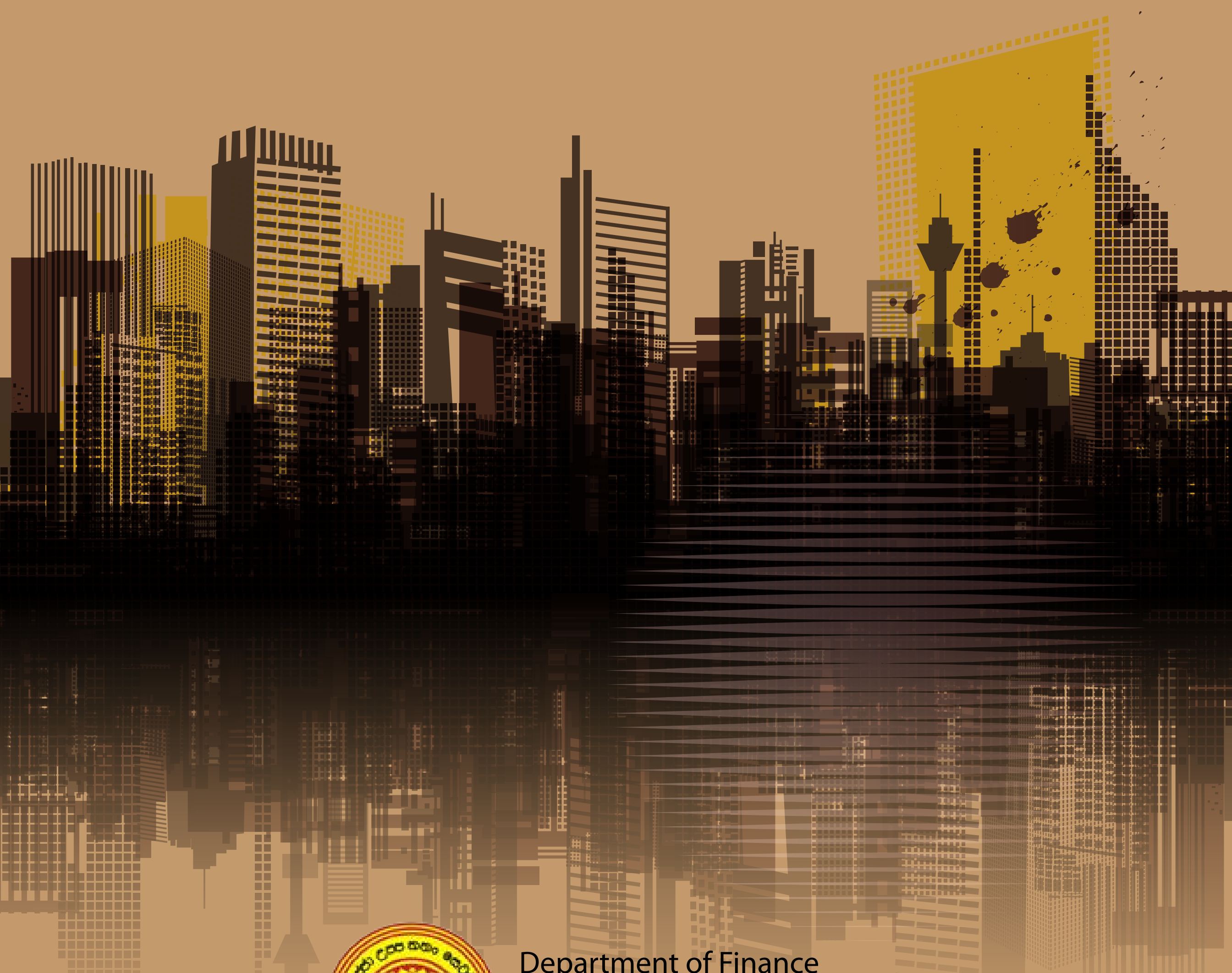
Student Conference in Finance 2017

Proceedings



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

Student conference in Finance 2017

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Nugegoda

Sri Lanka

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The Ideas expressed are the ideas of the authors and the department of
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Message from the Vice Chancellor

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

The department of Finance has been keen on strengthening research in the Finance field and by organizing undergraduate research; the department is encouraging students also to involve in finance related research.

I really appreciate this move as the Vice- Chancellor of this university, as I want to see more students focusing on research, with the supervision and guidance of the academic staff. My fervent hope is to see more and more research based output from our students.

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

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 is a great pleasure for me to send this message to the “First Student Conference in Finance “organized by the Department of Finance, Faculty of Management Studies and Commerce. I wish to convey my heartiest congratulations to the final year undergraduates of the department who present their papers.

We are committed to high quality teaching and research, promoting an intellectually stimulating multidisciplinary environment for the undergraduates, and are dedicated to impart them with specialized knowledge skills and attitudes to prepare them to face future challenges in their personal and professional lives. In achieving these objectives, the contribution of each department is of greater significance and it is the responsibility of the respective departments to create ample opportunities for the undergraduates and expose them to valuable experiences within the three years of studies in the departments in order to make them versatile graduates pledged for national development.

I this backdrop , I note this initiation as a timely decision and a praiseworthy attempt taken by the Department of Finance in line with the intents taken of the faculty to promote research habits among the undergraduates which is a necessity for the development of critical and analytical skills in undergraduates.

At the same time, I sincerely appreciate the role of the academic members of the department who encouraged, guided and supervised these promising students with much dedication and effort.

Further, I wish that the undergraduates of the department will benefit out of this special opportunity and become outstanding graduates bringing honor and credit to the Department, Faculty , University and the country

I wish you all the best!

Dr. U Anura Kumara

Dean,
Faculty of Management Studies and commerce
University of Sri Jayewardenepura

Message from the Head of the Department

“Research is formalized curiosity. It is poking and prying with a purpose.”

Zora Neale Hurston

I'm delighted to write this message for the “First Student Conference in Finance” (SCF) organized by the Department of Finance, Faculty of Management Studies and Commerce of the university of Sri Jayewardenepura. At the Department, we recognize the importance of student scholarly work in every field of study. This first SCF is going to be an annual opportunity for all Finance undergraduates all over the country to present the research they have conducted under the guidance of their Finance Faculty.

I am very pleased to mention that the department has able to reach this level because of the dedication of the undergraduate research coordinator together with very supportive team of supervisors. The Department of Finance has been keen on strengthening research in the Finance field and by organizing undergraduate research; the department is encouraging students also to involve in finance related research. The SCF is a forum for undergraduate students to showcase their research, exchange ideas, and improve their communication skills while competing with the students of the other universities. The SCF has the following goals:

- to give undergraduate students the opportunity to share their research ideas and results in a special forum that provides visibility for their work
- to provide detailed feedback to students about their research and presentation, from a distinguished panel of from industry and academia
- to give students the opportunity to meet with and interact with experts to share ideas, gain new insights, and understand possible practical applications
- to give students an opportunity to sharpen their communication skills
- to recognize and reward outstanding student research

Supporting undergraduate conference attendance over a period of one year has resulted in 14 students presenting their findings. At least one publication has resulted from undergraduate work presented at this first SCF. In this case the strength of the reaction from peers and or industry will highlight the significance of the work. For Students; promotion of a research culture, development of essential skills as outlined by subject benchmarks, 'value added' achievements to supplement their degree when CV building, a wider view and understanding of finance and research and an opportunity to meet other researchers and industry experts.

Undergraduate researchers should also tell others about their research. They think about how to frame their work to convey how interesting it is. This is an important skill not just for a conference but in general. They plan their pitch, practice it with their friends, and then further refine it through interactions at the conference. You talk first about the goals of your research, and only then about the techniques they are using. They have to convince others that the work is worth hearing about before they will be willing to listen to the technical details. Young researchers learn a lot from talking about their work — seeing what confuses people and receiving their ideas and suggestions. Further, they must remember that no one likes to be in a conversation in which they only listen. They need to always tell people about their work, but also be sure to ask others about their work. They'll also learn a lot by listening and by asking questions. Further keep an open mind, and try to deeply understand their research as well.

My sincere gratitude goes to all those who made contributions to make this first SCF a success. I wish this conference a great success which leads to a great research culture among undergraduates as well.

Prof. D B P H Disabandara

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

Message from the Chief Guest

It is with great pleasure that I send this message to the First Student Conference in Finance organized by the Department of Finance of the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura.

In today's knowledge-based economy, the creation, acquisition and dissemination of new knowledge is of paramount importance. Finance research plays a huge role in adding new knowledge and thereby enhancing our understanding of how the financial system and markets work.

As a researcher, you develop skills to clearly identify a research issue or a problem, develop a sound methodology for addressing the research issue, collect the necessary data and information, and perform statistical and econometric analysis to investigate the research issue rigorously, and discover and report answers, solutions or policy implications to the problems investigated. This process helps you to develop your basic research, analytical and critical thinking skills which will undoubtedly help you throughout your career.

I highly commend and appreciate the dedication of the faculty members of the Department of Finance and the leadership of the Department for recognizing the importance of cultivating a research culture and engaging finance students in research.

I extend my best wishes to the Department, its faculty members and the presenting undergraduate students.

Prof. Lalith Samarakoon

Secretary-General & Chief Economist
Professor of Finance – University of St. Thomas, USA

Message from the Keynote Speaker

I am delighted and privileged to send this short massage to this magazine prepared to celebrate the first ever Undergraduate Research Forum organized by the Department of Finance in the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura. A research forum is a long felt need for the undergraduates who engage in research studies in the department. This research forum will not only provide a platform to the students to present their research results to the different parties who are interested in financial research but also facilitate the researchers to explore new research interest of the society. In addition, this research forum will definitely facilitate to improve the quality of the undergraduate researches with the comments and contributions of the participants for this forum.

An undergraduate research forum will never be a successful event without the hard work, guidance and immense efforts of the academic staff members of the department as well as the commitment of the undergraduate researchers. I, therefore, take this opportunity to appreciate the dedication and commitments of both academics and students for organizing the very first informative and remarkable undergraduate research forum in the area of finance.

The quality and standards of undergraduate researches can be immensely improved by encouraging the undergraduate to conduct joint research with academic staff. The joint researches will not only provide opportunities to the students to overcome the difficulties they face in conducting research and to improve their research capabilities but also facilitate staff members to update their theoretical knowledge as well as the teaching skills. It is therefore we look forward to see more joint researches in the years to come.

Finally, I would like to take this opportunity to congratulate all the researchers who presented their research work at this forum and wish all success in their future research endeavors.

Abeyrathna Bandara

(Retd.)Senior Professor in Finance

Contents

The Impact of Corporate Governance Adherence on the Corporate Performance of Sri Lankan Listed Companies

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1 Introduction and Research Problem

Corporate governance is defined by the Cadbury Committee Report (1992) as 'the system by which companies are directed and controlled'. The field of corporate governance and its impact on firm performance has become a hot topic both in the international and Sri Lankan context. Although there is considerable empirical evidence on this topic around the world, there is no unified argument arrived yet.

As such, this study specifically focuses about identifying whether better corporate governance practices assist in uplifting the performance of listed companies in Sri Lanka and whether this relationship varies as per the firm size (firm size measured by the market capitalization).

2 Research Methodology

2.1 Sample and Data

Two sub samples of 20 companies one with the highest market capitalization and the other with the lowest market capitalization as at 01/10/2016 were considered over a period from 2011-2015 with the aim of identifying whether the relationship between corporate governance and firm performance differs as per firm size. Thus, the study covers a total of 200 firm-year observations covering 13 industry sectors thereby improving the reliability of the results.

2.2 Construction of a Corporate Governance Index

The CGI was constructed by incorporating 5 main components which are appropriate in capturing the overall adherence to corporate governance best practices. These 5 sections include; The Board of Directors, Shareholders, CEO and Management, Audit function and Disclosures and Sustainability Reporting. The components were constructed based on the guidelines issued by the Corporate Governance Code of Best Practices Sri Lanka - 2013 and the most recent UK Code of Best practices 2016.

Once the main components were decided, the weights which should be allocated to each section were decided. A separate sub questions were constructed under each of the major components

[1] The author wishes to acknowledge the guidance of Prof. D B P H Disabandara in carrying out this research

ensuring that the sub questions reflect a broad range of attributes within each of the decided major components. Each of the sub questions was assigned a score based on a Likert scale of 0 to 5. Afterwards, weighted scores under each section were calculated and aggregated to arrive at the total weighted score of each company.

2.3 Mode of Analysis

For analysing the data which have been gathered from the listed company annual reports, several techniques were used such as Descriptive Statistics, Correlation analysis and Panel data regression analysis. The weighted scores allocated to each of the sub component of CGI were used as the independent variables. ROA, ROE and MVA (Market Value Added) were used as dependent variables. Since the data set used in the study contained both longitudinal and cross sectional elements, panel data regression was performed and it was separately performed for the whole sample and two sub samples which include high market capitalization and low market capitalization companies.

3 Results and findings

3.1 Correlation Analysis

It was observed that all five individual governance components are positively correlated with ROA,ROE, and MVA. However, only sustainability reporting showed a significant relationship with EPS. Moreover, shareholder relations and CEO and Management showed a negative relationship with Tobin's Q which may be because of market anomalies in Sri Lanka, as per Manawaduge (2012).No other element showed a significant relationship with Tobin's Q.

3.2 Regression Analysis

Out of the six performance measures used at the beginning of the study, only three measures namely ROA, ROE and MVA were considered in the regression analysis because other three measures did not show any significant relationship with corporate governance adherence.

The regression analysis conducted for the overall sample indicated that corporate governance adherence exerts a significant positive impact on corporate performance in general. The governance elements of board of directors, shareholder relations and CEO and Management demonstrated a statistically significant positive impact at the 5% and 10% significance levels on financial performance as measured through ROE and ROA. It was further observed that better board practices, shareholder treatment and sustainability reporting create a positive influence on market performance as measured through MVA.

The positive association between corporate governance adherence and corporate performance was further proved by the analysis results of the sub sample of high market capitalization companies. In comparison to the overall sample, one of the specific observations made was the positive influence created by the audit function on financial performance.

As per the analysis, results of the sub sample of low market capitalization companies, it was observed that corporate governance adherence does not seem to create a significant impact on the performance of smaller firms. The only positively significant relationships observed were the positive impact of shareholder relations on financial performance and the positive impact of audit function on market performance.

4 Conclusions, implications and significance

The analysis results confirmed a significant positive relationship between corporate governance adherence and corporate performance. It was further observed that this relationship holds only in the overall sample and the sub sample of larger firms which suggests that this relationship varies as per the firm size.

The findings of the study contribute to the knowledge of corporate governance and will assist the local and international investors, managers and academic researchers in understanding the importance of adherence to corporate governance practices to uplift the firm performance.

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Concentrated Ownership and Firm Performance: Evidence from Sri Lankan Listed Companies

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1 Introduction and Research Problem

Most of the prevailing literature found has been originated in developed countries especially USA and UK. The conclusions which have been derived under the settings of developed economies may not be applicable to emerging economies like Sri Lanka. The social, economic, cultural and legal environments differ from country to country. These differences will have implications to ownership structures (Zeitun and Tian 2007). As well as different corporate governance mechanisms that are being practiced may also limit the applicability of such theories

(Shleifer and Vishny 1997). In recent time corporate governance, separation of ownership from control, agency problems have become the limelight and gained much attention especially from the investors around the world.

In Sri Lankan context, few studies have been developed including Samarakoon (1999), Senaratne and Gunaratne (2007) which analyses ownership concentration and ownership structure in Sri Lankan based listed entities. The researchers who analyse the effects to the firm performance have restricted their efforts only to either accounting measures or marketing measures and either to one of the variables of ownership concentration or ownership structure.

This study was designed to address the implications of separation of ownership from control by combining various elements related to concentrated ownership structures and financial performance. There by the research issue of this study could be defined as;

“Do the concentrated ownership structures have implications to the firm performance?”

2 Research Methodology

For the initial sample 76 companies were selected for a 5 year period starting from 2011 to 2015, representing the sectors of Manufacturing, Planation and Food Beverage & Tobacco sectors.

[2] The author wishes to acknowledge the guidance of Prof. Y K Weerakoon Banda in carrying out this research

The econometric tests of panel OLS regression analysis and LSDV model were used to assess the data. An unbalanced set of panel data is considered. This is a short panel data set where there are 51 cross sectional data and 5 time series data.

3 Results and Findings

As per the findings the ownership concentration is positively related with TQ ratio. The ownership structure consist of institutional shareholders exhibit a positively significant relationship with firm performance irrespective of the measurement used. However, there is a negative relationship between percentage of top ten largest shareholders and firm performance calculated in ROA and ROE under the levels of 5% and 1% level of significance. There are no evidences to prove the significance of this relationship.

Ownership concentration and market performance is positively related and significant at 1% level of significance. The positive relationship with ROE and SH10 is significant at 5% level of significance while ROA and SH10 were not significant at either at 5% or 1% levels of significance.

Ownership structures of non-residential shareholders were not significant with ROE. However, the relationship expresses a positively significant impact with ROA and TQ.

The results obtained for the industry effect does not indicate any significant relationship with the firm performance on either TQ or ROE whereas the relationship of manufacturing sector demonstrates a significant positive impact with ROA. This may be due to the sample biasness towards the manufacturing as it contains the largest amount of firms out of the total sample. This is similar with conclusion derived in the study of Loderer and Martin (1997).

The model which examines the effects from the time period selected does not indicate any significant relationship to the firm performance. Since the selected time period is less of volatility or any other significant incidents there is no any external impact to the key relationship of concentrated ownership and firm performance. This is consistent with the study of Zeitun&Tian (2007).

4 Conclusions, Implications and Significance

a. Conclusions

When large shareholders involves in monitoring activities, the performance of the firm increases in terms of share price These results are consistent with the studies of Shleifer&Vishny (1986) and Morck, et al. (1988). However these findings are in contrast with the study of Manawaduge et al. (2009) where they emphasize on a non-linear relationship between ownership concentration and market performance due to market anomalies. Although percentage of largest ten shareholders shows a significant impact to market performance the relationship with ROA and ROE is not significant. As well as the co-linearity between ownership concentration and ownership structure variables are moderately high. A possible reason could be due the non-profit motive of larger shareholders (Senaratne & Gunaratne 2007).

Impact from institutional owners to the firm performance in terms of both ROA and ROE is positive. According to the study of Gürbüz et al. (2010) this is because institutional shareholders are motivated to monitor the firm performance than individual owners (as cited in Wellalage & Locke 2012). The relationship of institutional owners and market performance is not significantly related. Mixed implications on the firm performance from different ownership structures may occur because of the sample selected (Loderer & Martin 1997). In most of the results generated indicates that the relationship between the fraction of institutional shareholders and the firm performance varies in accordance with the selected sample.

There is a positive impact to the firm performance in terms of both ROA and TQ from nonresidential shareowners. The evidences are not sufficient to prove the significance of the relationship between ownership structure of non-residential shareholders and ROE. As mentioned in the earlier, the non-profit motives of shareowners may be the possible reasons for this scenario also.

b. Significance Of The Study

This study helps to reduce the prevailing knowledge gap in the area of separation of ownership from control and firm performance, where the prevailing research studies are fewer especially in Sri Lanka.

Analysis, conclusions and new knowledge generated through this study will assist managers, existing as well as potential investors, financial analysts, researchers, academics, industry analysts and various other professionals when taking decisions.

c. Implications Of The Study

Specific differences between the industries in terms of their culture and technology were not considered in this study.

The three sectors in the selected sample do not demonstrate a vast difference among the industries in terms of rules and regulations, ownership structures, profit measurements etc.

Financial sector was excluded due to its different and unique nature especially regarding different applicable regulations.

Limitations inherent to secondary data for example window dressing, manipulation of financial figures when preparing financial reports by managers may prevail in the selected data set which was extracted from the annual reports. Lastly, the external factors like economic social political effects, investor preferences were omitted when considering the market value of respective companies.

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Testing the Semi Strong Form Efficiency of Colombo Stock Exchange: An Empirical Analysis on the Context of Dividend Announcements.

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1 Introduction and Research Problem

Efficient Market Hypothesis is one of the mostly researched areas in the field of finance. 'A market in which prices always "fully reflect" available information is called "efficient" (Fama pp.383 1970). In an informational efficient market it assures that the stock prices are fairly priced and no one is capable of earning excess profits. This study focuses on testing the semi strong form of efficiency because, there is a strong controversy among scholars whether the efficiency holds or not. Accordingly, it is hardly found many empirical studies on testing market efficiency of CSE. Thus, recently there could be lack of tests regarding market efficiency. Therefore, the current study focuses on studying the semi strong form efficiency of CSE. CSE is consists of 295 listed companies representing 20 business sectors and is the only market authorized to trade securities in Sri Lanka. CSE operates as a frontier market which stays above the emerging market status. As being a frontier market, CSE would generate interesting results that differ from both developed and emerging market.

2 Research Methodology

The sample covers the period from 2010 to 2015 inclusively both years and included 81 events of 31 companies, covering 15 industry sectors. The data included in the study are daily stock returns, daily market returns and dividend announcements. Moreover, this study uses standard event study methodology which is one of the widely used methodologies to test the semi strong form efficiency of the markets. It describes how fast security prices react to the release of new information. Further it examines whether the returns after the information release are abnormally high or low or simply normal. To understand this conditions of returns it is vital to calculate expected returns using estimated parameters, β and α. Then it is possible to calculate abnormal returns by subtracting expected returns from actual returns. In calculating Average Abnormal Returns (AAR), abnormal returns of all the event of each day in event period are summed up and averaged by dividing from the number of events in the sample

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{it} \quad \text{.......... (1)}$$

[3] The author wishes to acknowledge the guidance of Dr. P A N S Anuradha in carrying out this research

Cumulative Average Abnormal Returns (CAAR) means the sum of all Average Abnormal Returns over the event period

$$CAAR_T = \sum_{i=1}^{T} AAR_t \text{..} \quad (2)$$

Significance of the average abnormal returns (AAR) and Cumulative Average Abnormal Returns (CAAR) for the event period are tested using t- statistic. The t-statistics for both variables are calculated as follows.

Significance test of Average Abnormal Returns

$$\sigma^2(AR) = \frac{1}{N-1}\sum_{i=1}^{N}(AR_{it} - AAR_t)^2 \text{..} \quad (3)$$

$$\sigma^2\,(AAR_t) = \frac{1}{N}\sigma^2\,(AR_t) \text{..} \quad (4)$$

$$\sigma(AAR) = \sqrt{\frac{1}{N}\sigma^2\,(AR_t)} \text{..} \quad (5)$$

N= Number of events in the Sample

$$T(AAR) = \frac{AAR_t}{\sigma(AAR_t)} \text{..} \quad (6)$$

Significance test of Cumulative Average Abnormal Returns

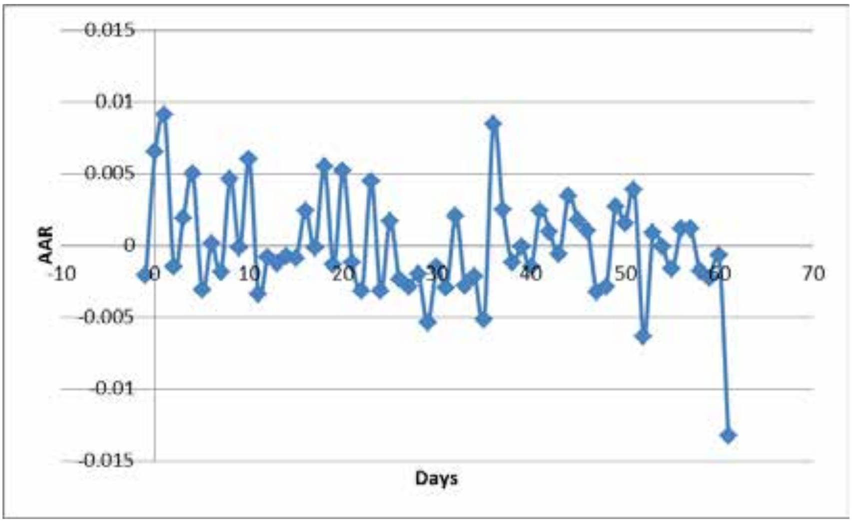
$$\sigma(CAAR_t) = \sqrt{T\,\sigma^2\,(AAR_t)} \text{..} \quad (7)$$

$$T(CAAR) = \frac{CAAR}{\sigma(CAAR_t)} \text{..} \quad (8)$$

3 Results and Findings

The AAR on event date (Day 0) and day after the event date (Day 1) are 0.0065 and 0.0091 respectively. Both are significant at 5% level of significance. Furthermore, it rejects the null hypothesis and accepts the alternative hypothesis (H_1: There are statistically significant abnormal returns during the event period) which means that there is a possibility of earning abnormal returns. However, except the AARs generated on the days such as 8, 10, 18, 20, 23, 29, 36 and 52 other AARs are statistically insignificant during 63 day event period. On the other hand AARs produced on above mentioned days are 0.46%, 0.60%, 0.55%, 0.52%, 0.44%, 0.54%, 0.52%, 0.84%, 0.64% respectively which is less than 1%. As a whole this means that the information of dividend announcements quickly incorporates in the daily prices of the stock and there is impossibility of earning considerable abnormal returns during the event period.

Figure 1. *Behavior of AAR in Event Period*



CAAR is very useful because it shows the aggregate effect of the AAR. According to Chaka borty (2011), sometimes the reaction of the share prices to an announcement of an event would not be properly reflected through AARs of a specific day. Therefore, to examine the real impact on share prices this study uses CAAR for different time intervals as given in the table 1.

This table shows the cumulative average abnormal returns around the event date for several time intervals. Moreover, they show an increasing trend and are significant at 5% level of significance.

Table 1: Cumulative Average Abnormal Returns

Time Intervals	N	CAAR	t value	Decision
(-1,+1)	2	0.0135	2.4805	Significant
(0,+1)	1	0.0156	4.0439	Significant
(0,+5)	4	0.0179	2.9017	Significant
(0,+10)	10	0.0266	2.8508	Significant
(0,+20)	20	0.0310	2.3980	Significant
(0,+30)	30	-0.0142	-0.9001	Insignificant
(0,+40)	40	0.0124	0.9122	Insignificant
(0,+50)	50	0.0194	0.9334	Insignificant
(0,+60)	60	0.0134	0.8299	Insignificant

The CAAR shows the increasing trend within the event window and during the post announcement period which is depicted by the time intervals (-1, +1) and (0, +1), (0, +5), (0,

+10), (0, +20) respectively and those CAARs are significant at 5% level of significance. It is found that prices are still adjusting in the market. That means there is a delayed reaction in the market as it takes about 20 days to fully adjust to the dividend information.

4 Conclusions, implications and significance

The results arrived through AAR analysis confirmed the semi strong form efficiency of CSE as almost all the AARs generated during the event period are not different from zero. However, CAAR analysis proved that CSE is not semi strong form efficient. This result was consistence with the Dissabandara (2001) and Menike (2014). Being compliance with them the analysis found that there is a delayed response, which means still prices are adjusting in the market and help the investors to earn arbitrage profit by using publicly available information.

The CSE is a frontier market which has characteristics different from those of developed and emerging markets. Therefore the results obtained from this study cannot be generalized to developed and emerging markets. Moreover, the study has calculated its AARs for only one day prior to the announcement date. It limits the study from analyzing the stock price reaction prior to the announcement date, which would lead to identify the insider activism. Therefore it is recommended to calculate AARs for prior announcement dates when conducting research on this area.

This study is based on only one particular publicly available information- announcements of dividend. Therefore future research could be conducted on other publicly available information such as announcement of bonus share issues, right issues, stock splits, stock dividends, earnings, issues of shares etc.

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Stock Market Performance and Macroeconomic Factors: Evidence From the Colombo Stock Exchange (CSE)

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1 Introduction and Research Problem

The introduction of open economy to Sri Lanka in 1977 brought forth outward economic policies, thus the stock market was revived in 1982 with the intention of attracting more foreign investments to Sri Lanka. Foreign investors were encouraged to invest in Sri Lanka through different BOO/ BOOT private public partnership programmes. At the same time it is important to ensure the development of the financial market where the savers and borrowers meet. Stock market as a major component of the financial market, it is important to study the stock market.

In Sri Lanka the domestic participation rate in the domestic stock market was only 2.300% in 2010 which was less compared to other developed countries (Glannetti&Koskinen 2010). It is useful to study the factors that bring volatility to the performance of the stock market to ensure increased participation of local and international investors in CSE.

Macroeconomic factors are one of the main sources of systematic risk (Erdugan 2012) that bring volatility to the performance. Therefore this study considered 'Do macroeconomic factors affect the performance of CSE?'

1.1 Significance of the Study

- The findings of the study help investors to make effective investment decisions.
- The findings of the study can be utilized in formulating effective policies.
- The findings of the study also add some knowledge to the existing literature.

2 Research Methodology

Data

Data was collected on a quarterly basis from secondary data source, Monthly Bulletins of Central Bank of Sri Lanka from 2004-2016 which resulted 49 observations.

[4] The author wishes to acknowledge the guidance of Dr. R P C R Rajapakse in carrying out this research

Table 1: Variables

Variable	Abbreviation	Dependent/ Independent
Market capitalization	MC	Dependent
Real GDP	RGDP	Independent
Inflation (wholesale price index)	INF	
Exchange rate (LKR/USD)	ER	
Money supply	MS	
Interest rate (AWPR)	IR	

Methodology

Descriptive statistics was studied to analyse the nature of the data, and the correlation analysis to identify the relationship between the independent variables and the MC. The data was tested using ADF test (Dickey & Fuller 1979) and PP test (Perron 1989) for staionarity. Long term co-integration between the variables was identified using Johansen Co-integration test. If the variables are co-integrated in the long term, VECM can be utilized. Schwarz-information-Criterion (SC) was utilized to select the optimal lag length. VECM, to identify the short term and long term causality between the macroeconomic variables and the MC. Wald test was to identify the short term relationship between the macroeconomic variables and the MC. Granger Causality test to identify the causal relationship, unidirectional or bidirectional or no causal relationship, between the macroeconomic variables and the MC.

3 Results and Findings

Table 2: Descriptive statistics

	MC	RGDP	WPI	MS	ER	AWPR
Mean	1.56e+12	9.27e+11	3701.363	1.90e+12	116.748	0.119
Median	1.21e+12	6.39e+11	3781.100	1.60e+12	113.471	0.111
Maximum	3.10e+12	2.39e+12	5193.300	4.21e+12	144.062	0.198

Minimum	3.14e+11	2.23e+11	1777.900	6.06e+11	97.418	0.063
Std. Dev.	9.47e+11	6.83e+11	1119.940	1.06e+12	12.968	0.037
Skewness	0.189	1.046	-0.303	0.605	0.525	0.543
Kurtosis	1.426	2.464	1.728	2.125	2.102	2.314
Jarque-Bera	5.346	9.526	4.050	4.547	3.895	3.364
Probability	0.069	0.008	0.132	0.103	0.143	0.186
Sum	7.62e+13	4.54e+13	181366.8	9.30e+13	5720.661	5.860
Sum Sq. Dev.	4.31e+25	2.24e+25	60204735	5.37e+25	8072.263	0.067

(MC - Market Capitalization; RGDP - Real Gross Domestic Production; WPI - Wholesale Price Index; ER - Exchange Rate; AWPR - Average Weighted Prime Lending Rate)

Correlation analysis resulted a strong positive correlation between the macroeconomic variables and MC except AWPR. According to ADF and PP tests, all the variables were stationary at the first difference at 5% significance level. Johansen Co-integration test specified one co-integration between macroeconomic variables and MC.

Long term causality was running from macroeconomic variables to MC and the long run equilibrium could be reached at a speed of 19.500%. RGDP, MS, AWPR had a negative impact whereas inflation and exchange rate had a positive impact on MC. The R^2 of the model was 26.888%, c. 27% of the variations in the MC can be explained using the selected macroeconomic variables. The model was free from serial correlation and heteroskedasticity problem at 5% significance level as the calculated P-Value was higher than 5%.

Significant short term relationship was running from inflation and money supply to MC at 5% . Bidirectional causality was evidenced between WPI, MS and MC.

4 Conclusions, implications and significance

WPI and MS had a positive impact whereas RGDP, ER and AWPR had a negative impact on the MC. Significant long term relationship was observed between the selected macroeconomic variables and the MC, and the long run equilibrium could be reached at a speed of 19.500%. Significant short term causality was running from WPI and MS to MC at 5% significance level. Bidirectional causality was observed between MC and the selected macroeconomic variables WPI, MS.

Based on the above findings following recommendations can be given,

- Central Bank of Sri Lanka can utilize the findings in formulating the policies.
- The findings can be utilized by the investors and scholars to make efficient investment decisions and to identify research gaps.

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The Impact of Working Capital Management on Shareholders wealth: Evidence From Colombo Stock Exchange

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1 Introduction and Research Problem

WCM has an important role in attaining firm's ultimate goal of shareholder wealth maximization (Baker et al. 2017). Poor working capital management has been identified as the main reason for the failure of most firms (Perera & Wickremasinghe 2010). This is mainly due to the insignificant individual impact of WCM decisions and their nature of reversibility and frequency (Singhe&Kumar 2014).It has gained much attention as a field of research after the global finance crisis which occurred in 2007-2008.

Working capital can be identified as the balance between current assets and current liabilities (Pass & Pike 1984). Proper WCM becomes essential seeing as it has direct impact on financial health and operational success of the firm. Managers should consider a trade-off between profitability and liquidity when determining working capital decisions. WCM decisions must address this mismatch between asset and liability and utilize working capital in a way that it maximizes the shareholder wealth (Padachi 2006).

Even though high profits can be created by investing more in WCM (Shin and Soenen 1998) this may lead to increase cost of investment (Deloof 2003). This would imply that proper management of working capital would have an impact not only on accounting performance of firm but also on the market performance of firm, thus research problem of this studies identifying the effect of WCM to shareholder wealth of Sri Lankan firms with special reference to multiple sectors.

Rest of this paper is presented as follows: next section provides brief discussion of data and methodology and Section 3presentsthe results and findings of the study and finally section 4would provide the conclusion.

[1] The author wishes to acknowledge the guidance of Dr. K.L.W. Perera in caring out this research.

2 Research Methodology

2.1 Data and Sample

This study was carried out using a sample of 44 companies listed in CSE, which represents 54% of the listed companies of selected five sectors (Manufacturing, Food & Beverage, Chemical &Pharmaceutical, Motors, Healthcare) during the period of 2010-2015. The data were gathered using annual reports of companies from CSE Web site (www.cse.lk). Final sample consist of with 264 observations.

2.2 Variables, Hypothesis and Models

The study has identified four independent variables (cash conversion cycle- CCC, inventory days-INV , accounts receivable days-AR) and accounts payable days- AP),one dependent variable (TOBIN'S Q) and three control variables (leverage-LEV, size of the firm-SIZE and earnings yield-EY).

All these variables are selected to test the hypothesis of the study which is,

$H_{0:}$ There is no significant relationship between efficient WCM and shareholder wealth

H_1: There is significant relationship between efficient WCM and shareholder wealth

Based on the developed hypothesis following regression models were derived separately for each independent variable and this approach would facilitate in minimizing the multicollinearity problem,

$$\text{TOBIN'S Q} = \beta_0 + \beta_1 CCC + \beta_2 SIZE + \beta_3 LEV + \beta_4 EY + \varepsilon \quad \text{......................[model 1]}$$

$$\text{TOBIN'S Q} = \beta_0 + \beta_1 INV + \beta_2 SIZE + \beta_3 LEV + \beta_4 EY + \varepsilon \quad \text{......................[model 2]}$$

$$\text{TOBIN'S Q} = \beta_0 + \beta_1 AP + \beta_2 SIZE + \beta_3 LEV + \beta_4 EY + \varepsilon \quad \text{.........................[model 3]}$$

$$\text{TOBIN'S Q} = \beta_0 + \beta_1 AR + \beta_2 SIZE + \beta_3 LEV + \beta_4 EY + \varepsilon \quad \text{.........................[model 4]}$$

In this study, it has employed both Ordinary Least Square and panel data regression. Since the gathered data are cross sectional time series data, techniques used to analyze panel data are more suitable for this study. Standard test for panel data regression is the use of fixed effect model or random effect model.

In order to decide which of these models are appropriate, Hausman test has been conducted. Accordance with the p value, failure to reject alternative hypothesis imply that fixed effect model is more suitable for this study and Durbin Watson test was performed to identify autocorrelation issues in residuals of the regression models

3 Results and Findings

3.1 Summary Statistics

Summary statistics of the study which exhibit mean value of 1.8209 for Tobin's Q whereas the median is 1.6136 which shows on average Sri Lankan firms are overvalued. Values of Tobin's Q ratio vary between the range .9472 and 5.1719 inclusive and deviate 70.45% from the mean value.

Average length of CCC is 90.62 days and shows high volatility range of minimum -1.57 days to maximum 289.9 days. Firms receive payments for their credit sales after 56.17 days on average and firms pay their suppliers after 27.36 days on average. Firms take on average 61.9 days to sell the inventory. Apart from the above independent variables the model also uses EY, LEV and SIZE as control variables. If we compare those three variables based on the mean values, highest value would be 6.3837% which is the average value of SIZE variable. LEV being the second largest possesses a mean of 23.93% and the lowest is the mean value of EY which is recorded at 6.45%.

3.2 Correlation Analysis

It can be identified that CCC has a significant negative relationship with Tobin's Q which is consistent with the literature that increase in time lag in CCC will negatively affect to the market performance of the firm. Inefficient payment collection from debtors would decrease the market value of firm which is evident by significant negative correlation between Accounts Receivables and CCC (-0.1303).This can be justified, as investors in financial markets pay concern on credit sales and late collection of debt payments since those matters act as indicators that would reflect the inefficient liquidity management of firms.

Leverage depicts a significant negative relationship with Tobin's Q (-0.2843) reflecting higher amount of debt would cause an adverse influence on market value of the firm since higher leverage increases the operational risk of the firm. In this study results indicate no multicollinearity problem since none of the independent variables shows correlation value exceeds 0.8 (Mohamad & Saad 2010).

3.3 Regression Analysis

In order to provide reliable indicator of association between the variables researcher develop regression models and used both OLS and Panel Data Regression Estimators. Findings support the hypothesis of the study indicating significant negative relationship between the CCC and Tobin's Q.Tobin's Q would reflect a decrease in the market value of the firm if there is a higher CCC which is resulted by the inefficient WCM. Coefficient of determination (R^2) of this study shows a high significance of 55.16%.

This study indicates that cash restrain due to the improper stock management would reflect management inefficiencies in the market causing reduction in shareholders' wealth Significant negative relationship can be identified between receivable days and Tobin's Q as presuming that problems in collecting debt would inflict the firm at share market. Adjusted R^2value of 0.5451 shows the high explanatory power of the model.

Negative association can be identified between Size of the firm and Tobin's Q, and both OLS and fixed effect model which can be explain through that having higher sales always do not represent good cash flow conditions of the company. Increase in leverage would enhance the operational risk of firm having only a limited amount of internal capital. This scenario is supported by the outcomes derived by the OLS model representing a negative relationship between the two variables. It can be noticed that fixed effect Model has much more explanatory power than OLS model which is indicated through high R^2values.

4 Conclusions, Implications and Significance

Investments in working capital should be carefully managed since there is a trade-off between profitability and liquidity thus efficient working capital has significant impact on shareholder wealth. Previous studies suggest that firm profitability is influenced by efficient WCM (Garcia-Teruel & Solano 2010, Jayarathne 2014)

It can be draw conclusion by the results of the study that the careful management of working capital through maintaining an optimal level of CCC would create shareholder wealth resulting from the increase in market value of the firm which indicate that financial market will penalize the firms that would fail to manage their working capital properly.

When considering the components of CCC, increase in inventory days and accounts payable would lead to a decrease in market value of the firm. Significant negative relationship was found between firm size which is measured through sales and firm value indicating high sales always does not lead to higher market value.

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Financial Literacy among University Academics: with special reference to University of Sri Jayewardenepura, Sri Lanka

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1 Introduction and Research Problem

Financial Literacy has been defined in many ways by different scholars. By considering different definitions, Financial Literacy can be defined concisely as ‘an evolving state of competency which reflects the awareness and understanding of basic financial concepts, skills, attitudes, confidence and behavior related with making informed decisions in managing financial resources in order to achieve personal, family or community goals in an ever changing financial environment’

The benefits of financial literacy can be identified at both personal and macroeconomic levels. Those who are financially literate would make financial decisions which would maximize their personal welfare. Accurate financial decisions would enhance the efficient circulation of funds in the economy. Informed decisions made by the public would minimize the information asymmetries and lead to market efficiency. However, the researchers conducted in the area of financial literacy say that the level of financial literacy among the public is not up to the standard. When considering the Sri Lanka context, the published work in this area of research is very limited. Accordingly, this study focuses on studying the financial literacy among the university lecturers in Sri Lanka with special reference to University of Sri Jayewardenepura. It is expected to answer the following questions at the end of the study.

- What is the level of financial literacy among university lecturers?
- What are the differences in financial knowledge and financial behavior among university lecturers?
- What are the relationships between (1) financial knowledge and financial behavior, (2) attitudes and financial behavior?
- What is the impact of financial knowledge and attitudes on financial behavior?

[5] The author wishes to acknowledge the guidance of Dr. R P C R Rajapakse in carrying out this research

2 Research Methodology

The Data were collected using the survey method. A structured questionnaire was used as the survey instrument. Accordingly, the data source used was Primary Data. The questionnaire consisted of 44 questions covering Knowledge, Attitudes and Behavior aspects of financial literacy. The target population of the survey is 'Lecturers of University of the Sri Jayewardenepura, Sri Lanka'. The sample for the study was drawn from the university covering the major four faculties namely, Faculty of Management Studies and Commerce, Faculty of Humanities and Social Sciences, Faculty of Medical Sciences and Faculty of Applied Sciences. Random sampling technique was utilized while maintaining a minimum representation of 15% from each faculty.

The level of financial literacy among the lecturers is measured using the rate of correct responses for each selected question. The mean percentage of correct responses is grouped into (1) more than 80%, (2) 60% to 79% and (3) below 60%. The first category represents a relatively higher level of literacy. The second category represents a moderate level of literacy. The third category represents a relatively lower level of literacy. The overall mean correct response rate of the three aspects is utilized to measure the overall level of basic financial literacy among respondents. A comprehensive descriptive analysis is conducted to examine the differences between knowledge, Attitudes and Behavior of the respondents based on different characteristics of the sample like Gender, Marital status, Level of financial education etc. A correlation analysis is conducted to examine the relationship between Knowledge and Behavior and also between Attitudes and Behavior. A regression analysis is conducted to identify the impact of financial knowledge and attitudes on financial behavior.

3 Results and Findings

Financial literacy was analyzed under three main aspects – Knowledge, Attitudes and Behavior. A higher level of knowledge is observed among the respondents about time value of money, relative interest payments made by different types of bank accounts, risk-return relationship and the difference between saving and investing. A moderate level of knowledge is shown about compound interest and diversification of risk. The respondents show lower level of knowledge about the relative riskiness of different financial instruments. The overall financial knowledge of the respondents (75.9%) is at a moderate level. The respondents show higher level of positive attitudes about the importance of financial knowledge and interest towards increasing personal financial knowledge. A low level of positive attitudes is shown for perception on the suitable age for retirement planning. The overall positive 'attitudes' of the respondents (69.7%) is at a moderate level.

The respondents show moderately accurate behavior for researching before financial decisions, regularly checking return of existing financial products, budgeting income and expenses, discussing about finance related topics. A lower level of accurate behavior is observed for retirement planning, having a life insurance cover and following steps to enhance personal financial knowledge. The overall accurate financial behavior of the respondents (59.96%) is at a lower level. The mean correct response rate for all three aspects of financial literacy under consideration is at a moderate level. Therefore according to the correct response rates, the overall basic financial literacy of the respondents (68.52%) is at a moderate level.

. When considering the differences in financial literacy, a higher level of knowledge was observed among the male respondents and those who have had financial education, than the others. Under the attitudes aspects, it was revealed that the male respondents, single respondents and those who have had financial education show more interest towards financial matters, than the others. Under the behavior aspect it was observed that male respondents, married respondents, those who have had financial education, respondents in higher age categories and higher salaries are having more desirable financial behavior in terms of financial literacy. A correlation analysis was conducted to examine the relationships between the variables. The results suggest that behavior is positively related with Knowledge and Attitudes. A regression analysis was conducted to examine the impact of Knowledge and Attitudes on behavior. The results suggest that there Knowledge and Attitudes are having a positive impact on behavior where that of Attitudes is greater than Knowledge.

4 Conclusions, Implications and Significance

According to Results and Findings it is observed that the level of financial literacy among the university lecturers is not up to the standard. The behavior aspect is at a lower level while the knowledge and attitudes aspects are at a moderate level. This suggests that financial knowledge and attitudes of the lecturers are not fully reflected in their behavior. Therefore a behavioral change of the lecturers is needed where they would fully reflect their Knowledge and Attitudes in their behavior.

According to the findings, male lecturers are more financially literate than female lecturers. When considering the level of financial education, those who had financial education are more financially literate than the others. Financial Knowledge and Attitudes have a positive impact on financial behavior. Therefore financial Knowledge and Attitudes are crucial in explaining financial behavior.

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An Empirical Study of the Informational Content of Rights Issues Announcements in the Colombo Stock Exchange

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1 Introduction and Research Problem

Right issues can be identified as one of the frequently used method of equity financing. Right issues are where companies listed in a stock exchange issue ordinary shares to the existing shareholders at a discount to the market price. Right issues, by listed companies in the CSE addressed in Section 29(A) of the Securities and Exchange Commission of Sri Lanka Act No 36 of 1987. Which was amended by act no 26 of 1991, act no 18 of 2003 and act no 47 of 2009. Share prices are the main indicator of shareholder wealth. Therefore analyzing the impact on stock prices are important to identify changes in shareholder wealth. The central question addressed in this study is how right issue announcements impact on stock prices. Additionally this study focuses on semi-strong form of market efficiency in the CSE.

2 Research Methodology

Time period considered for the study is January 2010 to April 2016. This time period is selected in order to avoid the impact of civil war taken place until 2009. During the considered period 106, rights issue announcements were taken place and overall sample was selected considering number of factors. Daily closing prices should be available for at least 135 out of 181 days considered. (75%), closing price for the day before event day and day after the event day (-1, +1) along with closing price on event date (day 0) required to be available, there should not be more than ten consecutive days where closing prices are not available during the whole period considered and there should not be any contaminated events on the announcement date. There are 71 events satisfy the above conditions from 60 companies. Overall sample represent 18 sectors in the CSE.

Sub Samples

Sub samples were formulated as;

[6] The author wishes to acknowledge the guidance of Prof. D B P H Disabandara in carrying out this research

1. Events from Bank, Finance and insurance Sector
2. Events other than events from Bank, Finance and insurance Sector
3. Events from Hotels and travels Sector
4. Events other than events from Hotels and travels Sector
5. Events generate positive abnormal returns on the announcement date
6. Events generate negative abnormal returns on the announcement date

Event study methodology is used to identify impact of various events, on stock prices either market related or firm related. Right issue announcement is considered as the event and the Event date is the calendar date on which right issue announcement first made to public. Event date (Day 0) is taken for the study is the market date on which Stock Market Daily published the right issue announcement. This study considers estimation period of 120 share market trading days, starting from -31 days from the announcement date and event window of 61 market trading days. Daily closing price and All Share Price Index (ASPI) data and data on contaminated events were collected for the considered period. Days where closing prices are not available, closing price of previous day was taken as the closing price to fill missing data. Thereby individual stock returns, market returns and abnormal returns were calculated to derive Average Abnormal Returns and Cumulative Average Abnormal Returns.

3 Results and Findings

CAAR drops drastically on the event date and negative returns are presented in overall sample. This explains that market react negatively to the announcement of rights issues. Further delayed response is observed over the post announcement period, which may arise due to, inefficiencies in information dissemination process and lack of knowledge of the investors. Returns of the Bank, Insurance and Finance sector records significantly negative returns on the event day and immediately after the announcement. Hotel and Travel sector returns record insignificant positive returns on and around the announcement date. Contrary to the findings of other samples, this shows an upward moving trend. However this may be due to investors of this sector consider the future potentials of the company than current situation. Hence tourism industry is growing rapidly after the war period. Majority of the events records negative CAAR on the announcement date (58%). Although some events records positive abnormal returns on the announcement date, those record negative returns in the post announcement period. Therefore negative market reaction is observed for the announcement of right issues.

3.1 Market Efficiency

Immediate, unbiased and full reaction by the market for an announcement indicates an informational efficient market. Delayed reactions are presented by significant negative CAAR on the considered period after the announcement for the overall sample and sub samples. Semi strong form of market efficiency is not presented with the results generated.

4 Conclusions, Implications and Significance

This study contributes to existing knowledge on how right issue announcements impact on stock prices in the CSE. Generally market reacts negatively on the announcement of rights issues. Further there is a delayed response over the post announcement period considered. Bank, insurance and finance sector has dominance in the overall sample and considerable number of events in this sector record negative returns on and after the announcement date. Market response for the announcements in Hotel and travel sector implied there is no impact from the rights issues announcement for the share prices. Moreover negative impact is stronger than the positive reaction. Delayed market response indicates that the market does not confirm with the semi-strong form of the efficient market Hypothesis. Thus it explains that in general, market reaction on right issue announcements is negative in the CSE.

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The Relationship between Profitability and Dividend Policy- Evidence from the Licensed Commercial Private Banks Listed on Colombo Stock Exchange

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1 Introduction and Research Problem

Many researchers continue to come up with different findings from their studies on the relevance of dividend policy. Most of the findings were on impact to the dividend from different factors such as the profitability, Firm size, Capital adequacy, Share ownership and liquidity.

Considering both domestic and international researches done by different authors, this study is conducted to identify the relationship between firm profitability and dividend payout among listed licensed commercial private banks traded in the Colombo Stock Exchange (CSE). At the end of the study it is expected to contribute for the completion of research gap regarding this area as very few studies have been carried out in Sri Lanka and studies conducted on investigating the relationship between profitability and dividend payout policy in the Banking sector in Sri Lanka are not known.

2 Research Methodology

Correlation analysis is used as the primary methodology of conducting the research and regression analysis and descriptive statistics are used as supportive methods .Statistical Package for Social Science (SPSS) Version 16 was used to conduct the above analysis. Out of 63 Banking Finance and Insurance sector firms 8 private licensed commercial banks are used as the sample. Secondary data sources including annual reports and CSE publications during 6 year period from 2010 to 2015 are used to obtain the data on dependent variable dividend payout and the independent variables profitability, liquidity, growth opportunities, capital adequacy and institutional investors.

[7] The author wishes to acknowledge the guidance of Snr.Prof. W M A Bandara in carrying out this research

3 Results and Findings

3.1 Descriptive statistics

The results (Table 1) show that averagely dividend payout ratio of licensed commercial private banks in Sri Lanka is 37.07%. There is an increasing trend for the percentage of institutional investor representation in firms and this is on average around 75% in licensed commercial private banks in Sri Lanka.

Minimum Capital adequacy ratios Tier I and Total Tier are with 8% and 11% which implies that Licensed Private commercial banks are well above the Central Bank minimum capital adequacy requirement of 5% and 10% respectively. Liquidity ratio is also exceeds the minimum liquidity requirement of 20% since minimum LDR is 68%. Average ROA is 1.45 which is well above the general norm of 1.

3.2 Correlation analysis

The results derived by correlation (Table 2) reveals that there is an insignificant (at 5 percent level of significance) negative relationship between dividend payout ratio and ROA(r value = -0.187($p<0.01$)).The results also reveal an insignificant positive relationship between dividend payout ratio and Loan to deposit ratio. There is a significant (at 5 percent level of significance) negative relationship between growth rates and dividend payout policy which reveals that more dividend payments are possible when there are no growth opportunities.

Further there is a significant (at 1percent level of significance) positive relationship between both Tier I and Total Capital adequacy ratio and dividend payout ratio .The results also reveal a positive insignificant association between institutional shareholding and dividend policies.

3.3 Regression Analysis

Regression analysis results are in consistence with the results derived through the correlation analysis (Table 5). Findings reveal that there is an insignificant negative relationship between dividend policy and ROA with the evidence of t –statistics value of -0.498 and higher significance value at the 0.005 significance level ($p<0.005$).Further negative relationship between growth rate and the dividend payout and positive relationships between dividend policy and other independent variables are observed as in the correlation analysis.

4 Conclusion implications and Significance

Accordingly, it can be concluded that even there is a profitability in banks, banks do not declare dividend if they are unable to meet the liquidity requirements, capital adequacy requirements and the growth opportunities. Hence it can be concluded that there is no direct relationship between dividend policy and the profitability in banking sector .Further, with increasing ownership of institutional investors, banks have to give the priority for preference of institutional shareholders in declaring the dividend. After meeting these requirements, it can be noted that banks declare dividends as a solution to the agency problem and for complying with the deemed dividend policy.

Moreover it is revealed that even there is a deemed dividend policy banks are restricted to pay dividend if they are unable to meet above mentioned requirements. Moreover with the 2017 budget proposal; it is proposed to increase the minimum capital of Licensed Commercial Banks to Rs. 20,000 million. All these requirements will impose an adverse effect on dividend declarations in future showing an unstable dividend policy in future as well

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Appendices

Table 1 : Operationalization framework

Concept	**Variable**	**Indicator**	**Measurement**
Dividend payout	Dividend pay out	DPO	Dividend per share Earnings per share
Profitability	Return on Asset	ROA	Net Income total assets
Control variable	Growth opportunities	Growth	Retention ratio*Return on equity
	Capital adequacy	CAR	Tier I, Total Tier
	Liquidity	Loans to Deposits Ratio (LDR)	Loans and advances Customer deposits
	Institutional Investors	II	Percentage of II

Table 2: Descriptive statistics

	N	**Minimum**	**Maximum**	**Mean**	**Std .Deviation**
ROA	48	.00	.04	.0145	.00680
GROWTH	48	.00	.98	.1328	.14000
TIER I	48	.08	.42	.1387	.06248
TOTAL	48	.11	.41	.1600	.05446
LDR	48	.68	1.16	.9036	.10872
DPO	48	.00	2.37	.3707	.34948
INSTITUTIONAL	48	.34	.93	.7487	.16076
Valid N (listwise)	48				

Table 3: Correlation Matrix

Variables	DPO	ROA	LDR	GROWTH	TIER I	TOTAL	II
DPO	1						
Sig(2tailed)							
ROA	-.187	1					
Sig(2tailed)	.203						
LDR	.013	.055	1				
Sig(2tailed)	.931	.709					
GROWTH	-.324*	.020	.208	1			
Sig(2tailed)	.025	.895	.157				
Tier I	.454**	-.347*	-.213	-.297*	1		
Sig(2tailed)	.001	.016	.147	.040			
TOTAL	.446**	-.292*	-.130	-.209	.962**	1	
Sig(2tailed)	.001	.044	.378	.153	.000		
II	.114	.205	-.207	-.417**	.103	.070	
Sig(2tailed)	.442	.163	.158	.003	.487	.634	

*. Correlation is significant at the 0.05 level (2-tailed).

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

Table 4: ANOVA

Model	F	Sig
1 Regression Residual Total	2.584	0.032

Table 5: Model Summary

Model	R	R square	Durbin- Watson
1	.524	.274	1.530

a. Predictors: (Constant), INSTITUTIONAL, TIERI, TOTAL, LAR, LDR, GROWTH, ROA

1. Dependent Variable: DPO

Table 6: Coefficient for predictors of Performance

Model	Unstandardized coefficients		t	sig
	B	Std. Error		
1 (Constant)	-.285	.546	-.522	.605
ROA	-3.837	7.706	-.498	.621
GROWTH	-.629	.397	-1.585	.121
TIER I	.495	3.182	.156	.877
TOTAL	1.937	3.453	.561	.578
LDR	.423	.463	.915	.366
INSTITUTIONAL	.045	.331	.135	.893

a.Dependent variable :DPO

The Impact of Prospectus Information Content on the Initial Market Performance of Initial Public Offerings: A Case from the Colombo Stock Exchange (CSE)

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1 Introduction and Research Problem

The studies on the impact of information content of prospectuses on the initial market performance of IPOs have become very popular within the field of finance in recent years. The main reason behind that is the information asymmetry between the managers and the potential investors of the firm. This information asymmetry encourages the investors to more concern on the information included within the prospectuses about firm's historical financial performance, ongoing projects and future prospects.

The literature on the impact of information content of prospectuses on the initial market performance of IPOs can be found mainly in relation to foreign capital markets. Hanley &Hoberg (2010) and Nam et al. (2008) have concluded that there is a negative relationship between the information content disclosed in IPO prospectuses and the initial market performance which is measured through the level of initial underpricing. Underpricing of IPOs is widely accepted as a short-run market phenomenon which is also considered as a universal phenomenon (Perera&Kulendran 2016)and the period considered is typically very short and often represents a one-day return to the investor (Beneda,2004).

When greater information content is presented in IPO prospectuses in terms of high reputation underwriters and issuing firm managers, through Management's Discussion and Analysis, it improves the accuracy of offer prices and reduces the underpricing(Hanley & Hoberg,2010). It was also observed that there is a significant relationship between the risk measures which are developed using word count ratios and the number of risk-related information contained in the prospectus and the initial returns of IPO (Arnold,Fishe& North, 2006). Conversely, in a strategic point of view, higher level of disclosure affects the firm's performance negatively as competitors, suppliers, and customers will use the information and may reduce the competitive advantage of the firm (Nam et al, 2008).Therefore, it is vital to determine whether more information content will result in higher return for both investors and the firm or not. This makes the studies on this topic more popular among the researchers globally.

[8] The author wishes to acknowledge the guidance of Dr. K L W Perera in carrying out this research

This study mainly aims to contribute the literature in Sri Lankan context by filling the existing empirical gap in relation to the effect the information content of prospectuses on the initial returns of IPOs. The study is conducted to identify whether there is an impact from prospectus information on the initial market performance of IPOs with special reference to 29 listed companies in Colombo Stock Exchange.

The remainder of the study is organized as follows. Section 2 discusses data and methodology and Section 3 presents the results and findings of the study and the final section concludes the study.

2 Research Methodology

2.1 Data and Sample

In identifying the impact of information content of prospectus on the initial market performance of IPOs in the context of Sri Lankan capital market, the actual historical stock prices and the value of ASPI were obtained from Colombo Stock Exchange publications. Prospectus information were obtained from the official website of Colombo Stock Exchange and individual companies' websites. The study is carried out using cross sectional data from year 2011 to 2016. Out of the new listings on the CSE, equity introductions and Initial Public Offerings of debentures were excluded from the initial sample in order to select Initial Public Offerings of equity. The convenience sampling technique (a non-probability sampling technique) was used within the period of 2011 to 2016. Final sample contains 29 ordinary stocks since one ordinary stock was excluded due to being an outlier in examining the normal distribution of the initial returns. Appendix 1 provides the detailed description of the sample in terms of issue year and the sector.

2.2 Variables, Hypothesis and Models

In order to identify the impact of information content of prospectus on the initial market performance of IPOs, Initial market performance of IPOs and the information content of prospectus is used as the dependent variable and the independent variables respectively.

Within this study, initial market performance of the IPO is calculated in two measures namely gross initial return and the market adjusted initial return which are calculated as follows.

$$GR_i = \frac{P_{i,t} - P_{i,o}}{P_{i,o}} * 100 \qquad \text{……………………..(1)}$$

Where;

GR_i= Gross initial return for i^{th} ordinary stock

Pi,o = Offer / issue price of the i^{th} ordinary stock

Pi,t= Closing price of the i^{th} ordinary stock at its first trading day on the stock market

$$\text{MAR}i = \left(\frac{Pi,t-Pi,o}{Pi,o} - \frac{Mt-Mo}{Mo}\right) * 100 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where;

MAR_i= Market adjusted initial return for i^{th} ordinary stock

Pi,o = Offer / issue price of the i^{th} ordinary stock

Pi,t= Closing price of the i^{th} ordinary stock at its first trading day on the stock market

M_o = Value of the ASPI on the prospectus issue date

M_t = Value of the ASPI on the first trading day of the i^{th} ordinary stock on the stock market

Independent variables for this study can be considered as the information content published in prospectuses. Age of the issuing company, proceeds value of the IPO, issue Price of an ordinary share, EPS value, revenue growth, ROE, word count of Issue Summary, Management Discussion and Analysis, Risk Factors and Use of Proceeds sections are used within the regression model as the proxies for information content of prospectuses.

The researcher uses the OLS regression in order to identify the relationship between the dependent and independent variables. The two dependent variables were regressed separately against the independent variables according to the following regression equations.

$GRi = \beta_0 + \beta_1 AGE_i + \beta_2\ PROCEEDS_i + \beta_3 ISSUE\ PRICE_i + \beta_4\ EPS_i + \beta_5 GROWTH_i + \beta_6\ ROE_i + \beta_7 ISSUE\ SUMMARY_i + \beta_8\ MD\ AND\ A_i + \beta_9\ RISK\ FACTORS_i + \beta_{10} USE\ OF\ PROCEEDS_i + \varepsilon$ ……………………………………………………………………….(3)

$MARi = \beta_0 + \beta_1\ AGE_i + \beta_2\ PROCEEDS_i + \beta_3 ISSUE\ PRICE_i + \beta_4\ EPS_i + \beta_5 GROWTH_i + \beta_6\ ROE_i + \beta_7 ISSUE\ SUMMARY_i + \beta_8\ MD\ AND\ A_i + \beta_9\ RISK\ FACTORS_i + \beta_{10} USE\ OF\ PROCEEDS_i + \varepsilon$ ………………………………………………………………………………………………(4)

3 Results and Findings

3.1 Summary Statistics

Data analysis is done by checking the normal distribution of the two dependent variables using histograms and the Summary statistics. Appendix 2 presents the results of summary statistics which shows that the Sri Lankan IPOs are underpriced by 7.7289% and 8.9588% on average when the initial return is measured through gross initial return and market adjusted initial return respectively. Gross initial return varies from its mean value by 20.0996 % with a maximum and minimum value of 0.518794 and -0.471384 respectively. Market adjusted initial return varies from its mean value by 18.5791 % with a maximum and minimum value of 0.580706 and -0.358551 respectively.

3.2 Correlation Analysis

Appendix 3 provides the results of Pearson Correlation of coefficients for the variables used within the study.

According to the results of the correlation analysis, Firm age is positively correlated with the initial returns. Issue price is negatively correlated with both dependent variables of gross initial return and market adjusted return. The content of all the sections of prospectus is positively correlated with the initial returns except the issue summary section of the prospectus. Revenue growth rate is negatively correlated with the initial returns where the initial returns will be low for high growth companies. Revenue growth rate and the age are negatively correlated factors with each other. Proceeds value is negatively related with the gross and market adjusted initial return.

3.3 Regression Analysis

Multiple linear regression analysis is conducted with Ordinary Least Square method to regress the dependent variables against the independent variables. The results are provided under Appendix 4 and 5.

Analysing the estimation output of the OLS on gross initial return and market adjusted initial return, three independent variables namely risk factors, revenue growth and issue price significantly affect on the determination of Initial market performance of IPOs.

The results of the regression models imply that the content of risk factors section has a significant positive relationship with both gross and market adjusted initial returns. It is consistent with the findings of Hussein &Zhong-Guo(n.d) and Hanley &Hoberg(2010) where the standard content has a positive relationship with initial returns but is inconsistent with the informative content that has a negative relationship with initial returns. This implies that the more content of risk factors are disclosed within the prospectus, the more that investors can earn as initial returns. This indicates the risk averse nature of investors who are going to invest in new and growing companies where the shares need to be offered at a price that will generate more initial return to investors.

Revenue growth of the IPO firm is found to be negatively related with both gross and market adjusted initial returns. By disclosing information on the higher revenue growth of the company, the managers to the issue can create a positive perception on the future of the company and make the investors feel that the offer is much valuable to invest. Therefore the investors are ready to pay a higher offer price and will satisfy with lower initial returns. Investors will expect a lower offer price and higher initial returns if they are to invest a firm with lower revenue growth.

The results imply that the Issue Price of a share is having a significantly negative relationship with gross and market adjusted initial returns. With higher issue price, the initial returns will be lower since the margin earned on the issue price will be lower.

4 Conclusion implications and Significance

According to the findings on the literature, greater information content disclosed within the prospectus will result in lower initial returns to the investors since the information will be reflected within the stock prices and the accuracy of stock price changes will be high. (Hanley & Hoberg,2010) and (Nam et al.,2008)

As per the findings on the OLS regression analysis, the most significant information category is the Issue related information since both Issue Price and Risk factors section are significantly impact on the initial returns. This study provides the conclusion that the more content on risk factors result in more initial returns due to the risk averse nature of investors. The results are in line with the literature of Hussein &Zhong-Guo(n.d) in terms of Risk factors. Initial return of the shares is found to be negatively affected by the Issue Price.

When Accounting information is considered, the most significant factor that determines the initial return is the revenue growth of the IPO firm. Revenue growth is found to be negatively affecting on the initial returns of IPOs which encourages investors to pay higher prices for a share with higher growth in revenue.

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An Empirical Analysis of Market Response to Announcements of Stock Splits in the Colombo Stock Exchange

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1 Introduction and Research Problem

Stock splits have become a phenomenon that has been much debated in the field of finance. Thus, there are different arguments related to stock splits such as the signaling hypothesis, liquidity hypothesis, neglected firm hypothesis and managerial entrenchment hypothesis. Although the stock split itself does not affect the value of capital, considerable attention has been paid on the announcement of stock splits by researchers. Thus, this empirical study investigates the response of the market to the announcement of stock splits in the Colombo Stock Exchange (CSE). The study explicitly focuses on identifying whether there is a significant impact of stock split announcements on share price. Thus, this research problem is converted into following research objectives.

Main Objective

- To investigate the market response to announcements of stock splits in the CSE

Auxiliary Objective

- To investigate the semi-strong form market efficiency of the CSE in case of stock split announcements

2 Research Methodology

The Event Study Method (ESM) is utilized to identify the impact of stock split announcements on share price. This particular methodology is widely employed to identify the immediate impacts of events such as dividend announcements, stock split announcements, and rights issue announcements etc. to price sensitive information. ESM includes estimation of individual stock returns, market returns, and expected returns and ultimately the estimation of abnormal returns of the securities. Finally the significance of the abnormal returns is tested by estimating the respective t-statistics of each abnormal return.

[9] The author wishes to acknowledge the guidance of Prof. D B P H Disabandara in carrying out this research

3 Results and Findings

The empirical results of the study provide evidence that the announcement of stock splits has a significant impact on share price. Thus, there are significant positive abnormal returns of 2.99% and 5.17% on the date of announcement and the day after the announcement respectively. Further, 68% of the total stock split announcements have responded positively and 32% of the total stock split announcements have responded negatively on the date of announcement. The analysis is further extended by sub dividing the overall sample based on sectors and based on the direction of the response on event date. Those sub samples also provide supportive evidence that the announcement of stock splits has a significant impact on share price. However, price adjustment as response to the announcement of stock split exists even after the date of announcement in overall sample as well as the sub-samples. Further, several important observations have been revealed. The events that had a negative response to the announcement of stock splits on the event date demonstrate a significant positive response on the day after the event date. This may be due to lack of comprehension of market participants about stock splits. Furthermore, different securities of the similar company have responded in opposite directions. More precisely, for a particular security, some market participants have responded positively while the others have responded negatively for the same stock split announcement in the same company. The differences in security performance may have caused this different response.

4 Conclusion implications and Significance

The results of the empirical study confirm that the announcement of stock splits has a significant positive impact on share price. Thus, it implies that the market considers the stock split announcement as good news. This study has extended the analysis by sub dividing the overall sample. It allows addressing the set research objectives more deeply. However, the evidence of the study is not adequate to confirm the semi-strong form market efficiency of CSE because of the existence of delayed price adjustments as response to the stock split announcements. Thus, the price adjustment does not reflect full, instantaneous, and unbiased behavior. However, the time taken to adjust the prices as response to the announcement has decreased in compared previous studies in CSE. It implies a decrease in market inefficiency in the CSE and an increase in information dissemination process of CSE.

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An Analysis of the Credit Rating Industry in Sri Lanka

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1 Introduction and Research Problem

With the implementation of economic policy reforms in 1977, private sector (domestic and foreign) activities gradually increased in the economy. Establishment of stock market in 1985 and the commencement of bond market operations in 1990 made a wider access to capital requirements than the traditional bank borrowings.

Sri Lankan investors are reluctant to invest in both debt and equity markets as there is no balance of information between the market participants. This niche is filled with the use of credit ratings by providing unbiased opinions on the credit worthiness of the borrower.

In October 1999 the first credit rating company, 'Duff & Phelps Credit Rating Lanka Ltd' (now known as Fitch Ratings Lanka) was established in SL. And currently two CRAs; 'Fitch Ratings Lanka (FRL)' and 'Information and Credit Rating Agency Lanka (ICRAL)' are performing in Sri Lankan financial system.

Problem Statement: The role of CRAS is identified as vital for the development of capital market and ultimately for the economic development of a country. Sri Lanka nearly has spent 16 years from the day they first introduced credit rating service to the capital market participants. A question exists regarding, how the credit rating industry has been performing for the past 16 years and what is the current situation of credit rating industry in SL.

Therefore this study expects to address this question and identify the current situation of the credit rating industry in Sri Lanka. The main objective is to identify the CRAs and their role played in the credit rating industry; with two sub objectives as identifying the rating activities and evaluating the performance of the credit rating industry, and elaborating on the mandatory requirement of credit ratings in Sri Lanka. The major limitation of the study is the lack of agency wise data for the analysis of financial performance, fee structure, rating quality and rating methodology.

2 Research Methodology

For the analysis of industry performance, annualized revenue, net income, and total asset figures have been collected. The data related to rating activities has been collected from the rating reports published by rating agencies. The data related to the mandatory requirement of credit

[10] The author wishes to acknowledge the guidance of Dr. R P C R Rajapakse in carrying out this research

rating has been collected from SEC Sri Lanka, Colombo Stock Exchange (CSE) and some of the electronic articles. The qualitative data also has been collected from interviews. In-depth interview sessions have been carried out with the Managing Director of ICRAL.

A collection of analytical methods has been used for the analysis of data. To identify the trend (increasing/ decreasing) in credit rating activities, a line graph is drawn. Based on the total activities, the market share is calculated.

Using pie charts rating activities are being analyzed, according to whom those ratings are assigned (Banks, corporate sector entities, insurance companies, funds and non-bank financial institutions (NBFIs)).To identify the coverage of credit rating activities in SL, a percentage component bar chart is drawn.

Industry performance is analyzed by using three performance indicators; profits, innovations and efficacy (White 2001). To evaluate the profit performances of rating agencies annual 'Net income to total assets' ratios and 'Total revenue to total assets' ratios have been calculated and has showed it in a line graph. Data analysis related with innovations and efficacy is being carried out based on the data collected from the interview.

The mandatory requirement in the field of Credit rating in SL is identified under two different aspects, as the listing requirements in Colombo Stock Exchange (CSE) and the implications of Basel II accord. Subsequently, the implications of Basel II accord and considerations on the other mandatory requirements of SEC are to be discussed.

3 Results and Findings

The findings show that there is an increasing trend in the total rating activities carried out by existing rating agencies. It implies a growing tendency in the credit rating industry. There are few other private companies which also have got rated. But necessarily more corporate entities are getting rated nowadays and it has caused for an increasing trend in the rating activities in SL. As a result of that, the profits performance in the rating industry is increasing. An average of 7.77% net income to total assets ratio has been appeared for the five year period from 2011 to 2015.

In SL, no considerable amount of innovations has been arisen in this industry, other than the existing traditional ratings. Because the rating market as well as the capital market is still underdeveloped. Therefore the capital market development is a key factor to stimulate the issues of new structured instruments to create alternative sources of funds, thus motivating financial innovations.

In the process of assigning a credit rating, both ratings agencies commonly look into quantitative and qualitative factors which come under the business analysis, management and financial analysis. When they come out with a rating, it reflects all those information. This enables investors in Sri Lankan capital market to take informed investment decisions based on their risk-return preferences. It reflects the efficacy in the credit rating industry.

The findings show that FRL occupies maximum share nearly 78% of the credit rating industry. Since FRL pioneered the rating activities, they have got a higher reputational advantage than ICRAL. From the total activities, nearly, 73% of rating services are carried out for banking and non-banking financial institutions.

In the Sri Lankan banking sector, more than half of banks have been rated (68.75%). The less rated sector in SL is the corporate sector entities (other than Banks, Insurance and NBFIs listed in CSE); only 11.76% has got rated. The lower percentages of rated entities reveal that the most of the institutions in these different sectors have not yet identified the importance of the credit rating. Most of the entities are getting rated, as they want to mobilize funds from the public. But the prudent way is to get the ratings, long time before a public issue. It leads to maintain a consistent rating and greater confidence in the mind of investors.

However, ratings have been used in SL, mainly because of its mandatory requirement in listing rules and for the financial institutions who take deposits from the public. Corporate entities which are registered under Companies Act, No. 7 of 2007 and listed in CSE to issue their debt securities, have been rated as a result of this mandatory requirement. On the other hand the Central Bank of Sri Lanka (CBSL) adopted the standardized approach of Basel II accord in January 2008 and, it made credit rating of bank borrowers mandatory. Most of the people ask why they should take ratings; as they are having very poor level of financial literacy.

4 Conclusion implications and Significance

Establishment of the credit rating industry was vital to the development of debt market in SL. In a developed economy like the US, one of the key success factors of mobilizing funds is credit rating. The capital market with the intermediation of CRAs is believed as a low cost, efficient way of raising funds rather than the funds get from banks.

Sri Lanka with her upgrade as a middle income country should identify the importance of brainstorming on credit rating. It will increase the use of credit rating in the country. And will help local issuers to raise capital more cost- effectively and to have a wider access to different funding sources.

This study addressed the niche of the studies carried out in SL and explored more information about Credit ratings, CRAs, rating activities, industry performances and the mandatory requirement of Credit rating in SL.

The findings show that there is an increasing trend in the total rating activities carried out by existing rating agencies. As a result of that, the profits performance in the rating industry is increasing. But the overall credit rating industry in SL is still at an immature stage. Because of the less number of rated entities, less innovations and lesser use of credit ratings by the market participants in their decision making process.

FRL occupies maximum share of the credit rating industry and have got a higher reputational advantage than ICRAL. Their ratings, on an international rating scale enables the comparability against other international ratings in the world and an opportunity for local issuers to structure their debt to get the attention of foreign investors by obtaining and maintaining an investment grade rating notches.

Though the number of CRAs in SL is less than the average in the Asian region, they always focus on the quality of ratings. Therefore the credibility on the information they have been providing is high. Moreover the issuers are not allowed to bargain for favorable ratings. But if CRAs had been members of Association of Credit Rating Agencies in Asia (ACRAA) they could interact and exchange the ideas, experiences, information, knowledge and skills among the credit rating agencies in Asia. Therefore it is advisable to become a member in ACRAA.

However, ratings have been used in SL, mainly because of its mandatory requirement in listing and for the financial institutions who take deposits from the public. But in developed countries, people use at least two minimum ratings, before they make a decision on an investment opportunity and it creates the objectivity of the use of credit ratings.

Therefore in SL, still the ratings have been widely used because of its mandatory requirement. However this enforcement of rating requirement helps to improve the attractiveness of the bond market while minimizing the default risk. It also reduces the high dependability on the bank financing and improves the investor confidence in Sri Lankan bond market.

At the end of this study it is worthwhile to make out, what are the hindering factors for a developed credit rating industry in SL. The most critical factor is the lower level of financial literacy. The majority of savers in SL invest in high-pressure savings accounts believing those as safe investments. They have got a poor knowledge in risk return trade-offs. Increased awareness of the credit rating and risk management will help savers to diversify their investment portfolios including high quality corporate debt securities instead the bank savings. Ratings could reduce uncertainty and encourage bond market growth, greater capital market efficiency and liquidity.

The next most important factor is the developed bond market situation. In SL the debt market is nearly nonexistent. Even the large institutions depend on banks borrowings or use their own retained earnings. As reviewed in the literature, the role of credit rating is well played in a developed bond market scenario. Countries like United States (US), United Kingdom (UK), Japan, Germany and China have a developed bond market mechanism and the role of the CRAs is vital in their markets. If the Sri Lankan bond market expects to be grown significantly, then there is a significant chance for a developed credit rating industry. Enforcement of rating requirement and developing the settlement and clearing system, will help to increase the bond market activities by minimizing the default risk.

This study expects to fill the gap of studies carried out in the field of credit rating. It will be an initiative to further studies in SL. The author believes that the further studies in the field of credit rating will accommodate for the knowledge improvement on the importance of credit rating. As well as, it will be favorable for the development of financial market in SL.

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A Comprehensive Analysis of the Factors Influenced the Demand For Microcredit - A Survey of Selected Microcredit Consumers in Badulla District with Special Reference to Samurdhi Bank and Sanasa Development Bank Plc

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1 Introduction and Research Problem

Microcredit means lending practices intended to empower the poor by making funds available to entrepreneurs as well as small businesses whose financial resources, economic status would prevent their eligibility for traditional business,(The Oxford Dictionaries 2016*)*. The demand for microcredit loans and advances have increased by 113.69% from 2014 to 2015 when it was 21.01% in Commercial Bank sector. Over the last decade the microfinance industry in Sri Lanka has recorded annual average growth of 50%, (The Central Bank Report 2015). Although the Microfinance industry in Sri Lanka is not that new, previous research attempts to find out the determinants of the demand for Microcredit products have been very minimal and that do not understand fully what drivers have caused the demand over the time in Sri Lanka. This study therefore intends to fill the gap in research into the determinants within which microcredit demand occur in Sri Lanka. Microfinance industry collapsed in several countries in recent year due to various circumstance and it was identified that several issues; evidence from Microfinance Bubble in India and Bangladesh. It is unlikely to have a similar condition due to several reasons in Sri Lanka (Tilakaratna and Hulme 2015). The demand for microcredit is continuously recorded high growth rate than other industries through reviewing the existing literature on MFIs in Sri Lanka, but it did not explain why demand for microcredit is increased. Test Hypothesis

- $H_{1:}$ Type of microcredit products which consumers normally buy, have different proportion in Badulla district.

- H_2: Borrowers with higher levels of financial literacy have a higher chance for demand of microcredit products.
- H_3: There is an association between economic factors and demand for microcredit products.
- H_4 : There is an association between socio- demographic factors and demand for microcredit products.
- H_5 : There are some challenges to the buyers of microcredit products in Badulla district.

[11] The author wishes to acknowledge the guidance of Snr. Prof. W M A Bandara in carrying out this research

2 Research Methodology

Independent Variables Dependent Variable

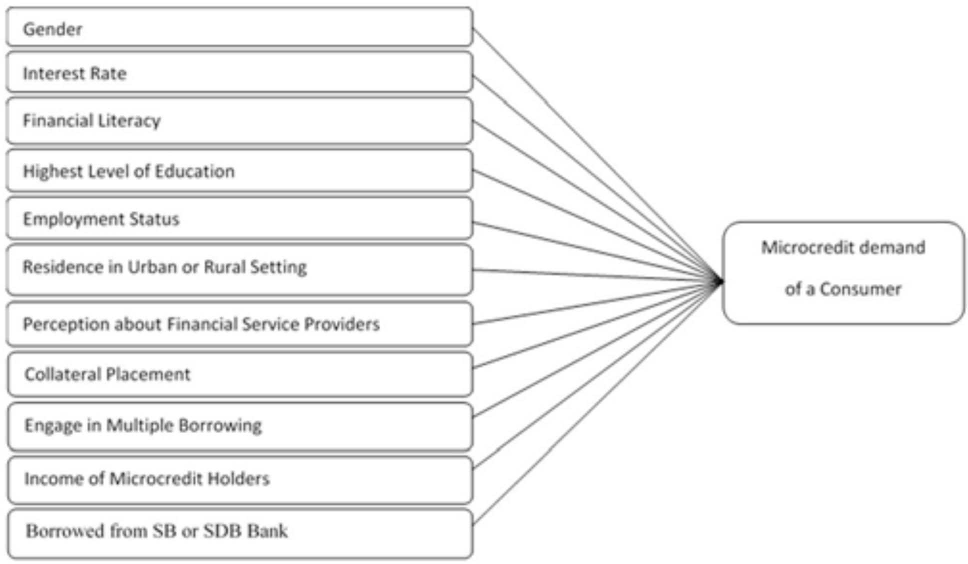

Figure 1: Conceptual Framework

The population is the credit holders of the SDB and SB. The total population is approximately 50,000 out of which the sample was drawn. This research used a sample size of 100 consumers, out of that 50% from the SB and balance from the SDB. Primarily, customer information was used since the investigation is more demand-side focused than supply factors. Convenience sampling procedure was employed. Using this approach, information was elicited from respondents who had visited the companies to transact with business and who was volunteered to provide the information by willingly completing questionnaires. The researcher made sure that data was verified from different sources, that is why questionnaires were designed and interview was conducted to assess the major determinants of the demand for microcredit product. The effective rate of response in the sampled population was 83.33%.

3 Results and Findings

The agricultural credit products and credit products that focused on development of existing self-employment activities were the most subscribed by consumers. The credit products to animal husbandry were the least subscribed credit product in Badulla district. Majority of the microcredit consumers have a basic knowledge about the financial literacy and more than one-third of sampled population were educated up to the Advance level. As per economic factor, 40.00% of the sampled population have an average monthly income of Rs. 15,000-20,000 and only 19.00% of respondents average monthly income is more than Rs.20,001. Among the sociodemographic factors, most microcredit products were subscribed by the rural women consumers in age range between 46-60 years whose occupation is self-employment without any professional education. The collaterals required by the credit institutions, lack of fund management knowledge and information about the market forces behaviour such as the finish goods prices, raw materials, tariffs imposed by the government and the customised repayment terms of the credit facilities are the key challenges faced by microcredit consumers in Badulla district. This may evidence that most of microcredit facilities are depend on the trust of the consumers and social collateral created by the microcredit institutions through group based lending practices. The average credit demand of a person in the SDB is higher than the SB due to diversified credit products which were focused on all level of the credit holders.

Table 1: Analysis Results

Variables	Significant Variables		
	One-Way ANOVA and Kruskal-Wallis	Correlational Analysis	Regression Analysis
• Gender (X1)	Significant*	-	Not Significant
• Awareness of Interest Rate (X2)	Not Significant	Not Significant	Not Significant
• Level of The Financial Literacy (X3)	Significant**	Significant**	Not Significant
• Level of Highest Education (X4)	Not Significant	Significant**	Not Significant
• Employment Status (X5)	Not Significant	Not Significant	Not Significant
• Residence in Urban Or Rural Setting (X6)	Significant*	Not Significant	Significant**
• Perception about Financial Service (X7)	Not Significant	Not Significant	Not Significant
• Collateral Placement (X8)	Significant*	Significant*	Significant*
• Engage in Multiple Borrowing (X9)	Not Significant	Not Significant	Not Significant
• Income of Microcredit Consumers (X10)	Significant**	Significant*	Not Significant
• Borrowed from SB or SDB Bank (X11)	Significant*	-	Significant*

"*" Significance at 5% level and "**" Significance at 15% level

Table 1 : Summary of the Tests

$$\mathbf{DMC_i = 236{,}603.99 - 35{,}942.71{*}X_1 + 5{,}282.45{*}X_5 - 16{,}772.46{*}X_6 - 106{,}041.16{*}X_8 + 13{,}663.62{*}X_{10} + 104{,}458.19{*}X_{11} + \varepsilon}$$

……………………………………………………*Equation 1: S Multiple Regression Model*

According to the model, an institution can forecast the **creditworthiness** of a particular consumer and how much of credit facility can be beard by him/her.

4 Conclusion implications and Significance

The study set out to explore the drivers of microcredit consumption with a case study of some selected microcredit companies in Badulla district in Sri Lanka. The study can wrap up that collateral requirements, assisting services to the self-employment and repayment terms of credit are the challenges faced by the consumers. The public will demand more microcredit products if the gender is female, if the level of education financial literacy is high, income levels improve generally in the economy, less collateral requirements and far out from urbanized areas. However, interest rate, employment status, perception towards financial service providers and engage in multiple borrowing activities are not major determinants of demand for the microcredit product.

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Factors Influencing the Life Insurance Demand in Sri Lanka

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1 Introduction and Research Problem

The insurance industry consist companies and people who develop insurance policies, sell, administrate, and regulate them. Some insurance companies offer investment products and employ people who develop, sell, administrate, or service these products. Insurance is about managing risk, for both the insurance company and its customers. The company must make sure it collects enough money in premiums to offset customers' claims while still maintaining a profit. Customers use insurance to minimize risk to their finances in the case of lost or damaged property, lawsuits, illness or accident, business interruption, or premature death. (http://www.vault.com)

Insurance industry is the one sector in financial system in Sri Lanka and that directly affects to the Gross Domestic Product (GDP) (0.5% of GDP represents the long term insurance and 0.6% of GDP represents general insurance). Insurance companies are carrying on both long term insurance business and general insurance business according to Insurance Board of Sri Lanka (IBSL) report 2015.

Annual report of IBSL shows that in Sri Lanka at the end of the year of 2015, 30 insurance companies are held. Out of those 30 insurance companies 3 companies are carrying on both long term and general insurance business. 12 companies are carrying on long term insurance business and 15 companies are carrying on general insurance business. From those 30 companies 23% companies are listed on CSE and 77% of companies are non-listed.

In the insurance sector in Sri Lanka maintained its growth is without major prudential concerns and recorded 3.3% of relative shares in term of total assets of financial sector at the end of 2015 year. Total gross premium growth when compared to premium recorded in 2014. Long term insurance business generated in premium Rs.53575 million in 2015 and Rs.44596 million recorded in 2014. Total assets also increased of the year 2015 when compared the year 2014 through that total asset of long term insurance in year 2014, Rs.247061 million became Rs.305897 million in year 2014 with maintaining 13.73% of growth percentage.

[12] The author wishes to acknowledge the guidance of Dr. P A N S Anuradha in carrying out this research

Market leader of the long term insurance provider in Sri Lanka is Ceylinco insurance and the 12.12% of Gross Written Premium has increased in year 2015 when compared to 2014 regarding its annual report published in last year 2015.

There has a continuous growing pattern of life insurance Gross Written Premium income even though growth rate did not have growing pattern in accordance with IBSL annual report 2015. Gross Written Premium in 2013- 41676 Mn, 2014- 44596 Mn, 2015- 53575Mmn. Growth Rate in long Term Insurance Premium Income in 2013- 11.2%, in 2014- 7.01% and in 2015- 20.13%. What factors effect to this demand in Sri Lanka is the question regarding this statistics. This research is to identify factors influenced to the life insurance demand in Sri Lanka.

2 Research Methodology

Quantitative data was used for this study. The relevant data was collected from secondary sources and analyzed using statistical software. The dependent and independent variables for this study, namely life insurance demand and macroeconomic factors such as disposal income, inflation rate, age dependency ratio and market return are normally presented in terms of numerical value published from the related organization, i.e. Central Bank Annual Report and the World Bank Data Meta data indicator.

This study uses a time series data for a 6 year period as the sample size. The macroeconomics focuses on the overall state rather than each individual unit. Therefore, all life insurance demand from the whole industry in Sri Lanka was used to analyze the impact. Moreover, all the data was collected on a monthly basis in order to obtain 72 samples for the analysis. Pearson's product moment correlation coefficient (ρ) and multiple linear regression model (MLR) were used as two method to find significant factors to life insurance demand in Sri Lanka.

3 Results And Findings

Correlation analysis was done for analyze the existence and the strength of the relationship between the dependent variable and the independent variables. GDP per capita and age dependency ratio and significantly correlated with life insurance demand and inflation rate and market return did not significantly impact to the life insurance demand.

Table 1: Correlation analysis between dependent and independent variable

Variables (Xi)	Correlation with Y	p-value
GDP Per Capita (X1)	0.799	0.000*
Age Dependency Ratio (X2)	0.853	0.000*
Inflation (X3)	-0.150	0.208
Market Return (X4)	-0.131	0.274

Significant level 0.05

Multiple linear regression model with stepwise analysis indicated that only age dependency ratio significantly impacted to the life insurance demand.

Table 2: Total Life Insurance Demand Stepwise Analysis

Variables		Coef	Beta Coef	P-value
Constant		-27671.513		0.000
X2	Age Dependency Ratio	618.192	0.853	0.000

Note: R^2= 72.7%, Standard Error of Estimate = 338.18110

4 Conclusion implications and Significance

Age Dependency Ratio was the main contributor of total life insurance demand in Sri Lanka. That factor had an almost perfect positive relationship with each other. If the Age Dependency Ratio increases which would be resulting in the increase in total life insurance demand in Sri Lanka would largely increase due to higher demand for insurance.

These findings may be used by the policy makers in life insurance industry and the government. This will help to understand and solve life insurance market problem in Sri Lanka.

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*Central Bank of Sri Lanka.(*www.cbsl.gov.lk*)*

Sri Lanka Insurance – "Like a father – Like a mother". (www.srilankainsurance.com)

Vault.com - Get an inside look at companies. (www.vault.com)

Analysis of the Relationship in between Income Diversification and Performance of Commercial Banks Operating in Sri Lanka

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1 Introduction and Research Problem

Primarily banking sector creates huge competition among banks besides as a solution they leading to cost reduction, differentiation and diversification strategies. Diversification is critical for decision makers in banking sector. Bank diversification is the provision of more products and services by a financial institution. The clear benefit to bank diversification is higher revenues. Banks can increase earnings from existing customers by providing them with more services, and also improving customer loyalty. Customers may be pleased that they can use the bank for a variety of services, rather than having to go through several intermediaries. This can build up a more committed customer base of people who will stay with the bank and recommend it. The banking sector continued its focus on prudent management of credit risk however the operating profits showed a decline of 19 percent in 2015 and profitability as measured by Return on Assets (ROA) and Return on Equity (ROE).

When considering the Sri Lanka context, the published work in this area of research is very limited. Accordingly, this study focuses on studying the as a risk management strategy, whether, diversification improve bank performance or not in present context. This research is expected to answer the following questions at the end of the study.

- Whether there is an impact on bank performance through bank income diversification.
- Whether there is a relationship between asset size and bank performance.
- Whether there is a relationship between bank equity and bank performance.
- Whether there is a relationship between assets growth and bank performance.
- Whether there is a relationship between bank lending rate and bank performance.
- Whether there is a relationship among bank performance, income diversification, asset size, interest rate, and bank equity and growth rate.

[13] The author wishes to acknowledge the guidance of Snr. Prof. W M A Bandara in carrying out this research

2 Research Methodology

This study has used secondary data for the investigation. The data utilized this study was extracted from the comprehensive income statements and financial position of the respective banks. The licensed specialized banks have been ignored from the sample since the financial position, financial performance are not same as the licensed commercial banks and therefore it is irrational to include in the same sample as to analyse the relationship.A regression analysis is conducted to identify the relationship between bank income diversification and banks' performance. Researcher used the following empirical specification to analyze the relationship.

ROEi,t = β1+ β2 DIVIi,t + β3ASSETi,t + β4 EQUITYi,t+ β5 GROWTHi,t+ β6 ITNERESTi,t +Ui,t…………………………………………………………………………………(1)

ROAi,t = β1+ β2 DIVIi,t + β3ASSETi,t + β4 EQUITYi,t+ β5 GROWTHi,t+ β6 ITNERESTi,t +Ui,t…………………………………………………………………………………(2)

In order to measure income diversification level of each bank selected the widely using Diversification Index (DIVI) and Herfindahl Index (HHI) for all banks. In view of the parts of net interest income and non-interest income in total net operating income, HHI and DIVI measure is calculated as follows:

HHI = (NET/NOI) ^2 + (NON/NOI) ^2 ……………………………(3)

DIVI = 1 - (NET/NOI) ^2 + (NON/NOI) ^2 …………………….(4)

Or

DIVI = 1 – HHI……………………………….……(5)

Net operating income (NOI) includes the total value of NET and NON. HHI equation above (3) diverges between 0.50 and 1.00. HHI value of 0.50 specifies complete diversification in a bank, while HHI value of 1.00 denotes the lowest level of income diversification.

DIVI equation above (4) diverges between 0.00 and 0.50. DIVI value of 0.50 specifies complete diversification in a bank, while DIVI value of 0.00 denotes the lowest level of income diversification.

Performance measures are based on accounting profit ratios. These ratios are return on equity (ROE) and return on assets (ROA) defined as annual net income divided by equity and total assets individually. Most of the earlier researches used ROA and ROE as their performance measures. (Romana Bunch et al (2009); D'Souza and Lai (2003); Allen N. Berger et al (2010); Viral V. Acharya et al (2001); Stirohkevin J (2002).

ROAi,t = Total Net Returni,t/ Total Assetsi,t……………….(6)

ROEi,t = Total Net Returni,t/ Total Equityi,…………………(7)

Where ROEi,t and ROAi,t specify performance measures, for the bank i in the year t. Total Net Return of the bank i in the year t derive through profit after tax of banks and divide by total assets and total equity respectively of i bank in the year of t to generate ROAi,t and ROEi,t. Further the study proceeds with the analysis of correlation coefficient derived from Pearson's correlation test. It is expected to identify the relationship between the variables involved in each case separately for the two models. The existence of a kind of correlation would imply that there is a high chance of deciding the return on assets and return on equity with using the diversification index and other several control variables.

3 Results and Findings

According to the findings of the research, it evidences Sri Lankan private sector commercial banks benefited from diversification and able to gain moderate return during the sample period. But diversification is not a strategy which Sri Lankan commercial banks familiar much up to now. As a percentage non-interest income is 29% from total operating income during sample period this figure is most assisted by one foreign bank and one local commercial bank, therefore cannot conclude that there is a considerable effect from local commercial banks. Although the non-interest income portion in private commercial banks operating in Sri Lanka is not considerably high still it can affect to changes in return of the banks.

Income Diversification variable has taken positive coefficient in both models moreover it is significant in both models. Beta value of Income Diversification is 30.744 times in ROE model and 4.655 in ROA model, which indicate both models, have significant effect from Income Diversification and it shows that when Income Diversification increase by 1 unit ROE and ROA increased in 30.744 and 4.655 respectively. Asset variable has a positive coefficient but it is not significant in ROA model. Equity variable has a statistically significant negative relationship with ROE. According to the empirical result Growth variable hasn't a statistically significant relationship with bank performance. Interest Rate is a variable that cause to increase the bank performance in Sri Lankan context.

4 Conclusion implications and Significance

According to Results and Findings it is observed that bank income diversification, bank equity and interest rate were significant variables to increase bank performance in Sri Lankan commercial banks based on model two (ROA).However income diversification and interest rate only were significant variables to increase bank performance in Sri Lankan commercial banks based on model one (ROE) .Therefore when determining banks return if banks concern on income diversification, they able to obtained competitive advantages rather than other players in the industry. Thus when take decision, whether diversify the income generating activities or not is important for decision makers of commercial banks in Sri Lankan context.

According to past literatures and this research in future studies on impact of income diversification longer sample period can used and also effects of sub-categories of non-interest income generating activities can also be investigate. And also can add more variables to the models for the empirical analysis. Banks can obtain the diversification benefits as long as they well examined and understand up to what extent diversification will help to gain a positive result by considering its own capabilities, characteristics and the risk level.

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