries were subject to consideration. Also, the consideration towards the relationships between financial variables and overshooting during a financial crisis in an economy has been less focused (though financial panic plays an important role in such a situation in a country), only focusing on the macroeconomic fundamentals derived from the monetary model on overshooting context. Hence, in this study, we intend to fill this gap pertinent to Sri Lankan context.

Problem Statement and Research Questions

Exchange rate overshooting is a widely researched area in Finance. Nevertheless, due to a lack of examination on overshooting pertinent to the Sri Lankan context, it is questionable whether it holds on to LKR/USD exchange rate. As the overshooting model shows a short-run phenomenon, at the same time it is questionable what happens to the Long-run value of the currency. However, exchange rate determination would be vital for a country towards its decision-making purposes thus despite the theoretical perspective of this overshooting phenomenon, it is crucial to highlight the real effects of overshooting and its long-run relationship from the macroeconomic fundamentals. Concerning Sri Lankan context, together with these macroeconomic fundamentals, the financial panic in the country is also in consideration. The established research questions are:

1) Do macroeconomic fundamentals derive from the monetary model impact on LKR/USD exchange rate towards its overshooting (predominantly, the impact of the un-anticipated increase in money supply on an overshooting of LKR/USD exchange rate)?
2) As the overshooting model shows a short-run phenomenon, it is questioned then what happens to the long-run value of a currency.
3) How is LKR/USD exchange rate affected during a financial panic?
4) Which financial variables cause the overshooting phenomenon in Sri Lanka and how does this financial panic cause the long-run equilibrium relationship between the LKR/USD exchange rate?
5) How does unanticipated increase in money supply really effect on an overshooting of LKR/USD exchange rate during a financial panic?

Objectives

Main Objectives:

To understand both short-run and long-run exchange rate behavior in an economy subject to a financial panic (pertinent to an emerging/ developing economy).

Sub Objectives:

1) To investigate whether the overshooting hypothesis holds for the LKR/USD exchange rate.
2) To understand whether macroeconomic fundamentals significantly cause exchange rate fluctuations in a developing economy.
3) To examine how financial variables effect on exchange rate overshooting together with the effects of macroeconomic variables in a developing economy.
4) To understand both the short-term and long-term behavior of exchange rates concerning an Asian developing economy.

Research Methodology

A brief introduction to the variables

For the analysis of the monetary model, this study uses the following variables: nominal exchange rates (EX), broad money supply (MS), industrial production index as a proxy for real GDP (Y), interest rates (IR), monthly nominal,%) and inflation rates (INF, monthly, %). For analysis of the secondary models, additionally, the following financial and macroeconomic variables have been used: FOREX is foreign exchange reserves and LTD, SMR, TOT, and DP are respectively percentages of loans and advances to total deposits, Stock market returns, Terms of Trade as a proxy for imports and exports and Diesel monthly price.

Data Collected

Data has been collected for approximately 12 year period from May 2010 to February 2022. The selection of this period for the study was subject to the maximum data availability of the selected variables for both countries. The collection of data is mostly from Central Bank Sri Lanka (for Sri Lankan data) and Federal Reserve Economic Data (for US data).

Models Used

There are 7 models that are being used in this study including the monetary model. Except for this, the other 6 secondary models, it has been injected additional variables representing the financial panic prevailing in Sri Lanka. Monetary model variables are Money supply, GDP (Proxy – Industrial Production Index), Interest rate, and Inflation rate while the exchange rate is considered as the independent variable for all the models. When it comes to secondary models, the variables employed representing financial panic are foreign currency reserves, Loans & advances to total deposits ratio, Stock market return, Terms of trade and Diesel price.

Analysis Techniques

The study used the Autoregressive Distributed Lag (ARDL) bounds test procedure to test for the overshooting hypothesis holds for the LKR/USD exchange rates (for analyzing all the models in the study). Before applying this, the level of integration is checked using ADF to avoid spurious regression. Employing ARDL bound test and Johansen Cointegration test, cointegration is tested for the long run equilibrium relationship. ARDL error correction method is used to check for this short run overshooting phenomenon. The final equation (equation 1) derived for monetary model using ARDL error correction method is as follows,

$$\Delta \boldsymbol{EX_t} = \boldsymbol{a} + \sum_{j=1}^{n} \boldsymbol{b}\,\Delta \boldsymbol{EX_{t-j}} + \sum_{j=1}^{n} \boldsymbol{c}\,\Delta \boldsymbol{MS_{t-j}} + \sum_{j=1}^{n} \boldsymbol{d}\,\Delta \boldsymbol{Y_{t-j}} + \sum_{j=1}^{n} \boldsymbol{e}\,\Delta \boldsymbol{IR_{t-j}} + \sum_{j=1}^{n} \boldsymbol{f}\,\Delta \boldsymbol{INF_{t-j}} + \boldsymbol{\delta_1 EX_{t-1}} + \boldsymbol{\delta_2 MS_{t-1}} + \boldsymbol{\delta_3 Y_{t-1}} + \boldsymbol{\delta_4 IR_{t-1}} + \boldsymbol{\delta_5 INF_{t-1}} + \varepsilon_t \quad (1)$$

The final equation (equation 2) derived for secondary model (7) using ARDL error correction method is as follows,

$$\boldsymbol{EX_t} = \boldsymbol{a} + \sum_{j=1}^{n} \boldsymbol{b}\,\Delta \boldsymbol{EX_{t-j}} + \sum_{j=1}^{n} \boldsymbol{c}\,\Delta \boldsymbol{MS_{t-j}} + \sum_{j=1}^{n} \boldsymbol{d}\,\Delta \boldsymbol{Y_{t-j}} + \sum_{j=1}^{n} \boldsymbol{e}\,\Delta \boldsymbol{IR_{t-j}} + \sum_{j=1}^{n} \boldsymbol{f}\,\Delta \boldsymbol{INF_{t-j}} + \sum_{j=1}^{n} \boldsymbol{g}\,\Delta \boldsymbol{FOREX} + \sum_{j=1}^{n} \boldsymbol{h}\,\Delta \boldsymbol{LTD}$$
$$+ \sum_{j=1}^{n} \boldsymbol{j}\,\Delta \boldsymbol{SMR} + \sum_{j=1}^{n} \boldsymbol{k}\,\Delta \boldsymbol{TOT} \sum_{j=1}^{n} \boldsymbol{l}\,\Delta \boldsymbol{DP} + \boldsymbol{\delta_1 EX_{t-1}} + \boldsymbol{\delta_2 MS_{t-1}} + \boldsymbol{\delta_3 Y_{t-1}} + \boldsymbol{\delta_4 IR_{t-1}} + \boldsymbol{\delta_5 INF_{t-1}}$$
$$+ \boldsymbol{\delta_6 FOREX_{t-1}} + \boldsymbol{\delta_7 LTD_{t-1}} + \boldsymbol{\delta_8 SMR_{t-1}} + \boldsymbol{\delta_9 TOT_{t-1}} + \boldsymbol{\delta_{10} DP_{t-1}} + \varepsilon_t \quad (2)$$

The above equation can be specified into short run and long run effects whereas the first differenced coefficients capture the short-run effects, while the first lagged coefficients (δ) normalize on δ1 describe the long-run effects.

Further, to ensure the results from the analysis of all the models used are robust, then conduct appropriate diagnostic checks namely Serial correlation test, Heteroskedasticity test the cumulative sum (CUSUM) and CUSUM of squares tests as well.

Findings and Conclusions

Several models have been employed in this study including the examination of the monetary model. The study finds there is evidence of exchange rate overshooting in Sri Lanka while the result further shows that there is a long-run equilibrium relationship between the exchange rate and the differentials of macroeconomic fundamentals as well. In the short run, other than MS, all the other macroeconomic fundamentals are insignificant for LKR/USD overshooting. In a nutshell, the application of cointegration and error correction modeling disclosed that first Sri Lankan rupee has followed a path outlined by a monetary approach to exchange rate determination and secondly, it has overshot itself in response to the rapid increase in Sri Lankan relative money supply in the short run. Accordingly, Table 6.1 shows the derived results for the monetary model using the ARDL error correction model (with correction term).

Table 1: ARDL equation with t-statistics

Variable	0	1
ΔEX		0.540916 (0.0000) *
ΔMS	0.744974 (0.0000) *	-0.518630 (0.0000) *
ΔY	-0.001362 (0.0591)	
ΔIR	-0.130655 (0.1786)	
ΔINF	0.015642 (0.6407)	
Intercept	-0.482418 (0.0040) *	
EX		-0.048585 (0.0013) *
MS		0.020496 (0.0028) *
Y		0.000349 (0.6220)
IR		0.095496 (0.0003) *
INF		-0.113711(0.0000) *
ECT	-0.048585 (0.0000) *	

Note:

- Numbers inside the parentheses under each coefficient is P values. (*=significant at 5%)
- The adjusted R2 is 89.81% which shows the explanatory power of independent variables.

Concerning the secondary models, there also we found long-run equilibrium relationships in each secondary model. When considering the overshooting phenomenon, the variable called loans and advances to total deposits was significant in this short-run overshooting phenomenon while all the other additionally injected variables were not. Accordingly, the variable 'loans and advances to total deposits' representing the banking industry during this financial crisis plays an important role in generating the overshooting phenomenon.

Furthermore, in order to ensure that our model is robust, tests for serial correlation and heteroskedasticity confirm that the models are appropriate. According to CUSUM test, our models are stable within a 5 percent significant level yet the CUSUM of squares test failed to show such stability of our selected variables in both models.

Further research areas:

- Considering other emerging economies samples in Asian countries it may be vital to disclose whether they also accord with these results derived for the Sri Lankan context from this study.
- Use of Vector Error Component Model for this analysis to see whether it yields the same results (Results might be different even in the same context but use of different models).
- Examination of the exchange rate overshooting hypothesis on the British Pound to Sri Lankan Rupee (LKR/GBP) exchange rate as well due to its recent volatility observed in Sri Lanka.

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The Impact of Market Sentiment and Macro-Financial Factors on Cryptocurrency Prices

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Keywords: Cryptocurrencies, Bitcoin, Sentiment, Macro-financial Variables, Autoregressive Distributed Lag (ARDL) Model

Introduction

Cryptocurrency is a modern technology-based phenomenon that embodies virtualization and decentralization in monetary and financial transactions. It is an open network accessible to anyone with an internet connection, and participants can engage in various activities such as governance, voting, staking, examining block chain transactions, running nodes, or mining transactions to ensure the security and decentralization of the block chain network (WEF, 2021). Cryptocurrencies have gained significant attention in recent years due to their decentralized nature and potential for high returns on investment. However, the prices of these assets are highly volatile and can be influenced by a variety of factors. As a result, studying the factors that influence cryptocurrency prices has become more popular in recent years. This study seeks to contribute to the existing discourse by investigating the impact of macro-financial factors and market sentiment on cryptocurrency prices.

Literature Review

The value of cryptocurrencies, like any other asset, is determined by a combination of fundamental factors, such as scarcity, utility, and perceived value. Similar to traditional assets, cryptocurrency prices are also influenced by behavioral factors, such as investor sentiment. In fact, most bubbles and crashes in asset markets cannot be explained through rational thinking but are created through psychological aspects of investment (Baker and Wurgler, 2006). Several studies have identified that cryptocurrency prices are affected by a range of internal and external factors, including supply and demand dynamics, adoption and recognition, utility, legal status, macroeconomic conditions, and demographic considerations, such as gender, income, and education level. Research into the behavioral aspects of the cryptocurrency market indicates that investor sentiment, driven by popularity, news, and perception, has a major effect on cryptocurrency prices (Bouoiyour and Selmi, 2015; Ciaian et al., 2015). There is conflicting evidence on the potential of cryptocurrencies as a hedging instrument, with some studies finding it beneficial and others finding it limited by high volatility (Kim, 2022).

Objectives

From the standpoint of investment assets, cryptocurrencies are accessible to anyone, unlike any traditional financial instrument. However, several cryptocurrencies' characteristics distinguish them from traditional financial instruments. Their main features are their irregularity and the decentralized nature. The unique characteristics of cryptocurrencies make it difficult to apply the traditional methods of investment analysis. Thus, the analysis cannot be limited only to analyzing the speculative operations of their buying and selling on cryptocurrency exchanges. It is also necessary to comprehensively cover the macro-financial factors as well as the behavioral aspects of investors. Therefore, this study investigates the impact of real gross domestic product, inflation, interest rate, exchange rate, stock market, and market sentiment on cryptocurrency prices. Despite the decentralized characteristic of cryptocurrencies, which endows them with a global reach, the United States holds a significant influence over the macro-financial factors affecting the cryptocurrency market. This is demonstrated by the substantial cryptocurrency user base in the country, its dominant position in the global financial market, and the widespread use of the US dollar as the primary currency for Bitcoin transactions. As such, the macro-financial scope of this study is limited to the United States.

Research Methodology

The study employs a quantitative approach using monthly data collected from secondary sources, such as the Federal Reserve Bank of St. Louis, the Bureau of Economic Analysis, Investing.com, S&P Global Incorporation, and Alternative. Me, from January 2018 to September 2022. The analysis is conducted through the use of the autoregressive distributed lag (ARDL) model proposed by Pesaran et al. (2001) to achieve research objectives. In order to thoroughly analyze the data, a series of prerequisite tests were conducted. This includes unit root tests and bound tests that were performed to determine the stationarity and cointegration of the study variables. The estimated model was evaluated for statistical significance and stability using the F-test, Breusch-Godfrey, CUSUM, and CUSUMSQ tests. The results were analyzed and interpreted, examining the coefficients and overall fit of the model, to draw conclusions regarding the relationship and dynamics between the explanatory variables and cryptocurrency prices in both the short-run and long run.

Analysis and Findings

The order of integration of the study variables was tested by employing Augmented Dickey-Fuller unit root tests. The first lag value was chosen as the optimal number of lags to include in the model, as indicated by the lowest Lagrange multiplier (LR), the Schwarz criterion (SC), and the Hannan-Quinn (HQ) values. The autoregressive distributed lag (ARDL) bound test was conducted to test for cointegration and identify long-run relationships between variables. Consequently, the explanatory variables were found to have a long-run relationship with cryptocurrency prices. An ARDL error correction model was specified, enabling the examination of the short-run and long-run dynamics between the variables.

The results indicate that the Nasdaq-100 stock market index, which tracks the stocks listed on the Nasdaq exchange, is positively and significantly associated with cryptocurrency prices in both the short and long run. This suggests that a well-diversified cryptocurrency portfolio does not act as a hedge against traditional market fluctuations, as both the cryptocurrency market and stock market tend to move in the same direction during the period under study. Furthermore, the study reveals that the exchange rate, as measured by the US dollar index (DXY), negatively and significantly impacts cryptocurrency prices in the long run. The other explanatory variables, namely real gross domestic product, inflation, interest rate, and market sentiment, have no statistically significant impact on cryptocurrency prices.

Conclusion

This study presents a rigorous examination of the influence of cryptocurrency market sentiment and macro-financial variables on cryptocurrency prices. The research methodology utilized in this study centers on the Autoregressive Distributed Lag (ARDL) model proposed by Pesaran et al. (2001). The research findings demonstrate that the Nasdaq-100 stock market index exerts a positive and significant influence on cryptocurrency prices in both the short and long run, suggesting that investors must account for the interconnectedness of these markets when making investment decisions. The study also finds that the US dollar index (DXY) has a negative and significant impact on cryptocurrency prices in the long run. In contrast, the other explanatory variables, including real gross domestic product, inflation, the federal funds rate, and market sentiment, are found to have no statistically significant impact on cryptocurrency prices. This study contributes to the existing body of knowledge on cryptocurrency pricing and underscores the importance of considering the macro-financial dynamics that affect the cryptocurrency market. As the adoption and use of digital currencies continue to proliferate, this research provides insights for stakeholders and potentially aids in building risk-management strategies when investing in cryptocurrencies.

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Risks Faced by Banks Due to Natural Hazards, Economic Crises, and Pandemics: A Review of Literature

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Introduction

This research study aims to analyze risks faced by banks due to natural hazards, crises, and pandemics. In general, the word "risk" includes a broad scope and defines as the exposure to a proposition whose results are unknown. As the risk has both financial and non-financial forms, this study aims to investigate all the risks faced by banks worldwide due to natural hazards, economic crises, and pandemic situations. It may be either financial risk such as credit risk, liquidity risk, operational risk, market risk, interest rate risk, foreign exchange risk, or any kind of non-financial risk. Hazardous situations considered in this study include natural hazards such as tsunamis, crises such as the global financial crisis, the Asian crisis, and the European crisis, and pandemics such as COVID-19. Since numerous unanticipated hazards made a terrible effect on the banking industry recently, this study aims to share an overall understanding of how banks are impacted by these unexpected crises and hazards, what kinds of risks are affected, and this will also be helpful for banks to realize how they should be prepared for unexpected crises and hazards in advance. This research is conducted as a comprehensive literature review by undertaking a thorough analysis of published research papers that are related to this research area. It helps to reveal more sound findings as this study does not have constraints on region, variables, time period, and the type of bank. The previous research papers used for this study represent both eastern and western countries and also represent all types of banks including commercial banks and Islamic banks. Further, the results of this study could help banks make policy decisions and the findings are helpful in many ways to understand the impact of hazards and to identify the control actions in advance. Eventually, this study supports the conclusion that each hazardous situation impacts the risk levels of banks in different ways.

Literature Review

Risk and banks are seen as being connected in many ways concerning the banking industry because the risk is the foundation of banking. When banks accept client deposits, they run a risk. The capital of banks and fluctuations in risk are positively correlated (Dahl, Shrieves & Drew, 1992). Undoubtedly, all banks are facing a variety of risks in the current tumultuous and volatile climate, including credit risk, foreign exchange risk, liquidity risk, interest rate risk, market risk, etc. These hazards pose a threat to the banking industry's survival and prosperity. In other words, banking is a high-risk industry (Carey & Anthony, 2001). Various crises and risky situations, such as the British credit crisis in 1772, the Great Depression in the United States between 1929 and 1939, the Asian crisis in 1997, and the global financial crisis between 2007 and 2008, have in the past had an impact on banking system operations and procedures (Md. Abu Issa Gazi, et al., 2022).

The 2007–2009 global financial crisis led to the fastest decline in the market value of bank shares and had the biggest impact on banks' risk since the Great Depression. The "riskier" financial institutions were more sensitive to the bank turmoil. A crucial point is that the stock market's value creation in the years leading up to the crisis raised systemic risk in the banking sector and left unresolved issues (Altunbas, Manganelli & Marques-Ibanez, 2011). Bank runs were more likely to occur when there was a global financial crisis. When depositor involvement and exposure are high, but deposit insurance understanding is low, the likelihood of a bank run is increased (Goedde-Menke, Langer & Pfingsten, 2013). Risks associated with disasters can influence loan portfolios as well as generate and raise systematic risk in the banking sector. Additionally, there was an association between catastrophe risk and loan losses that were favorable. Banks operating in locations with a high disaster risk have increased loan losses, which increases the risk to banks (Maso et al., 2022). Natural disasters and bank stability are negatively correlated, with banks in high-risk locations for disasters being less stable as a result of the risk associated with the unstable environment. Furthermore, natural disaster-related damages increased the likelihood of default and led to a high ratio of non-performing loans. Following the natural disasters, the return on assets and bank equity decreased (Noth & Schuwer, 2018). Due to significant capital outflows from the financial systems, central banks had to step in as lenders of last resort to save the financial system during the Asian crisis. Capital outflows are a key sign of a bank's financial fragility, demonstrating that the Asian crisis put banks at risk (Mishkin & Frederic, 1999). Cross-border lending systems failed as a result of the European crisis, and cross-border lending fell sharply and suddenly. This had a significant impact on the local bank lending system in India (Swamy & Vighneswara, 2020). COVID-19 raised the risk of default and contributed to a significant rise in non-performing loans (NPL). Due to cross-border lending, this has caused a shock not only to one country's balance sheet but also to other nations, where there has been an increase in non-performing loans (Park & Shin, 2021). Low stock returns occurred during the pandemic period for the banks linked to higher systematic risk (beta) and higher ex-ante balance sheet liquidity risk (Acharya, Engle III & Steffen, 2021).

Most of the research studies limit their scope by focusing on a certain country or region or certain variables or certain hazards or certain risks. No research study focuses on all the hazards and the entire world. However, this is not restricted to a certain area, nation, or bank, it aims to offer a comprehensive analysis of the risks faced by entire banking systems around the globe. In this study, the risks that banks confront are evaluated by taking into account all risk exposures of banks in the pandemic circumstances. More specifically, this study contributes to filling the research gap by considering all the circumstances without any constraints such as time, variables, region, etc.

Problem Statement and Research Questions

Though risk and banks are seen as being connected in many ways regarding the banking industry because the risk is the foundation of banking, banks experience a shock due to unexpected and unavoidable hazards that lead to an increase in overall risk while experiencing a decline in performances. Following an extreme shock, bank runs might also occur by creating a threat to the entire financial system. Recent hazards such as the global financial crisis, COVID-19, the Asian crisis, the European crisis, Tsunamis, etc. exhibit a catastrophic impact on banks and highlight the significance of understanding the impact of hazardous situations in advance to mitigate unfavorable circumstances. Since banks are considered as a key component in the financial and economic systems in countries, it is vital to understand the impact thoroughly and develop policies in advance. Therefore, this study aims to provide a guideline to understand the risks faced by banks during a hazardous situation.

Research Questions

Key Question: Do natural hazards, crises, and pandemics create an impact on the risk of banks?

Sub Questions

1) What is the most affected type of bank due to hazards?
2) Is there a geographical concentration in the studies regarding the impact of hazards on banks?
3) What are the assets that are mostly affected during hazardous situations?

Objectives

Main Objectives

Analyze the risks faced by banks due to natural hazards, crises, and pandemics.

Sub Objectives

1) To identify the most affected type of banks due to hazards and pandemics
2) Investigate whether there is a geographical concentration in the studies
3) Identify the kind of assets which are affected by the hazardous situations

Research Methodology

This research is conducted as a systematic literature review and hence, this focuses on analyzing previous research papers to present the conclusion. 79 published research papers have been selected for the study out of a total of 102 research papers, and through a careful analysis of these selected research papers, the results have been categorized and presented properly. To search related literature, Google Scholar and the above-mentioned keywords are used and well-known electronic databases such as Elsevier, Emerald Insights, Science Direct, etc. are used.

Since this is a systematic literature review, neither specialized software nor descriptive statistics have been used. Data collection and processing take a different nature due to the nature of the research. However, the gathered research papers (data) are analyzed using various categories such as year, type of bank, electronic database, variables, type of hazard, and related region to achieve the objectives of the study.

Findings and Conclusions

All of the research papers that are taken into consideration for this study offered support for the conclusion that natural disasters, financial and economic crises, and pandemics create a detrimental effect on banks. The effect may take different forms but especially the results state that all hazardous situations cause an increase in risk and a decrease in the performances of banks. Further, this research study exhibits that all types of banks regardless of a certain type, get affected during a hazardous period and western countries show a higher contribution to finding the impact of hazards on banks. The loan portfolios of banks have been identified as the most affected assets due to the increase in non-performing loans during a hazardous situation. Moreover, this study suggests that banks must keep their risk levels at a tolerable level that can be managed even during a catastrophic moment and strengthen their equity positions and pay close attention to the quality of loan lines through detailed examinations and follow-ups. Especially, it is advisable for banks to develop catastrophe financing schemes and policies to mitigate the impact during hazardous situations.

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Impact of Macroeconomic Variables on Stock Market Performance – Evidence from the Colombo Stock Exchange

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Keywords: Sri Lanka, Interest Rate, Money Supply, Inflation, Exchange Rate, Colombo Stock Exchange, All Share Price Index

Introduction

Background to the Study

Despite a rise in the Colombo Stock exchange's (CSE's) All Share Price Index (ASPI) from about 2008, it has not been able to compete well with other significant stock markets in the South Asian region. Although there was a mild increase in comparison to the CSE's ASPI, the share price indices of Bombay Stock Exchange (BSE) in India and the Karachi Stock Exchange (KSE) in Pakistan both exhibit larger growth than the CSE's ASPI. It suggests that the South Asian stock markets, which are competitive, perform better than those in Sri Lanka. This may deter overseas investors from buying stocks on the CSE and draw them to other stock exchanges in the area. This study aims and understands the influence of macroeconomic factors on the CSE.

Research Problem, Research Questions and Main Objective of This Study

Despite the fact that numerous studies have been conducted to establish the relationship between macroeconomic factors and share price, it has been discovered that there is disagreement within those literatures, posing the research problem. What are the impacts of real GDP growth rate, inflation rate, T-bill rate, exchange rate, industrial production index, money supply growth rate, civil war and global financial crisis on ASPI? Hence, this study aims to evaluate the effects of macroeconomic factors on ASPI.

Importance of the Study

These conclusions can be heavily incorporated into government policymaking that aims to build a robust capital market, investment choices made by domestic and international investors, stock market regulators, and financial analysts who build forecasting models using share price indexes.

Literature Review

The following summary of the literature review suggests that, in most studies, the theoretical disagreement that has existed in earlier studies still exists.

Table 1: Summary of Literature

Macroeconomic Variable	Authors	Relationship
Civil War	Fernando et al (2019)	-
Interest Rate	Nijam et al (2015)	+
	Fernando et al (2019) Menike (2006) Amarasinghe (2015)	-
	Perera (2015)	0
Money Supply	Menike (2006) Perera (2015)	+

	Garthika and Rajapakse (2018)	
	Joseph (2013)	0
Global Financial Crisis	Fernando et al (2019)	+
Inflation	Safana (2012)	+
	Menike (2006) Joseph (2013) Hemamala (2016)	-
	Nijam et al (2015) Perera (2015) Wickramasinghe (2011) Lakmali (2015)	0
Real Gross Domestic Product Growth Rate	Fernando et al (2019) Garthika and Rajapakse (2018)	+
Exchange Rate	Fernando et al (2019) Nijam et al (2015) Morawakage (2013)	+
	Menike (2006) Joseph (2013)	-
	Perera (2015) Wickramasinghe (2011)	0
Industrial Production Index	Fernando et al (2019) Wijesinghe and Rajapakse (2021)	-

Source: Compiled by Author

Research Methodology

Variables, Data Collection and Data Analysis Techniques

Important macroeconomic variables are chosen through a review of the literature. They are the industrial production index, the inflation rate, the interest rate, the money supply growth rate, the real GDP growth rate, and the US dollar exchange rate. The effect of interest rates on Sri Lankan share prices was measured using a 3- month T-bill as an indicator. CCPI was utilized as the inflation indicator. The US dollar was chosen as the unit of measurement for changes in exchange rates since it is frequently used in international trade. Real GDP is a measure of a nation's total output after accounting for inflation. Since the effects of war may affect shareholder decisions, a dummy variable was added to the model. The study included the impact of the global financial crisis as a dummy variable to draw attention to the structural rupture.

Due to data limitations, the study could only look at the association between data from January 2006 and December 2021. The primary justification for utilizing monthly data is the high degree of volatility that share values exhibit, which includes multiple ups and downs even within a single day. Prior to analysis, the stationarity of the gathered data was tested using a unit root test. Multiple regression analysis was performed to examine the association after evaluating the data for multicollinearity, heteroscedasticity, and autocorrelation.

Conceptual Framework

The dependent and independent variables are displayed in the following table. In the right column are the independent variables, while in the left column is the dependent variable.

Table 2: Conceptual Framework

Dependent Variable	Independent Variables
All Share Price Index of CSE (ASPI)	Real Gross Domestic Product Growth Rate (RGDPG)
	Monthly Inflation Rate (MIR)
	3 Months Treasury Bill Rate (TMTBR)
	US Dollar Exchange Rate (USDER)
	Industrial Production Index (IPI)
	Money Supply Growth Rate (MSGR)
	Civil War (CW)
	Global Financial Crisis (GFC) Source: Compiled by the Author

Source: Compiled by the Author

Empirical Results

Descriptive Statistics

Table 3: Descriptive Statistics

Variable	Max	Min	Mean	S. D.	Skewness	C. V.	UR Test – P-Value
ASPI	7798	1503.0	4922.04	1943.28	-0.3426	0.39	0.657
RGDPG	0 .09	-0.04	0.016	0.045	0.448	2.812	0.033
MIR	0.0603	-0.0487	0.0064	0.0135	0.1703	2.109	0.000
TMTBR	0.213	0.0574	0.1022	0.0388	1.0320	0.379	0.752
USDER	148.9	100.3	120.07	13.38	0.470	0.11	0.949
IPI	135.40	72.10	106.53	14.625	-0.133	0.13	0.793
MSGR	0.2287	- 0.1540	0.0137	0.0248	2.559	1.81	0.000

Source: Compiled based on Central Bank data, Central Bank of Sri Lanka, 2006 – 2021

Estimation of the Parameters of the Model

Table 4: Unit Root test

Variable	Coefficient	P – Value
RGDPG	1509.001	0.0004 * * *
MIR	3048.41	0.1529
TMTBR	-760.5	0.0358 * *
USDER	48.5	0.0131 * *
IPI	-9.6601	0.0007 * * *
MSGR	-1089.46	0.2427
Civil War	-309.9194	0.0004 * * *
Global Financial Crisis	290.438	0.0005 * * *
Constant	-33.9939	0.3863

Source: Compiled based on Central Bank data, Central Bank of Sri Lanka, 2006 – 2021

Conclusion and Recommendations

While the US dollar exchange rate and real GDP growth rate had a favorable impact on ASPI, the interest rate, industrial output index, and civil war had a negative impact on ASPI. Importantly, the global financial crisis had a beneficial impact on ASPI, which runs counter to what industrialized nations have seen. The stu5rdy found that even while there is uncertainty in the outside world, there is a propensity for FDI to be drawn to the capital market when a nation is in a good situation, such as Sri Lanka after ending 30 years of civil conflict. Additionally, it shows that neither the rate of inflation nor the expansion of the money supply significantly affect Sri Lanka's share price index.

In a nutshell, Sri Lankan policymakers who are interested in developing a vibrant and alluring capital market that will encourage investment in the nation can use the study's findings to inform their choices. Interest rates must be kept low, and the country's currency allowed to decline in order to raise share prices. Additionally, strategies should be concentrated on achieving future gross domestic product growth that is higher while also enhancing national security.

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Financial Literacy and Financial Distress on Financial Wellness among Public University Students in Sri Lanka

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Keywords: Financial Literacy, Financial Distress, Financial Wellness, Personal Finance, Financial Behavior

Introduction

Financial wealth is used as a more precisely quantified measure of financial wellness than health. Financial wellness is one of the key elements of financial health (Delafrooz & Paim, 2011). The term "financial wellness" is now used to characterize a person's financial situation. Due to several factors contributing to the country's economic and financial instability, Sri Lanka is still going through its worst economic crisis. With the country's predicament, there are numerous initiatives to increase financial literacy and reduce financial suffering in Sri Lanka (South Asia Economic Focus and Sri Lankan Development Update, 2022). The financial crisis in Sri Lanka is causing major challenges for higher education students, particularly those attending public universities (University world news, 2022). Because they don't have enough money to meet all their expenses, many students have suffered from financial issue caused by inflation. This study is aimed at researching the measuring of financial literacy, financial distress, and financial wellness among public university students in Sri Lanka. And we have focused to identify the interaction relationship between financial literacy and financial distress, and finally, we have focused to identify the impact of financial literacy and financial distress on the financial wellness of public university students in Sri Lanka. That is the study background of this research study.

Literature Review

Different authors have given different definitions for key words of this study. Financial literacy and financial distress have identified as independent variables and financial wellness have considered as dependent variable with their dimensions in conceptual framework by referring literature reviews. In the theoretical perspective it has identified related theories as Prospect Theory, Behavioral Life-Cycle Theory, Self-Efficacy theory (Journal of Business and Finance in Emerging Markets Vol 5 No 1). I have identified positive relationship between financial literacy and financial wellness, and negative relationship between financial distress and financial wellness through literature studies (Ismail, N., & Zaki, N. D. A, 2019). In the developed and developing countries, much research have been done in foreign countries for this research area (Sonobe, 2011, Lusardi and Mitchell, 2014, Muhammad Bila 2016). However, there is lack of previous research have done for measuring the financial wellness using combined effect of financial literacy and financial distress in Sri Lanka. Much research has been focused only on financial literacy (S.T.M.S. Tennekoon and C. Liyanage, 2021, Weerasekara et al, 2018, Saman Kelegama and Ganga Tilakaratna, 2014). That has been identified as the research gap for analyzing for this research area in the Sri Lankan contest. This study focuses on financial literacy, financial distress, and financial wellness among the population of Public University Students in Sri Lanka.

Problem Statement

Nowadays, personal financial planning becomes a genuine issue. They are lacking in financial wellness for their daily life causing an imbalance of income earning and spending habits. (Leila & Fazli, 2015). The rising costs of food, lodging, and transportation, as well as stationery and other educational supplies, have had a significant negative impact on students (University World News, 2022). The aforementioned financial crisis brought on by inflation has caused a lot of problems for many students who don't have enough money to cover their expenses. The main objective of this study project is to investigate how financial distress and financial literacy affect the financial health of Sri Lankan students enrolled in public universities. This study measures and illustrates the relationship between financial literacy and financial difficulty as well as their consequences on financial wellness because there hasn't been much prior research on that subject in Sri Lanka. One research gap that has been identified as requiring further inquiry is the dearth of research studies.

Research Questions

This study set out to address the following question:

> What is the impact of financial literacy and financial distress on financial wellness among Public University students in Sri Lanka?

Research Objectives

Main Objective

> To test the impact of financial literacy and financial distress on financial wellness among public university students in Sri Lanka

Sub Objectives

1) To measure the financial literacy and financial wellness among Public University Students in Sri Lanka
2) To measure the financial distress and financial wellness among Public University Students in Sri Lanka
3) To test the relationship between financial literacy and financial distress on financial wellness among Public University Students in Sri Lanka

Research Methodology

Conceptual Framework

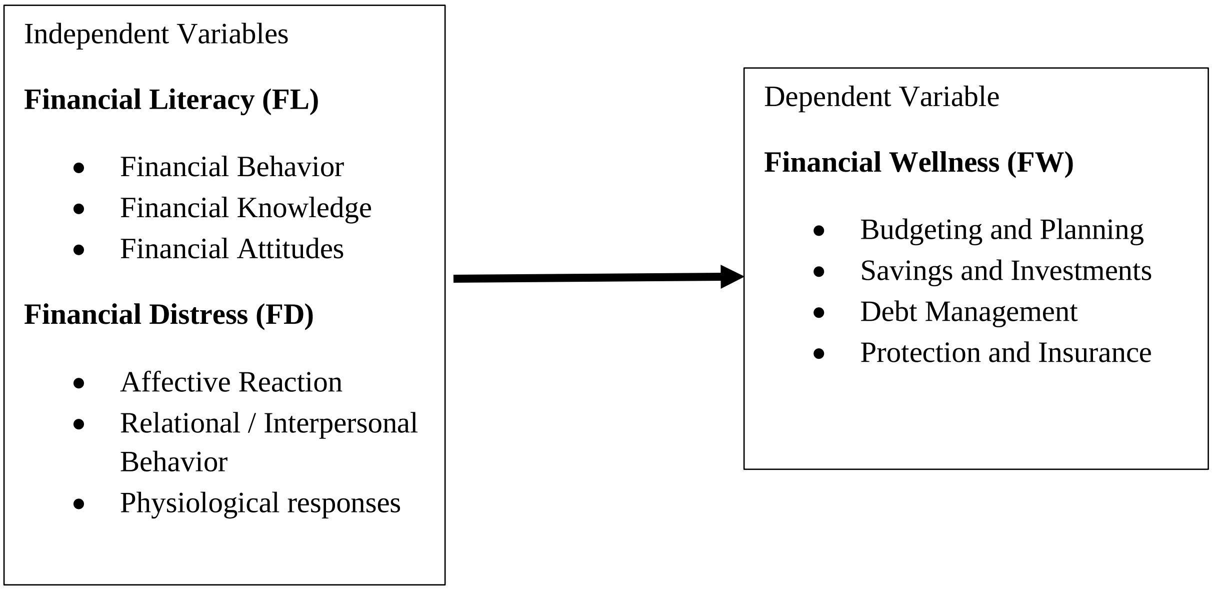

Figure 1: Conceptual Framework

Collection of Data

In this study, primary data collecting is being used. Delivering survey questionnaires to a randomly chosen sample of Sri Lankan Public University Students allowed for the collection of primary data.

Analyzing Techniques

Four components make up the survey questionnaire used as the assessment technique and are used to gather data for this analysis. Those are demographic information, financial literacy, financial distress, and financial wellness, and 61 questions consisting of a questionnaire survey. Examining the consistency of factors found among the items in questionnaires using a five-point Likert scale is done using the reliability test after collecting 29 responses before delivering further. According to the analysis, all the items for each variable are valid and reliable, with Cronbach's alpha testing. Because of the quantitative nature of this study's methodology, the researcher used both descriptive and inferential statistical techniques to analyze the data. Mean, median and standard deviation were used by the researcher in descriptive statistics to display the data, and correlation and regression analysis were used by the researcher in inferential statistics to analyze the data. I have used EVIEWs and EXCEL as statistical tools for analyzing data.

Table 1: Descriptive Statistics

Description	No of Respondents	Mean	Median	Std Deviation	Min	Max
Financial literacy (FL)	122	61.21311	64.00000	11.15201	31.00000	84.00000
Financial distress (FD)	122	46.44262	45.00000	12.98317	15.00000	71.00000
Financial wellness (FW)	122	81.99180	82.50000	12.55763	43.00000	106.0000

Findings and Conclusions

The response rate for the questionnaire is 61% and most of females, age between 24 – 26 and monthly income between Rs. 5000 – 20000. The Cronbach’s alpha is used as reliability testing and I received for financial literacy, financial distress and financial wellness are respectively 0.919, 0.911 and 0.933. For the first hypothesis, I examined the impact and relationship between financial literacy and financial wellness among public university students in Sri Lanka. In model 01 coefficient is 0.893261769. So, I found that for strong positive significant relationship between financial literacy and Financial Wellness. That has compliance with literature findings (Ismail, N., & Zaki, N. D. A, 2019). In hypothesis 02, I examined the impact and relationship between financial distress and financial wellness among public university students in Sri Lanka. In model 02 coefficient is - 0.012676806. So, I found that negative relationship between financial distress and Financial Wellness, but it is not significant. This result could not confirm by the base literature hypothesis result (Ismail, N., & Zaki, N. D. A, 2019). This study has done among Public University students in Sri Lanka. They do not have huge financial responsivities for their families because they are not earners and lot of Public University Students are dependents from their parents. And, Public University Students have higher financial literacy and Financial Wellness for Controlling and managing their financial resources. Therefore, it can be assumed as a reason for no negative significant impact of financial distress on financial wellness among Public University Students in Sri Lanka. In hypothesis three, it has examined the combined impact of financial literacy and financial distress on financial wellness among public university students in Sri Lanka. Their financial literacy and financial distress could have a positive impact on financial wellness. Since the overall P is 0.0000 and which is less than 0.05, then the model is becoming significant.

As a conclusion, financial wellness become one of the hottest and most discussed topics in the community related to financial management. Most of organizations need to provide training in financial wellness due to the results showed that the students are facing financial distress even though they have knowledge of financial management. Therefore, it will lead to low financial wellness in their personal life. Additionally, public university students’ financial wellness is important to measure using health rather than wealth. As suggestions for future research this research, it has used only limited variables such as financial literacy, and financial distress as independent variables. There are many variables which are impacted to decide financial wellness besides financial literacy and financial distress. Those variables are financial behavior, financial concerns etc.

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Determinants of Generation Z Behavioral Intention to Use Cryptocurrency: Evidence from Sri Lanka

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Keywords: Cryptocurrency, Generation Z, Adoption, Digital Currency, Behavioral Intention

Introduction

Cryptocurrency is a digital currency that has been emerged in early 2000 and has grown in value around the world, making it a type of trading tool for the entire world, including Sri Lanka. With technological advancements, many people are turning to online platforms to complete their daily activities. Tokens or digital currencies based on cryptographic technology used to perform various financial transactions such as payments or as a store of value on block chain technology are referred to as cryptocurrency. According to the Microsoft Security Endpoint Threat Report (2020), Sri Lanka had the highest number of cryptocurrency mining encounters in the region in 2019, with 1.7 times more than the regional average, and the number of cryptocurrency users in other countries is growing. Generation Z accounts for a sizable proportion of the Sri Lankan population, accounting for approximately twenty-eight percent of the total population as of 2021. Generation Z members in Sri Lanka, like those in many other countries, distinguish themselves by their familiarity and comfort with technology. They grew up in a world that was more connected than ever before, with smartphones, social media, and the internet at their disposal. As a result, Sri Lankan youth now have a high level of digital literacy and proficiency. The significance of this study is that it can help future researchers and policymakers better understand the drive and motivation for cryptocurrencies, as well as the reasons for the young generation's growing preference for using cryptocurrency.

Literature Review

Researchers examined crypto-currency research at various levels of analysis. In the current literature that analyzes people's behavior, several theories for human behavior and behavior intention can be identified, including the Theory of Reasoned Action, the Theory of Planned Behavior, the Utility Theory, and the Unified Theory of Technology Acceptance and Use. Esmaeilzadeh et al. (2019) developed a qualitative model by combining utility theory and the unified theory of technology acceptance and use (UTAUT). Despite its volatility and lack of regulatory authority, Gupta et al. (2020) contributed to the key intentions behind cryptocurrency investment. The Unified Theory of Acceptance, the Technology Acceptance Model, and the Social Support Theory are all used in the study. Arias-Oliva, Pelegrn-Borondo, and Matas-Clavero examined the key determinants for the effective development of cryptocurrency from the perspective of consumers using a technology acceptance theoretical framework. According to Arias-Oliva et al. (2019), the overall intention to use cryptocurrencies among college-educated adults in Spain was low. Individuals' intention to adopt bitcoin in China increases significantly if the technology is simple to use and understandable, according to Nadeem et al. (2021). As a result, based on previous research, the behavioral intention was chosen as the primary dependent variable in this study. There is a lack of research exploring the factors that may affect Generation Z's behavioral intention to use cryptocurrency in Sri Lanka. Thus, the current study aims to investigate the factors that influence Generation Z's behavioral intentions as well as their awareness of cryptocurrency in Sri Lanka.

Problem Statement and Research Questions

As the value of their local currency falls, many Sri Lankans are investing in cryptocurrencies. The cryptocurrency dimension was combined with the constructs of the unified theory of technology acceptance and use and utility theory in this study to investigate the determinants of cryptocurrency acceptance and usage intention. Based on utility theory and the unified theory of technology acceptance and use theory, this research conceptual model presents a comprehensive view of constructs in the context of cryptocurrency, including perceived risks, perceived benefits, structural provision, and social effects. The current study makes a unique contribution in this regard by providing insights into users' behavioral intentions and attitudes toward cryptocurrency use. Hence the problem statement of this study is “Impact of technology acceptance of Generation Z’s behavioral intention to use cryptocurrencies in Sri Lanka?” As a result, this study formulates the following research questions based on the above problem statement:

1) What is the impact of perceived benefits and risks on Generation Z's behavioral intention to use cryptocurrency?
2) What is the impact of social effects on Generation Z’s behavioral intention to use cryptocurrency?
3) What is the impact of the structural provision on Generation Z’s behavioral intention to use cryptocurrency?

Objectives

Main Objectives:

Determine the willingness of the Z generation (young investors) to behavioral intention to use cryptocurrency and investigate the factors that influence this willingness.

Sub Objectives:

1) To investigate the impact of perceived benefits and risks of cryptocurrencies on using preferences among Generation Z Sri Lanka.
2) To investigate the relationship between the impact of social effects on cryptocurrency and the user preferences of Generation Z in Sri Lanka.
3) To investigate the relationship between the impact of cryptocurrencies on structural provision and using preferences among Generation Z in Sri Lanka.

Research Methodology

The researcher developed a framework for this study using utility theory and UTAUT as a foundation. The study's target population was Sri Lanka's Generation Z population. This study's sample was drawn from university students in Sri Lanka. The study's dependent variable is Generation Z's intention to use cryptocurrency, with perceived benefits, perceived risk, social effect, structural provision, and attitude toward identified as independent variables. The study's target population was Sri Lanka's Generation Z population. This study's sample was drawn from university students in Sri Lanka. A structured questionnaire has been distributed among the selected sample as the primary data collection method. The researcher used both primary and secondary data to conduct the research. The questionnaire had four sections, the introduction, demographic questions, factors influencing using decisions in cryptocurrency, and Investor's Intention to use cryptocurrency. For this study, a total of 160 responses were obtained, with 4 removed due to incomplete information provided, leaving 156 relevant responses.

The data from the SPSS software was analyzed using statistical analysis in this study. The researcher examined the relationship between dependent and independent variables using descriptive statistics. All responses were analyzed using multiple linear regression to achieve the study's objectives.

Findings and Conclusions

Multiple regression analysis results revealed that, except for the perceived risk and social effect, all other constructs in the model of this study; attitude towards, structural provision, and perceived benefits have a statistically significant and positive impact on Generation Z's intention to use cryptocurrency in

Sri Lanka. Among the drive constructs, attitudes toward perceived value and satisfaction have the greatest influence on cryptocurrency use intention. Future research in this area should aim to gain a better understanding of the factors that influence Generation Z's behavioral intention to use cryptocurrency in Sri Lanka. According to the study, future research can be compared to other countries. Future research could look into the role of financial literacy and education. It would be interesting to investigate the role of cultural factors such as religious beliefs, family values, and social norms in shaping Generation Z's behavioral intention to use cryptocurrency in Sri Lanka. The research can help inform policies and strategies aimed at promoting cryptocurrency adoption and usage among Generation Z in Sri Lanka, as well as provide a more comprehensive understanding of their behavioral intention to use cryptocurrency.

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Impact of Microfinance on Quality of Life: Evidence from Sri Lanka

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Keywords: Microfinance, Quality of Life, Loan Services, Saving Services, Non-financial Services, Social Intermediation Services

Introduction

Microfinance is founded on an economic development approach that tries to reduce poverty by giving financial services to the underprivileged, low-income households, and microbusiness owners who are unable to access them on the formal financial market (Kasali, et al. 2015). The World Health Organization defines quality of life (QOL) as "an individual's perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns. Microfinance often recognized as a technique to reduce poverty and economic development since low-income people would benefit from microfinance access and it would let them engage in money-generating activities, which would raise their standard of living and encourage better saving practices. Currently in Sri Lanka, there are many different institutions that offer microfinance, including authorized banks, authorized finance companies, cooperative rural banks, thrift and credit co-operatives societies, divinaguma banks, and other community-based and non-governmental organizations. So, this study is to examine the impact of microfinance on quality of life of Sri Lankan. This research is of significance for policymakers, practitioners, and development organizations. They can create more successful programs and treatments that are better aligned with the needs and situations of the communities they serve if they employ the insights garnered from this research. So, this research significantly advances knowledge of the Sri Lankan microfinance market and the microfinance sector globally.

Literature Review

Microfinance have made significant progress by helping millions of poor households and individuals not just in their countries of origin but also throughout the developing and impoverished world, where they have thousands of branches. Therefore, many research has been conducted on the relationship between microfinance and quality of life in the literature. Yeboah (2017) revealed a favorable relationship between microfinance and quality of life. During that microfinance identified as a development intervention and direct benefits identified were to small business owners and their families. According to findings of Baker & Latif (2013) from a different investigation into microfinance programs in Bangladesh, taking part in such initiatives was linked to higher household incomes, better access to healthcare, and increased involvement in community activities. Angelucci & Karlan (2009) revealed that microfinance had favorable effects on some outcomes, including income and business investments, but not on overall quality of life, as determined by factors like health, education, and housing, the study found. Even in Sri Lanka many researchers conducted research based on relationship between microfinance and quality of life. According to Steinwand & Bartocha (2008) microfinance is a multifaceted benefactor that provides people with the means to rebuild their lives, plan for their futures and the futures of their children, instill self-worth in them, integrate into society by allowing them access to social networks, and contribute to the welfare of their families and the community. Perera & Wijekoon (2019) conducted a study to identify the role of microfinance in empowering poor rural households, with the goals of assessing the impact of microfinance on micro enterprises, assessing the impact of microfinance on household level improvement, and identifying areas to improve in current institutional practices. According to the literature, microfinance can be effective in reducing poverty and empowering women, but its effects on the overall quality of life are unclear and may vary depending on the situation and how microfinance programs are implemented.

Problem Statement

The microfinance industry in Sri Lanka has expanded to include a wide range of organizations and it now serves as an important tool for empowering the low-income and underprivileged sectors of the population through financial inclusion. Even though, the quality of life of low-income people has not increased as expected. It is challenging to evaluate the impact of microfinance because of the variety of services offered, and very few studies have attempted to do so. Microfinance proponents frequently state that it helps bring people out of poverty and increase the quality of life, however, the evidence is conflicting. As a result, this study aims to highlight even more how important microfinance is for increasing quality of life of Sri Lankan.

Research Question

Based on the above discussed problem statement, the research objectives of this study can be defined as follows:

What is the impact of microfinance on quality of life of People?

Research Objective

Main Objective

To test the impact of microfinance on quality of life

Sub Objective

The main purpose of this study was to discuss the impact and relationship microfinance on quality of life of Sri Lankan. To achieve this main objective, the following sub objectives will be followed.

1) To measure microfinance activities in Sri Lanka
2) To test the relationship between microfinance and the quality of life of Sri Lankan

Research Methodology

Data and Sample

To test the impact of microfinance on quality of life, we identified loan services, saving services, non-financial services, and social intermediation services as independent variables and quality of life as the dependent variable. Primary data were used to carry out the study. The chosen sample has been given a standardized questionnaire as the main tool for gathering data. Since most of the microfinance clients might not have the access to the internet, the structured questionnaire has been shared as hard copies in order to gather the most reliable data. The sample was selected from people above the age of 18 who are engaged with microfinance institutions. The sample represents different ages between 18 and over 60, both female and male customers in Sri Lanka. Due to time and resource constraints, researcher was only able to collect 128 questionnaires.

Analysis Techniques

We employed quantitative descriptive analysis using the SPSS software and used the validity and reliability test, Average variance extraction, correlation analysis, Discriminant validity, and normality test to test the data adequacy. Finally, we examined the dependent and independent variables using multiple regression.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.340[a]	.116	.087	.95545266	1.722

a. Predictors: (Constant), NF, LS, SIS, SS

b. Dependent Variable: QOL

The Model Summary Table 1 determines the degree of the explanatory power of the independent factors over the dependent variables. In this Table, R square is 0.116. It usually signifies a percentage value. The variation in the dependent variable, quality of life is explained by four independent variables of microfinance: loan services, saving services, non-financial services, and social intermediation services. There is an 88.4% explanation that is explained by variables other than those independent variables of microfinance.

Table 2: Model Summary

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.715	4	3.679	4.030	.004[b]
	Residual	112.285	123	.913		
	Total	127.000	127			

a. Dependent Variable: QOL

b. Predictors: (Constant), NF, LS, SIS, SS

One of the most crucial things in the SPSS results is the ANOVA Table 2. The last two columns, F test and significance value, demonstrate the overall model's validity. To verify the whole model, the significance value in this ANOVA table should be less than 5%. The significant value in this case is 0.004, indicating that the whole model is valid at a 95% confidence level.

Findings and Conclusions

Based on the results of the analysis, there is a significant relationship between microfinance and quality of life. But the independent variable microfinance did not explain the dependent variable quality of life. So, microfinance services may increase income and business growth, they may not always result in increased quality of life or well-being for individuals. Other factors, such as access to education, health care, and social support, may be more essential in increasing quality of life and well-being. Loan service provided by microfinance had a negative relationship with the quality of life and saving service had a positive relationship between quality of life. Non-financial services and social intermediation services were not having significant relationship with the quality of life. There are several studies which consistent with researcher’s current findings. Khandker & Pitt (1998) randomized controlled trial in Bangladesh in 1998 is an example of such a study. In this study, one group of households was randomly assigned to receive microfinance loans, while another group did not receive loans and functioned as the control group. But researcher’s findings are not consistent with some of the other empirical research findings. Morduch and Haley's (2002) investigation in Bangladesh is an example of such a study. In reality, that study discovered that, in certain circumstances, microfinance services had a negative impact on clients' well-being by increasing debt burdens and putting stress on households.

In conclusion, research on the influence of microfinance on quality of life reveals that microfinance can improve specific areas of quality of life, such as income, business growth, and financial access. Yet, the relationship between microfinance and other dimensions of life quality, such as education and health, may be less obvious. The findings also showed that the impact of microfinance varies depending on the type of financial service given, such as loans or savings accounts. Non-financial services and social intermediation services supplied by microfinance institutions may have little impact on quality of life. While the researcher identified significant limitations, such as a small sample size and research design, it nonetheless gives valuable insights into the potential benefits of microfinance in enhancing the quality of life of low-income individuals and households. Overall, the study emphasizes the significance of microfinance and credit availability in supporting sustainable development and improving the well-being of individuals and communities. Further study is needed to better understand the complicated relationship between microfinance and quality of life, as well as to discover successful techniques for using microfinance to increase overall well-being.

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Exploring Determinants of Customer's Intention to Adopt Green Banking: Evidence from Sri Lanka

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Keywords: Green Banking, Customer Intention, Sustainable Development, Banking Industry, UTAUT Model

Introduction

Given the increasing worldwide environmental deterioration and loss faced by both current and future generations, there has been much more emphasis dedicated to protection of the environment and sustainable development growth over the last few decades. The conservation of the environment has evolved into a global knowledge and development strategy since it is the basis and guarantee of human life, survival, and sustainable development. In fact, environmentalism has been identified as the key matter in business world in 1990s. This pointed out the path to giants of the business world to put a collective effort to implement sustainable mechanisms for their innovations and developments. This continued tendency has given rise to the concept of "Going Green", which has become the most popular financial-world term in current context due to the alarming increment in the environmental issues mainly as climate change and global warming. Although few banks in the world take initiation to adopt for green banking and demonstrate leadership in green financing, the green portfolio of majority of banks are at the minimum level so far. In Sri Lankan context, banking sector has begun to practice green banking concept recently. Irrespective of the market power and competitive position of the banks, it is the key duty and responsibility of each & every bank to practice green banking concept in order to contribute environmental protection and management.

However, due to several barriers, green banking and financing is still new and low adapted concept for Sri Lanka. Higher initial capital requirement in the short-run for implementing green products, technological barriers, lack of knowledge and awareness of green banking initiatives among banking staff, lack of customer's awareness on green banking, customer's reluctant to move from status-quo and lower level of customer's trust on green products are some of the said barriers which prevent the banking institutions from going green. Therefore, it is very much crucial to get a better understanding mainly on the key drivers behind the customer's intention to adopt green banking because there is no point of developing green products if there is no customer base back on those products and if so the ultimate objectives of transforming to green economy will not be able to achieve. Thus, this study focuses on the key determinants of customer's intention to adopt green banking products and services, and challenges faced by customers when adopting green banking technology.

Literature Review

The concept of "green banking" has been put up as a means of lowering the carbon footprint left by banking activities by encouraging paperless financial services and making extensive use of technology. In light of this, countries, government authorities, worldwide organizations, and non-government organizations as UNFCCC, IFC, ASEAN, TCFD, SBN, CBSL emphasize the importance and the necessity of going green against increased environmental issues. In order to achieve the purpose of initiating green banking concept, customer participation and contribution towards green banking is essential. The analysis of the literature reveals that numerous academics, both nationally and internationally, have conducted diverse studies on various facets of green banking and have developed various theories, models, statements especially the UTAUT model on green banking practices, customer satisfaction and customer intention on adoption.

However, there can be seen a shortage in existing literature regarding different facets of green banking. In relevant to the Sri Lankan context, drivers of green banking adoption have not yet been studied qualitatively and specially the bankers as well as policymakers in Sri Lanka require a design or a model regarding the drivers of customer's desire to adopt green banking, that can be used as a guidance when designing green banking products and services. Thus, this research study is conducted to fill the stated knowledge gap by investigating Sri Lanka's green banking practices and thereby creating an innovative model to examine the factors that influence a customer's intention to use green banking.

Problem Statement and Research Questions

Sri Lanka has the world's most valuable ecological footprint and that's why sustainable development is central to Sri Lanka when initiating business development projects in present context as well as in future. Hence the government of Sri Lanka has been more serious in handling the severe environmental issues. For an instance, Central Bank of Sri Lanka has published "Roadmap 2017-Monetory and Financial Sector Policies for 2017 and beyond" by focusing sustainable finance practices to help financial institutions to effectively manage environmental and social risk. Although there is a massive significance in green practices and the wider range of advantages provided by green banking to customers, bankers as well as environment, unfortunately most of the customers and business organizations in Sri Lanka are still in the primary stages of adopting green banking. Nevertheless, the participation of customers of banks is essential in effectively initiating green banking practices since they are the people who utilize these green practices of banks when carrying out their day-to-day banking transactions.

As per the research studies done previously, majority of the people have no intention in adopting green banking products and services in the future and most of the green banking products have failed or were received little attention from the customers while others got rejected at initial stage. Therefore, it is important to give a proper understanding to bankers about the determinants of customer intention to adopt green banking.

Research Questions

1) To what extent green banking practices are practiced in Sri Lanka?
2) What are the drivers of customer intention to adopt green banking practices?
3) What are the challenges faced by the customers when adopting green banking?
4) What are the innovative strategies in green banking services that the bank can implement in order to attract customers towards green banking?

Research Objectives

Main Objective

To identify and suggest an innovative model to grasp the desire of customers to adopt green banking practices.

Sub Objectives

1) To identify to what extent green banking practices are practiced in Sri Lanka at the moment.

2) To identify the challenges faced by the customers when adopting green banking.

3) To identify innovative strategies the banks can implement.

Research Methodology

The study employed a qualitative approach which led to exploring the determining factors behind the intention of bank customers on adopting green banking. The population of the study is the banking industry in Sri Lanka while domestic Licensed Commercial Banks are the sample of the study. This study is based on the primary data obtained through semi-structured interviews. Data will be collected for two different perspectives in terms of bank professionals and customers. For the purpose of collecting data in a banker's perspective, participants have been selected based on the level of professional experience in the banking sector, their position and level of expertise in dealing with their customers while customers have been selected based on their level of education and profession. Accordingly, 10 banking professionals and 10 customers were selected from 10 banks covering both public and private sector licensed domestic banks to conduct a semi structured interview. Thematic Content Analysis technique used for the analysis of data collected which enables to analyze qualitative data.

Findings and Conclusion

Since the exploring determinants of customer's intention to adopt green banking is the primary objective of the study, the researcher ended up developing an innovative model which including seven factors grouped under four key dimensions to get an understanding on the determinants of customer's intention. The developed innovative model primarily based on the original UTAUT model. The researcher found that customer awareness, personal innovativeness, and perceived benefit are the factors which reflect the individual dimension. Organizational dimension reflected by the factors; bank reputation and top management support while privacy and security reflect technological dimension. Environmental dimension reflected by the factor named government support. These findings were supported by the determinants as ease of use, privacy and security, perceived benefit, and reputation extracted from the direct interviews with bank customers.

The secondary objective of the study was to identify challenges faced by customers when adopting green banking technology and strategic solutions to overcome those challenges. By addressing these objectives, researcher found that lack of awareness, lack of trust, perception of cost, complexity of products and services, and limited infrastructure facilities are creating barriers to the adoption of green banking practices. Based on the research findings, by organizing customer awareness programs, maintaining transparency, sustainability reporting, offering incentives, simplifying processes, and promoting creation of sustainable infrastructure facilities, barriers for adopting green banking practices can be eliminated.

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Impact of Corporate Governance on Financial Performance of Licensed Commercial Banks in Sri Lanka

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Keywords: Corporate Governance, Licensed Commercial Banks (LCBs), Financial Performance, Board of Directors, ROA, ROE, EPS

Introduction

The significance of any organization is to manage the company effectively, efficiently, and ethically for profitable long-term growth and continuous existence, the policies and practices of management must also associate with the interest of shareholders and other stakeholders. Corporate governance mechanisms are increasingly important determinants of a firm's current and future performance as well as firm value and growth as economies become knowledge- and technology-based. It is commonly acknowledged that one of the key factors in bolstering the base for the long-term economic success of nations and organizations is the enhancement of corporate governance standards. Corporate governance is the system of rules, practices, and processes by which a firm is directed and controlled. The improvement of corporate governance is one of the basic influences of strengthening the foundation for the performance of a corporation in long term. Good corporate governance is internationally accepted as being essential to an organization's competitiveness, growth, and sustainability. The banking sector plays a significant role in the financial intermediation of an economy. The banking business is crucial for monetary conditions in a country. Licensed Commercial Banks are the single most significant group of financial institutions within the banking sector. Licensed Commercial Banks control the financial system with the maximum market share of the entire financial system's assets. Therefore, the health of Sri Lankan financial system changes on the soundness of the LCBs. So, it is crucial to have an idea about how well commercial banks are performing align with the corporate governance. Commercial banks failure would affect the entire financial system and economy of a country. Therefore, to ensure the development of the bank's performance, economic efficiency, and growth, and to enhance investors' confidence; strong, effective, and good corporate governance must be established and executed.

Literature Review

Most of the studies which is based on their relationship between corporate governance and financial performance state that, there is a positive relationship between corporate governance and the financial performance of commercial banks in Sri Lanka. (Ajanthan & Balaputhiran, 2013) indicated that a comparative study between private and state banking sector in Sri Lanka and the results showed that, all variables of corporate governance positively correlates with ROE in state banks as well as, in private banks except BD and BMF other variables have strong negative relation with ROE, which is significant at 5% level. Similarly, except BMF other variables have negative relationship with ROA in state banks. (Sivaraja, 2018) indicated that the bank efficiency positively related with overall corporate governance index (separate leadership structure, Audit committee, audit committee meeting per annum and Board composition) except Board size. Hence higher level of corporate governance of banks increases financial efficiency in Sri Lankan licensed commercial banks. (Safna. HMF, 2015) conducted a comparative study between Islamic and conventional banks in Sri Lanka. The comparative analysis shows all variables of corporate governance are positively correlated with ROA in conventional bank as well as, in Islamic bank except BS and NED other variables have normal negative relation with ROA which is not a significant level. (Sithy Safeena M.G.H2, 2021) based on their research, indicate that independent directors and board size are negatively related to the firm performance and CEO duality have a significant impact on financial performance. According to the results, they stated that corporate governance practices are not always positively impact the financial performance of commercial banks in Sri Lanka.

Problem Statement and Research Questions

The endless crises, scandals, and devastation of organizations around the world have had such a negative impact on the growth of economies and the world financial market. Governance has become an issue of interest ever since people began to organize themselves for a common purpose. In today's business context, we can see that the competition is increasing day by day and the changes and volatility in the way are more different than 10 years ago. As the competition is getting more powerful day by day, gradually the work practices and principles are also fluctuating as well as they are also following unethical practices to beat the competition. The banking sector is one main component in the financial system that contribute to economic stability, and they are the important appliances of economic growth. As organizations become more globalized, the need for creating more profit became paramount. So, the Banking sector's failure would affect the entire financial system and economy of a country. Therefore, to ensure the development of the bank performance, economic efficiency, and growth, and to enhance investors' confidence and good corporate governance has to be established and executed. Thus, the development of good corporate governance is essential to protect corporate stakeholders and maintain factors for control and prevention of collapse and long-lasting economic depression.

Objectives

The main objective of this study pursues to inspect the relationship between corporate governance and financial performance of banking sector by taking evidence from selected local Licensed Commercial Banks in Sri Lanka.

Other Objectives

1) To assess impact of Corporate Governance factors (Board Size, Board Independence, CEO Duality, Board Sub Committees, Board minute Frequency and Board gender Diversity) on Return on Asset of Commercial Banks in Sri Lanka.

2) To assess impact of Corporate Governance factors (Board Size, Board Independence, CEO Duality, Board Sub Committees, Board minute Frequency and Board gender Diversity) on Return on Equity of Commercial Banks in Sri Lanka.

3) To assess the impact of Corporate Governance factors (Board Size, Board Independence, CEO Duality, Board Sub Committees, Board minute Frequency and Board gender Diversity on Earnings per Share of Commercial Banks in Sri Lanka.

4) To assess the impact of Control factors (Bank Size, Bank Age and Capital Adequacy Ratio) on Return on Asset of Commercial Banks in Sri Lanka.

5) To assess the impact of Control factors (Bank Size, Bank Age and Capital Adequacy Ratio) on Return on Equity of Commercial Banks in Sri Lanka.

6) To assess the impact of Control factors (Bank Size, Bank Age and Capital Adequacy Ratio) on Earning per Share of Commercial Banks in Sri Lanka.

Research Methodology

For the study, used secondary data from annual reports, financial statements (audited accounts), and the website of the respective banks as well as website of the Central bank of Sri Lanka. As per the Corporate Governance requirements in Sri Lanka, firms are guaranteed to provide the details of board composition, and other details related to Board of Directors in their annual reports. So, we consider that the audited financial accounts are fairly accurate and reliable. The sample selected based on highest total asset and 10 local licensed commercial banks selected for the period of 2011 to 2021. The study was quantitative in nature and used panel Data multiple regression model to analyze the model.

Table 1: Operationalization of Factors

Variables	Abbreviation	Description
Return on Asset	ROA	Amount of profit after tax as a percentage of total asset
Return on Equity	ROE	Amount of Profit after tax as a percentage of shareholder equity
Earnings per Share	EPS	Net income of a share as a percentage of shareholder equity
Board Size	BZ	Number of directors on the Board
Board Independence	BI	Number of independent directors of the board at the end of each year
CEO Duality	CEO	Separation of chairperson and Chief executive officer
Board Sub Committees	BSC	Number of sub-committees serving on the board
Board Meeting Frequency	BMF	Number of meetings how much time board meets on a year during the period
Board Gender Diversity	BGD	Number of female directors on the Board
Bank Size	BS	Total assets at year end
Bank Age	BA	Age of bank since its establishment
Capital Adequacy Ratio	CAR	percentage of a bank's risk-weighted credit exposures

Findings and Conclusions

As per the results of the study it indicates that Board size have significant negative impact on Return on asset and return on equity and Board gender diversity have significant positive impact on Earnings per share. Results conclude that no significant relationship between control variable and the dependent variable. All the three models indicate that the control variables have not significant impact to the financial performance.

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ISSN 2659-2304