Student Conference in Finance 2018

Proceedings

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

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

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Message from the Vice Chancellor

It is with great pleasure that I write this congratulatory message to the "Student Conference in Finance 2018" organized by the Department of Finance, Faculty of Management Studies and Commerce for the second consecutive year.

The Department of Finance since its inception has been keen on strengthening research in the Finance field and by making the undergraduate research conference an annual event; the department has kept one step forward towards their objective of strengthening the research culture of the department.

Behind every success there is always a dedicated team. This conference would not have become a reality without the hard work, guidance and immense efforts of the academic staff members of the department and the commitment of the undergraduate researchers. Thus, my sincere appreciation is conferred on both academics and the students for their dedication and commitment in organizing this undergraduate research forum in the area of Finance.

As the Vice- Chancellor of this university, I want to see more students engaging on research, under the supervision and guidance of the academic staff resulting in creation of new knowledge in the Finance area.

I congratulate all those who contributed to see the success of the "Student Conference in Finance" and wish our students every success in their future endeavors.

Senior Professor Sampath Amarathunge

Vice Chancellor
University of Sri Jayewardenepura

Message from the Dean

As the Dean of the Faculty of Management Studies and Commerce, it gives me great pleasure to forward this message on behalf of the "Student Conference in Finance 2018 "organized by the Department of Finance, Faculty of Management Studies and Commerce (FMSC), University of Sri Jayewardenepura.

We at FMSC are committed to maintaining excellence in the overall education we offer, and so, ensuring quality teaching and research set in a multidisciplinary environment conducive to learning is a priority for us in order to fulfill the University's vision of prospering lives through education and our faculty's commitment in nurturing knowledge, skills and attitudes of our students. Being the pioneering, largest and leading faculty for Management education in the country, our faculty is geared by the spirit of twelve dynamic departments and several other units which provide invaluable significance through their commitment to producing competent graduates and confident individuals ready to embrace challenges in both the local and international arena. The Department of Finance hereby stands tall as strong arm of the faculty which creates a multitude of opportunities for its students to excel both academically, professionally and personally.

Therefore, I appreciate and recognize this initiative of the department which I'm sure would promote research habits among undergraduates and inspire new thinking and knowledge. With that note, I extend my sincere gratitude to the academic team of the department headed by Dr. P. A. N. S. Anuradha and convey my heartiest congratulations to the final year undergraduates who will present their research papers at this educational platform.

Dr. U Anura Kumara

Dean
Faculty of Management Studies and commerce
University of Sri Jayewardenepura

Message from the Head of the Department

As the Head of the Department of Finance, I am delighted to write this message for the Second Students conference in Finance organized by the Department of Finance, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura.

Research and development forms the backbone of our curriculum. The Department of Finance right from its inception has been active in research and has setup an ambient academic environment for its students and research scholars to engage in various path-breaking innovative researches in the field of Finance. With the commitment of highly qualified and efficient staff, the Department of Finance endeavors vigorously to make a mark in the field of research and development. I am sure that the student conference will inculcate the much-needed research culture among the students and trigger interactions among researchers to exchange the ideas of recent advances in the areas of Finance.

It is my humble wish that the professional dialogue among the academicians, students, research scholars, and industry personnel continues beyond the event and that collaborations forged will linger and prosper for many years to come.

I appreciate the commitment of the research coordinator, the committee and the academic staff of the department of Finance in this endeavor.

I wish the conference a grand success.

Dr. P A N S Anuradha

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

Message from the Conference Coordinator/ Chair

“Research is to see what everyone else has seen, and to think what nobody else has thought” Albert Szent-Gyorgyi

It is a great joy to organize the Student Conference in Finance for the Department of Finance, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura for the second consecutive year.

Since inception, the Department of Finance has recognized the importance of students undertaking research, thus research activities been a major element of the Department’s curriculum. Therefore, students receive a three-credit course on “Research Methodology” prior to embarking on the “Research Project in Finance” in the second semester of their final year. The Department publishes a research agenda of all the academics and students are encouraged to meet up with the academic members based on their research interests in order to discuss their ideas for further study. Every student is allocated with a supervisor and a schedule for regular meetings during the research study. A large amount of commitment and hard work by the student plus continued guidance from the side of the supervisor results in the production of a good research study.

Students need to talk about their research, their problem, how they clarified issues regarding data and methodology, how they improved their writing skills, nature of support they received from their supervisors, their research journey and above all the knowledge enhancement they acquired, so that it will serve as a guidance and direction to their junior colleagues in initiating and undertaking research. To support this endeavor the Department decided to provide a platform for the students not only to share their research findings through individual presentations, but also to listen to others’ work and learn by critically analyzing and clarifying through Q and A.

“Writing the perfect paper is a lot like a military operation. It takes Discipline, Foresight, Research, Strategy and if done right ends in total victory.” Ryan Holiday

Twelve students have taken up the challenge of presenting their hard work to an audience of academics, industry experts and fellow students on the stage that the Department has created. While congratulating on their courage and talents, we wish them all the very best!

Dr. R P C R Rajapakse

Conference Coordinator/ Chair
Department of Finance
University of Sri Jayewardenepura

Contents

Crowd Funding: A Challenge to Commercial Banks in Sri Lanka

S N Rambukkanage (rsasithi@gmail.com) &
P D Nimal (pdnimal@sjp.ac.lk)

1 Introduction

Defining in a profound manner, "Crowdfunding is an Internet enabled way for businesses or other organizations to raise money in the form of either donations or investments from multiple individuals" according to the World Bank (2013). The emergence of Financial Technology (FinTech) components like crowdfunding has been a disruptive trend as the traditional financing platforms in different countries are challenged and as banks play a major role in traditional financing and face challenges daily from revolutionary alternative financing methods, it is important to evaluate their understanding of the challenge. The lack of research in the field targeting how competing alternatives would impact the banking industry has made the ability to be proactive opaque.

This research aims to explore the perception of licensed commercial banks (LCB) in Sri Lanka (chosen listed and state banks; as they collect funds from the public directly and indirectly, respectively which is similar to crowdfunding platforms which collect funds from crowds at large) on the challenge posed by the alternative financing method; crowdfunding in the emerging FinTech environment as Sri Lanka is not far from this global phenomenon. The banks chosen were: Bank of Ceylon, Commercial Bank of Ceylon, Hatton National Bank, People's Bank, Sampath Bank, and Seylan Bank, as their opinion, actions and perception dominate the LCB sector since they are Systemically Important Banks (SIBs) in Sri Lanka "(representing 75% of the LCB sector assets, 63% of the banking sector assets, and 36% of the entire financial system's assets (CBSL 2017)".

2 Literature review

2.1. Theoretical background

Crowdfunding, according to Belleflamme et al. (2013) "involves an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes" and has been accepted as the definition for crowdfunding by many researchers following the topic. As "crowdfunding platforms act as financial intermediaries, the roles of traditional financial intermediaries (banks) can become smaller" [Hollander (2015)] and "by embedding crowdfunding in the theory of two-sided markets and financial intermediation theory, a digitally transformed model of classic financial intermediation can be presented" [Haas et al. (2014)] which challenges the financial intermediation role of banks.

These transforming "models of crowdfunding" differ upon clusters. Haas et al. (2014) identified three different clusters as "Hedonism", "Altruism" and "For Profit". These can be re-categorized for business under four crowdfunding models based on the "objective pursued by the "crowd". According to European Microfinancing Network (2015), they are: "Donation-based, Reward-based, Lending-based and Equity-based". These are the most popular types of crowdfunding business models. However, the World Bank (2013) has identified another additional crowdfunding business model called "Royalty-based".

2.2 Empirical background

Out of the above identified models, the most relevant category of models for banks with direct influence would be Lending-based, Equity-based and Royalty-based models which are similar to a bank's operational objectives. The "donation" model will indirectly influence the demand for a bank's funding. This however varies upon the stage at which a bank influences the funding cycle of a business.

However, crowdfunding and overall FinTech adoption can be challenging; "although financial inclusion is at a relatively high level in Sri Lanka, the IT-based financial instrument usage remains at a low level" [Kelegama & Tilakaratne (2014)]. Crowdfunding has the ability to reach people in the upper and middle-income categories as “the use of e-banking is still in its early days in Sri Lanka and is positively related to financial awareness, financial education, and the level of income” [Kelegama & Tilakaratne (2014)] and this statement is applicable to most of the new financial technology applications and their diffusion. Yet, crowdfunding platforms have made their way into Sri Lankan territory as well. Help.lk identifies itself as a crowdfunding platform and has charity-based projects mostly. Crowdisland.lk is also another crowdfunding platform which focuses on equity crowdfunding. Charity Apple also uses the crowdfunding concept to raise funds and identifies itself as a 100% non-profit initiative.

Although most of the globally popular crowdfunding platforms are run by organizations outside the Sri Lankan territory, they are accessible to Sri Lankans for fund raising and investing. The existence of crowdfunding in the Sri Lankan context has been acknowledged, but research has not been conducted to study the perception of licensed commercial banks (listed and state banks) on the challenge posed by the alternative financing method; crowdfunding in the emerging FinTech environment.

3 Problem Statement and Research Questions

Despite Sri Lankans actively pursuing their interest in crowdfunding and with banks playing a financial intermediation role, much research hasn’t been done in the area of crowdfunding in particular. This problem statement produced the research questions given below.

Research question 1 - *What is the understanding of the LCB on crowdfunding as an alternative financing method?*

Research question 2 - *How significant is the impact of crowdfunding to the chosen LCB?*

Research question 3 - *What is the reaction of the LCB to the challenge posed by crowdfunding?*

Research question 4 - *How will the reactive action help the LCB’s future in competing with alternative financing forms like crowdfunding?*

4 Objectives

This research explores the perception of LCBs on crowdfunding using two distinct research objectives. The research objectives were based on research questions given above. The first research objective is to examine the understanding LCBs have on the impact of crowdfunding based on its significance to them. The second research objective is to examine the reaction of LCBs to crowdfunding as an alternative financing method by either competing against or collaborating or through other strategies devised.

The sub-objectives were to understand how the proactive or reactive nature of the LCBs to new trends would decide how much their understanding would be on the given topic and based on their understanding; how the LCBs can state the way their business would be affected, and to examine how LCBs can state their next measure or move to face the challenge posed by crowdfunding and based on the measures taken, how the LCBs can state the possible dynamics in their own game-play within their roles as financiers.

5 Research Methodology

This research covers Sri Lanka geographically and within the Sri Lankan financial system the financial intermediaries that will be affected by crowdfunding are Licensed Commercial Banks (LCBs) as they hold the majority of total asset base, [Central Bank of Sri Lanka (2014)] and hence the segment has been chosen. Amongst the LCBs, the business model that is similar to crowdfunding in terms of "where the funding comes from" belongs to state banks and listed banks (listed in the Colombo Stock Exchange as at 29th of June 2017) as they have indirectly or directly raised funds from public and have greater "systemic importance" [Central Bank of Sri Lanka (2014)] The 2 state banks and the 4 other listed banks were chosen as the sample (SIBs). The research was done using surveying as a research strategy which will include questionnaires-based interviews as it is an exploratory research. All the six banks contributed in the data collection process. The primary data was collected by presenting them with a self administered structured questionnaire and an open-ended Q and A interview to which the interviewees responded voluntarily. Self administered structured questionnaire was evaluated based on the Crowdfunding Readiness Tool template that is provided by the World Bank (2013). Open ended Q and A interview was evaluated based on the transcriptions with answers to the direct research questions.

6 Findings and Conclusions

Crowdfunding is a relatively new phenomenon and its application on digital platforms being competitive to other funding alternatives is still being researched. The challenge it poses on the banking industry varies upon the different perceptions the banks hold and how they would embrace the challenge and react upon it.

Considering the six banks that were in consideration (based on them being the systemically important banks), their perceptions differed from one another and the responses given by them on the different aspects questioned, gave the fundamental idea that crowdfunding is not a challenging revolution for the Sri Lankan Licensed Commercial Banking sector at the moment.

Crowdfunding Readiness Ranking conclusion suggested that there is a good chance crowdfunding can be successfully implemented and that rewards-based crowdfunding should be fostered as a first step towards crowdfund investing.

This finally suggests that if crowdfunding platforms were to be part of Sri Lankan financial intermediary business, then such crowdfunding investing platforms have a good possibility in succeeding. This will hence bring about a challenge to the LCBs. However according to the concluding perception of the LCBs, the challenge posed by Crowdfunding as an alternative financing platform is not significant at the moment.

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The Impact of Liquidity to the Profitability: Evidences from Domestic Commercial Banks in Sri Lanka

N S S Ranaweera (*ssriyanthar@gmail.com*) &
P A N S Anuradha (*anuradha@sjp.ac.lk*)

1 Introduction

The profitability is a key indicator regarding the financial performance of any commercial unit. It provides a sound foundation for business development and growth. To achieve sufficient level of profitability, the firms should have to consider some critical determinant of profitability (firm's size, Liquidity level, Capital Structure and etc.). The recent crisis has underlined the importance of sound bank liquidity management for financial system stability and the growth of the entire economy of Sri Lanka. Since liquidity is the most important discipline of banks' Profitability, they should keep adequate liquidity to satisfy the customer's withdrawals. However, keeping an excess liquidity may generate unnecessary opportunity cost as a result of low earning from liquid assets. This study examines the impact of liquidity on profitability of banking sector in Sri Lanka from 2010 to 2016.

2 Literature Review

The recent study done by Dahiyat (2016**)** about the impact of liquidity and solvency on banks profitability in all banks quoted in Amman Exchange and showed that the liquidity has a negative (inverse) significant impact on profitability. The same conclusion showed by Shafana (2015) examined the degree and pattern of determinants of liquidity on profitability of financial institutions in Sri Lanka for the period from 2009 to 2013 covering 16 banks and finance firm quoted in the CSE.

Ahmad (2016) examined the relationship between profitability and liquidity ratios of Standard Chartered bank Pakistan and concluded that there is a weak positive connection between those ratios. Furthermore, Shaker Ibrahim (2016), Shaker Ibrahim (2016), Rehman et al. (2015) also reached the same conclusion as positive relationship between liquidity and profitability.

Abdulla and Jahan (2014) investigated the impact of liquidity and profitability of private commercial banks in Bangladesh and found no relationship between liquidity and profitability. Jeevarajasingam (2014) also identified that there is no relationship between liquidity and banks' profitability.

Over the past years, very few researchers have tried to identify the nature of the impact of liquidity on the banks' profitability using bank specific liquidity indicators. The relationship between liquidity and profitability is still indefinite to many readers. This research has attempted to find the relationship between liquidity and profitability using bank specific indictors in banking sector in Sri Lanka.

3 Problem Statement and Research Questions

As financial institutions, banks face profitability and liquidity trade-off when achieving their mutually exclusive goal. Because bank financing their funds from the customers deposits while they should provide loans to make profit. If bank have more savings and current deposits it is necessary to retain sufficient level of liquidity for withdrawals requirements by depositors. Therefor it is affected to the profit-making ability of the bank. Therefore, it is very important to identify the impact of liquidity towards profitability of the banking system.

4 Objectives

The main objective of the study is to test the impact of liquidity to the profitability in commercial banks in Sri Lanka. Further sub objectives of identify the direct impact of liquidity to the profitability and identify the indirect impact of liquidity to the Profitability.

5 Research Methodology

The main focus of this research is to identify the relationship between liquidity and profitability in domestic commercial banks in Sri Lanka and focus to ascertain the direct impact of liquidity on the profitability and identifying the indirect impact of liquidity on profitability. Population of this research is the Licensed Commercial Banks which are listed in the Central Bank of Sri Lanka. According to the Central Bank annual reports, twelve domestic commercial banks are registered in the Central Bank. This study has used secondary data for the analysis and all the data were collected from annual reports of the particular banks especially from income statements, balance sheets and other relevant disclosures. This study is based on time series data through 7 years from 2010 to 2016. The sample is selected based on the convenience and considering the availability of the information. The collected data was analyzed by using SPSS statistical software and has been tested through descriptive statistics, correlation and regression analysis.

Model 01- $NIMit = \beta 0 + \beta 1\ LARit + \beta 2\ CASAit + \beta 3 LTDit + E$

Model 02- $ROEit = \beta 0 + \beta 1\ LARit + \beta 2\ CASAit + \beta 3 LTDit + E$

Summary of the variables

	Model 01	**Model 02**
Dependent Variable	Net Interest Margin (NIM)	Return on Equity
Independent Variables	Liquid Asset Ratio (LAR)	Liquid Asset Ratio (LAR)
	CASA Ratio (CSR)	CASA Ratio (CSR)
	Loan to Deposit Ratio (LTR)	Loan to Deposit Ratio (LTR)

6 Findings and Conclusions

Summary of the Findings				
Model	**Hypothesis**	**Sig. value**	**Decision**	**Conclusion**
ONE	H01	0.647	Rejected	No significant relationship between LAR and NIM
	H02	0.005	Accepted	Significant relationship between CASA ratio and NIM
	H03	0.118	Rejected	No significant relationship between LTD ratio and NIM
	H07	0.041	Accepted	Significant relationship between Liquidity and NIM
TWO	H04	0.119	Rejected	No significant relationship between LAR and ROE
	H05	0.001	Accepted	Significant relationship between CASA ratio and ROE
	H06	0.752	Rejected	No significant relationship between LTD ratio and ROE
	H08	0.001	Accepted	Significant relationship between Liquidity and ROE

Source: Author compiled based on analysis

According to this analysis, Model 01 has a significant relationship with net interest margin. Further all three independent variables have positive relationships with net interest margin. The model 02 indicated that there is a significant indirect impact of liquidity to the profitability. The CASA ratio is the only significant independent variable for both models while other variables indicate the statistically insignificant relationship with profitability.

The results of this research study are very useful for policy level decision making and portfolio management of the banks. Because the researcher utilized the concepts of liquidity and profitability entirely based on the banks specific measures.

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Causality Between Tourism and Economic Growth in the Case of Maldives

FathmathAroosha (*aroosha93@hotmail.com*) &
R P C R Rajapakse (*champa@sjp.ac.lk*)

1 Introduction

Tourism has a huge impact on the economic growth of the nations who are heavily dependent of the Tourism Sector. Maldives is one such country who falls into this category. The archipelago of the Maldives is the main reason to the success of tourism in Maldives making it the largest industry in the country and the main source of revenue to Maldives. Due to the limited resources in the country, both the government and individuals heavily depend on the tourism industry as a source of income revenue and it is also the industry that garners the maximum foreign exchange earnings to the country. As the tourism industry develops, it has a very strong positive impact on the economy. It is a myth to believe that the number of tourist arrivals have a direct impact on the economic growth and exchange rates. However, there has been no empirical research conducted in Maldives to identify an existence of any relationship between these three variables. Hence, it is important to conduct this study to investigate the nature of causal relationship between tourism development, exchange rates and economic growth in case of Maldives.

The study examines empirically, the relationship between Tourism and Economic Growth of Maldives by investigating the causality between Tourist Arrivals and Gross Domestic Product with an external competitive variate, Exchange rate. The study will provide useful and insightful information for policy makers, relating to tourism and economic growth.

2 Literature Review

Since limited literature were available in Maldives, the empirical evidence was collected from reviewing literature from other countries. There are many empirical researches that has intended to identify an existence of a casualty between tourism and economic growth and exchange rate as an independent variable.

For instance, Nikolaos Dritsakis (2004) has identified a ‘strong Granger causal’ relationship between international tourism earnings and economic growth, a ‘strong causal’ relationship between real exchange rate and economic growth, and simply ‘causal’ relationships between economic growth and international tourism earnings and between real exchange rate and international tourism earnings, in his empirical investigation. Oludele et al. (2007) analyzed the casualty using a multivariate vector auto regression (VAR) model using real gross domestic product (GDP), international tourism earnings, real effective exchange rate and exports of South Africa, for the time period 1980-2005. The result of the study showed a unidirectional causality running from international tourism earnings to real GDP, both in the short run and in the long run.

Evan Lau, Swee-Ling Oh and Sing-Sing Hu in their research empirically investigated to study the co-movements and the causality relationship between tourist arrivals and economic growth in Sarawak during the period of 1972 to 2004. The empirical results proved there is a casualty between tourist arrivals and economic growth during the period. Pavlic et al. (2013) examined the long-run and short-run relationship between tourism, real effective exchange rate and economic growth in Croatia. The investigation affirms a stability of the long-run equilibrium relationship between tourist arrivals, openness of the economy and real effective exchange rate as independent variable and GDP as dependent variable in Croatia. In addition to this the investigation resulted in a short-run causality between openness of the economy and GDP, as well as between real effective exchange rate and GDP. Yee (2012) researched for a causal relationship between tourist arrivals and economic growth in Cambodia, Vietnam, Myanmar, Laos, and Thailand using Autoregressive Distributed Lag (ARDL). The results indicate that there is a short-run causal relationship between tourist arrivals and economic growth in Cambodia, Thailand, and Vietnam.

In the case of Maldives, there are no empirical studies found relating to the time varying nature of the relationship between tourism and economic growth. The hypothesis has not yet been tested and hence this study intends to analyze and examine the casualty between tourist arrivals and GDP in Maldives

3 Problem Statement and Research Questions

There is a very direct and important influence of tourism on the Maldives's economic growth. Tourism is the sector which generates the maximum foreign exchange to the country plays a key role in the economic growth. As the tourist arrival increases, the foreign exchange injection increases impacting the GDP of the nation. Since there is an interrelation among these variables, the question remains that whether tourism development promotes economic growth or economic growth promotes tourism development and what are the impacts of foreign exchange rates on tourism and GDP.

4 Objectives

Main Objective: To investigate the possible causal relationship between tourism and economic growth with foreign exchange rates as an external variate, in case of Maldives, as a country with traditionally high tourism potential.

Sub Objectives: To see whether the GDP and foreign tourist arrivals and exchange rates are co-integrated time series. If there is a causality between GDP and foreign tourist arrivals and exchange rates, the study will further seek whether this casualty is unidirectional or bidirectional.

5 Research Methodology

This study is based on secondary data obtained from the statistics maintained by the Maldives Monetary Authority, International Financial Statistics and World Bank records. For the purpose of the study, the data sets for GDP, international tourist arrivals and foreign exchange rates were acquired from these sources on an annual basis. The data sets are restricted to the period of 1998-2016 with a sample of 19 observations due to the non-availability of sufficient data. A time series analysis is carried out to examine the possible two-way casualty between International Tourist Arrivals and Economic Growth of Maldives.

To test this causal relationship, I have used Multivariate Auto Regression (VAR) modelas defined below.

U= (GDP, ITA, EXR)

While GDP denotes the Gross Domestic Product as a basis for economic growth, ITA represents the International Tourist Arrivals and EXR is the Foreign Exchange Rate as an external proxy. For the basis of this study, I have adopted Regression Model with a series of time data. The econometric methods for regression applied in this study includes Unit Root Test as a basis for stationary, Johansen Cointegration Test and Granger Casualty Test.

6 Findings and Conclusions

The Johansen Cointegration results showed that there is no cointegration between the variables indicating an absence of a long-run equilibrium relationship between tourism and economic growth. Hence the variables were then tested to determine an optimal lag length using Unrestricted VAR model in order to carry out the causality test. The Granger Causality test suggested that there is a two-way causal relationship between Exchange Rate and International Tourist Arrivals and also between International Tourist Arrivals and GDP. Therefore, these variables have a bi-directional causality. However, there is only one-way relationship between GDP and Exchange Rate where Exchange rate causes GDP and GDP does not cause Exchange Rate indicating a uni-directional causality.

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Determinants of Working Capital Requirements: Evidence from Colombo Stock Exchange

Yasasi Rakkhitha Jayasinghe (yasasirj@gmail.com) &
K L W Perera (wasantha.perera@sjp.ac.lk)

1 Introduction

Corporate finance focuses on three basic decisions such as capital structure, capital budgeting and working capital management decisions. Among these, working capital management is one of the principle elements because it affects the liquidity and the profitability of a firm. Working capital refers to the part of the capital of the firm which is required to sustain the daily expenses incurred by the operational activities of the firm. Thus, it deals with current assets and current liabilities.

A firm’s current assets may account for over half of its total assets and thus maintaining an excessive level of current assets will result in a substandard return on their investment. On the other hand, if the firm does not have an adequate level of current assets it may not be able to meet their daily operational expenses when they fall due. Maintaining an adequate level of working capital would not only be helpful in the short run but will also ensure the long run survival of the business. Therefore, it is an important task of the financial manager of a firm.

As the importance of managing working capital becomes clearer, it is also important to identify the factors that determine the working capital requirements. Determinants of working capital are the items that have a direct influence on the amount invested in current assets and current liabilities of firms.

2 Literature Review

Management of working capital entails maintaining adequate liquidity in day-to-day operations to ensure smooth functioning of the business. However, according to Niresh (2012) who examined the manufacturing sector in Sri

Lanka, a firm's decision about the level of investment in current assets involves a tradeoff between risk and return. This risk return tradeoff is further explained by Bandara & Weerakoon (2011) as, greater investment in current assets leads to lower risk in terms of settling short term obligations but would result in lower profitability because of the inability to invest in the profitable long-term investments. Niresh (2012) states in his study that working capital can be regarded as the life blood of the firm and its efficient management can ensure the success and sustainability of the firm. Inefficient management may lead the firm into a pitfall.

Another important aspect of working capital management is its' determinants. Works of many researchers are available on this context, analyzing different factors and their impact on working capital management applied to both developing and developed countries.

Pandey (2015) discusses in detail about the determinants of working capital and states that, there are no set rules or formulae to determine the working capital requirements of firms. He also mentions that a large number of factors, each having a different importance, influence working capital needs of firms. The determining factors identified and discussed are; nature of business, market and demand conditions, technology and manufacturing policy, credit policy, availability of credit from suppliers, operating efficiency and price level changes.

Abbadi & Abbadi (2012) in their study of variables that determine working capital for Palestinian industrial firms found that while cash conversion cycle, return on assets and operating cash flow are significant and positively related to working capital requirements, leverage and firm size are significant but negatively related to working capital requirements. The economic variables that were tested such as interest rate and real GDP growth rate were found to have no significant impact on the working capital.

Nazir & Afza (2009) examined both internal and external factors that determine the working capital requirement of firms by studying 132 manufacturing firms listed on Karachi Stock Exchange. The finding suggested that the operating cycle, Return on Assets, Tobin's q and leverage are influencing the working capital requirements significantly. It also suggested that working capital practices are related to the industry, and different industries are following different working capital requirements. The study was unable to find any statistically significant relationship between the working capital requirements and size of the firms, sales growth, operating cash flows and economic activity.

The most recent study by Cetenak, Vural & Sokmen (2017) has addressed the determinants of working capital management not only at firm level but also industry and country level which positively adds to the literature. The study concluded that at firm level, Return on Assets has a negative relationship with working capital while Tobin's Q and Altman Z score has a positive relationship. In addition, at industry-country level, HH index, exchange rate, Lerner index, and rule of law was found to be positively related with working capital while credit from private sector variable was found to be negatively related.

It is evident that most researchers have emphasized on how working capital has impacted on the performance of the companies. The performance has been measured in terms of profitability of the firm and the performance in the market. However, theoretically, Pandey (2015) identifies several factors that would determine the working capital requirements of a firm. It can be identified that although there are studies focusing on this topic, it is only a few and a research gap can be established in the literature on the determinants of working capital management in a Sri Lankan context. This study intends to identify and try to fill that gap by developing an understanding on the determinants of working capital requirements in a Sri Lankan context, by taking in to consideration both firm level and macroeconomic level variables.

3 Problem Statement and Research Questions

This study aims to gain answers to the following research questions;

1. In order to develop an understanding of the determining factors of working capital requirements of Sri Lankan listed companies: How do firm related and macroeconomic factors affect the working capital requirements of firms?

2. Also, to identify which factors are more important in making decisions regarding working capital requirements: What are the factors that significantly impact the working capital requirements of firms?

4. Objectives

Main Objective

To identify the determinants of working capital requirements in relation to the Sri Lankan context.

Sub Objectives

1. To review the existing literature related to working capital management and identify the gap
2. To investigate the how firm related, and macroeconomic factors affect the working capital requirements
3. To identify the most important determinants of working capital requirements of listed companies in Sri Lanka

5. Research Methodology

This study is designed to investigate the determinants of working capital requirements with reference to the Sri Lankan context. The dependent variable employed in the study as a measure of working capital requirements is the working capital ratio. The study considers the independent variables including firm related determinants such as cash conversion cycle, profitability, firm size, leverage, Tobin's Q and Altman Z-score and the macroeconomic variables such as interest rate, GDP growth rate and inflation.

Secondary data has been collected for quantitative analysis from 37 companies listed in the CSE which are across the sectors of Food Beverage and Tobacco, Chemicals and Pharmaceuticals and Manufacturing for a six-year period from 2010/11-2015/16. The analysis is carried out using the Statistical Package for the Social Sciences and investigates the determinants by using several regression models. The first model includes all variables that might have an effect on working capital of Sri Lankan firms which will be used in performing the overall analysis. Thereafter several models have been developed to carry out specific analysis of each of the macroeconomic variables and firm related variables.

6. Findings and Conclusions

According to the overall analysis and specific analysis, it can be identified that among the firm related variables examined, the cash conversion cycle, profitability, leverage and Altman Z-score shows significant relationship with the requirements of working capital of firms when considered both together and separately. However, out of the macroeconomic variables, only the interest rate indicated a significant relationship with the dependent variable. This relationship can be attributed to the fact that the interest rate is a financial cost to firms and thus should affect the investments in working capital.

The analysis also indicated that the firm level determinants are relatively more important in determining the requirements of working capital of Sri Lankan companies. Therefore, although Cetenak, Vural & Soomen (2017), who conducted a similar study across 14 countries concluded that the macro level factors do have a significant relationship with working capital, through this study it can be established that the macroeconomic factors are not important determinants in the Sri Lankan context.

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Stock market development and Economic growth: Evidence from middle income countries in Asian region

Nishadi Jinendrika Jayasinghe (nishadij93@gmail.com) &
P D Nimal (pdnimal@sjp.ac.lk)

1 Introduction

Every country has some common objectives such as price stability, sustainable economic growth, equilibrium in balance of payment, low unemployment etc. Among those objectives economic growth becomes the most important factor for every country and it is crucial to understand the major factors which affect economic growth. Among the factors that determine economic growth, financial development plays an important role.

The concept of financial development to promote economic growth was introduced by Bagehot (1873) and Schumpeter (1911). They claimed that a well-developed financial system performs critical functions to enhance the efficiency of intermediation by reducing cost of information, cost of transaction and cost of monitoring which will lead to growth of an economy. More recently, the emphasis has been increasingly shifted to effect of stock markets on economic growth rather than analysing the overall financial development. The purpose of this study is to examine whether there is a strong empirical association between stock market development and economic growth with special reference to middle income countries in Asian region.

2 Literature review

Empirical evidence shows the existence of a strong positive correlation between stock market development and economic growth [Atje and Jovanovic (1993), Demirguc-Kunt and Levine (1996), Levine and Zervos (1996)]. However there exists some authors who could not establish any significant link between stock market development and economic growth [such as Bencivenga and Smith (1991), Naceur and Ghazouani (2007), Adjasi and Biekpe (2006)] who looked at developing countries.

Through existing literature, indicators of stock market development and other factors that influence economic growth are identified. Focusing on liquidity, Bencivenga (1996) and Levine (1991) argue that stock market liquidity plays a key role in achieving economic growth. Pagano (1993), Levine and Zervos (1996), Demirguc-Kunt and Levine (1996) and many other researchers have used stock market size as an indicator of stock market development.

A vast literature is available related to the stock market development and economic growth. But there are only few studies which focus on middle income countries in Asian region. Thus, the aim of this research is to fill the gap in existing literature and to develop an understanding about the relationship between stock market development and economic growth of middle income countries in Asian region. The results of this study can be helpful in understanding the importance of stock market development for the economic growth of a middle-income country.

3 Problem Statement and Research Questions

Research problem of this research is as follows:

"Is there an association between stock market development and economic growth of middle income countries in Asian region?"

4 Objectives

The main objective of this study is:

To explore whether there is a strong empirical association between stock market development and economic growth of middle income countries in Asian region.

Under this main objective, three other sub objectives are developed.

1. To identify the indicators of stock market development

2. To identify the methods of measuring stock market development indicators
3. To examine the relationship between stock market development indicators and economic growth

5 Research Methodology

In this study, GDP per capita growth (GDP) is used as the dependent variable to indicate the economic growth. As the indicators of stock market development, stock market size and stock market liquidity are used. Size of the stock market is measured by using the market capitalisation ratio (MCR). Liquidity of the stock market is measured by total value traded ratio (TVT) and turnover ratio (TOR). These two ratios measure the degree of trading, compared with the size of the economy and the equity market respectively. Inflation rate (IR) and government consumption ratio (GVT) are used as control variables.

The focused population for this research is middle income countries of Asian region. According to the data availability 11 countries were selected representing lower-middle income countries (India, Jordan, Sri Lanka, Pakistan, Philippines & Vietnam) and upper-middle income countries (China, Lebanon, Malaysia, Thailand and Turkey). Data of 11 countries within a period of 6 years provide 66 observations for this study.

This study used regression analysis as the main method of describing the relationship between stock market development and economic growth. Moreover; with the intention of supporting the results of the main method, descriptive statistics and correlational analysis are also used. Statistical Package for Social Science (SPSS) Version 22 and EViews 9 SV were used to conduct the data analysis.

The hypothesis can be presented as;

$H_{0:}$ There is no significant relationship between stock market development and economic growth of middle income countries in Asian region

Under this main hypothesis, three sub hypotheses are developed to analyse the significance of each stock market development indicator.

H_{0a}: There is no significant relationship between stock market size and economic growth

H_{0b}: There is no significant relationship between total value traded ratio and economic growth

H_{0c}: There is no significant relationship between stock market turnover ratio and economic growth

Following multiple regression model is specified.

$$GDP = \alpha + \beta_1 MCR + \beta_2 TVT + \beta_3 TOR + \beta_4 IR + \beta_5 GVT + \acute{\varepsilon}$$

Where,

GDP – GDP per capita growth rate which is the dependent variable

α – Intercept of the regression equation

MCR – Market capitalisation ratio

TVT – Total value traded ratio

TOR – Turnover ratio

IR – Inflation rate

GVT – Government consumption ratio

β1 - β5 – Represents regression coefficients of the respective independent variables

6 Findings and Conclusions

The results of regression analysis reveal a significant positive relationship between stock market turnover ratio (which is an indicator of stock market development) and GDP per capita growth rate (which indicates the economic growth) of middle income countries in Asian region. This significant relationship between stock market turnover ratio and economic growth is consistent with findings of Bencivenga (1996) and Levine (1991). Other two stock market development indicators, market capitalization ratio and total value traded ratio do not have a significant relationship with the dependent variable. Further, economic growth has a significant relationship with inflation rates and government consumption ratio which is in line with findings of Fischer (1993) and Easterly and Rebelo (1993).

F-statistics were used to test the overall significance of the developed OLS regression model. F statistic of the model used in this study is 18.927 and has a significant value of 0.000 which is less than 0.05. Therefore, it reveals that the overall model is significant.

Model summary shows a value of 0.760 as Adjusted R-square at 95% confidence level. It indicates that the model explains approximately 76% of the variations of GDP per capita growth rates of middle income countries in Asian region is caused due to the changes in the independent variables such as stock market capitalization, total value traded in stock market, stock market turnover, inflation rates and government consumption ratio. Durbin-Watson test value of 1.726 which indicates the absence of auto correlation in the data set under consideration.

Governments of middle income countries can implement numerous policies which attempt to develop stock market since it leads to economic growth in the long run. Government should ensure clear and concise rules for investment and provide incentives to attract capital on equity markets from the international monetary system. Since stock market liquidity is an important factor for stock market development, governments should promote stock market liquidity by spreading knowledge to the public about the benefits of investing in stock markets [N'Zué (2006)] and moreover, create state-run mutual funds to ensure higher liquidity on stock markets. These incentives would promote both domestic and foreign investments to penetrate the domestic economies, and thus help draw immense benefits from these sources of capital.

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The Impact of Board Characteristics on Initial Public Offerings

W K C Senevirathna (*Chathurikasenevirathna.j@gmail.com*) &
A G C Gunathilaka (*chandana@sjp.ac.lk*)

1 Introduction

Corporate governance has attracted increased attention in recent past due to financial scandals and questionable business practices reported around the world. Sri Lankan context, some corporate failures took place in the late 1980s through 2008, especially in the Banking and Finance Industry [Heenatigala (2011)]. The launching of an Initial Public Offering (IPO) is a pivotal event in a firm's history. As noted by Engel (2002), the IPO is a key event in separating ownership from control for most firms. It is often the first event in a firm's history that requires careful consideration of how to treat the owner-manager agency conflict. Therefore, firms undergoing IPOs may face many crucial governance decisions. If sound corporate governance practices are highly valued by investors, these attributes should be reflected at the time of IPO [Senaratne and Gunaratne (2008)].

Therefore, this research focuses on how corporate governance variables impact on the performance of IPO. Board size, independent non-executive directors, leadership structure, directors' shareholding, number of committees and board experiences are considered as the corporate governance variables. The majority of researchers who did researches with regard to corporate governance according to the Sri Lankan context have taken the above mentioned corporate governance variables [Dharmadsa, Gamage and Herath (2014) and Velnampy (2013)]. IPO pricing and firm value has been taken as the measurement of performance of IPO [Hearn (2010)]. Thus, the focus of this study is to examine the Board Characteristics that affect IPO pricing performance.

2 Literature Review

Hearn (2010) identifies that there is a positive relationship between underpricing and board size and also a positive relationship between IPO firm value and board size. The proportion of outside directors is positively associated with firm efficiency, suggesting that board of directors can be an effective internal governance mechanism [Lin, Ma, and Su (2009)]. A study of how corporate governance measures impact on the performance of West African IPO firms, Hearn (2011) identified that a major concern across West African IPO firms is that too much control and ownership is vested with few individuals. There is an inverse relationship between firm value and board size based on 452 large US industrial corporations [Yermack (1996)]. In Sri Lanka, IPOs are underpriced by about 34% and small issues are more underpriced than large issues. Issue size is negatively related and investor sentiment and privatization are positively related with underpricing. Small issues are more underpriced than large issues, and privatization issues are more underpriced than conventional issues. Investor sentiment affects both small and large issues similarly and does not explain the difference in underpricing between small and large issues [Samarakoon (2010)].

3 Methodology

The study uses Ordinary Least Squares (OLS) regression, for a sample of 32 Initial Public Offerings in Colombo Stock Exchange 2010 and 2016 period. There are two models used in this study, the first examines the effect of board characteristics on firm value (FRV), and the second examines the effect on initial public offerings (IPR). Table 1 explains the definitions of the variables.

$$FRV = \alpha + \beta_1 BRZ + \beta_2 IND + \beta_3 LER + \beta_4 DSH + \beta_5 BCM + \beta_6 DEX + \beta_7 FRZ + \beta_8 LEV + \beta_9 AGE \quad \text{- - (01)}$$

$$IPR = \alpha + \beta_1 BRZ + \beta_2 IND + \beta_3 LER + \beta_4 DSH + \beta_5 BCM + \beta_6 DEX + \beta_7 FRZ + \beta_8 LEV + \beta_9 AGE \quad \text{- - (02)}$$

β_1-β_9 represents the coefficient of particular variables.

4 Results and Findings

The results show that independent non-executive directors and board size is significantly and negatively correlated, and directors' shareholding and leadership structure is significantly and positively correlated. Dependent variable of firm value and control variables of firm size and leverage are significantly and negatively correlated. However, results show that there is no correlation among corporate governance variables and IPO performance. Model 1 explains the relationship between board size, independent non-executive directors, leadership structure, directors’ shareholding, board committees and board experience with the firm value. According to the results directors’ shareholding is significant at 10% significant level and therefore it is suggested that directors’ shareholding has a positive and significant impact on firm value, which indicates that firm value increases when directors’ shareholding increases. Model 2 explains the relationship between board size, independent non-executive directors, leadership structure, directors’ shareholding, board committees and board experience with the IPO pricing.

The results suggest that board size, independent non-executive directors, leadership structure, directors’ shareholding, board committees and directors’ experience don’t have any impact on the IPO pricing.

5 Conclusion

The results of this study indicate that even in many of the developed countries corporate governance reforms and practices have a positive impact on underpricing of IPO and firm value but, in Sri Lanka it still requires a long way to find such relationship. There are few research studied on this area in the case of Sri Lanka. Therefore, this study will help to shorting the gap of knowledge in this area. Awareness of these relationships assists investors when purchasing shares of particular company. Firms who have decided to go for an IPO can have significant importance, because if sound corporate governance systems are valued by investors, then companies can earn higher values, and this may also result to reduce the level of underpricing and overpricing. Finally, in general, financial analysts and academics interested in field of corporate governance and IPO performance can be benefited through new knowledge.

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Table 1- Definition of Variables

Code	Variable name	Measurement
BRZ	Board size	Natural logarithm of total number of executive and non-executive directors
IND	Independent Non-executive directors	Total number of Independent non-executive directors/Total number of Directors
LER	Dual leadership	1-If Yes/0-If No
DSH	Directors’ shareholding	Shares owned by executive directors before IPO/Total number of shares before IPO
BCM	Number of board committees	Natural logarithm of total number of board committees
DEX	Directors’ experience	Number of directors who held other directorship/Total number of directors
IPR	IPO pricing	(first day closing price-offer price)/offer price
FRV	Firm value	Ln (market value at 14^{th} trading day/revenue at IPO year)
FRZ	Firm size	Total sales/Total assets
LEV	Leverage	Total liabilities/ Total Assets
AGE	Age	Natural logarithm of number of years between firm’s founding date and IPO date

The Impact of Capital Structure on Firms' Financial Performance: Evidence from Selected Listed Companies in Sri Lanka

T M S Peiris (*peirismiyuki@gmail.com*) &
Y K Weerakoon Banda (*weerakon@sjp.ac.lk*)

1 Introduction

The firms have multiple opportunities to finance their assets in the current world and the capital structure of a company depends on the decisions of the top management. This study attempts to identify the impact of capital structure on financial performance based on the companies listed in the Land and Property, Plantation and Beverage Food and Tobacco sectors of the Colombo Stock Exchange (CSE) for a period of six years from 2011 to 2016. The empirical research findings on this field are inconclusive and the study attempts to provide a further explanation by analysing the impact of capital structure on financial performance of Sri Lankan firms.

2 Literature Review

This section focusses on reviewing the empirical evidence related to the research study with special attention to the studies conducted in the Sri Lankan context. Kajananthan and Nimalthasan (2013) performed a study on 25 manufacturing companies listed in the CSE by using Debt to Equity ratio and Debt to Assets ratio as the independent variables and Net Profit Margin (NPM), Gross Profit (GP), Return on Equity (ROE)and Return on Assets (ROA)as the dependent variables. This was conducted for a period from 2008 to 2012 and concluded that there is no significant correlation between the proxies for profitability and the independent variable, Debt to Equity ratio. The study reveals that GP and ROE are significantly correlated with the Debt to Assets ratio. Perera and Wijesinghe (2017) examined the companies listed on the same sector of the CSE but with a small sample of 16 companies and concludes that there is a negative relationship between the explanatory variables; Debt to Assets ratio and Long-Term Debt to Assets ratio and the dependent variables; NP, ROE and ROA. Nirajini and Priya (2013) investigated the companies listed under the trading sector of the CSE from

2006 to 2010 to identify the impact of capital structure on the financial performance. The researcher suggests that capital structure significantly influences the financial performance of trading companies and there is a positive relationship between the Debt to Asset ratio and financial performance indicators whereas a negative relationship subsists between Debt to Equity ratio and financial performance variables. Hamidon and Ranjani (2015) concludes that there is a negative correlation between the independent variables Debt to Equity ratio and Debt to Assets ratio with the dependent variables NPM and ROA where the researcher used several other variables as proxies for capital structure and performance. Weerathunge (2015) concluded that the industry in which a particular company operates has a significant effect on the relationship between the capital structure and financial performance.

3 Problem Statement and Research Questions

In the Sri Lankan context, research studies have not employed a comprehensive sample of companies in examining the impact of capital structure on financial performance. Hence, this research study expects to address this issue by covering the major industrial sectors; Land and Property, Plantation and Beverage Food and Tobacco with a sample frame of 6 years from 2011 to 2016and also analyses industrial effects which has been neglected in most of the research. Consequently, the study addresses:

1. Does the capital structure have an impact on the financial performance of the companies listed in the Land and Property, Plantation and Beverage Food and Tobacco sectors of the CSE?

2. To what extent does the capital structure affect the financial performance of the companies listed in the above sectors of the CSE?

4 Objective

The main objective of the study is to investigate the impact of capital structure on the financial performance of the selected companies listed in the Land and

Property, Plantation and Beverage Food and Tobacco sectors of the CSE during 2011 to 2016.

5 Research Methodology

The main source of data for this study is secondary data obtained from published annual reports. The total population is 58 companies listed in the CSE which comprises of 19, 18 and 21companies listed in the Land and Property, Plantations and Beverage Food and Tobacco sectors respectively. The selection of the three sectors was based on the importance and contribution of these sectors to the Sri Lankan economy. The companies which have published annual reports and have positive revenue for the considered period were selected for the study. The elimination of companies with negative return does not have a significant impact on the study. The following basic model is developed to investigate the impact of capital structure on financial performance. NPM, ROE and ROA are used as the proxies for financial performance.

$$FPf = \beta 0 + \beta i \sum_{i=1}^{n} Xi + \beta j \sum_{j=1}^{n-1} Dj + \beta k \, Ln \, TA + \varepsilon$$

X_i – Capital Structure proxies, measured by four ratios

Long Term Debt to Assets (LTDA)

Long Term Debt to Total Funds (LTDF)

Total Debt to Assets (DA)

Total Debt to Total Funds and Short-Term Debt (DF)

FP_f – f[th] Firm Financial Performance

$ß_0$, $ß_i$, $ß_j$, βk- Regression coefficients

D_j – Industrial type,

D_1 – Land and property sector

D_2 – Plantation sector

Dummy variables are included to investigate any industrial effects. Natural logarithm of total assets is incorporated as a control variable to account for the size of the firms measured by the total value of assets. Six alternative models are developed by considering each dependent variable separately.

Table 1: Alternative models

Model	Equation
Model 1	$NPM = ß_0 + ß_1\,LTDA + ß_2\,LTDF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$
Model 2	$ROE = ß_0 + ß_1\,LTDA + ß_2\,LTDF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$
Model 3	$ROA = ß_0 + ß_1LTDA + ß_2\,LTDF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$
Model 4	$NPM = ß_0 + ß_1\,DA + ß_2\,DF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$
Model 5	$ROE = ß_0 + ß_1\,DA + ß_2\,DF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$
Model 6	$ROA = ß_0 + ß_1DA + ß_2\,DF + ß_3D_1 + ß_4D_2 + ß_5Ln\ TA + \varepsilon$

6 Findings and Conclusion

The model 1 is significantat 0.1 level and it can be used to explain 7.96% of the variation of NPM. The two ratios LTDA and LTDF are insignificant. The dummy variable 1 is significant in determining NPM whereas the dummy variable 2 is insignificant. The regression results of model 2 reveal that the model is significant with the significance value of 0.000 and F-value is 4.991. The independent variables explain only 9.11% of the total variation of ROE. The independent variable, LTDA is statistically insignificant in determining ROE. Significant dummy variables show that the industry matters the financial performance measured by ROE. The model 3 is significant at 0.05 level and the predicting ability of the model is 22.34%. The LTDA ratio used in the model has no significant impact on ROA. LTDF ratio is significant at 0.05 level and can be used to determine ROA. Significant dummy variables imply that the industry affects the level of performance measured by ROA.

The model 4 is significant at level 0.05 and the model predicts 7.47% of the variation of NPM. DA ratio and DF ratio are insignificant in determining NPM. The dummy variable 1 is significant in determining NPM whereas dummy variable 2 is insignificant. The regression results of model 5 reveal that the model is significant at 0.05 level and 6.86% of the variation of the dependent variable is explained by the developed model. DA ratio and DF ratio are insignificant in determining ROE. Significant dummy variables imply that the industries have a significant impact on the performance as measured by ROE. The model 6 is significant at 0.05 level and the F-value is 19.329. The model can be used to predict 27.96% of the variation of ROA.

DA ratio is insignificant in determining the value of ROA whereas DF ratio, natural logarithm of total assets and dummy variable 2 are significant.

Table 2: Coefficients and Model Summary

Details	Model 1		Model 2		Model 3		Details	Model4		Model 5		Model 6	
	Coefficient	T -	Coefficient	T - Stat	Coefficient	T - Stat		Coefficient	T -	Coefficient	T - Stat	Coefficient	T - Stat
Int.	1.05	1.54	0.54**	3.06	0.25**	6.79	**Int.**	0.94	1.35	0.66**	3.63	0.29**	7.86
LTDA	0.12	0.24	-0.2	-1.5	0.026	0.93	**DA**	0.29	0.56	-0.16	-1.2	0.02	0.71
LTDF	-1.21	-1.5	0.57**	2.77	-0.16**	-3.7	**DF**	-0.89	-1.1	0.18	0.89	-0.21**	-5.1
LnTA	-0.03	-0.8	-0.02*	-2	-0.01**	-3.6	**LnTA**	-0.02	-0.6	-0.02**	-2.4	-0.01**	-4
D1	0.88**	3.28	-0.16**	-2.4	-0.03**	-2.3	**D1**	0.84**	3.09	-0.16**	-2.2	-0.04**	-3.1
D2	0.09	0.26	-0.32**	-3.6	-0.04**	-2.3	**D2**	-0.12	-0.4	-0.19**	-2.3	-0.03**	-2.1
F Val.	4.307		4.991		14.334		**F Val.**	4.02		3.668		19.329	
Sig. F	0.001		0		0		**Sig. F**	0.002		0.003		0	
R Sq.	0.08		0.091		0.223		**R Sq.**	0.075		0.069		0.28	

** Coefficient is significant at 0.05 level (2-tailed)
* Coefficient is significant at 0.1 level (2-tailed)

The model 6 which investigates the impact of DA ratio and DF ratio on ROA, has the highest R squared value of 28% and the model 3 which investigates the impact of LTDA and LTDF on ROA has a R squared value of 22%. This implies that the variation of ROA can be explained by using capital structure proxies better than the other two indicators. The variation of both NPM and ROE can be better explained by the models with capital structure proxies which include only long term debt observed by higher R squared value of models 1 and 2 than the models 4 and 5 whereas the variation of ROA is better explained by the models which include total debt.The dummy variables are significant in the models 2, 3, 5 and 6. This implies that the industry of operation affects the level of financial performance as measured by the ROE and ROA.Eventhough, all the models used in the study are significant, the explanatory power is low reflecting that there are many other factors affecting financial performance.

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Impact of Corporate Governance on Stock Price: Evidence from Sri Lankan Listed Companies

P K C L Fernando (chathurikafernando93@gmail.com) &
D B P H Dissabandara (diss@sjp.ac.lk)

1 Introduction

The share price will be affected by various drivers and forces. It is harder to point out one or few factors that effects on share price. Trust and credibility is the ground factor for investment decision on a share. In Sri Lanka stock exchange had become more active [Heenatigala (2011)]. Attracting investors is more important for companies and share price will be their prospects for engage in secondary trade.

Corporate Governance is a mechanism that direct and controls a company which ultimately aims to protect the shareholders and benefits them. Khan (2016) argues that when investor feels protection they motivate to participate in capital market activities and pay a premium for such kind of companies. This study attempts to identify the link between corporate Governance and share price in advance.

2 Literature Review

There are some limited resources which attempt to find the relationship between Corporate Governance and share price. Companies with better corporate governance structures can earn considerably higher rates of return in the market [Sarkar & Sen (2012)]. Subsequent paper Ngoc et al. (2013) found that corporate governance has 63.8% impact on stock prices and Adjusted R squared value is 0.572 which is close to R squared value that explanatory power also high. Gompers et al. (2003) it has been proved that firms with poor shareholder rights have poorly performed in stock market. It has been argued that if governance effect for firm performance positively, and if this relationship is fully incorporate by the market then stock price should adjust. However, it has been realized that it is not immediately incorporate by the market [Drobetz et al. (2003)]. Difference in firm specific governance make differ the agency costs, and these differences not incorporate in to stock price at secondary market at the very beginning, but later on with performance or operation statics investors realizes differences of these governance and decide to pay either a premium or take discount on the current stock price [Drobetz et al. (2003)]. However, in contrasting to above findings Owala (2010) reveals that there was no significant difference in stock returns between the good and weak governance portfolios when compare difference in stock returns between good and weak governance portfolios. Most of these studies are restricted in to developed countries and their efforts are concentrate on narrow area of corporate governance.

3 Problem statement

It had been supported with enough evidence that Corporate Governance has direct impact on share price from resources from various other countries. The conditions of developed countries are different with developing country. There is a not done a research in advance for find out the effect of corporate governance on share price. This study attempts to identify whether the good governance practices improves the share performance.

Therefor the research issue of this study is,

"Does the Corporate Governance of the firms affect the share price?"

4 Objective of the Study

The main objective of this study is to determine the impact of corporate governance on share price of companies listed on the CSE.

The sub objective is to measure the corporate governance of respective companies.

5 Research Methodology

Research involves a study of 64 public listed companies of Colombo Stock Exchange excluding banking and finance sector since finance sector is required to follow some governance practices as mandatory requirement. The sample had been selected according to market capitalization top few companies. Variables have been identified for the year of 2015/16 from the annual reports.

6 Corporate Governance Index

As per the secondary objective of the current study Research build a self-constructed CG index with 40 criteria using several aspirations in border sense of corporate governance using a binary coding. Index utilized various CG literature and guidelines of Corporate Governance Code of Best Practices Sri Lanka 2013. The Index has test the reliability by the consultancy of the supervisor and the weights have been allocated according to the guidance of supervisor and supportive literature.

Corporate Governance Index (CGI)= Board Structure Index (BS)+CEO and Management Index (CEO), Transparency and Disclosure Index (TR), Investor Relation Index (IV) +CSR Disclosure Index (CSR)

7 Finding and Conclusion

The sub objective of this study is to measure the governance level of Sri Lankan companies. When compare the level of CG compliance in Sri Lanka using the Index the sample shows 67% of companies out of total selected companies have disclosed more than the mean level of CG index. Descriptive statistics clearly shows that Sri Lankan accepted best practices are at a higher level which is more than 75%. It may due to mandatory requirements which should followed by the listed companies in Sri Lanka.

To achieve main objective first analysis is based on a correlation analysis; results demonstrate that corporate governance has no significant impact on share price. Component vise analysis also not demonstrate any significant outcome. This finding is contradicted with most of the current studies. Study of India by Samontaray (2010) found a significant relationship between share price and corporate governance, while Malik (2012) found same in Pakistan context. The reason may be the corporate governance may be a ground factor for investors of Sri Lanka over other factors like firm size, political and economic forces.

As the second step the sample had been clustered in to three sub samples according to the firm size. And according to regression analysis the middle size firms had demonstrated a significant positive relationship between CG Index and share price while other two extremes insignificant. This finding is more important and can be generalize for Sri Lankan companies since most of the Sri Lankan companies are medium size in assets base. The Sub Index vise regression for these three sub samples has also found a key relationship in this study. The Board Structure and Investor Relation had demonstrated a significant positive relationship between share price for smaller firms. The study had found that the corporate governance is impacts to the share price in different scene. Specially smaller firms have to be more concern about Governance provisions to perform well in the share market by attracting investors over large size firms. For larger size firms the corporate governance is a ground factor over the principle factor the firm size. This study is only focuses to find the impact of CG over share price, not the determinants of share price. Therefore, F-*Statistic* is intentionally ignored to consider the model validity.

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Corporate governance practices and performance of listed companies in Sri Lanka

Sandali Meepagalage (*Meepagalageperera@gmail.com*) &
P A N S Anuradha (anuradha@sjp.ac.lk)

1 Introduction

This study aims at examining the corporate governance mechanisms and their impact on performance of listed companies of Sri Lanka. This study shows the relationship between selected listed companies of Sri Lanka and corporate governance mechanisms which measured through ROE, ROA and net interest.

Corporate governance is a system which include rules, practices and processes which will direct and control a firm's activities and also corporate governance will involve in balancing interest of stakeholders in a firm. The recent major financial collapse shows the importance of corporate governance, it studies that these companies neglected the importance of corporate governance and the use less number of corporate governance policies and also controlling procedures and mechanisms. Corporate governance is becoming a popular topic in today's economy because of the recent Corporate collapses took place in Sri Lankan economy and an effective corporate governance practice is in a need for the protection of investors of Sri Lanka.

2 Literature review

Good corporate governance practices are helpful to increase firm performance and at the mean time these practices of corporate governance will help the firm to protect them self from risk of financial distress [Parker et al. (2002), Wang and Deng (2006), Abdullah (2006)]. "The purpose of corporate governance is to help build an environment of trust, transparency and accountability necessary for fostering long-term investment, financial stability and business integrity, thereby supporting stronger growth and more inclusive societies" (G20 OECD principles). The corporate governance practice will not only affect internal shareholders but also all the stakeholders who have an interest on firm will be affected through these practices this include environment society and also other stakeholders who are having interest on firm existence [OECD (2004)].

Manager enjoy using their power in firm and because of this power it can be a reason to occur agency cost, because when a manager uses his power it will lead to agency cost when considering about ownership consideration it will lead to reduce agency cost and with that it will increase firm performance [Shleifer & Vishny (1986)].

Under the theoretical aspect of the study this research discusses regarding Agency theory, Stewardship theory, Stakeholder theory, Resource dependency theory and transaction cost economics. Regarding to earlier studies we can study the relationship between corporate governance functions and firm performances.

There are some researchers conducted considering about firm performance [Kajanathan (2012)] this research shows that corporate governance has 34% impact on the capital structure of the Sri Lankan listed companies. Some prior researches convey that there is relationship between in corporate governance and firm performance and convey that there not. However, in Sri Lankan context there are very few number of researches done to find the relationship between corporate governance and firm performance, but with the financial collapse corporate governance came up as a very important part of a firm, this research was conducted to fulfil the need of lack of researches in this area.

3 Problem statement and research problem

Problem statement of this research is “**Impact of corporate governance for the performance of listed limited companies**”.

As following researches there is a relationship between corporate governance and firm performance, this discussion has been done by Heenetigala (2011), she discussed corporate governance practices and firm performance of listed companies in Sri Lanka, Fanta et al. (2013) discussed about corporate governance and bank performance and Manawaduge (2012) about corporate governance impact in an emerging market related to Sri Lanka.

4 Objectives

To attain our objective of the study as mentioned earlier, different variables are used in this study as to measure the performance of corporate governance and firm performance.

To measure corporate governance board size of the firm which represent the number of directors in the firm, then number of non-executive directors of the firm which represent the directors who are not employers of the firm and CEO duality which state that there are two separate persons who hold the positions of chairman and CEO, and number of meetings held per year is usedto measure Firm performance three variables as Return on asset which is percentage of how profitable company’s assets are in generating revenue for the company. Next variable is Return on equity which represent amount of net income as a percentage of shareholder’s equity. And next variable is net interest which represent the value difference between revenue generated to interest bearing assets and cost of interest bearing liabilities.

Main objectives;

1. To test the relationship between corporate governance and Return on asset
2. To test the relationship between corporate governance and Return on equity

5 Research Methodology

The purpose of this study is to analyze the relationship between how corporate governance practices are going to lead a company to improve its firm performance. The main data source is audited Financial Statements of listed companies, and to see the company performance According to the research objectives, variables used in this study are Independent, and dependent, dependent variable is performance of the firm and measuring this through return on asset and Return on equity. And the independent variable is corporate governance and measuring this through board size, no of independent directors and no of meetings held per year. Data is collected through annual reports from web-sites. When describing the variables which use to measure the performance of the bank they are ROA, ROE and Net

Interest these variables are vary according to independent variable changes that's why these variables are called dependent variables.

Secondary data for this study and all that data was obtained by financial statements of those selected listed companies from the CSE database. As the sample for this study collected data from financial year 2015/2016 and 2016/2017 from bank finance and insurance sector in Colombo Stock Exchange to see the improvement of corporate governance practices involvement in firm activities and with that the improvement of firm performance. The methodology used for the analysis is a quantitative method, through descriptive statistic method examination of the mean, maximum, minimum and number of observations is done. Correlation analysis is done to recognize the relationship of these variables which is used for the study. After the descriptive statistic regression is performed through SPSS. With regression the impact of corporate governance for the firm performance. After all this analysis from all the quantitative results we examine any interaction between corporate governance practices and firm performance.

6. Results

1. This study seems a significant relationship between corporate governance factors and firm performance of the company
2. There is a positive relationship between number of independent directors and ROA and ROE
3. There is a negative relationship between board size and ROA and ROE

7. Conclusion

The result of the study seems that there is a significant relationship between corporate governance influential factors for performance of the company. This study shows a significant and positive relationship between number of independent directors and ROA and ROE which represent performance of the firm, but board size of the firm shows a negative effect toward ROA and ROE in both the years. It seems that having more number of individual directors in the firm will increase the performance of the firm this will be due to independent directors are not having any relationship with the firm, so this director will take unbiased independent decisions which will fully focused to increase the performance of the firm. But the board size will effect negatively to corporate governance performance The reason for this negative result will be with the incensement of members of board there will be large number of ideas and discussions and this ideas can be conflict with each other, cause with large number of board it will be difficult to come into a decision cause it will be difficult to come in to a one decision when there are so many people, cause various people are from various mind sets various cultures and various background so their ideas will be different from each other. Therefore, this will be the reason for board size to have negative relationship with firm performance.

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The determinants of corporate capital structure: an empirical study of listed manufacturing companies in Sri Lanka

A G U V Perera (*ushaniveronica@gmail.com*) &
P D Nimal (*pdnimal@sjp.ac.lk*)

1 Introduction and Literature Review

Capital structure attempts to explain the mixture of securities and financing sources used by corporations to finance real investment [Myers (2001)]. Modigliani & Miller (1958) found that capital could be obtained by many different media, ranging from pure debt instruments to pure equity issues. According to Salim & Yadav (2012) the management of the firm itself has to set firm's capital structure in a way to maximize firm value. Hence, capital structure decisions should be carefully designed and implemented by the finance manager. Chandha & Sharma (2015) stated that financial manager should evaluate each and every source of long term finance by identifying their costs and benefits and then should select one which helps achieving the optimal capital mix or one that minimize the overall cost of capital. Anandasayanan & Vijeyaratnam (2015) stated even though there are several factors that contribute to the institutional performance, determinants of leverage play an important role. Therefore, it is necessary to identify what factors could be contributed in shaping firm's financing decisions. Titman & Wessels (1988) stated that the capital structure theories demonstrate how firms select their capital structure depending on attributes. Asset structure, non-debt tax shields, growth, uniqueness, industry classification, size, earning volatility and profitability are the attributes that Titman & Wessels (1988) identified in their article and they measured the effects of several different attributes by using selected proxy variables. As an example, for the profitability attribute, operating income over total assets could be considered as the proxy variables.

2 Problem Statement & Research Question

The purpose of this research study is to investigate the determinants of corporate capital structure of listed manufacturing companies in Sri Lanka. Financial difficulties would occur due to lack of proper control systems, monitoring activities and techniques related to long-term fund management. These difficulties are avoidable; if management can identify the determinants of appropriate financing mix at the right time. So that, research problem of this study is to identify the capital structure determinants. And research objective is to explain the direction of capital structure determinants towards total debt. For this explanation, we use pecking order and trade off theory.

"What are the significant factors that would be useful in determining capital structure decisions of manufacturing firms listed in Colombo Stock Exchange (CSE), Sri Lanka?"

3 Research Objectives

Primary Objective

Primary objective is to identify which capital structure theory could mostly appeal in explaining the particular behavior of capital structure determinants of listed manufacturing firms in Sri Lanka. For this discussion we mainly focus on capital structure theories of trade off and pecking order.

Secondary Objectives

1. To identify up to which extent the pecking order theory could explain the behaviors of capital structure determinants (profitability, firm size, growth, liquidity, non-debt tax shields and tangibility) of Sri Lankan manufacturing firms

2. To identify up to which extent the tradeoff theory could explain the behaviors of capital structure determinants (profitability, firm size, growth, liquidity, non-debt tax shields and tangibility) of Sri Lankan manufacturing firms

4 Research Methodology

This study is conducted as quantitative research and it is based on secondary data. Required data are collected from audited annual financial reports of manufacturing firms listed in Colombo Stock Exchange (CSE), Sri Lanka. Capital structure determinants are identified by the panel fixed effects OLS model. This model enables the ability to analyze time series (different periods) and cross-sections (different countries) simultaneously, each with one dependent and possible multiple independent variables. Data consist out of thirty (30) manufacturing companies listed in CSE for six (6) year time period, totaling to 180 observations including seven variables. Hence, the data panel is strongly balanced and consisted of 180 observations with 30 cross sections and 6-time periods.

5 Findings and Conclusions

The fixed effects regression reveals that profitability, liquidity and non-debt tax shields are significantly related with the firm financial leverage. According to the direction of significant capital structure determinant towards leverage, the pecking order theory could be identified as the capital structure theory which mostly appeals in explaining the particular behavior of capital structure determinant in manufacturing firms of Sri Lanka. Even though this research study found strong evidence to support pecking order theory, the tradeoff theory cannot be rejected. Because, non-debt tax shield is negatively related to total debt and this behavior of non-debt tax shield on leverage is predicted by tradeoff theory. Because, tradeoff theory supports the argument that non-debt tax shield decreases the financial benefit of debt and thus it lessens the need to issue debt for the tax consideration. Two significant determinants (profitability & liquidity) of capital structure in Sri Lankan manufacturing firms support the pecking order theory. Therefore, it could be concluded that the application of pecking order theory on capital structure decision is more appropriate to Sri Lankan manufacturing industry.

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Insurance Industry in Sri Lanka and Economic Development – A Correlational Analysis

Voith Mathews (*Voith.Mathews@gmail.com*) &
R P C R Rajapaksa (*champa@sjp.ac.lk*)

1 Introduction

Background Study

The need for insurance arises from fear of the unknown, fear of risk and fear of loss. The earliest known insurance instrument was a loan insurance for marine business, developed by Babylonians that dates back to 2250 BC. The importance of Life and health insurance started with the industrial revolution which created need for security that had traditionally given to a nation of farmers. Health insurance started as accident insurance in middle of 19th century with the first auto insurance in later 18th century. In terms of practice, insurance companies are divided into two namely life (Long term) and non-life insurance (General) companies. Life insurance include whole life (death), term and endowment, health while non-life insurance include liability loss, workers compensation and property loss.

Modern insurance is no longer of importance only to individuals. It is of great significance for a number of subjects. Insurance companies (IC's) play major roles as a carrier of financial risks in certain areas and as a financial intermediary in the financial market. Its value addition is spread to a broader area including investors, clients (Policy holders), and regulators. Proper intermediation results in the proper functioning of the financial market and helps transfer of funds from savers to borrowers resulting in economic development. Thus, this study investigates whether there exists a relationship between the development of the insurance industry and development of the economy.

Significance of the Study

An efficient financial system is expected to facilitate optimal allocation of resources. When capital is allocated to the most desirable projects the overall economy would be developed as a result. A financial system becomes efficient when the intermediation between savers and borrowers are done efficiently. Insurance industry being an intermediary plays a vital role in the fund transfer process in the economy. Sri Lanka (SL) counts about 25 insurance companies today. They play the important role of strengthening of competition in the financial market, stimulate financial innovation, strengthen corporate governance, contribute for increased market integrity, pressure for modernizing market infrastructure, and encourage the development of regulations, which primarily stems from their long-term business horizon. Thus, the development of the insurance industry contributes towards well-functioning financial markets that are conducive to economic development.

2 Literature review

Several empirical studies suggest a strong correlation between the development of financial intermediaries and economic growth. To highlight a few, a study by Shitti (1998) and Victor (2007) found that insurance companies greatly contribute to the socio-economic development of Nigeria. Further, Mojekwu et al. (2011) found that a positive relationship exists between the volume of insurance contribution and economic growth in Nigeria. Adams et al. (2005) found that development of the banking sector and insurance sector a positive effect on economic growth of Sweden. Co-integration relationship between economic growth and insurance sector for both short-and long-term for England was found by Kugler & Ofoghi (2005).

Turning to studies for Asia, Vadlamannati (2008) found that insurance sector reforms positively affect economic growth and financial intermediation services in India. Gaire (2012) found Strong positive correlation between insurance and non-agriculture GDP for Nepal while Ghimire (2014) found investment in insurance industry to the GDP of Nepal economy. However, except for some articles published by Insurance board of SL, no significant study has been carried out in SL in the field of insurance. Thus, there exists a gap in literature regarding studies related to the insurance industry in SL. This study aims at understanding whether there is a relationship between insurance and economic development of Sri Lanka.

3 Problem Statement and Research Questions

The role of insurance companies is being identified as vital for the development of capital market and ultimately for the economic development of a country. Sri Lanka has spent almost half century from the day they first introduced insurance to the country. A question arises as to whether the insurance sector contributes towards the economic development of the country.

4 Objective

Identify the relationship between the insurance industry and the GDP of Sri Lanka.

5 Research Methodology

5.1 Data

Gross Domestic Product (GDP) Rs. Billions is taken as the indicator for economic development and total premium income of the insurance industry (PI) in Rs. Billions is taken to indicate the development in the insurance industry. Data were collected from annual reports of central bank of Sri Lanka and Insurance board of Sri Lanka for a period of 15 years from 2002 to 2016.

5.2 Methodology

Analysis of data was carried out using the descriptive statistics and correlation analysis to show the relationship between PI and the GDP.

The following hypothesis will be tested;

H0: There is no significant relationship between PI of the insurance business and GDP of Sri Lanka.

H1: There is significant relationship between PI of the insurance business and GDP of Sri Lanka.

6 Findings and Conclusions

Looking at the descriptive results of the two variables GDP and PI, we will bring forth their mean distribution, the median, their minimum and maximum values, the standard deviation and at last the number of observation that is the time frame under consideration.

Table 01: Descriptive Statistics of variables of the hypothesis

	GDP (Rs. Billion)	Total Premium Income - Insurance Business (Rs. Billion)
Mean	5,875.47	68.67
Median	4,835	58
Maximum	11,907	143
Minimum	1,636	20
Std. Deviation	3,499.28	36.05
Observations	15	15

Source: Computed by the author

The mean of PI was Rs.68.67 Bn. and the mean of the GDP was Rs. 5,875.47 Bn. The median of PI provided a value of Rs.58 Bn, and median GDP was Rs. 4,835 Bn. which divides GDP value of the observation into two. The maximum value for PI is Rs.143 Bn and the maximum value for GDP is Rs. 11,907 Bn. The minimum value for GDP and PI are Rs. 1,636 Bn. and Rs.20 Bn. respectively. The standard deviations for GDP was Rs. 3,499.28 Bn. and Rs.36.05 Bn, for PI.

Table 2: Correlation Coefficients

Correlations

		GDP	Premium
GDP	Pearson Correlation	1	.988**
	Sig. (2-tailed)		.000
	N	15	15
Premium	Pearson Correlation	.988**	1
	Sig. (2-tailed)	.000	
	N	15	15

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

Source: Composed by the author

As per the coefficients there exists a significant positive relationship between PI and GDP. The insurance industry in Sri Lanka is still at an early stage of the lifecycle despite the growth momentum in recent times. The industry is heavily under-penetrated compared to regional peers who have comparable GDP per capita (Vietnam, Indonesia and Philippines) giving a strong impetus for a steady growth along with GDP per capita rise (level of income growth) while industry becoming attractive for companies due to low competition. There is high potential to develop the insurance industry in Sri Lanka and as indicated by the correlation statistics, development of the industry can result in development of the overall economy indicated by the GDP.

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Board Characteristics and Firm Performance: A Panel Data Analysis of Sri Lankan Firms

Lakmali Kumari (*ullkumari@gmail.com*) &
A G C Gunathilaka (*chandana@sjp.ac.lk*)

1 Introduction

Modern organizations are increasingly approaching board gender diversity as a value driver in organizational strategy and corporate governance [Morinova et al. (2010)]. Further they explain, this subject area also remains as an emergent area of concern for public debate, academic research, government consideration and corporate strategy across the societal landscape as well as in the boardroom and top executive positions. Ethnic and gender position in the Board of Directors has been an interesting corporate governance issue faced by the stakeholders [R. K. Brahmana et al. (2017)].

Corporate Governance is about effective, transparent and accountable governance of the affairs of an institution by its management, including the conduct of the Board. In this regard, corporate governance principles, that have been adopted locally and internationally [Beiner et al. (2004) cited in Dharmadasa et al. (2014)]. As well as the governance literature has recognized the importance of the board of directors in shaping corporate governance practices in a firm.

Directors are held responsible for corporate performance, sustainability, innovation and progression. Prior research has paid attention at the influence of board diversity on their corporate decisions. The directors' diversity has many dimensions like age, ethnicity, gender, experience, technical skills, perception, education and the level of independency. Therefore, this paper attempts examine the impact of board of directors' characteristics on firm performance studying panel data of Companies in Colombo Stock Market.

1.1. Problem Statement and Research Question

In most of the situations and times people talk about equality in terms of ethnicity and gender at rural, local and international level. However, from history to nowadays there are equality gaps. It can be most commonly seen in the corporate world. For example, job advertisements directly address male candidates; female candidates do not get an opportunity even for an interview. This practice continues to favor men over equally qualified women in hiring and promotion decisions. Asian Development Bank (2015) stated in their reports that women are disadvantaged by the gender division in the labor market that excludes them from higher income generating occupations. Also, personal thinking process, decisions and actions are influenced by their culture or ethnicity. In general people make biased decisions when they depend on other's material or immaterial consideration. On that basis directors' diversity and independence may influence on firm performance. With such a situation it is problematic whether directors' characteristics and independency will really impact to firm performance. Therefore, research question addresses by the study is,

What is the effect of directors' characteristics on Firm Performances?

1.2. Objective

To identify the relationship between directors' diversity characteristics and firm performances

2 Literature Review

The studies of Adams and Ferreira (2009), Byron and Post (2015), Campbell and Vera (2008), Carter (2003), Erchardt (2003), Ferell and Hersh (2005), Gul (2011), Julizaema and Sori (2012), Liu (2014), and Millar and Triana (2009) has found that there is a positive relationship between female in BOD and firm performance. Marimuthu (2008) states in his findings that directors' ethnic diversity is more likely to lead to superior financial performance. Wilson and Altanlar (2009) states that the presence of at least one female Board Director reduces company bankruptcy cost. Watson (1998) suggests diversity increases company innovation and creativity and therefore becomes a competitive advantage.

Abdullah and Ismail (2013) founded that gender is negatively associated with Return on Asset and ethnicity is positively associated. Toecks (2013) and Wellalage and Locke (2013) found a negative influence of female directors on firm financial performance.

The studies of Carter (2010), Farell and Hersch (2005), Merinova (2016), Randoy (2006) and Rose (2007) found that there is no significant association between percentage of female in the board of directors and firm performance. Most of the above studies have been done for non-financial sectors or for a particular sector. In those studies, other than directors diversity characteristic variables; firm size, age, liquidity, leverage has been used as control variables. Return on Asset has been used as the proxy for financial performance measurement.

3 Research Methodology

The target population for this study was all the listed non-financial firms in Colombo Stock Exchange in Sri Lanka. The sample data has been collected for 75 public listed companies in Sri Lanka for a period of 6 years and therefore 450 observations. Research hypothesis was tested using panel data regression equation which belongs to descriptive and explanatory research design. This study includes data from different industries and for the reliability of the test results Generalized Linear Method has been used. Hypothesis tested in this study was,

H1: Firm Age, Size, Liquidity, Leverage, and directors' characteristics (gender, ethnicity, independency) has significant impact on the Firm's ROA

The estimation model used in the study was,

Performance = f (AGE, SIZ, LIQ, LEV, GEN, ETH, NED)

$$ROA_{i,t} = \beta_0 + \beta_1 AGE_{i,t} + \beta_2 SIZ_{i,t} + \beta_3 LIQ_{i,t} + \beta_4 LEV_{i,t} + \beta_5 GEN_{i,t} + \beta_6 ETH_{i,t} + \beta_7 NED_{i,t} + \varepsilon_{i,t}$$

i, t	=	firm and time dimension of data
ROA (Return on Assets)	=	ratio of net income to total assets
AGE (Firm Age)	=	logarithmic function of the establishing years of the firm
SIZ (Firm Size)	=	logarithmic function of firm’s total assets
LIQ (Liquidity)	=	ratio of current assets to current liabilities
LEV (Leverage)	=	ratio of total debt to total assets
GEN (Gender)	=	Number of women on Board/Total number of directors
ETH (Ethnicity)	=	Number of Sinhala directors / Total number of directors
NED (Independency)	=	Number of non-executive directors/Total number of directors

β represents the coefficient of particular variables.

4 Findings and Discussions

4.1. Descriptive Statistics of directors’

The average value of the gender variable is 8 percent and it means that there is a lower representation of female in firms’ Board of Directors. The average value of ethnicity is 66 percent and thereby directors of the firm represent different ethnic groups up to a certain extent. On average 70 percent of the firm directors are non-executives.

4.2. Panel Regression Analysis

The analysis shows that firm leverage has a moderate level negative effect on firm performance at 10 percent level of significant. The increase in firm leverage will cause to reduce firm Return on Asset. Directors’ ethnicity has a lower level positive effect on performance at 10 percent level of significant. The firms whose Board of Directors consists directors from different ethnic groups will perform little better than their peers who have less ethically diversified board of directors. The non-executive directors have a significant positive impact on firm performances at 10 percent level of significant.

4.3. Granger Causality Test Results

Firm Age has significant unidirectional causality to ROA at Lag 4 at the significant value of 10 percent. Firm size has no unidirectional effect. There is no effect of Liquidity on Return on Asset but Lag 1, 2 and 3 of Return on Asset has effect on Liquidity. Previous year leverage has significant impact on current year Return on Asset at 10 percent level of significant.

4.4. Industry Wise Analysis/Dynamic Panel Data Results

The selected sample was divided to four sub samples as Manufacturing, Hotel, Food & Beverage and Diversified to identify industry wise differences. Firm Size and Leverage has significant impact on manufacturing firms' performance at 10 percent level of significant. Leverage has a significant negative impact on Hotel and Travel industries firms. There is insignificant impact of independent variables on performance of Food and Diversified industries firms.

5 Conclusion

The study finds evidence to accept possible relationship of directors' ethnicity, independency and leverage on firm performance. However, this impact is at a lower level. Also, study finds evidence to reject possible influence of firm age, size, liquidity and directors' gender on its performance. Although there is a great deal of literature which linked director's characteristics to corporate performance in developed countries, there is limited researches in developing countries; specially rare in Sri Lanka. Those studies were also conducted extensively on a particular sector or for a few numbers of companies and in most cases those studies have used only cross sectional or time series analysis. This study provides empirical analysis on the issue and expand the current literature by studying impact of the director's characteristics and firm characteristics on the performance of companies in Sri Lanka. This study will support firms to adopt efficient strategies like managing firm leverage to improve firm financial performance, regulators and other government policy makers in setting rules and procedures to uplift good corporate governance, individuals and general public to benefit from gender and ethnic equality in corporate world, Shareholders and owners to appoint a well performing director board, researchers and academicians will benefitted through the knowledge added to the existing studies and they will use findings and limitations of the research to carrying out future researchers in this subject area.

6 References

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