Corporate Governance, Accounting Education and Forensic Accounting in Sri Lanka

CA | THE INSTITUTE OF
CHARTERED ACCOUNTANTS
OF SRI LANKA

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President's Message

I am pleased to send this message for the Second Research Journal of the Institute of Chartered Accountants of Sri Lanka (CA Sri Lanka).

As Sri Lanka's national body of accountants, it is our prime responsibility to work towards upholding the standards in the public interest while ensuring excellence in education & the accounting profession. With this objective in mind, the institute has ventured in to research activities with the aim of further enhancing the profession.

Transformation and disruption are words that are very relevant to our profession and there is an underlying need to focus on research and to be aware of these changes that are taking place and are directly affecting our profession. This is why it has become increasingly important for us as a profession to adapt with these continuing changes, if we are to remain relevant. Therefore, this second Research Journal of the institute, is part of a continuing endeavor to help our members understand the importance and requirement of remaining relevant despite the challenges that we as a profession are facing at present.

This second research publication carries six research papers covering Corporate Governance, Accounting Education and Forensic Accounting. I believe it will be very insightful to the readers, while also giving them an important perspective on these pertinent areas.

Any publication needs hard work and commitment, and this is also the result of the dedication and commitment from a cross section of groups and contributors, and I believe the hard work of these groups are reflected well in this edition. Therefore, I wish to express my sincere appreciation to the Research Committee Chairman Mr. Nishan Fernando and the Committee Members, as well as the Researchers, Research Supervisors and the support given towards this endeavor by the technical division of the institute in producing this publication.

Jagath Perera
President
The Institute of Chartered Accountants of Sri Lanka

10th December 2018

Chairman's Message

It is my honour and privilege to issue this message in my capacity as the Chairman of the Research Committee for the CA Journal of Applied Research, which is published for the consecutive second year. This Journal carries six research papers on contemporary issues in relation to the accounting profession which will be presented at the conference. The key areas addressed in this Journal are Corporate Governance, Accounting Education, and Forensic Accounting.

Research is an area which is somewhat lacking in most professional accounting curricula but is an important element that a comprehensive professional accountant should possess. I am certain that this initiative will open new avenues for CA Members and CA Students as well as SAB Graduates to engage in research and publish the research papers in a recognized research journal.

I have been fortunate to have an excellent committee and immense blessings of the President, Vice President and the Council. The contribution made by Dr. Roshan Ajward, Editor in Chief in getting this journal at this level of quality is invaluable. It is also my pleasure to appreciate the excellent coordination of all activities connected to the journal and the conference displayed by Ms. Diluka Pathiranage, Secretary to the Committee.

I trust that the research papers will provide valuable findings in the respective areas which could be useful in various means. I am certain that this initiative would prosper in the coming years.

I wish the research conference all success.

Nishan Fernando
Chairman
Research Committee

10th December 2018.

Table of Contents

THE IMPACT OF FIRM CHARACTERISTICS ON CORPORATE INTERNET REPORTING: EVIDENCE FROM SRI LANKAN LISTED COMPANIES

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Abstract

Corporate Internet Reporting (CIR) is a significant communication phenomenon in the world. Research indicates that there are several CIR issues in developing countries as well as there is a dearth of the studies in the Sri Lankan context. Accordingly, this study is designed to identify the current level of CIR and what are the significant firm characteristics that impact CIR in the Sri Lankan context using a quantitative research approach using secondary data. The level of corporate internet reporting is measured using a disclosure index on CIR. Multiple ordinary least squares regression, multiple ordinal regression and correlation analyses are used to identify the significant determinants of CIR. The results indicate that of 100 companies examined, despite 83% of Sri Lankan companies have their own corporate websites, the overall level of CIR is only 16.2%. The content disclosure sub-score is on average 12.52% and the level of presentation format disclosure sub-score of CIR is 26.88%. Further, the explanatory analyses suggest that variables, auditor size, market capitalization, and the representation of hotel, travel and service industry are significant firm characteristics that impact the level of CIR. Overall, however, mixed evidence is noted. This study addresses the knowledge gap in identifying levels of CIR and firm characteristics and expected to have significant policy implications.

Key Words: Colombo Stock Exchange (CSE), Content Items, Corporate Internet Reporting (CIR), Determinants, Listed Companies, Presentation Format

1 INTRODUCTION

Corporate reporting serves as a bridge between management and stakeholders and Corporate Internet Reporting is used by many contemporary entities as the means of communicating information with stakeholders on the World Wide Web (Marston & Polei, 2004, p.286). Omran and Ramdhony (2016) identified Corporate Internet Reporting (CIR) as "the massive use of the internet has prompted companies to set up websites to disseminate financial and non-financial information". Financial information includes annual reports, quarterly reports and non-financial information including social responsibility activities, product, an overview of the company and other related information.

Previously, financial information on the performance and position of the company was communicated once a year through an annual report. With the internet, stakeholders have access to information more frequently than through the traditional method (Boubaker, Lakhal & Nekhili, 2011). Similarly, Marston and Polei (2004) emphasized that companies tend to publish information about their performance more frequently than by traditional methods,

ultimately leading to transparency and timeliness of reporting. It is necessary to tie in with continuous disclosure practices on the internet or else there will be adverse consequences for the particular entity.

According to previous empirical studies, there are several factors that affected corporate internet reporting. Aly, Simon and Hussainey (2010) noted firm size, profitability, industry type, leverage, and audit type under firm characteristics and ownership structure, board composition, board size and duality under corporate governance characteristics. However, determinants and their effect on the level of CIR can vary according to the context (Aly, 2010; Gallego, 2008; Oyelere, 2003; Xiao, 2004), which varies from country to country at different points of time with changes in development and, environmental and cultural factors. Aly et al. (2010) observed a paucity of studies in developing countries compared to developed countries. Meanwhile, empirical studies show mixed evidence of determinants based on the context (Aly, 2010; Gallego, 2008; Oyelere, 2003; Xiao, 2004). In this situation, this study helps to fill the knowledge gap as well as intends to help policy makers including regulators to formulate more effective and efficient reporting practices to create higher economic value.

The problem statement of study is "what is the level of corporate internet reporting and what are the determinants of the level of corporate internet reporting in Sri Lanka?". Based on this problem statement, the three main research objectives addressed in this study are: firstly, to ascertain the current level of corporate internet reporting in Sri Lanka using a corporate internet reporting disclosure index; secondly, through a comprehensive literature survey to identify the determinants of corporate internet reporting; and, finally, to examine the most influential factors that impact corporate internet reporting via inferential statistics. There were 295 listed companies which were listed in Colombo Stock Exchange (CSE) as of 30th September 2017, from which a sample was drawn based on the market capitalization as at 31st March 2017, and thus, the sample represents the top 100 listed companies.

The remainder of the study is structured as follows: the second section discusses the empirical findings of extant literature; the third section elaborates the methodology adopted in analysing the data gathered; the fourth section discusses the finding based on the analyses; and the final section states the conclusion.

2   LITERATURE REVIEW

This section describes the empirical studies of this phenomenon including the theoretical foundation, different determinants identified and the level of reporting in different countries.

2.1   Corporate Internet Reporting

Marston and Polei (2004, p.286) state that "[t]he Internet offers companies new opportunities to supplement, replace and enhance traditional ways of investor and stakeholder communication". This means CIR is an alternative method to paper-based reporting, with a number of advantages such as timeliness, accessibility and transparency. Other researchers also indicate that internet-based reporting is a "powerful tool for reaching customers, suppliers and investors of the organization" (Ettredge, Richardson & Scholz, 2002, p.357). Later researchers remarked websites provide information to a wide audience. CIR is thus, on the whole, a contemporary reporting platform.

2.2   Broad Theories on CIR

Corporate internet reporting is attributed to different theories including the agency theory, signalling theory, capital needs theory, legitimacy theory, stakeholder theory and political cost theory. According to the agency theory, managers and shareholders are two different parties in a company and there is a conflict of interest between them (Jensen & Meckling, 1976). Shareholders demand a higher return on their investment while managers expect higher incentives. Therefore, there is a high agency cost between agent and principal of an organization. Widely spread internet reporting successfully reduces the agency cost as a new means of communication between managers and stakeholders of the company (Boubaker et al., 2011; Denisi, 1999; Xiao, 2004). On the other hand, in the perspective stakeholder theory, it is observed that existing stakeholders and potential stakeholders always compare companies within the same industry to identify the best company within the industry. Therefore, in order to survive and develop every company has to adapt the trend or else lose the game. This is because intended users' perception of low disclosure has more adverse effects than those who disclose comprehensive information. Empirical studies have emphasized that the level of corporate reporting is a signal of how well a company is performing (Craven 1999; Ettredge, 2002). Both these theories propose maintaining a proper internet-based corporate reporting practice since it gives higher value to both company and users.

2.3   Empirical Studies on CIR

2.3.1   Level of Corporate Internet Reporting

Boubaker, Lakhal, and Nekhili (2011) state that globally companies use the internet for disseminating information. They voluntarily publish their financial information and other corporate information in order to attract investment. However, research indicates that the content of those websites differs from one another. Since, standard-setters and regulatory authorities still have not appreciated the importance of internet disclosure, most of the companies only follow the trend. However, developed countries such as Germany had developed standards for internet reporting by 2002. Polie and Marston (2004) point out that as per the German Corporate Governance Code (GCGC) management shall provide documents, the agenda and reports for the Annual General Meeting on the company's website. Further, the level of reporting may differ according to the context. Marston and Polei (2004) found out that 89% of German companies present their full annual reports on their website except one retail company while 76% of German companies had a home page on the World Wide Web (Deller, Stubenrath & Weber, 1999, as cited in Marston & Polei, 2004). Therefore, they indicate that there is an increasing use of the internet compared to the situation in 1999.

In Turkey, 86.05% of companies have a webpage for the investor relations on their corporate website while 83.02% companies tend to disclose mandatory disclosures and press release as a percentage of 55.81%. These categories of information mainly target fund providers (Uyar, 2011) and therefore, the level of reporting can be different. Based on these observations and other extant research findings, it is apparent that the level of reporting in developing countries is lower than in developed countries.

2.3.2 The impact of firm characteristics on Corporate Internet Reporting

Different studies have used different factors as determinants of CIR, though some factors are commonly used. Mostly, there are two types of determinants identified by previous researchers. Those are firm characteristics and corporate governance characteristics (Aly et al., 2010). Aly et al. (2010) examined seven firm characteristics as potential drivers in Egypt, which included firm size, profitability, leverage, liquidity, sector type, auditor size and foreign listing. It is to be note that Egypt is developing country and tries to attract more investment. However, Aly et al. (2010) found that although firm characteristics such as profitability, foreign listing and the industry type had a positive impact on the level of internet reporting; firm size, leverage, liquidity and auditor size did not have a significant impact in the Egyptian context. On the other hand, in France, Boubaker et al. (2011) examined eight features as possible determinants that included firm size, ownership dispersion, profitability, foreign listing, auditor size, leverage, IT industry, and equity offering. They found that large firms and companies which obtain the services of large audit firms use dramatically the internet to communicate corporate information to public. The ownership structure as in Germany was relevant even in France. Their findings also indicate that IT firms extensively used their websites to disclose information.

As far as researchers' observation, there is a dearth of literature about web-based disclosure and its determinants in Sri Lanka. Further, it is note that research findings differ according to the research context. Therefore, a study of current corporate internet reporting practice will help to fill the current knowledge gap in Sri Lanka.

3 METHODOLOGY

This section discusses the research approach, population, study sample, hypotheses, operationalization of variables and analytical strategies proposed.

Figure 1: Conceptual Framework of the Research
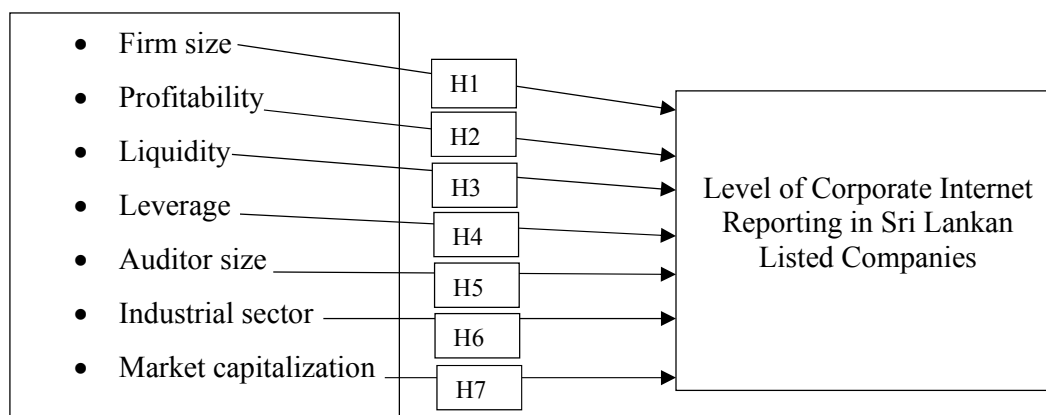
Source: Constructed by authors

This study used the quantitative research approach because it examines the current level of internet-based reporting and its relationship with firm characteristics. Other studies too have used a quantitative approach in achieving similar objectives as of the current study (Aly, 2010; Boubaker, 2011; Uyar, 2011). As of 30th September 2017, there were 295 listed

companies, which forms the population of this study. The selected sample consists of 100 top listed companies with the highest market capitalization as of 31st March 2017. The conceptual framework based on the existing literature is shown in Figure 1 above.

3.1 Hypotheses

The following hypotheses were developed based on the literature surveyed in Section 2:

H1: There is a positive relationship between firm size and level of corporate internet reporting.

H2: There is a positive relationship between profitability of the firm and level of corporate internet reporting.

H3: There is a positive relationship between leverage of the firm and level of corporate internet reporting.

H4: There is a positive relationship between liquidity and level of corporate internet reporting in Sri Lanka.

H5: There is a positive relationship between companies which are audited by members of the Big 3 international audit firms and level of corporate internet reporting in Sri Lanka.

H6: The level of corporate internet reporting is more likely to differ according to the industry in which the company operates.

H7: There is a positive relationship between market capitalization and level of corporate internet reporting.

3.2 Operationalization

Table 1 below shows the operationalization of the variables selected for this study.

Table 1: Operationalization of the Variables

Variable	Measurement	Related studies
Firm Size ($SIZE_{i,t}$)	Natural logarithm of total assets for the firm i for the period of t end	Aly (2010), Uyar (2011), Xiao (2004)
Profitability ($PROFITABILITY_{i,t}$)	$\dfrac{Net\ Income_{i,t}}{Shareholder\ Equity_{i,t}}$	Aly (2010), Oyeler (2003), Uyar(2011)
Leverage ($LEVER_{i,t}$)	$\dfrac{Total\ Debt_{i,t}}{Total\ Asset_{i,t}}$	Aly (2010), Oyeler(2003), Xiao(2004)
Liquidity ($LIQUD_{i,t}$)	$\dfrac{Current\ Asset_{i,t}}{Current\ Liability_{i,t}}$	Aly (2010), Oyeler (2003)
Auditor size ($AUDITOR\ SIZE_{i,t}$)	Indicate as "1" if companies audited by one of the Big 3 audit firms and indicate "0" if not for the firm i	Aly (2010), Oyeler (2003)

Industry type $(IndDum_{i,t})$	Indicate as "1" if listed in relevant industry and indicate "0" if not in selected 17 industries of firm i.	Aly et al. (2010)
Market capitalization $(MKTCAP_{i,t})$	Natural logarithm of market capitalization for the firm i for the period of t end	Oyeler et al.(2003)
Level of Corporate Internet Reporting in Sri Lankan Listed Companies	Total Score/Content/Format Disclosure Index (see details below)	Aly (2010), Uyar (2011), Xiao (2004)

Source: Constructed by authors

3.3   Analytical Strategies

This section discusses the analytical strategies used in the study to achieve its objectives. Data cleaning and screening strategies were used before both the descriptive and explanatory analyses. Measures of central tendency and dispersion such as mean, median and standard deviation were calculated to find the level of internet adoption in companies with reference to the main disclosure index and its sub-indices.

As suggested by Aly et al. (2010), an unweight disclosure index was used instead of a weighted disclosure index to avoid subjectivity. The disclosure index, based on twenty extant studies, consisted of 105 total disclosure items, i.e., 78 content items and 27 presentation format items (see Appendix 1). In scoring under the disclosure index, "1" was awarded if a particular company presents the required information and otherwise "0" was awarded. Thereafter, the total score obtained for each company was divided by the maximum possible score to calculate the disclosure index value for each company (see Equation 1 below).

Equation 1: Corporate Internet Reporting (CIR) Disclosure Index

$$I_j = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_{ji}}$$

Source: Aly, Simon and Hussainey, (2010)

$n_{j=}$ Number of relative items applicable to company

j and X_{ij} = "1" if the item is disclosed, otherwise "0"

The second objective of this study was to find potential determinants for online reporting, which is described under the section on literature survey. Thereafter, a correlation, multiple ordinary least square regression, multiple ordinal regression analyses were performed in order to identify relationship between potential drivers of online reporting and level of reporting. Before these analyses, several assumptions were tested to avoid misrepresentations. Normality, multicollinearity, homoscedasticity and outliers were analyzed, and data was winzorized in order to overcome outliers.

The regression equation is as follows:

$$Disclosure\ (Total\ Score/\ Content\ subscore/Format\ subscore)_{i,t} = \alpha\ +\ \beta_1\ SIZE_{i,t}\ +$$

$$\beta_2 PROFITABILITY_{i,t} + \beta_3 LEVER_{i,t} + \beta_4 LIQUD_{i,t} + \beta_5 AUDITOR\ SIZE_{i,t} + \beta_6 IndDum_{i,t} +$$

$$\beta_{21} MKTCAP_{i,t} + \varepsilon$$

Note: Definitions of the above variables in the equation are given in Table 1.

4   FINDINGS AND DISCUSSION

This section elaborates on the findings of the descriptive analysis, correlation, multiple ordinary least square regression and multiple ordinal regression analyses.

4.1   Descriptive statistics

Table 2 shows the descriptive statistics of variables collected for the sample of 100 companies. The total level ($TSCORE_{i,t}$) of disclosure was 16.2% with 11.5% standard deviation. The total score refers to both content and presentation items used by the sample companies in Sri Lanka. 12.52% is the content item score ($CISCORE_{i,t}$) with a 12% standard deviation refers to the information disclosed on the corporate website. Similarly, 27% is the average usage of presentation format ($PFSCORE_{i,t}$) with a 30% standard deviation. The maximum level of reporting was 59% for the total score, 55% was the content item score, and 70% the presentation format total. The minimum level was 0% for all three scores. These statistics show that the level of internet-based reporting in Sri Lanka is quite low.

The average firm size ($SIZE_{i,t}$) in terms of natural logarithm of total assets was 22.527 with a standard deviation of 1.062 while the market capitalization average in terms of natural logarithm of market capitalization ($MKTCAP_{i,t}$) was 22.460 with a standard deviation of 1.105. Similarly, the average profitability ($PROFITABILITY_{i,t}$) of sample was 12.87% with a 16.5% deviation indicate by the standard deviation. The mean and standard deviation were respectively 0.2845 and 0.229 for leverage($LEVER_{i,t}$). These figures show that the sample companies tend to maintain a low leverage with low debt compared to total assets. On the other hand, liquidity ($LIQUD_{i,t}$) shows a mean value of 3.386 and that depicts a higher liquidity ratio. A mean of 0.909 mean for auditor size ($AUDITOR\ SIZE_{i,t}$) implied that 90% of sample companies obtain the services of the Big 3 audit firms. Further, among the 17 industries, companies which belong to beverage, food and tobacco ($INBFT_{i,t}$), Diversified holdings ($INDH_{i,t}$), Hotels and Travel ($INHT_{i,t}$) and Manufacturing ($INMAN_{i,t}$) industries show a high level representation compared to other industries with a representation of 12%, 17%, 15% and 17%, respectively.

Table 2: Descriptive Statistics

Variables*	Mean	Median	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
Level of CIR							
Total Item Disclosure Score $(TSCORE_{i,t})$	0.162	0.162	0.115	0.000	0.590	0.661	1.030
Content Item Disclosure Score $(CISCORE_{i,t})$	0.125	0.120	0.102	0.000	0.550	1.353	2.970
Presentation Format Disclosure Score $(PFSCORE_{i,t})$	0.269	0.300	0.179	0.000	0.700	-0.068	-1.046
Independent Variable							
Firm Size $(SIZE_{i,t})$	22.527	22.485	1.062	19.699	25.476	0.158	0.020
Market capitalization $(MKTCAP_{i,t})$	22.460	22.000	1.105	21.000	26.000	0.791	0.348
Profitability $(PROFITABILITY_{i,t})$	0.128	0.092	0.165	-0.176	0.584	0.930	1.423
Leverage $(LEVER_{i,t})$	0.284	0.245	0.229	0.000	0.902	0.654	-0.305
Liquidity $(LIQUD_{i,t})$	3.386	1.574	3.899	0.564	12.784	1.632	1.313
Auditor Size $(AUDITOR\ SIZE_{i,t})$	0.909	1.000	0.289	0.000	1.000	-2.890	6.483
Beverage food and Tobacco $(INBFT_{i,t})$	0.120	0.000	0.327	0.000	1.000	2.375	3.712
Chemical and Pharmaceuticals $(INCP_{i,t})$	0.030	0.000	0.171	0.000	1.000	5.595	29.898
Construction and Engineering $(INCE_{i,t})$	0.020	0.000	0.141	0.000	1.000	6.962	47.418
Diversified Holdings $(INDH_{i,t})$	0.170	0.000	0.378	0.000	1.000	1.784	1.206
Footwear and Textiles $(INFT_{i,t})$	0.030	0.000	0.171	0.000	1.000	5.595	29.898
Health Care $(INHC_{i,t})$	0.040	0.000	0.197	0.000	1.000	4.767	21.144
Hotels and Travel $(INHT_{i,t})$	0.150	0.000	0.359	0.000	1.000	1.990	2.001
Investment Trust $(INIT_{i,t})$	0.050	0.000	0.219	0.000	1.000	4.193	15.896
Land and Property $(INLP_{i,t})$	0.030	0.000	0.171	0.000	1.000	5.595	29.898
Manufacturing $(INMAN_{i,t})$	0.170	0.000	0.378	0.000	1.000	1.784	1.206
Motors $(INMOT_{i,t})$	0.040	0.000	0.197	0.000	1.000	4.767	21.144
Oil Palms $(INOP_{i,t})$	0.050	0.000	0.219	0.000	1.000	4.193	15.896
Plantations $(INP_{i,t})$	0.010	0.000	0.100	0.000	1.000	10.000	100.000
Power and Energy $(INPE_{i,t})$	0.040	0.000	0.197	0.000	1.000	4.767	21.144
Service $(INSE_{i,t})$	0.010	0.000	0.100	0.000	1.000	10.000	100.000
Stores Supplies $(INSS_{i,t})$	0.020	0.000	0.141	0.000	1.000	6.962	47.418

*Definitions of these variables are given in Table 1.

Table 3: Correlation

	Variables a	1	2	3	4	5	6	7	8	9	10	11
1	Total Item Disclosure Score $(TSCORE)_{i,t}$	1										
2	Content Item Disclosure Score $(CISCORE)_{i,t}$	.966**	1									
3	Presentation Format Disclosure Score $(PFSCORE)_{i,t}$	.904**	.762**	1								
4	Firm Size $(SIZE_{i,t})$	.311**	.339**	.216*	1							
5	Market capitalization $(MKTCAP_{i,t})$	.257**	.340**	.080	.690**	1						
6	Profitability $(PROFITABILITY_{i,t})$	-.029	-.023	-.034	-.148	.093	1					
7	Leverage $(LEVER_{i,t})$	.218*	.153	.295**	.155	-.017	-.215*	1				
8	Liquidity $(LIQUD_{i,t})$	-.056	-.016	-.119	-.062	.056	.095	-.574**	1			
9	Auditor Size $(AUDITOR\ SIZE_{i,t})$	-.019	.027	-.086	.132	.197	.034	.104	.011	1		
10	Beverage food and Tobacco $(INBFT_i)$	-.049	-.055	-.030	-.101	.153	.124	.131	-.109	.010	1	
11	Chemical and Pharmaceuticals $(INCP_{i,t})$	.165	.123	.208*	.000	-.127	.006	.167	-.086	.056	-.065	1
12	Construction and Engineering $(INCE_{i,t})$	.136	.154	.081	.146	.070	-.076	.105	-.053	.045	-.053	-.025
13	Diversified Holdings $(INDH_{i,t})$	.227*	.233*	.188	.338**	.392**	-.124	-.015	.136	.144	-.167	-.080
14	Footwear and Textiles $(INFT_{i,t})$	.170	.158	.159	-.124	-.074	.040	-.069	.042	.056	-.065	-.031
15	Health Care $(INHC_{i,t})$	-.009	-.035	.044	.051	.054	-.124	.185	-.124	-.114	-.075	-.036
16	Hotels and Travel $(INHT_{i,t})$	-.431**	-.373**	-.465**	-.014	-.099	-.102	-.195	.150	-.073	-.155	-.074
17	Investment Trust $(INIT_{i,t})$	-.054	-.066	-.022	-.048	-.138	-.133	-.217*	.243*	-.088	-.085	-.040
18	Land and Property $(INLP_{i,t})$	-.137	-.130	-.130	-.192	-.234*	-.070	-.131	.114	-.149	-.065	-.031
19	Manufacturing $(INMAN_{i,t})$	-.053	-.081	-.007	-.197	-.141	.198*	.088	-.077	-.042	-.167	-.080
20	Motors $(INMOT_{i,t})$	.131	.095	.170	.055	-.085	-.019	.147	-.093	.065	-.075	-.036
21	Oil Palms $(INOP_{i,t})$	-.122	-.052	-.214*	.012	.154	.216*	-.269**	-.079	.073	-.085	-.040
22	Plantations $(INP_{i,t})$	.092	.064	.119	.035	-.042	.053	.025	-.023	.032	-.037	-.018
23	Power and Energy $(INPE_{i,t})$	.144	.145	.127	.028	.007	-.030	.037	-.053	.065	-.075	-.036
24	Service $(INSE_{i,t})$	.259**	.291**	.164	-.033	-.042	-.040	.004	-.058	.032	-.037	-.018
25	Stores Supplies $(INSS_{i,t})$	-.042	-.056	-.007	-.078	-.125	-.005	.053	-.041	-.204*	-.053	-.025

	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12	1													
13	-.065	1												
14	-.025	-.080	1											
15	-.029	-.092	-.036	1										
16	-.060	-.190	-.074	-.086	1									
17	-.033	-.104	-.040	-.047	-.096	1								
18	-.025	-.080	-.031	-.036	-.074	-.040	1							
19	-.065	-.205*	-.080	-.092	-.190	-.104	-.080	1						
20	-.029	-.092	-.036	-.042	-.086	-.047	-.036	-.092	1					
21	-.033	-.104	-.040	-.047	-.096	-.053	-.040	-.104	-.047	1				
22	-.014	-.045	-.018	-.021	-.042	-.023	-.018	-.045	-.021	-.023	1			
23	-.029	-.092	-.036	-.042	-.086	-.047	-.036	-.092	-.042	-.047	-.021	1		
24	-.014	-.045	-.018	-.021	-.042	-.023	-.018	-.045	-.021	-.023	-.010	-.021	1	
25	-.020	-.065	-.025	-.029	-.060	-.033	-.025	-.065	-.029	-.033	-.014	-.029	-.014	1

[a] The definitions of these variables are indicated in Table 1.
*$p<0.05$; **$p<0.01$

4.2 Correlation

Table 3 shows that firm size ($SIZE_{i,t}$)($p<0.01$), market capitalization ($MKTCAP_{i,t}$)($p<0.01$), leverage ($LEVER_{i,t}$) ($p<0.05$), diversified industry ($INDH_{i,t}$) ($p<0.05$) and service industry($INSE_{i,t}$) ($p<0.01$) have a positive weak, but significant relationship with the total disclosure item score while the hotel and travel industry ($INHT_{i,t}$) ($p<0.01$) has an unexpected significant negative moderate relationship with the total score. Similarly, firm size ($SIZE_{i,t}$) ($p<0.01$), market capitalization ($MKTCAP_{i,t}$) ($p<0.01$) and the diversified holding industry ($INDH_{i,t}$) ($p<0.05$) and service industry ($INSE_{i,t}$) ($p<0.01$) show a significant positive weak relationship with the content item score. But the hotel and travel industry ($INHT_{i,t}$) ($p<0.01$) has a significant negative weak relationship with the content item disclosure index. However, firm size ($SIZE_{i,t}$) ($p<0.05$), leverage ($LEVER_{i,t}$) ($p<0.01$), and chemical and pharmaceuticals industry ($INCP_{i,t}$) ($p<0.05$) reveal a positive weak significant relationship while the hotel and travel industry ($INHT_{i,t}$) ($p<0.05$) shows an unexpected significant negative moderate relationship and the oil palm industry ($INOP_{i,t}$) ($p<0.05$) has a negative weak relationship with the presentation format disclosure item score. Other firm characteristics do not show a significant association with three disclosure item scores.

4.3 Multiple Ordinary Least Square Regression Analysis

According to Table 4, the multiple ordinary least square regression analysis (OLS) shows that the service industry ($INSE_{i,t}$) ($p<0.05$) has a positive impact on the total disclosure item score while auditor size ($AUDITOR\ SIZE_{i,t}$) ($p<0.05$) and the hotel and travel industry ($INHT_{i,t}$) ($p<0.05$) have negative impact on the total score. Market capitalization ($MKTCAP_{i,t}$) ($p<0.05$) and the service industry ($INSE_{i,t}$) ($p<0.05$) have a positive impact on content items. However, the hotel and travel industry ($INHT_{i,t}$) ($p<0.05$) shows a negative impact on content items. With regard to the presentation format, auditor size ($AUDITOR\ SIZE_{i,t}$) ($p<0.05$) and hotel and travel industry ($INHT_{i,t}$) ($p<0.05$) have a negative impact on the presentation format. But, market capitalization ($MKTCAP_{i,t}$)($p<0.05$) and the service industry ($INSE_{i,t}$) ($p<0.05$) have a positive impact on the presentation format. The other variables do not show a significant impact on the dependent variables of content items, presentation format and total score.[1]

4.4 Multiple Ordinal Regression Analysis

In addition to the multiple OLS regression analysis, the researcher used multiple ordinal regression analysis because the data shows a low level and higher dispersion of the levels. The level of reporting was categorized and used in this regression model as a categorical variable. According to Table 5, the multiple ordinal regression analysis shows that auditor size ($AUDITOR\ SIZE_{i,t}$) ($p<0.01$) and the hotel and travel industry ($INHT_{i,t}$)($p<0.01$) have a positive impact on the total disclosure item score.

Similarly, auditor size ($AUDITOR\ SIZE_{i,t}$) ($p<0.05$) and hotel and travel industry ($INHT_{i,t}$)($p<0.01$) have a significant positive impact on both the content disclosure item score and the presentation format disclosure item score.

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[1] Regression analysis was performed after the diagnostic tests on multicollinearity, normality, heteroscedasticity and linearity on variables, which showed no significant anomalies.

Table 4: Multiple Ordinary Least Square Regression Analysis

Variables [a]	Total Disclosure item Score			Content Disclosure Item Score			Presentation Format Disclosure Item Score		
	Coeff.	Std. Erro	VIF	Coeff.	Std. Erro	VIF	Coeff.	Std. Erro	VIF
Firm Size $(SIZE_{i,t})$	0.013	0.015	2.800	0.008	0.013	2.800	0.008	0.013	2.800
Market capitalization $(MKTCAP_{i,t})$	0.021	0.015	3.212	0.029*	0.014	3.212	0.029*	0.014	3.212
Profitability $(PROFITABILITY_{i,t})$	-0.001	0.065	1.345	-0.016	0.059	1.345	-0.016	0.059	1.345
Leverage $(LEVER_{i,t})$	0.074	0.060	2.223	0.053	0.055	2.223	0.053	0.055	2.223
Liquidity $(LIQUD_{i,t})$	0.004	0.003	1.792	0.003	0.003	1.792	0.003	0.003	1.792
Auditor Size $(AUDITOR\ SIZE_{i,t})$	-0.088*	0.035	1.199	-0.063	0.032	1.199	-0.063*	0.032	1.199
Beverage food and Tobacco $(INBFT_{i,t})$	-0.088	0.076	7.318	-0.079	0.070	7.318	-0.079	0.070	7.318
Chemical and Pharmaceuticals $(INCP_{i,t})$	0.058	0.084	2.471	0.042	0.077	2.471	0.042	0.077	2.471
Construction and Engineering $(INCE_{i,t})$	0.020	0.093	2.043	0.032	0.085	2.043	0.032	0.085	2.043
Diversified Holdings $(INDH_{i,t})$	-0.037	0.073	8.236	-0.037	0.067	8.236	-0.037	0.067	8.236
Footwear and Textiles $(INFT_{i,t})$	0.076	0.087	2.627	0.065	0.079	2.627	0.065	0.079	2.627
Health Care $(INHC_{i,t})$	-0.101	0.083	3.202	-0.097	0.076	3.202	-0.097	0.076	3.202
Hotels and Travel $(INHT_{i,t})$	-0.176*	0.072	7.471	-0.137*	0.066	7.471	-0.137*	0.066	7.471
Investment Trust $(INIT_{i,t})$	-0.084	0.080	3.669	-0.072	0.073	3.669	-0.072	0.073	3.669
Land and Property $(INLP_{i,t})$	-0.127	0.087	2.665	-0.093	0.080	2.665	-0.093	0.080	2.665
Manufacturing $(INMAN_{i,t})$	-0.069	0.072	8.646	-0.059	0.065	8.646	-0.059	0.065	8.646
Motors $(INMOT_{i,t})$	0.016	0.080	2.931	0.008	0.073	2.931	0.008	0.073	2.931
Oil Palms $(INOP_{i,t})$	-0.110	0.084	4.031	-0.072	0.077	4.031	-0.072	0.077	4.031
Plantations $(INP_{i,t})$	0.051	0.112	1.497	0.029	0.103	1.497	0.029	0.103	1.497
Power and Energy $(INPE_{i,t})$	0.021	0.081	3.049	0.023	0.074	3.049	0.023	0.074	3.049
Service $(INSE_{i,t})$	0.259*	0.113	1.536	0.269*	0.104	1.536	0.269*	0.104	1.536
Stores Supplies $(INSS_{i,t})$	-0.110	0.094	2.097	-0.088	0.086	2.097	-0.088	0.086	2.097
F-value	3.630			3.252			3.252		
Adjusted R^2	.376			0.340			0.340		
N	97			97.000			97.000		

[a] The definitions of these variables are indicated in Table 1.

*$p<0.05$; **$p<0.01$

Table 5: Multiple Ordinal Regression Analysis

Variables [a]	Total Disclosure item Score			Content Disclosure Item Score			Presentation Format Disclosure Item Score		
	Coeff.	Std. Erro	Wald	Coeff.	Std. Erro	Wald	Coeff.	Std. Erro	Wald
Firm Size $(SIZE_{i,t})$	0.344	0.319	1.169	0.370	0.320	1.341	0.383	0.315	1.482
Market capitalization $(MKTCAP_{i,t})$	0.249	0.319	0.612	0.488	0.327	2.228	-0.197	0.321	0.377
Profitability $(PROFITABILITY_{i,t})$	0.938	1.359	0.477	0.834	1.371	0.369	0.370	1.392	0.071
Leverage $(LEVER_{i,t})$	1.768	1.307	1.830	2.103	1.327	2.512	1.966	1.303	2.275
Liquidity $(LIQUD_{i,t})$	0.053	0.071	0.559	0.044	0.074	0.350	0.047	0.072	0.431
Auditor Size $(AUDITOR\ SIZE_{i,t})$	2.369**	0.765	9.598	1.770*	0.756	5.483	2.272**	0.761	8.920
Beverage food and Tobacco $(INBFT_i)$	2.766	1.639	2.849	2.201	1.581	1.937	1.239	1.553	0.637
Chemical and Pharmaceuticals $(INCP_{i,t})$	-0.643	1.888	0.116	-0.002	1.707	0.000	-16.330	1403.104	0.000
Construction and Engineering $(INCE_{i,t})$	0.411	2.015	0.042	-0.336	1.983	0.029	0.053	1.872	0.001
Diversified Holdings $(INDH_{i,t})$	1.482	1.564	0.897	1.040	1.500	0.481	0.426	1.486	0.082
Footwear and Textiles $(INFT_{i,t})$	-0.151	1.834	0.007	-2.424	1.924	1.587	-2.327	1.876	1.538
Health Care $(INHC_{i,t})$	2.741	1.772	2.394	2.440	1.719	2.016	1.323	1.699	0.606
Hotels and Travel $(INHT_{i,t})$	5.244**	1.646	10.145	4.530**	1.603	7.988	4.097**	1.559	6.903
Investment Trust $(INIT_{i,t})$	3.577	1.914	3.492	2.958	1.963	2.270	2.781	1.843	2.277
Land and Property $(INLP_{i,t})$	2.031	1.707	1.415	1.250	1.640	0.581	0.838	1.632	0.264
Manufacturing $(INMAN_{i,t})$	2.549	1.545	2.720	2.178	1.479	2.168	1.181	1.454	0.659
Motors $(INMOT_{i,t})$	0.036	1.711	0.000	-0.446	1.632	0.075	-0.554	1.616	0.117
Oil Palms $(INOP_{i,t})$	3.107	1.816	2.925	2.278	1.745	1.703	3.456	1.893	3.335
Plantations $(INP_{i,t})$	-15.333	0.000		-16.316	0.000		-16.470	0.000	
Power and Energy $(INPE_{i,t})$	-1.151	1.910	0.363	-1.036	1.727	0.359	-0.998	1.667	0.358
Service $(INSE_{i,t})$	-15.877	0.000		-16.866	0.000		-16.957	0.000	
Stores Supplies $(INSS_{i,t})$	2.921	1.991	2.153	2.450	1.936	1.601	1.951	1.929	1.024

[a] The definitions of these variables are indicated in Table 1.
*$p<0.05$; **$p<0.01$
The next section elaborates on the findings.

5   DISCUSSION

This study aimed to identify the current level of corporate internet reporting practices in the Sri Lankan context and the firm characteristics that impact on it. The first objective was achieved through the use of descriptive statistics. Thirteen companies in the sample of 100 do not maintain a corporate website while another four companies maintain e-commerce websites for their trading activities. Thus, 83% is the level of use of corporate websites in Sri Lanka. Further, the statistical analysis identified a 12.52% level of reporting of content items and a 26.88% of presentation formats. The average total score for the level of corporate internet reporting in Sri Lanka was 16.20%. These findings indicate a quite low level of corporate internet reporting in Sri Lanka compared to other countries. Khadaroo (2005) showed 75% in Singapore and 87% in Malaysia even in 2005. In Slovenia, 52.64% of companies had reported financial information on the web site by 2014 (Dolinsek, Tomnic & Skerbinjek, 2014). The findings of the present study also indicate that the highest level of reporting by an individual company had a total score of 59%, 55% for content items score and 70% for presentation format score. Therefore, the level of CIR in Sri Lanka is observed to be quite low. Under the third objective, identification of most significant factors, the multiple ordinary least square regression analysis and multiple ordinal regression analysis showed that auditor size and the hotel industry impacted on the total score and the presentation format disclosure item score. Further, unexpectedly the multiple ordinary least square regression analysis suggested that those two variables had a negative impact on the two levels of reporting. Apart from those two variables, the service industry showed a positive significant relationship with the total score and in the presentation format between market capitalization and the service industry. Somehow, in regard to the content item score both auditor size and the hotel industry have impact on it according to the multiple ordinal regression analysis. However, the multiple ordinary least square regression analysis suggested that except in the hotel industry and auditor size, market capitalization showed a positive impact and the service industry showed a positive impact on content item disclosure score.

Overall, auditor size and the hotel industry impact on all three disclosure item scores as confirmed additionally in the correlation analysis. Most of these results in the Sri Lankan context deviate from the findings in the literature. Xiao (2004) identified that the use of Big audit firms was positively associated with the level of CIR. But, the suggestions according to the statistics show unexpectedly that auditor size has a negative impact. Data collected of this study indicate that almost all the companies deal with the Big 3 audit firms, but the level of reporting is quite low, indicating a negative association. Similarly, this is the reason for the negative impact in the hotel and travel industry. Basically Sri Lankan companies need to keep up with technology development in CIR to attract more investment and sustenance in this globalized world.

The next section deals with the conclusion, limitations and future research directions.

6   CONCLUSION

Corporate internet reporting is an important means of reporting in facilitating the value addition process of an entity. As far as researchers' observation, there is a dearth of literature on this aspect in Sri Lanka, and the level of reporting in developing countries is found to be low. Therefore, it is timely and necessary to study this phenomenon in the Sri Lankan context. Accordingly, this study had three objectives, namely, ascertaining the level of internet-based

corporate reporting (CIR) in Sri Lanka, examining the determinants of the level of CIR, and finally identifying the significant factors affecting the level of CIR in the Sri Lankan context.

The first objective of ascertaining the current level of CIR in Sri Lanka was achieved through collecting data based on the disclosure index from 100 selected listed companies. The disclosure index (105 items) consists of two categories: content items (78 items) and presentation formats (27 items). This disclosure index was developed by analyzing empirical studies. Descriptive statistics showed that the current level of corporate reporting averaged 16.2% for the total CIR score, 12.52% for information disclosure (content item) score and 26.88% for use of formatting technique score. The second objective was to identify the determinants of the level of reporting using corporate websites, which was achieved through the literature review. Most of the previous studies concentrate on six firm characteristics as the determinants (Aly, 2010; Gallego, 2008; Oyelere, 2003; Xiao, 2004): firm size, profitability, leverage, liquidity, auditor's size and industry type. Examining the significant determinant was the third objective. A correlation analysis, multiple ordinary least square regression (OLS) analysis and multiple ordinal regression analysis were performed to achieve this objective. The multiple ordinary least square regression analysis suggested that auditor size had an unexpectedly negatively impact on the total score and the presentation format disclosure item score, while multiple ordinal regression analysis suggested that auditor size had a significant positive relationship on all three scores. On the other hand, OLS regression analysis suggested an unexpected negative significant impact of the hotel and travel industry representation on all three scores. However, the ordinal regression analysis suggested a positive significant relationship. Further, the correlation analysis showed that market capitalization and the service industry had a significant positive impact on both total score and content item score. Besides, the OLS regression analysis confirmed that the service industry representation impacts on all three scores while market capitalization affected content item and presentation item disclosure score. Therefore, the three analysis results are different in regard to some factors and give the same results in regard to other factors. Hence, the evidence gleaned through these analyses is mixed. However, overall, the analyses performed in this study indicated that auditor size, representation of the hotel and travel industry, market capitalization and the representation of service industry are significant determinants in the Sri Lankan context of internet-based corporate reporting.

As discussed above, a poor level of corporate internet reporting in Sri Lanka is witnessed. Therefore, in terms of policy implications, policy makers should promote such reporting practice in Sri Lanka. Companies need to understand the importance of maintaining proper websites and other corporate internet reporting mechanisms to reap the numerous benefits that could be gained out of such reporting.

In terms of limitations of this study, it should be noted that this study used selected firm characteristics (that were derived using the extant literature) and the sample consisted of 100 listed companies drawn from 295 companies. Therefore, future researchers should use more firm characteristics, aspects as corporate governance, and other environmental characteristics as potential determinants, as well as an expanded sample size.

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Appendix 1: Disclosure Index

Content Elements

Accounting and financial information

1 Current year annual reports
2 Annual reports of past years
3 Quarterly report of current year
4 Quarterly reports of past years
5 Semi-annual report of current year
6 Semi-annual report of past years
7 Current year balance sheet
8 Balance sheet of past years
9 Current year income statement
10 Income statement of past years
11 Current year statement of cash flow
12 Past years' statements of cash flow
13 Statement of changes in stockholders' equity
14 Notes to financial statements of current year
15 Notes to financial statements of past years
16 Summary of financial data over a period of at least three years
17 Management Report/Analysis in current year
18 Segmental reporting by line of business (revenue)

19 Segmental reporting by sector (revenue)
20 Summary of key ratios over a period of at least 3 years
21 Historical financial statements
22 Summarized balance sheet
23 Current year financial statements
24 Summarized income statements
25 Summarized statement of cash flow
26 Excerpts of financial reports or statements
27 Appropriation statement (statement of proposed dividend)
28 Usage of comparative figures
29 Earnings per share
30 Other ratios
31 Annual report of current year (Excerpt)
32 Annual report of past years (Excerpt)
33 Projections related to key financials of the Company including earning and sales forecast
34 CF statement of current year
35 CF statement of past years

Investor-related information

36 Historical share prices
37 Share price performance in relation to stock market index
38 Text of speeches and presentations ("road shows," AGM, EGM, etc.)

39 Current year resolutions of shareholders' meeting
40 Past year resolutions of shareholders' meeting
41 Chat room
42 History of dividend payment

Corporate governance information

43 Press releases or news
44 Auditor's report of current year
45 Auditor's report of past years
46 Auditor's signature
47 Corporate governance
48 Letter from the chairman or CEO
49 Auditor's name printed
50 GAAP basis in the year reported
51 Disclosure of risk or risk management
52 Shareholder structure
53 Code of Ethics
54 Assessments of analysts
55 Analyst forecasts

56 Top 10 stockholders in current year
57 Company's charter in the current year-article of association
58 Names of members of BOD of the Company
59 Profile on BOD
60 Compensation of the members of the management board
61 Information about the directors dealing
62 Information on compensation committee
63 Information on audit committee
64 Information on nomination committee

Social responsibility disclosures

65 Environmental report or special page
66 Employee/social/safety or health report/ Employee training programme
67 Commercial sponsoring
68 Non-commercial community involvement

General Information

69 Background or history of the organization
70 Services or products provided
71 Market share of key products
72 Sales of key products
73 Vision, Mission of the Company and or policy statements of the Company (Quality, Environment and HR)
74 Awards and accreditation received by the Company
75 Industry statistics or data

Timeliness of information

76 Current share prices
77 Financial calendar
78 Monthly or weekly sale or operating data

Presentation Elements

Contact details and other information

1 Frequently asked questions
2 E-mail to investor relations or financial control manager
3 Investor relations phone number
4 Investor relations postal address
5 English version of the web sites
6 Mailing list
7 Contact to the webmaster

Contact and information supply services

8 Link to the stock exchange web sites
9 Direct e-mail hyperlink to investor relations
10 Online investor information order service
11 Link to securities companies' web sites

Convenience and usability of web site-Structure

12 One click to get to investor relations or financial information
13 Use of frames
14 One click to get to press releases or news
15 Clear boundaries for annual reports

Convenience and usability of web site-Navigation support

16 Internal search engines
17 Table of content/sitemap
18 Hyperlinks inside the annual report
19 Pull-down menu
20 Next/previous bottoms to navigate sequentially

Technological features

21 Graphics or diagrams
22 Financial data in PDF format
23 Financial data in HTML
24 Financial Data in XBRL format
25 Sound files
26 Video files
27 Financial data in excel

THE EFFECT OF CORPORATE GOVERNANCE ON THE EXTENT OF CSR DISCLOSURES: EMPIRICAL EVIDENCE FROM LISTED BANKS, INSURANCE AND FINANCE COMPANIES OF SRI LANKA

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Abstract

It is a matter of concern whether companies limit their decisions to only financial matters. Moreover, due to the agency problem and other conflicts between directors and shareholders, there is a significant pressure to disclose CSR information in annual reports. Accordingly, this study examines the relationship between corporate governance and the CSR disclosure level in banks, insurance and finance companies listed on the Colombo Stock Exchange during the period 2014 to 2016. Nine corporate governance characteristics (i.e., independence, CEO duality, board size, size of the audit committee, independence of the audit committee, gender diversity, number of board meetings, CSR committee and ownership of directors) and three control variables (firm size, profitability and ROA) were considered in this study. In terms of findings, the average CSR Disclosure Index for banks, insurance and finance companies in Sri Lanka was 38.28%, and these firms had complied with applicable corporate governance stipulations. Further, overall, the board size, board independence, size of the audit committee, number of board meetings, existence of the CSR committee and firm size revealed a positive relationship with the CSR disclosure level ($p<0.05$, under correlation analyses) while the exitance of CSR committee and firm size revealed a positive relationship with the CSR disclosure level (under both correlation and regression analyses). However, since these findings do not converge, it could be concluded that there is mixed evidence of the association between corporate governance characteristics and CSR disclosure levels in the banking, insurance and finance industry in Sri Lanka. The study expects to have significant policy implications.

Key words: Corporate governance characteristics, corporate Governance, CSR disclosure level, banking, insurance and finance sector

1   INTRODUCTION

The banking, insurance and finance industry is a significant sector that plays a major role in the Sri Lankan economy (World Bank Report, 2017). There were 62 companies listed on the Colombo Stock Exchange as at May, 2018. During the past decades, companies all over the world reported their non-financial information alongside financial information (Simpson & Kohers, 2002). The Global Reporting Index 102-31 (2016) listed the requirements for reporting economic, environmental, social matters, and risks and opportunities. Further, "[h]ighest committee or positions that formally review and approves the organization's sustainability report should ensure that all material topics are covered" (GRI - 102-32, 2016).

Companies which report their corporate governance address the requirements and roles of investors, customers, suppliers and society.

Additionally, prior studies indicate that CSR may impact on company profit, firm value, stakeholder perceptions and share prices of the company (Jizi et al., 2013). Jamali et al. (2008, as cited in Jizi et al., 2013) states that supervision and direction of managers are encouraged by CSR reporting. In other words, managers and other governors may influence CSR reporting of companies. Some companies have specific CSR committees for CSR-related activities consisting of executive and non-executive directors and other senior managers, who influence the disclosure of CSR information. The board of directors are responsible for strategic decision making and supervision, and for the transparency and accountability of the disclosed information (Dias, Rodrigues & Craig, 2017) and therefore, the board composition on CSR activities and CSR disclosure level. There was a tendency for Sri Lankan companies to join in social reporting (Senaratne, 2009). However, Beddewela and Herzig (2013) noted that social responsibility reporting among Sri Lankan companies are still in the early stages. Sheham and Jahfer (2011) found a significant positive correlation between CSR activities and financial performance in Sri Lankan companies. Also, Ratnasiri (2003) stated that both employees of the organization and Sri Lankan civil society were not aware of the true meaning of CSR. Further, Thoradeniya et al. (2012) suggested that companies need to develop more effective corporate strategies to encourage CSR reporting in Sri Lanka. Meanwhile, the researchers have observed a dearth of studies on the effect of corporate governance on the CSR disclosure level in above industry. In this research, the sample was selected from licensed commercial banks, insurance and finance companies. Accordingly, this research addresses two main objectives: to examine the CSR disclosure level in the banking, insurance and finance sector and the impact of selected corporate board characteristics of the level of CSR disclosure in this sector.

The remaining sections of this study are structured as follows. The next section discusses the existing literature followed by a discussion of the research approach, the sample and the analysis in section three. Section four discusses the key findings of the study. The final section presents the conclusions and also notes the limitations and future research directions.

2   THEORETICAL FOUNDATION AND LITERATURE REVIEW

This section evaluates and summarizes the literature on previous studies with their key terms, previous knowledge and the knowledge gap and analyses corporate governance and corporate social responsibility.

2.1   Definition of Concepts

The definitions of corporate governance and corporate social responsibility are discussed below.

Corporate Governance

Corporate governance (CG) is "the system by which companies are directed and controlled" (Cadbury, 1992, p.14). In other words, "Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring" (OCED, 2004, p.

11). This provides guidelines or laws to organize company activities so as not to protect shareholder interests, misuse of power and the needs of the directors.

Additionally, corporate governance is defined as "the rules and practices that govern the relationship between managers and shareholders as well as stakeholders like employees and creditors that contribute to growth and financial stability by underpinning market confidence, financial market integrity and economic efficiency" (OCED,2004, p.1). Accordingly, corporate governance is a self-directed control system for all organizations.

Corporate Social Responsibility (CSR)

Straks (2009) states that "Corporate Social Responsibility is the commitment of business to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development" (p. 465). CSR has different meanings for different people. For some people, it is a legal liability or responsibility, and for others it is responsible social behaviour, many of whom equate it with charitable contributions and some as a fiduciary duty imposing higher standards of behaviour on businessmen (Garriga & Mele, 2004). Further, Freedman (1970) mentioned that CSR can be viewed as an extension of an organization's effort to maximize shareholder wealth together with the confirmation of basic rules of society. According to Straks (2009); Garriga and Mele (2004) and Freedman (1970), corporate social responsibility guides firms to serve society, the economy and the environment.

The next section elaborates on the theories of corporate governance and CSR disclosures.

2.2 Theories on Corporate Governance and CSR

Corporate social responsibility is based on several theories. Gariga and Melee (2004) refer to several theories such as instrumental theory, political theory, integrative theory and ethical theory but most of the prior studies support the legitimacy theory for examining CSR disclosures (Guthrie, 2006). Campbell, Craven and Shrives (2003) pointed out "legitimacy theory is the most widely used theory to explain environmental and social disclosures" (p.559). Companies that adopt the legitimacy theory would willingly report on activities when they perceive them as those expected by the public (Rankin & Voght, 2000). Owen (2008) stated that the legitimacy theory may promote transparency and accountability among non-capital provider stakeholder groups. Frederiksen (2010) noted that companies used moral theories for their CSR policies as they help to identify the positive duties of companies.

Further, the role of directors in the organization's activities are supported by theories such as the agency theory, stewardship theory and resource dependence theory. Jensen and Meckling (1976) stated that the interests of owners and managers are covered by the agency theory. In other words, there is an intrinsic conflict between the interests of a company's management and its owners and agency cost is an unavoidable part of management relationship. Fama and Jensen (1983) pointed out that acceptable monitoring mechanisms are needed to protect shareholders from management's conflict of interest. The presence of monitoring mechanisms provides fewer opportunities for managers to pursue their self-interest at the cost of owners and then shareholders would enjoy a superior profit (Nicholson & Kiel, 2007).

Accordingly, legitimacy theory is the most widely used theory for the disclosure of CSR information while the agency theory, stewardship theory and the resource dependency theory explain the role of directors' performance and organization activities.

2.3 Empirical studies on the Level of CSR and Relationship between Corporate Governance and CSR disclosures

This section discusses the level of CSR disclosures and the impact of corporate governance characteristics referred to in both local and international literature. They refer to a positive relationship, a negative relationship and no relationship between the selected corporate governance mechanisms and CSR disclosures.

According to Jizi, et al. (2014), who used evidence from the US banking sector, the CSR disclosure percentage in banks had increased from 2009 to 2011. The annual reports of the majority of banks disclose information related to staff. Hence, they are essential assets and impact on the investors' assessment of the firm. Firms risk and profitability can be impacted by CSR reporting and engagements and therefore investors consider firms' social behavior in their investment decisions (Simpson & Kohers, 2002) and support for supervision and governance of managers (Jamali et al., 2008). Recent studies of CSR deal with corporate governance. By disclosing CSR practices of banks and finance companies, they enjoy different benefits such as an enhanced reputation (Shen et al., 2016).

Most of the studies are based in developed countries and only a few in developing countries (Majeed el al., 2015). Majeed el al. (2015, p.532) indicate that "[t]he concept of CSR is new for the emerging economies like Pakistan. The concept of CSR in Pakistan is still in its initial stage. Only a small number of firms have a CSR strategy and these are mostly multinationals that have their own standards regarding CSR''. Further, Haji (2012) stated that the extent and quality of CSR disclosures in Malaysian companies are limited. Khan (2010) also refers to Bangladesh companies as having a lower CSR disclosure level. In comparison with developed countries, developing countries depict a low CSR disclosure level in their annual reports.

Different studies reveal different corporate governance mechanisms that impact on CSR disclosures. The following discussion elaborates on those findings.

Leung and Horwitz's study (2004, as cited in Ahmad, Rashid & Gow, 2017) shows that listed companies in Hong Kong have a positive relationship between board independence and CSR. Board independence refers to directors not having any relationship with the company except for their directorship. Ahmad, Rashid, and Gow (2017) argue that unbiased decisions are taken by independent directors and there is an opportunity to protect stakeholders against managers' interests. Hence CSR reporting levels have increased revealing a connection between board independence and CSR disclosure levels. Jizi, Sala, Dixon, and Stratling (2013) state that the way corporate governance impacts on CSR depends on board independence, board size and CEO duality of a company. Hence managers of banks and finance companies pursue CSR as a long-term survival strategy that acts as double-edged sword in terms of cost and benefits. The higher the cost incurred for CSR, the higher the benefits in terms of reduced advertising expenses and conflicts with the community (Shen et al., 2016). Most of the previous literature emphasizes the fact that there is a positive association between corporate governance characteristics including corporate governance characteristics such as size of the board of directors, number of meetings held per year, the

composition of the board, gender differences and CEOs duality and CSR disclosures (Jo, Maretno & Harjoto, 2011). Ahmad, Rashid, and Gow (2017) noted that the CSR disclosure level is further influenced by company age, size, ROA and market capitalization.

Further, they found that most mature companies tend to disclose CSR information to achieve a higher reputation. The most crucial attribute of the audit committee is independence (Klein, 2002). According to Jensen and Meckling (1976), executive opportunistic behaviours can be controlled by non-executive directors through governing and monitoring, leading to a positive relationship between independence, size of the audit committee and CSR disclosure level. Betz et al. (1989) state that since women are more comfortable with community activities, having more female directors on the board encourages higher CSR disclosure levels (Sundarasen et al., 2016). Laksamana (2008) shows a positive association between board meetings and compensation disclosures. The effectiveness of monitoring and the quality and quantity of CSR disclosures increase with reporting by the CSR committee (Michelon & Parbonetti, 2012). Directors tend to increase the communication of CSR information to the market in the interests of the long-term survival of the company and thus there is a positive relationship between directors' ownership and CSR disclosure level (Anderson & Reeb, 2003). The above studies illustrate that there are several corporate governance mechanisms that show a positive relationship between CSR disclosure levels such as independence, board size, gender diversity, independence and the size of the audit committee and the CSR committee, and directors' ownership and control variables such as firm size, ROA and profitability.

Contrarily, some studies reveal a negative relationship between CEO duality and CSR disclosure levels. Krishnan and Visvanathan (2009, as cited in Jizi et al., 2013), note that board chair has the manipulative power over the board agenda and information available to other board members, and thus a negative relationship between CEO duality and CSR disclosure level. On the other hand, Erhemjamts, Li and Venkateswaran (2012) observed that there was no relationship between the size of the board of directors in an organization and CSR disclosures in annual reports. In other words, even though there is a smaller board of directors, they disclose their CSR strengths, and concern more than a firm with a larger board of directors. Dias, Rodrigues and Craig (2017) reported that there was no association between these variables.

According to the above studies, different corporate governance mechanisms produce different outcomes in respect of the relationship between corporate governance and CSR disclosure level. Therefore, it could be concluded that external literature provides mixed evidence of the relationship between corporate governance and CSR disclosures.

2.4   Theoretical Gap

There is a dearth of studies on the impact of corporate governance on the CSR disclosure level. Even though there are many foreign studies, studies of CSR disclosure practices in the Sri Lankan context are sparse. However, evidence exists of CSR engagements (Fernando & Pandey, 2012; Khan & Beddewela, 2008; Thoradeniya et al., 2012; Visser, 2008). The only study is about CSR disclosure practices in the bank, finance and insurance sector of Sri Lanka (Niresh, & Silva, 2017). However, to the best of the researchers' knowledge, there are no studies about the relationship between corporate governance practices and the CSR disclosure level of banks and finance companies in Sri Lanka. Thus, it is hoped that this study

will contribute to the external local literature and fill the gaps observed. The next section explains the methodology adopted in this study.

3 RESEARCH METHODS

This section covers the research methodology, the selected sample, how data was collected, the conceptual framework and operationalization of the variables and measurements.

3.1 Research Approach

The quantitative approach was followed since this study investigates the relationships between selected corporate governance characteristics and CSR disclosure levels. Furthermore, most of the prior research studies (Dias et al., 2017; Fernando & Pandey, 2012; Khan & Beddewela, 2008; Thoradeniya et al., 2012; Visser, 2008)) have adopted a similar quantitative approach to investigating the relationship between corporate governance characteristics and CSR disclosure levels.

3.2 Population and sample

The sample for this study was drawn from listed Sri Lankan companies in the category of banks, finance and insurance companies. A total of 58 companies out of 62 formed the sample. They are companies listed on the Colombo Stock Exchange for the period from 2014 to 2016 with the financial year ending March 31.

Table 1: Sample selection

Number of banks listed under CSE	13
Number of finance companies listed under CSE	37
Insurance	08
Total	**58**

Source: w.w.w.cse.lk, November 2017

The sample consisted of 58 companies covering a three-year period. Accordingly, the data was collected from 174 annual reports. All the financial statement data and corporate governance data were collected from each company's annual reports published in the Colombo Stock Exchange website.

3.3 Conceptual framework

Figure 1 below gives the conceptual framework of the study based on the literature review discussed in Section 2.3 and depicting the relationship between selected corporate governance mechanisms and CSR disclosure levels.
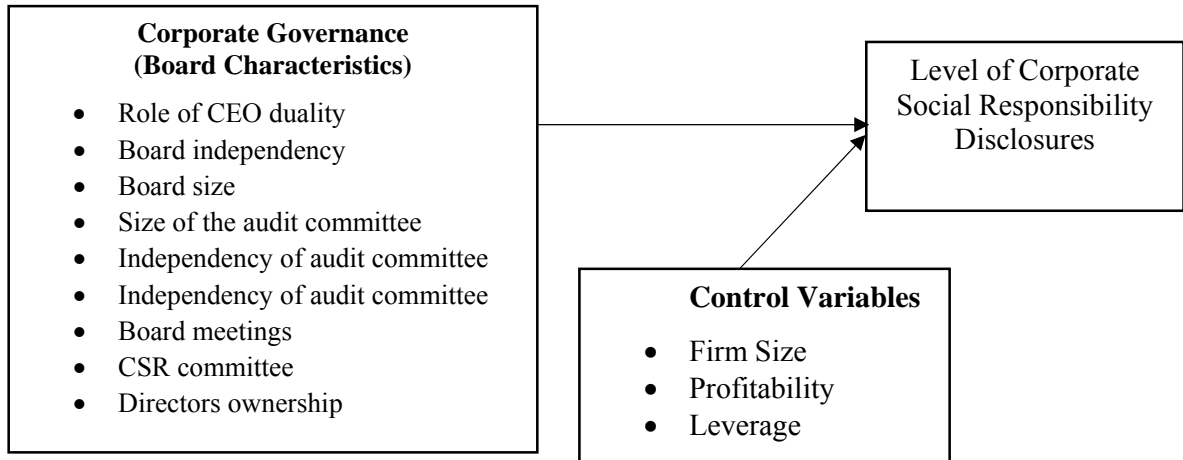
Figure 1: Conceptual Diagram

3.4   Operationalization

Table 2 below depicts the operationalization of the selected dependent, independent and control variables.

Table 2: Dependent, Independent and Control variables and their measurement techniques

Variable Type	Variable	Measurement
Dependent Variable	CSR disclosure level ($CSRD_{i,t}$) - *See note 1 below*	CSR Index of the firm *i* period *t*
Board Characteristics	CEO-Chair duality ($CEOD_{i,t}$)	Dummy variable, which is indicated as '1' if there is a separation of CEO and Chairperson, if not = 0, of the firm *i* period *t*
	Independency ($IND_{i,t}$)	Ratio of independent non-executive directors to total directors of the firm *i* period *t*
	Board size ($BS_{i,t}$)	Total number of directors of the board of the firm *i* period *t*
	Size of the audit committee ($SAC_{i,t}$)	Total number of members in the audit committee of the firm *i* period *t*
	Independency of audit committee ($IAC_{i,t}$)	Number of independent directors in the audit committee divided by the total members in that committee of the firm *i* period *t*
	Gender diversity ($GD_{i,t}$)	Dummy variable indicating 1 if a female directress is present in the

		board and 0 if not, of the firm i period t
	Board meetings ($BM_{i,t}$)	Number of board meetings held during the period t of the firm i
	CSR committee ($CSRCOMM_{i,t}$)	Dummy variable indicating 1 if there is a CSR committee and 0 if not of the firm i period t
	Directors ownership ($DO_{i,t}$)	Number of shares held by directors divided by the total number of shares issued of the firm i period t
Control Variables	Firm size ($FS_{i,t}$)	Natural logarithm of total assets of the firm i period t
	Leverage ($LEVER_{i,t}$)	$$\frac{Total\ Debt_{i,t}}{Total\ Equity_{i,t}}$$ Total Debt = Short term debt + Long term debt of the firm i period t Equity = Total equity of the firm i period t
	Profitability ($ROA_{i,t}$)	Return on Asset calculated as: $$\frac{Income_{i,t}}{Total\ Assets_{i,t}}$$ Income = Gross Income of banks and finance companies, Gross written premium of insurance companies of the firm i period t

Constructed by the authors

Note 1: Calculation of the CSR Index

As set out in the above table, the CSR disclosure level is considered a dependent variable. To identify the disclosure level represented in the annual reports of the banking and finance industry in Sri Lanka, society, labour practices, human rights, product responsibility and environment were identified. 28 criteria were identified under these five main areas. Based on each criterion, the annual reports were evaluated and 1 point was awarded if the information was applicable and available, and in the absence of such information 0 was awarded. Further, the percentage was calculated out of 28, the total point awarded for each annual report. See the formulae below:

$$CSRD_{i,t} = \frac{\sum Points\ (Society, Labour\ practices, Human\ rights, Product\ responsibility\ \&\ Environment)}{28} * 100$$

Grey et al. (1995, as cited in Jizi, Salama, Dixmon, & Stratling, 2013) state that CSR disclosure (CSRD) measures can be constructed based on the definition, framework and methods employed. Base on this guidance, the researcher examined five categories of CSR elements, society, labour practices, human rights, product responsibility and environment. Total CSR disclosure criteria were 28 under these five categories. Under society the criteria

are: local communities, public policy, grievance mechanisms, for impact on society and compliance. Further, under labour practices there are six criteria: employment, occupational and health, training and education, diversity and equal opportunities, equal remuneration for women, and labour practices and grievances. There are two main criteria for human rights: child labour and human rights grievances. Under product and responsibility there are three main criteria: product and service labeling and customer satisfaction, marketing communications and customer privacy. Finally, under environment, there are seven criteria: water, effluent and waste, products & services, compliances, overall total environmental protection expenditures and investments by type. The maximum points that banks, insurance or finance companies can achieve according to this ratio represent the best disclosure level companies.

This index was created by analyzing previous studies. Further, most of the prior studies used content analysis to identify the CSR disclosure level reflected in annual reports (Harun, 2016; Jizi, Salama, Dixson & Stratling, 2013). To ensure the reliability of this score, this study used data from annual reports and the population sample.

3.5   Hypotheses

The following hypotheses were derived from the extant literature discussed in Section 2.

H_1: There is an association between board characteristics and the extent of CSR disclosures.
H_2: There is an association between board size and the level of CSR disclosures.
H_3: There is an association between board independence and the level of CSR disclosures.
H_4: There is an association between CEO-Chair duality and the level of CSR disclosures.
H_5: There is an association between independence of audit committee and the level of CSR disclosures.
H_6: There is an association between size of the audit committee and the level of CSR disclosures.
H_7: There is an association between gender diversity of the board and the level of CSR disclosures.
H_8: There is an association between number of board meetings and CSR disclosures.
H_9: There is an association between establishment of CSR committee and CSR disclosures.
H_{10}: There is an association between the directors' share ownership and CSR disclosures.

3.6   Analytical strategies

Before performing any analysis, first, the data were cleaned and screened. Then, to achieve the first objective of the study (Section 1), i.e., assessing the degree of selected corporate governance characteristics and board governance characteristics, descriptive statistics including measures of central tendencies and dispersions were used; and in the achievement of the second objective, i.e., examining the relationship between those selected corporate governance characteristics and CSR disclosure levels, correlation, multivariate linear regression and panel regression analyses (including Hausman test for identification of random and fixed effects) were done. Further, regression diagnostics such as normality, linearity, heteroskedasticity and multicollinearity analyses were performed (no significant issues were identified). The general regression equation performed is as follows (The definitions of variables are presented in Table 2 above):

$$CSRD_{i,t} = \alpha + \beta_1 BS_{i,t} + \beta_2\, IND_{i,t} + \beta_3 CEOD_{i,t} + \beta_4\, IAC_{i,t} + \beta_5 SAC_{i,t} + \beta_6 GD_{i,t}$$
$$+ \beta_7 BM_{i,t} + \beta_8 CSRCOMM_{i,t} + \beta_9 DO_{i,t} + \beta_{10}\, FS_{i,t} + \beta_{11} LEVER_{i,t}$$
$$+ \beta_{12} ROA_{i,t} + \varepsilon$$

The findings and discussion are given in the next section.

4 FINDINGS AND DISCUSSION

This section presents the findings based on descriptive statistics, correlation and regression analyses as referred to in the preceding section and a discussion of those findings. The descriptive statistics applied to the sample of 58 companies through 174 firm-year observations in terms of CSR disclosures in the banking, insurance and finance industry are presented in Table 3. The total CSR disclosure level is 38.28%. The findings of Wijesinghe (2012) supports this result, who found a 53% of CSR disclosure level. CSR disclosure level of labour practices is 52.10% for the period 2014 to 2016 and it is the highest percentage of disclosure level from the CSR disclosure criteria. This can be due to legal requirements and requirements of GRI4 global reporting standards. Then, the second highest disclosure criterion is product or service responsibility disclosure practices, which represents 46.6% disclosure level. 28.4% of information disclosed is regarding society and most of the companies are engaged health, education and community service activities. Information regarding human rights and environment practices are the lowest disclosures in annual reports. In the banking, insurance and finance industries, 22.4% and 23% disclosure levels are shown above CSR criteria.

Table 3: Descriptive Statistics: CSR Disclosures

CSR Disclosure Criteria[a]	N	Minimum	Maximum	Mean	Std. Deviation
Labour practices and decent work disclosures	174	0	1	52.100	35.600
Human Rights disclosures	174	0	1	22.400	36.700
Society disclosures	174	0	1	28.400	24.800
Product or Service responsibility disclosures	174	0	1	46.600	34.500
Environmental disclosures	174	0	1	23.000	29.600
Total Disclosure Index ($CSRD_{i,t}$)		0	1	38.280	27.351

[a] See Section 3.4 for the sub-criteria for the main dimensions of CSR included.

Table 4: Descriptive Statistics: Independent Variables and Control Variables

Variables [a]	N	Minimum	Maximum	Mean	Std. Deviation
Board Size ($BS_{i,t}$)	171	4	16	8.350	2.508
Independency of the Board ($IND_{i,t}$)	171	.11	. 86	.432	.161
CEO-Chair Duality ($CEOD_{i,t}$)	171	0	1	.99	.076
Independency of the Audit Committee ($IAC_{i,t}$)	170	.00	1.00	.678	.210
Size of the audit committee ($SAC_{i,t}$)	170	2	11	3.890	1.562
Gender diversity ($GD_{i\,t}$)	171	0	1	.630	.485
Board meetings ($BM_{i,t}$)	164	3	29	12.020	4.594
CSR Committee existence ($CSRCOMM_{i\,t}$)	171	0	1	.100	.300
Ownership of directors ($DO_{i\,t}$)	173	.00	.572	.0549	.125
Firm Size ($FS_{i,t}$)	174	5.85	9.010	7.217	.763
Leverage ($LEVER_{i,t}$)	174	.00	32.290	1.299	2.891
Profitability ($ROA_{i,t}$)	174	.00	1.140	.207	.166

[a] Definitions of the variables are indicated in Table 2.

Regression analysis was used to test the relationship between the various independent variables and measures of CSR reporting. The regression model was used with the variance inflation factor (VIF) and correlation matrix to test multicollinearity.

The descriptive statistics are presented in Table 5. A mean 8.35 indicates that there can be an average of eight directors on the board in the banking, insurance and finance industry. The mean value of 43.17% clearly indicates that banking, finance and insurance companies are represented by executive directors, which is supported by the results of Khan (2017), who found a 32.45% independency level. In this industry a 99% mean indicates separate roles for the chairman and CEO. 67.7% is a noticeable mark indicating that most of the companies in this industry's audit committees consist of non-executive directors. The mean value of gender diversity is 63%, which means that most of the boards are represented by at least one female director. Further, the maximum number of board meetings held per year is 29 and the minimum three. Therefore, an average of 12 board meetings are held by banking, insurance and finance industry companies. The mean value of the companies with a CSR committee is 10 per cent. The maximum percentage of directors' ownership is 57 and the minimum 0 percent, whereas the mean value of this is 57 percent. More than half the directors have ownership of the company and influence the company's activities. The mean value of firm size (natural logarithm) is 7.2, the minimum value is 5.85 and the maximum 9.01. Leverage of banking, insurance and finance industry is measured through the ratio of total debt to equity, where mean value is 1.29. Finally, the mean value of the ROA of this industry is 0.20. ROA is measured by the total income to total asset ratio.

4.1 Relationship between selected board characteristics and firm's performance

This section focuses on the correlation and regression analyses and their results.

Table 5: Correlation Analysis

	Variables [a]	$CSRD_{i,t}$	$BS_{i,t}$	$IND_{i,t}$	$CEOD_{i,t}$	$IAC_{i,t}$	$SAC_{i,t}$	$GD_{i,t}$	$BM_{i,t}$	$CSRCOMM_{i,t}$	$DO_{i,t}$	$FS_{i,t}$	$ROA_{i,t}$
1	$BS_{i,t}$	.382***											
2	$IND_{i,t}$	.244***	-.007										
3	$CEOD_{i,t}$	.100	.133	-.033									
4	$IAC_{i,t}$	.039	-.077	.271***	-.119								
5	$SAC_{i,t}$	.306***	.396***	.384***	.094	-.246***							
6	$GD_{i,t}$	.507	.022	-.031	-.059	-.094	.120						
7	$BM_{i,t}$	.197**	.053	.072	.120	-.114	.321***	.029					
8	$CSRCOMM_{i,t}$	.501***	.118	.088	.025	.091	.023	.015	-.015				
9	$DO_{i,t}$	.007	-.081	-.043	.034	.304***	-.236***	-.044	.154**	.128			
10	$FS_{i,t}$	.633***	.554***	.220***	.103	-.184**	.605***	.065	.334***	.224***	-164***		
11	$LEVER_{i,t}$	-.013	-.047	-.133	.033	.003	.002	-.001	.044	-.040	.010	.063	
12	$ROA_{i,t}$	.008	-.147	-.002	.126	.176**	-.289***	-.066	-.335***	.019	-.054	-265***	.144

[a] See Table 2 for the definitions of the variables.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Correlation

Table 5 shows the relationship between corporate governance variables and CSR disclosure. Based on the Pearson correlation analysis results indicated in this table, board size, independence of the board, size of the audit committee, number of board meetings held and the presence of CSR committee show a significant positive relationship with CSR disclosure level in the banking, insurance and finance industry at a significant level (at least at a $p<0.05$ level). Firm size too has a systematic positive relationship with CSR disclosure level at a significance level of ($p<0.01$). These results indicate that under the high influence of corporate governance mechanisms, information regarding CSR activities are widely disclosed in annual reports. Moreover, CEO-Chair duality, independence of the audit committee, gender diversity, ownership of directors and profitability show no significant systematic relationship with CSR disclosure level at any of the significance levels ($p >0.05$).

Linear Regression

Table 6 show the multivariate OLS regression analysis of the CSR disclosure determinants in the banking, insurance and finance industry in Sri Lanka. The R^2 value indicates that 59 percent of the variation of CSR disclosures could be explained using the selected corporate governance practices. Further, significance of the F-test is below 1% signifying that the overall model is valid.

Table 6: Linear regression analysis

Variables[a]			Collinearity Statistics	
	Coef.	**t**	**Tolerance**	**VIF**
Intercept	-1.566**	-6.074		
$BS_{i,t}$	.008	1.083	.630	1.588
$IND_{i,t}$	.146	1.329	.636	1.571
$CEOD_{i,t}$	.207	1.106	.937	1.067
$IAC_{i,t}$	.075	.915	.707	1.414
$SAC_{i,t}$	-.014	-1.063	.469	2.133
$GD_{i,t}$	.030	1.016	.955	1.047
$BM_{i,t}$	.006	1.582	.725	1.379
$CSRCOMM_{i,t}$	.311***	6.256	.873	1.146
$DO_{i,t}$	.060	.432	.815	1.227
$FS_{i,t}$	.200**	7.128	.445	2.248
$LEVER_{i,t}$	-.006	-1.117	.907	1.102
$ROA_{i,t}$	.324*	3.283	.788	1.269
F- Value		17.976		
Sig. of F- value		0.000		
R^2		0.590		
N		174		

[a] These variables are defined in Table 1
*$p<0.1$ **$p<0.05$; ***$p<0.01$

The analyzed results shown in Table 6 indicate a positive relationship between CSR disclosures and corporate governance mechanisms only in regard to the presence of the CSR committee. Further, control variables, firm size and return on assets indicate a systematic significant (at least at the level of $p<.10$) positive relationship with the CSR disclosure level in the banking, insurance and finance industry. Additionally, there is no relationship between the other variables and CSR disclosure level.

Panel Regression

Table 7 below presents the results of the panel regression analysis of this study.

Table 7: Panel regression analysis

Variables	Co efficient	Z
$BS_{i,t}$	-0.002	-0.260
$IND_{i,t}$	0.100	1.080
$CEOD_{i,t}$	0.253	1.240
$IAC_{i,t}$	0.005	0.080
$SAC_{i,t}$	-0.014	-1.220
$GD_{i,t}$	0.028	0.940
$BM_{i,t}$	-0.002	-0.460
$CSRCOMM_{i,t}$	0.115*	1.910
$DO_{i,t}$	0.051	0.370
$FS_{i,t}$	0.231***	6.540
$LEVER_{i,t}$	-0.002	-0.700
$ROA_{i,t}$	0.288**	2.810
_cons	-1.574***	-5.280
$Prob > chi2$	0.000	
R^2	0.527	
N	163	

[a]Definitions of these variables are indicated under Table 2.
*$p<0.10$; **$p<0.05$; ***$p<0.01$

The panel regression results also comply with the results of both the linear regression and correlation analysis. As the above table shows, the presence of the CSR committee reveals a significant ($p<0.10$) positive relationship with the CSR disclosure level. However, all the other selected corporate governance mechanisms are not systematically related with CSR disclosures. In addition, firm size and ROA variables show a significant positive relationship with the level of disclosures.

4.2 Discussion

As presented earlier in Table 3, the CSR disclosure level of labour practices is 52.10% for the period 2014 to 2016, which is the highest percentage of disclosure level in terms of the CSR disclosure criteria. This can be due to the legal requirements and GRI4 global reporting standards. The total CSR disclosure level in the banking, insurance and finance industry is 38.28%. The second highest disclosure of 46.6% relates to product or service responsibility. Financial companies are high risk and high gain companies and so provide clear information

about their products, services, customer satisfaction and customer privacy. By describing that information, they expect higher profits as mentioned by Wang, Choi and Li (2008, as cited in Oh, Chang & Kim, 2016). 28.4% of information is disclosed about society and most companies are engaged in health, education and community service activities. Information regarding human rights and environmental practices has the lowest disclosures in annual reports. In the banking, insurance and finance industry a 22.4% and 23% disclosure level are shown in terms of the above CSR criteria.

Further, the above correlation analysis indicates that board size has a significant positive impact on the level of CSR disclosures ($p<0.01$), which is consistent with the studies by Jizi et al. (2013), Lim et al. (2007), and Donnelly and Mulcahy (2008), which found similar positive associations. According to Khan (2010), having large number of directors with different expertise improves the company's efficiency resulting an increase in CSR engagements. However, the regression analysis does not support the above findings but shows a non-significant positive relationship with the CSR disclosure level. Further the results of the correlation analysis show a significant positive relationship ($p<0.01$) between the independence of the board and CSR disclosures. This is in line with the studies of Jizi et al. (2013) and Ibrahim et al. (2003) according to which state that control and management of the company will be more effective when there many independent directors and it tends to disclose more CSR related information. Conversely, the regression analysis in Table 6 does not show a significant relationship between the above independent and dependent variables.

This study does not indicate a relationship between CEO-Chair duality and CSR disclosure level, which is an important finding because earlier studies have reported contradictory results. Most of them reported a negative association between the duality and CSR levels (Jezi et al., 2013) or no association at all. The above correlation analysis reveals no relationship between the independence of the audit committee and CSR disclosure level. Similarly, regression analysis also points to an insignificant relationship between the independence of the audit committee and the CSR disclosure level.

Further, the correlation analysis in Table 5 shows a positively significant ($p<0.01$) association between the size of the audit committee and CSR disclosures. These findings are in line with those of Barako et al. (2006) that approving the true and fairness of financial statements leads to improved corporate information disclosures. Similarly, Mangena and Pike (2005) support the above result by indicating that monitoring, controlling and disclosure level depend on the size of the audit committee and leads to a positive association between CSR disclosure level and size of the audit committee. However, the regression analyses presented in Table 6 and 7 shows that no relationship exists between the size of the audit committee and the CSR disclosure level.

Both the regression and correlation analyses show that there is no relationship between the independent variable of gender diversity and the CSR disclosure level. The hypothesis (H8) that there is a positive relationship between board meetings and CSR disclosure level is supported according to the correlation analysis, which indicates a significant positive relationship ($p<0.05$). According to prior studies such as by Tuggle et al. (2010) and Laksamana (2008), frequent board meetings enable directors to control a company effectively resulting in a positive association between the above variables. Further, Zarith (2014) observes that frequent meetings tend to reveal their performance to employees. However, the regression analysis revealed that the relationship between the above variables is not significant.

The most significant positive relationship is observed between the presence of CSR committee and the CSR disclosure level; where all OLS regression, panel regression and correlation analyses pointed to a systematic significant relationship of ($p<0.01$,). The CSR committee is there to handle all CSR activities in the company and automatically leads to high disclosure levels. The studies of Ulman (1985, as cited in Dias, Rodrigues and Craig, 2017) support this result establishing that the CSR committee provides formal recognition to stakeholders through active strategies. Michelon and Parbonetti (2012) also confirm the this result by showing that reporting by the CSR committee improves the quantity and quality of CSR disclosures. Therefore, the hypothesis (H_9) that there is a positive relationship between CSR committee and CSR disclosure level is supported. Hypothesis (H_{10}) forecast a positive relationship between directors' ownership and CSR disclosure level but the above analyses do not support the expected result. Lim, Matolcy and Chow (2007) state that when directors have significant ownership, they tend to voluntarily disclose CSR activities and make decisions that maximise the company's economic, social and environmental activities (Prado Lorenzo et al., 2009).

This section statistically analysed how selected corporate governance mechanisms in terms of board characteristics impact the level of CSR disclosures in Sri Lankan listed banks, insurance and finance companies. The above analyses indicate that the only corporate governance characteristic that significantly affects the level of CSR disclosures in banks, insurance and finance companies in Sri Lanka is the presence of a CSR committee. Thus, when there is a board committee for CSR there is a higher level of CSR disclosure. The next section gives the conclusion of the study.

5   CONCLUSION

Corporate Governance is a governing concept and CSR is a social concept that helps investors to make decisions based not only on financial information, which is disclosed with the intention of increasing the accountability of the organizations (Dobers & Springett, 2010). In the present time, investors are not going to take their decisions based only on the financial performance of the company. Recently, many shareholders have begun to think beyond monetary terms and take decisions based on qualitative and quantitative factors that affect the organization. Literature also indicate that corporate governance mechanisms have a positive impact on CSR disclosures and leads to maximization of value in firms. However, despite being an important phenomena, there is a dearth of studies in Sri Lanka that examines the association between corporate governance mechanisms and level of CSR disclosure in the banking, insurance and finance firms.

Within this backdrop, the first objective of this research was to examine the level of CSR disclosures and corporate governance practices in terms of board characteristics among a sample of 58 banks, finance and insurance companies in Sri Lanka through 174 firm-year observations from 2014-2016. This study added to the current CSR literature by being a pioneering study to examine the determinants of CSR disclosures and the degree to which corporate governance mechanisms influence the banking, insurance and finance industry to disclose their CSR information in their annual reports. To assess the CSR disclosure level, a CSR disclosure index was developed by the researcher, which was based on prior literature and GRI-G4 guidelines. The manual content analysis method was used to find CSR disclosure information in a sample of 58 companies in 174 annual report observations. Overall, the CSR disclosure level of banks, insurance and finance companies was found to

be at 38.28%, which is quite low. This result is consistent with the researcher's expectation based on extant literature. Further, the highest disclosure level is in the category of labour practice and decent work practices. This shows that banks, insurance and finance companies disclose their CSR practices, which can be due to GRI-G4 sustainability reporting practices. Being highly regulated industries, the corporate governance mechanisms in the banks, insurance and finance firms were also observed to be within the stipulated guidelines and regulations.

The quantitative method was used in this study to test the research hypotheses specified under the second objective of the study, which was to examine the relationship between corporate governance practices and their impact on CSR disclosure levels. Correlation and regression analyses were used for the empirical analysis. The dependent variable was the CSR disclosure level quantity score while the independent variables were corporate governance mechanisms and control variables. The results of both correlation and regression analyses show that a presence of a CSR committee is positively significant for CSR disclosure practices, and this is also consistent with the studies by Dias et al. (2017) and Michelon and Parbonetti (2012). When there is a board committee responsible for CSR activities, a company makes greater disclosures of CSR practices. The results also indicated that the control variables of firm size and profitability also have a significant positive relationship with CSR disclosure levels. Furthermore, other corporate governance variables considered in this study, with the exception of the presence of a CSR committee, have no significant relationship with the level of CSR disclosures. In terms of policy implications, the regulators and other authorities could promote corporate governance mechanisms to enhance CSR disclosures to help the companies in banking, finance and insurance companies to reap the benefits out of such disclosures.

Even though this study has some practical implications, its scope is limited, which could be overcome in future studies. First, this study is based on a sample of annual reports for the period of 2014-2016. Thus, the results of this study relate only to listed banks, insurance and finance companies and not to other non-banking business sectors. Further, other listed companies might report CSR disclosures in their annual reports which are omitted in this study. Another, future research direction worth pursuing is to search for views, opinions and motives relating to CSE disclosure. Additionally, the data collected by the researcher from annual reports was limited by the size of the sample and considerations of time and effort. An annual report is a self-expressed profile of a company and information can be tailored to suit its interests and thus can be subjective. Further, studies can use primary data to obtain more objective results. Further, future research may also consider other corporate governance mechanisms and other related variables.

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THE IMPACT OF BOARD CHARACTERISTICS ON VALUE ADDED EFFICIENCY IN THE SRI LANKAN BANKING AND FINANCE SECTOR

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Abstract

The main purpose of this study is to examine the relationship between board characteristics and firm performance of a sample of 41 Sri Lankan banks and finance companies listed on the Colombo Stock Exchange. In contrast with the bulk of the extant literature, it uses the efficiency of value added (VA) by a firm's physical capital (PC) and intellectual capital (IC) resources to measure firm performance. The variables used to measure the effectiveness of the board of directors in contributing to VA efficiency of the Sri Lankan Banking and Finance sector are board size, percentage of non-executive directors, percentage of director share ownership, gender diversity, educational level diversity, number of annual board meetings, existence of a nomination committee, existence of an audit committee and existence of a remuneration committee. The data collected from annual reports for the period from 2013 to 2017 was analyzed with descriptive statistics, correlation and regression analyses. Although the results of the different analyses do not converge entirely, the results of both the correlation and regression analyses provide evidence that the proportion of non-executive board directors and number of annual board meetings have a significant negative relationship with the overall value-added efficiency of total resources. The findings of this study are believed to have significant policy implications.

Key words: Board characteristics, Corporate governance, Firm performance, Banking and Finance sector, Value added, Intellectual capital

1   INTRODUCTION

Past global financial scandals in large-scale firms such as Enron and WorldCom and the collapse of banks like the Pramukha Savings and Development Bank in Sri Lanka have resulted in increased interest in corporate governance and led to the development of corporate governance codes both internationally and locally (Edirisinghe, 2015). Taking into consideration that it is the board of directors that have been widely blamed for company collapses, corporate governance guidelines have placed greater emphasis on board characteristics. The financial sector of Sri Lanka, in particular, is directly linked with the economic activities of the country. It is this sector which provides liquid assets such as cash to the entire economy and also grants loans to and accepts deposits from customers. Therefore, banks and finance companies require robust of corporate governance as any failure in the financial system of an economy will have an adverse effect on all financial and non-financial companies and eventually on the entire economy of the country. Moreover, the complexity of the financial sector leads to increased asymmetry of information and hence makes it more difficult for the stakeholders to monitor the actions of the management. Also, financial sector firms can be said to be highly leveraged due to these firms mainly being

44

funded by the deposits of customers and is therefore subject to greater regulation than other sectors. The existence of these external regulations may conflict with the interests of the shareholders thus creating a new agency problem (Andres & Vallelado, 2008).

In addition, Sri Lanka has been prone to rapid technological advancements and the emergence of new innovations creating a more sophisticated customer base with demands for a higher level of service and support. These factors suggest that a company is no longer able to achieve success only through access to and utilization of traditional physical and financial resources but is highly dependent on intellectual capital assets in order to create long-term value for the company (Cuganesan, 2006). Aruppala, Wickramasinghe, and Mahakalanda (2015) indicate that the use of intellectual capital, especially human capital, is relatively high in the banking, finance and insurance sector of Sri Lanka when compared to other sectors. Also, high levels of technological innovation and of interaction between various parties in the financial sector make it necessary for these companies to invest in intellectual capital assets in order to benefit from sustainable competitive advantage.

In investigating the empirical relationship between corporate governance and firm performance, the majority of the prior literature cite traditional accounting-based and market-based performance measures such as return on assets (ROA), return on equity (ROE), and Tobin's Q to measure performance (Ujunwa, 2012; Belkhir, 2009; Campbell & Mínguez-Vera, 2008). There is thus a dearth of studies on the association between the board characteristics and firms' performance using the value added (VA) efficiency aspect of performance, which includes the efficiency of both physical capital and intellectual capital resources.

With regard to the above factors, the study addresses two main objectives: to determine the level of corporate governance, in terms of board characteristics, and VA efficiency and to examine the impact of board characteristics on the efficiency of VA in the banking and finance sector of Sri Lanka. In addition to considering VA from a holistic perspective, the study explores the relationship between board characteristics and the efficiency of VA in respect of the major elements of a firm's resource base, namely, physical capital resources and intellectual capital resources, separately. Ho and Williams (2003) suggest that the management will follow different approaches to the use and application of these two different resource bases. The findings of this research are expected to benefit policy makers and management by enhancing their understanding of the development of corporate governance mechanisms in the Sri Lankan banking and finance sector.

The remaining sections of this study are organized as follows: Section two discusses the key definitions, theoretical framework and the findings of the existing literature relevant to this study. Section three presents the methodology adopted, followed by a discussion of the data analysis results of the study in Section four. Section five provides the conclusions of the study along with the limitations and directions for future research.

2   LITERATURE REVIEW

This section explains the key definitions used in this study, discusses the broad theories that link corporate governance and firm performance and then analyzes the existing local and international literature relevant to the study of the impact of corporate governance on firm performance. Finally, it identifies the theoretical gap filled by this study.

2.1 Corporate Governance

The Cadbury Code (1992) gives the most common definition of corporate governance as "a system by which companies are directed and controlled". It includes all the rules and policies established both within and outside an organization to regulate the company's functions and behaviour and further aligns the interests of the management, board of directors, shareholders and other stakeholders. Solomon (2007), adopting the viewpoint of the stakeholder theory, defines corporate governance as a "system of checks and balances, both internal and external, that ensure that companies discharge their responsibility by all their stakeholders and act in a socially responsible way". This definition reflects that corporate governance will not only benefit shareholders but also other stakeholders of the company. Further, OECD (1999) emphasizes that corporate governance helps to eliminate problems of accountability and transparency in companies.

2.2 Corporate Governance in Sri Lanka

According to Edirisinghe (2015), the Sri Lankan corporate governance code has been developed in line with the Anglo-Saxon model. This means that companies are governed by a single board which carries out both executive and supervisory functions. The first corporate governance code was introduced to Sri Lanka by The Institute of Chartered Accountants of Sri Lanka (ICASL) back in 1997. Developed in line with the Cadbury Code (1992), it focused on the financial aspects of corporate governance. Later in 2003, ICASL replaced it with another voluntary code developed in accordance with the Hampel Code (1998) and with a much wider scope than the previous code. It focused on areas related to the company and institutional shareholders. However, in 2008, ICASL and the Securities and Exchange Commission (SEC) together issued a revised Code of Best Practice on Corporate Governance for voluntary compliance by listed companies in combination with the mandatory rules on corporate governance incorporated into the CSE Listing Rules (Senaratne, 2011). The rules on corporate governance were made mandatory for all listed companies from April 2008 by incorporating them into the CSE Listing Rules. Moreover, the Companies Act No. 7 of 2007 incorporated several mandatory corporate governance rules in 2008 (Manawaduge, 2012). Then again, another revised Code of Best Practice on Corporate Governance was issued in 2013 by ICASL and SEC which focuses on seven areas: directors, directors' remuneration, relations with shareholders, accountability, auditing, institutional investors and other investors. Furthermore, considering the significant impact of the banking and finance sector on the economy, the Central bank of Sri Lanka (CBSL) issued a Mandatory Code of Corporate Governance for banks and finance companies in 2008, which were later subjected to several amendments. The companies were expected to comply with the code from 01st January, 2009.

2.3 Value Added

Ho and Williams (2003) define 'value added' as "the creation of wealth" for the company through the use of the firm's physical capital and intellectual capital resources indicating that wealth creation rather than financial performance is the primary objective of an organization.

2.4 Intellectual Capital

According to the existing literature, intellectual capital can be generally described as an aggregate expression of the intangible assets controlled by a company (Cuganesan, 2006).

Edvinsson and Malone (1997, as cited in Chen, Cheng & Hwang, 2005) point out that the difference between the company's book value and market value represents the value of intellectual capital for the company, indicating that value is no longer created through the production of goods but through the creation of intellectual capital. The study further suggested that intellectual capital is made up of human capital and structural capital which are wrapped up in customers, processes, databases, brands and systems. Bontis (2001) observes that human capital comes from the skills, capabilities and experience of employees. A unique feature of human capital is that the company will lose this source of competitive advantage once the employees leave the organization. Also, Roos and Roos (1997) suggest that structural capital comes from the external relationships that a company makes through its involvement and activities with its customers, suppliers and other stakeholders. The establishment of such relationships will help companies to gain access to critical and strategic resources to achieve differentiation leading to increased corporate performance over the long term.

2.5   Theories of corporate governance and performance

This section discusses the theories that can be broadly used to understand the relationship between board characteristics and firm performance.

According to Jensen and Meckling (1976), the agency theory indicates that although shareholders are the principals or owners of a company, it is the managers who act as the agents and run the company on behalf of the shareholders. This separation of ownership and control results in the agency problem and costs. In this regard, it is suggested that the board of directors can monitor the actions of the managers and hence maximize return for investors.

On the other hand, the stewardship theory does not view managers as self-seeking but rather suggests that enabling managers to perform their functions autonomously rather than controlling them will result in the shareholders' returns being maximized (Davis, Schoorman & Donaldson, 1997).

As an extension to the agency theory, the stakeholder theory emphasizes that the board of directors are not only responsible and accountable to the shareholders but also to the other stakeholders of the company (Kiel & Nicholson, 2003), and should therefore ensure that the company performs well in terms of social responsibility in order to successfully achieve the primary objective of shareholder wealth maximization.

Alternately, the resource dependence theory indicates that the variations in the performance levels of companies can be explained by the different levels of physical capital and intellectual capital resources available to each company (Wernerfelt, 1984). Furthermore, the theory emphasizes that the board of directors plays a role in reducing the uncertainty for companies by using their knowledge, expertise and connections to bring in valuable resources such as information, skills, suppliers, buyers and other key elements essential for the success of a company (Gales & Kesner, 1994).

2.6   Empirical Studies on Corporate Governance and Performance

This section deals with both international and local empirical studies relevant to this study. With regard to board size, Abidin, Kamal, and Jusoff (2009) found a significant positive association between board size and the efficiency of VA, highlighting that a larger board would allow the exchange of more ideas and experience among board members. On the other

hand, Ho and Williams (2003) failed to find any significant relationship between the two variables. In contrast, Yermack (1996) found a negative relationship between board size and performance suggesting that larger board sizes would result in reduced efficiency in the use of the company's assets as a result of poor communication and coordination among board members.

In terms of board composition, the empirical results of the comparative analysis conducted by Ho and Williams (2003) of a sample of South African, Swedish and UK firms identified a positive relationship between the percentage of outside directors on a board and the VA efficiency of both physical and intellectual capital resources in South African firms. Thus, these results portray the benefit of external directors for the improvement of both the short- and long-term performance of the company. However, no relationship was identified between the percentage of non-executive board directors and the VA efficiency for the Swedish and UK firms. On the contrary, Andres and Vallelado (2008) identified a curvilinear relationship between the two variables which suggests that increasing the proportion of non-executive directors beyond a certain limit will not be beneficial.

In respect of the percentage of shares held by directors, Tomar and Bino (2012) identified a positive relationship between director share ownership and ROE for the listed banks in the Amann Stock Exchange. It was suggested that stock ownership by the board directors will help to align the interests of directors with those of shareholders and hence reduce the agency problem. On the other hand, Morck, Shleifer, and Vishny (1988) suggest a non-linear relationship between stock ownership by directors and performance where a positive relationship is indicated up to approximately 5% and then a decline in firm performance when the director share ownership levels increased to between 5% and 25%, and finally a rise in performance when the ownership level increased to above 25%.

In respect of board gender diversity, Campbell and Mínguez-Vera (2008) showed a positive association between the percentage of women directors on the board and firm performance measured by Tobin's Q. On the other hand, the findings of Ujunwa (2012) indicated a negative association between board gender diversity and firm performance whereas Suganya & Kengatharan (2017) failed to identify any relationship between them based on an analysis of listed finance companies in Sri Lanka.

In regard to educational level diversity, Ujunwa (2012) identified a positive relationship between board skill and firm performance suggesting that a higher level of expertise within the board of directors would benefit the company through a mix of unique competencies and capabilities. However, Senthuran and Velnampy (2015) failed to identify any relationship between educational level diversity and firm performance.

In respect of board meetings, the empirical results of Andres and Vallelado (2008) indicated that the number of board meetings per year was positively related to board performance, suggesting that increasing the frequency of board meetings would help companies to develop good strategic decisions and prevent the company from failure rather than responding to the failure after it actually occurs. In contrast, Fernandez, Alonso, and Rodriguez (2014) found a negative association between the number of board meetings and ROE in Spanish companies suggesting that a higher frequency of board meetings will lead to management costs exceeding the benefits actually gained. On the other hand, Ajanthan, Balaputhiran, and Nimalathashan (2013) failed to identify any relationship between the frequency of annual board meetings and firm performance.

Moreover, with regard to board meetings, Heenetigala (2011) identified a positive association between the existence of board committees and firm performance in a sample of Sri Lankan companies. Also, Klein (1998) suggested that the existence of board committees would allow the independent non-executive directors to monitor management effectively and efficiently so as to reduce the agency problem.

2.7   Theoretical Gap

The above conclusions reached by the researchers are ambivalent as some results show positive relationships between the variables examined whereas other studies suggest a negative or no relationship between them. Furthermore, there is a dearth of studies that have examined the relationship between board characteristics and efficiency of VA. Hence, this study is expected to contribute to both the existing international and local literature and help reduce the theoretical gap observed.

3   RESEARCH METHODOLOGY

This section discusses the research approach, sources and methods of data collection, the population, the operationalization of variables and the analytical strategies used.

The study is based on the deductive or quantitative approach as it involves the gathering of evidence from the extant literature to establish hypotheses and arrive at conclusions regarding the relationships that exist between board characteristics and the efficiency of VA. The research approach used is consistent with the methods used by Ho and Williams (2003) and Swartz and Frier (2005).

The sample for this study conducted in the Sri Lankan context was drawn from the banks and finance companies listed under the Bank, Finance and Insurance sector on the Colombo Stock Exchange (CSE) as at 29th March 2018. Of the 62 listed companies in the Bank, Finance and Insurance sector, 10 insurance companies were eliminated since the research was limited to the banking and finance sector. Of the remaining 52 companies, 41 formed the final sample for the study based on the availability of information for measuring the variables. The study used the secondary data collection method to gather data on board characteristics and value added efficiency from the published annual reports of the companies for the period from 2013 to 2017.

Figure 1 links the independent, dependent and control variables in a single conceptual diagram.

Board Characteristics	Firm Performance
Board size, Percentage of non-executive board directors (NEDs), Percentage of director share ownership, Gender diversity, Educational level diversity, Number of annual board meetings, Existence of a nomination committee, Existence of an audit committee, Existence of a remuneration committee	VA efficiency of physical capital (PC) resources (TVAPC), VA efficiency of intellectual capital (IC) resources (TVAIC), VA efficiency of total resources (TVAE)

Control Variables

Firm size, Firm Age, ROA, Leverage, Dividend Yield

Figure 1: Conceptualization diagram

Hypotheses

The following hypotheses have been determined based on the conclusions reached from the existing literature discussed in Section 2.6.

Hypothesis 1a, 1b & 1c: There is a negative and significant relationship between board size and TVAPC, TVAIC & TVAE respectively.

Hypothesis 2a, 2b & 2c: There is a negative and significant relationship between the percentage of non-executive board directors and TVAPC, TVAIC & TVAE respectively.

Hypothesis 3a, 3b & 3c: There is a positive and significant relationship between the percentage of director share ownership and TVAPC, TVAIC & TVAE respectively.

Hypothesis 4a, 4b & 4c: There is a positive and significant relationship between board gender diversity and TVAPC, TVAIC & TVAE respectively.

Hypothesis 5a, 5b & 5c: There is a positive and significant relationship between educational level diversity and TVAPC, TVAIC & TVAE respectively.

Hypothesis 6a, 6b & 6c: There is a negative and significant relationship between the number of board meetings and TVAPC, TVAIC & TVAE respectively.

Hypothesis 7a, 7b & 7c: There is a positive and significant relationship between the existence of nomination committee and TVAPC, TVAIC & TVAE respectively.

Hypothesis 8a, 8b & 8c: There is a positive and significant relationship between the existence of audit committee and TVAPC, TVAIC & TVAE respectively.

Hypothesis 9a, 9b &9c: There is a positive and significant relationship between the existence of remuneration committee and TVAPC, TVAIC & TVAE respectively.

Operationalization

This section shows the operationalization of the independent, dependent and control variables used in this study (Table 1).

Table 1: Operationalization of Variables

Variable and Denotation	Measurement	Related Studies
Board Characteristics		
Board size ($BODSIZE_{i,t}$)	Number of board directors for the firm i and period t.	Belkhir (2009)
Percentage of non-executive board directors (NEDs)($OUTDIR_{i,t}$)	Percentage of number of non-executive directors to the total number of board directors for firm i and period t.	Andres and Vallelado (2008)
Percentage of director share ownership ($BODOWN_{i,t}$)	Percentage of number of outstanding common shares held by directors to the total number of outstanding common shares of the firm for the firm i and period t.	Abidin et al. (2009) Ho and Williams (2003)
Gender diversity ($GENDER_{i,t}$)	Percentage of female board directors to the total number of board directors for firm i and period t.	Campbell and Minguez-Vera (2008)
Educational level diversity ($EDULEVEL_{i,t}$)	Percentage of board directors with degree or higher qualifications and/or professional qualifications related to Business, Accounting and Finance to board size for the firm i and period t.	Ujunwa (2012) Senthuran and Velnampy (2015)
Number of annual board meetings ($MEETINGS_{i,t}$)	Number of board meetings held per year for the firm i and period t.	Fernandez et.al (2014)
Existence of Nomination committee ($NOMCOM_{i,t}$)	Indicated as '1' if there is a Nomination committee, and '0' if not, for the firm i and period t.	Heenetigala (2011)
Existence of Audit committee ($AUDCOM_{i,t}$)	Indicated as '1' if there is an Audit committee, and '0' if not, for the firm i and period t.	Heenetigala (2011)
Existence of Remuneration committee ($REMCOM_{i,t}$)	Indicated as '1' if there is a Remuneration committee, and '0' if not, for the firm i and period t.	Heenetigala (2011)

Firm Performance

VA efficiency of physical capital (PC) resources ($TVAPC_{i,t}$)	Calculated as: $CEE_{i,t}$ (See section below on 'Measurement of dependent variables using VAIC model' for measurement.	Joshi and Cahill (2010)
VA efficiency of intellectual capital (IC) resources ($TVAIC_{i,t}$)	Calculated as: $HCE_{i,t} + SCE_{i,t}$ (See section below on 'Measurement of dependent variables using VAIC model' for measurement.	Joshi and Cahill (2010)
VA efficiency of total resources ($TVAE_{i,t}$)	Calculated as: $CEE_{i,t} + HCE_{i,t} + SCE_{i,t}$ (See section below on 'Measurement of dependent variables using VAIC model' for measurement.	Joshi and Cahill (2010)

Control Variables

Firm Size ($FIRMSIZE_{i,t}$)	Natural logarithm of total assets for the firm i at the of period t.	Mashayekhi and Bazaz (2008)
Firm Age ($AGE_{i,t}$)	Natural logarithm of number of years a firm has been in operation after incorporation.	Mashayekhi and Bazaz (2008)
Return on Assets ($ROA_{i,t}$)	Calculated as: $\dfrac{Net\ Income_{i,t}}{Total\ Assets_{i,t}}$	Abidin et al. (2009)
Leverage ($LEVERAGE_{i,t}$)	Calculated as: $\dfrac{Total\ Debt_{i,t}}{Total\ Equity_{i,t}}$	Ho and Williams (2003)
Dividend Yield ($DIVYIELD_{i,t}$)	Calculated as: $\dfrac{Dividend\ per\ share_{i,t}}{Market\ Price\ per\ share_{i,t}}$	Abidin et al. (2009)

Measurement of the dependent variables using the VAIC model

The Value Added Intellectual Coefficient (VAIC) model developed by Pulic (1998) formed the measurement basis for the three dependent variables used in this study. VAIC is the composite sum of three indicators which together represent the ability of a company to create value through the effective and efficient use of its resources. The model has been used universally to conduct similar studies (Ho and Williams, 2003; Swartz and Frier, 2005). VAIC can be represented by the following formula.

$$VAIC_{i,t} = CEE_{i,t} + HCE_{i,t} + SCE_{i,t}$$

Although the term VAIC stands for value added intellectual coefficient, it should be noted that it actually represents the value added efficiency of the firm's total resources, and not just its intellectual capital resources. The first step in calculating VAIC is to calculate the value added (VA). $VA_{i,t}$ represents the new value created for the firm in a year.

$$VA_{i,t} = Output_{i,t} - Input_{i,t}$$

$CEE_{i,t}$ represents the amount of value added to a firm through the use of the traditional physical and financial resources of a company (Joshi & Cahill, 2010). The value added to a firm through human resources is symbolized by $HCE_{i,t}$ whereas $SCE_{i,t}$ represents the value added by the company's structural capital. Structural capital includes that company's structure, policies, patents, strategies, formulas, brand names and networks (Guthrie & Petty, 2000). According to Pulic (1998), human capital is not part of input (costs) but a resource equal to capital employed. Furthermore, Pulic (1998) suggests that there is a proportionate inverse relationship between human capital and structural capital. The values of $CEE_{i,t}$, $HCE_{i,t}$ and $SCE_{i,t}$ can be computed as follows:

$$CEE_{i,t} = VA_{i,t} / CE_{i,t}$$

$$HCE_{i,t} = VA_{i,t} / HC_{i,t}$$

$$SCE_{i,t} = SC_{i,t} / VA_{i,t}$$

where:

$CEE_{i,t}$ = capital employed efficiency employed of the firm i at the end of year t.
$HCE_{i,t}$ = human capital efficiency coefficient of the firm i at the end of year t.
$SCE_{i,t}$ = structural capital efficiency coefficient of the firm i at the end of year t.
$CE_{i,t}$ = book value of the net assets of the firm i at the end of year t.
$HC_{i,t}$ = total investment for salary and wages of the firm i at the end of year t.
$SC_{i,t} = VA_{i,t} - HC_{i,t}$
$VA_{i,t}$ = VA of the firm i at the end of year t.
$Output_{i,t}$ = gross income of banks and finance companies of the firm i at the end of year t.
$Input_{i,t}$ = this includes interest expenses and other operating costs incurred by banks and finance companies (excluding employee costs) of firm i at the end of year t.

Statistical Analyses

In order to address the first objective of the study of assessing the levels of board characteristics and value added efficiency, descriptive statistics including measures of tendencies and dispersion were used. Then, the second objective of examining the relationship between board characteristics and VA efficiency was achieved by performing correlation and linear regression analyses. A panel regression was also carried out as an additional method to address this objective. The correlation and regression analyses help determine the direction and significance of the relationships between the variables. The regression models (Model 1 for TVAPC; Model 2 for TVAIC; Model 3 for TVAE) are denoted as follows:

$TVAPC_{i,t}/TVAIC_{i,t}/TVAE_{i,t} = \alpha + \beta_1 BODSIZE_{i,t} + \beta_2 OUTDIR_{i,t} + \beta_3 BODOWN_{i,t} + \beta_4 GENDER_{i,t} + \beta_5 EDULEVEL_{i,t} + \beta_6 MEETINGS_{i,t} + \beta_7 NOMCOM_{i,t} + \beta_8 AUDCOM_{i,t} + \beta_9 REMCOM_{i,t} + \beta_{10} FIRMSIZE_{i,t} + \beta_{11} AGE_{i,t} + \beta_{12} ROA_{i,t} + \beta_{13} LEVERAGE_{i,t} + \beta_{14} DIVYIELD_{i,t} + \varepsilon$

The definitions of the variables included in the regression models are shown in Table 1. The findings of the study are discussed in the next section.

4   FINDINGS AND DISCUSSION

This section focuses on data analysis and discusses the results of the research.

4.1   Descriptive Statistics

Table 2: Descriptive Statistics

Variables[a]	Mean	Median	Std. Deviation	Minimum	Maximum
$BODSIZE_{i,t}$	8.351	8	2.263	5	14
$OUTDIR_{i,t}$	0.780	0.818	0.180	0.400	1
$BODOWN_{i,t}$	0.090	0.003	0.157	0	0.539
$DUALITY_{i,t}$	0	0	0	0	0
$GENDER_{i,t}$	0.129	0.125	0.118	0	0.444
$EDULEVEL_{i,t}$	0.816	0.833	0.094	0.500	0.917
$MEETINGS_{i,t}$	13.361	12	3.608	5	29
$NOMCOM_{i,t}$	0.556	1	0.498	0	1
$AUDCOM_{i,t}$	1	1	0	1	1
$REMCOM_{i,t}$	1	1	0	1	1
$TVAPC_{i,t}$	0.349	0.370	0.19	-0.331	0.891
$TVAIC_{i,t}$	3.326	3.311	1.575	-1.441	8.981
$TVAE_{i,t}$	3.675	3.740	1.664	-1.646	9.245
$FIRMSIZE_{i,t}$	23.839	23.876	1.811	20.321	27.765
$AGE_{i,t}$	30.781	31	17.627	4	77
$ROA_{i,t}$	0.021	0.016	0.033	-0.102	0.193
$LEVERAGE_{i,t}$	6.272	5.968	4.139	-3.812	17.837
$DIVYIELD_{i,t}$	0.027	0.022	0.028	0	0.110

Table 2 presents the descriptive statistics relating to the sample of 41 listed banks and finance companies. They indicate that the average number of directors on a board is 8.35 with a minimum of 5 and a maximum of 14 for the period from 2013 to 2017. The percentage of non-executive directors of the total directors shows a mean of 77.96% and a maximum and minimum of 0.40% and 1% respectively indicating that all companies in the sample comply with the requirements of the Code of Best Practice on Corporate Governance (2013) in relation to maintaining the minimum number of non-executive directors. Also, the average ownership of shares by directors is indicated as 8.99% with a standard deviation of 15.72%. The number of meetings held per year indicates an average of 14 whereas board gender diversity indicates a mean of 12.89% showing that a board has on average only one female director and therefore female representation on the corporate boards in the Sri Lankan financial sector companies can be considered to be relatively low. The mean for educational level diversity shows that 81.62% of board members possess skills in the field of Accounting, Business and Finance where a degree or higher qualification and/or professional qualification

is considered, which is quite noteworthy. The Nomination Committee shows an average of 0.5561 indicating that 55.61% of the firms in the sample have a Nomination Committee.

The efficiency of VA by the firm's physical resources ($TVAPC_{i,t}$) for the sector is shown to have a mean of 0.3490. The average value for efficiency of VA by the firm's intellectual resources ($TVAIC$) is 3.3261 whereas the efficiency of VA by a firm's total resources ($TVAE_{i,t}$) is 3.6751. In $TVAPC_{i,t}$, $TVAIC_{i,t}$ and $TVAE_{i,t}$ there is no significant difference between the mean and median values indicating the absence of major outliers.

As for the control variables, the average firm size is 23.8393. Also, the descriptive statistics indicate a mean of 30.7805 for firm age whereas the mean for return on assets (ROA) is 0.0205. The mean leverage for firms is shown to be 6.2724 reflecting that the Bank & Finance sector firms have a very high level of debt to total assets. Moreover, the average dividend yield is 2.70% with a deviation of 2.83% among the firms.

4.2   Relationship between Selected Board Characteristics and Firm Performance

This section discusses the results of the correlation and regression analyses performed.

Correlation Analysis

Table 3 shows the results of the correlation analysis, according to which board size is positively associated with $TVAPC_{i,t}$ ($p<0.05$). Also, the number of annual board meetings shows a positive relationship with $TVAPC_{i,t}$ ($p<0.01$) and a negative relationship with $TVAIC_{i,t}$ and $TVAE_{i,t}$ ($p<0.05$). The percentage of non-executive board directors is negatively associated with all three dependent variables whereas the number of board directors with a degree or higher qualification and/or professional qualification related to accounting, business or finance is positively associated with the same ($p<0.01$). Moreover, the correlation analysis indicates an unexpected negative relationship between director share ownership ($p<0.01$) and $TVAPC_{i,t}$. Board gender and the existence of a nomination committee show no significant association (p>0.10) with any of the dependent variables. The existence of an Audit and Remuneration Committee was not considered in this analysis since all the companies in the sample had set up both audit and remuneration committees.

Table 3: **Correlation analysis**

	Variables[a]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	$BODSIZE_{i,t}$	1														
2	$OUTDIR_{i,t}$	.101	1													
3	$BODOWN_{i,t}$	-.156**	-.497***	1												
4	$GENDER_{i,t}$	.081	-.112	.125	1											
5	$EDULEVEL_{i,t}$	.388***	-.104	-.277***	.062	1										
6	$MEETINGS_{i,t}$	.131	.095	-.055	.056	.117	1									
7	$NOMCOM_{i,t}$	.404***	.262***	-.232***	.192***	.120	.068	1								
8	$TVAPC_{i,t}$	.173**	-.177**	-.256***	.097	.300***	.202***	.047	1							
9	$TVAIC_{i,t}$	-.008	-.173**	.018	.024	.190***	-.171**	-.024	.419***	1						
10	$TVAE_{i,t}$	.013	-.184***	-.012	.033	.214***	-.138**	-.018	.511***	.995***	1					
11	$FIRMSIZE_{i,t}$	.605***	.039	-.153**	.158**	.275***	.379***	.479***	.352***	.112	.146**	1				
12	$AGE_{i,t}$	-.072	-.400***	.321***	.127	.100	.181***	-.188***	.046	-.045	-.038	0.085	1			
13	$ROA_{i,t}$	-.140**	-.084	.130	.037	.083	-.235***	-.110	.243***	.728***	.717***	-.236***	-.111	1		
14	$LEVERAGE_{i,t}$	.429***	.150**	-.316***	.034	.204***	.299***	.260***	.600***	-.018	.051	.585***	-.132	-.162**	1	
15	$DIVYIELD_{i,t}$	.142**	-.031	-.201***	-.039	.293***	.138**	.139**	.429***	.458***	.483***	.264***	.027	.337***	.196***	1

[a]The definitions of the variables are indicated in Table 1.
***$p<0.01$; **$p<0.05$

Regression Analysis

This part of section four focuses on the outcomes of the regression analysis.

Table 4: Regression analysis

Models	TVAPC (Model 1)		TVAIC (Model 2)		TVAE (Model 3)		VIF
	Coef.	**Std. Error**	**Coef.**	**Std. Error**	**Coef.**	**Std. Error**	
$BODSIZE_{i,t}$ [a]	-.007	0.005	-.083**	0.039	-.090**	0.041	1.920
$OUTDIR_{i,t}$	-.344***	0.059	-1.125**	0.461	-1.469***	0.48	1.701
$BODOWN_{i,t}$	-.356***	0.071	-.979	0.557	-1.336**	0.58	1.893
$GENDER_{i,t}$	.109	0.073	-.404	0.574	-.295	0.598	1.126
$EDULEVEL_{i,t}$	.009	0.108	.401	0.842	.41	0.877	1.530
$MEETINGS_{i,t}$	.004	0.003	-.057***	0.021	-.053**	0.021	1.358
$NOMCOM_{i,t}$	-.026	0.021	-.312	0.161	-.338**	0.168	1.585
$FIRMSIZE_{i,t}$	.005	0.007	.408	0.059	.414	0.061	2.781
$AGE_{i,t}$	.001	0.001	-.004	0.004	-.003	0.005	1.450
$ROA_{i,t}$	1.847	0.303	34.13	2.365	35.977	2.465	1.502
$LEVERAGE_{i,t}$	.027	0.003	-.041	0.020	-.014	0.021	1.763
$DIVYIELD_{i,t}$	.892	0.353	7.421	2.759	8.313	2.875	1.504
F-value	29.469		35.14		36.522		
Adjusted R^2	0.626		0.668		0.676		
N	205		205		205		

[a]The definitions of the variables are indicated in Table 1.
***$p<0.01$; **$p<0.05$

The regression analysis results for TVAPC, TVAIC and TVAE are presented in Table 4. As depicted in Model 1, the percentage of non-executive board directors and the percentage of director share ownership show a negative and statistically significant relationship with TVAPC ($p<0.01$). The results for Model 2 indicate that board size ($p<0.05$), number of annual board meetings ($p<0.01$) and the percentage of non-executive board directors ($p<0.05$) are negatively related with TVIAC. When considering the TVAE, board size ($p<0.05$), the proportion of non-executive board directors ($p<0.01$), percentage of stock ownership by directors ($p<0.05$), number of annual meetings ($p<0.05$) and existence of nomination committee ($p<0.05$) are shown to be negatively associated with TVAE. The other board characteristics do not show any significant relationship with any of the three dependent variables (p>0.10).

Panel Regression

Table 5 presents the results of the panel regression. They indicate that the percentage of non-executive directors sitting on a board ($p<0.05$) and the percentage of board director share ownership ($p<0.01$) have a negative association with TVAPC. Also, a statistically significant negative relationship is depicted between the frequency of annual board meetings and TVAIC at the 5% significance level. The analysis of TVAE indicates that the percentage of non-executive directors and the number of annual board meetings have a negative impact on TVAE ($p<0.05$).

Table 5: Panel regression analysis

Models	TVAPC (Model 1)		TVAIC (Model 2)		TVAE (Model 3)	
	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
$BODSIZE_{i,t}$ [a]	-0.0050	0.0052	-0.7258	0.0447	-0.0796	0.0468
$OUTDIR_{i,t}$	-1.7644**	0.0769	-1.0354	0.5757	-1.3083**	0.6067
$BODOWN_{i,t}$	-0.3789***	0.1121	-1.0847	0.7268	-1.4506	0.7691
$GENDER_{i,t}$	0.4943	0.8286	-0.4970	0.6897	-1.4214	0.7240
$EDULEVEL_{i,t}$	0.1691	0.1227	0.4867	1.0063	0.5808	1.0565
$MEETINGS_{i,t}$	0.0039	0.0025	-0.0512**	0.0230	-0.4711**	0.0240
$NOMCOM_{i,t}$	-0.0061	0.0237	-0.3518	0.1951	-0.3754	0.2050
$FIRM\ SIZE_{i,t}$	0.0248	0.0113	0.3988	0.0743	0.4088	0.0785
$AGE_{i,t}$	0.0016	0.0010	-0.0045	0.0059	-0.0035	0.0063
$ROA_{i,t}$	2.2536	0.3518	31.7194	2.8442	33.5088	2.9873
$LEVERAGE_{i,t}$	0.2699	0.0036	-0.0500	0.0260	-0.2399	0.2753
$DIVYIELD_{i,t}$	0.5431	0.3995	6.7505	3.3029	7.3794	3.4672
R^2	0.5885		0.6859		0.6939	
Wald chi2	192.23		231.78		233.9	
Prob> chi 2	0.0000		0.0000		0.0000	
N	205		205		205	

[a]The definitions of the variables are indicated in Table 1.
***$p<0.01$; **$p<0.05$

4.3 Discussion

The descriptive statistics show that the average number of directors in the sample is 8.35, which was lower than the average board size of 16 board members reported for European banks (Belhaj & Mateus, 2016). Also, the percentage of non-executive directors sitting on the board on average is approximately 77.96%. Andres and Vallelado (2008) indicated a similar result where the percentage of outside directors accounted for 79.13% of total directors in a sample of 69 large commercial banks from six developed countries. The average number of board meetings held per year is 13.36, which is comparatively higher when compared to extant literature that suggests 8.48 meetings (Adams & Mehran, 2005). The percentage of shares held by directors was 8.99% on average while the findings of Nazar (2013) indicated that the directors' shareholding was about 9.90% for a sample of non-financial public listed firms in Sri Lanka. The average of female directors was 12.89% with a standard deviation of 11.75%. The median size of the board in the Bank & Finance sector, according to this study is 8 directors with an average of one female director as in the results arrived at by Suganya and Kengatharan (2017). In line with the corporate governance best practices, all the firms in the sample had both audit and remuneration committees.

According to the regression results, board size shows a negative significant relationship with TVAIC and TVAE ($p<0.05$), which indicates that boards with too many directors face considerable problems in communication and coordination among board members and therefore poor decision-making (Yermack, 1996; Nazar, 2013; Hermalin and Weisbach,

1991). Also, the percentage of non-executive board directors showed a statistically significant negative association with all three dependent variables (Andres and Vallelado, 2008; Agrawal and Knoeber, 1996; Bhagat and Black, 1999). This suggests that beyond a certain limit, there is a trade-off between the monitoring and advisory functions of the board as the presence executive board directors is important for providing valuable information to the board and for effectively exchanging information between the board and the management. The percentage of shares owned by directors shows a statistically significant negative association with TVAPC ($p<0.01$) and TVAE ($p<0.05$). These results are consistent with those of Morck et al. (1998) who suggested that when the level of director share ownership increases, the directors may be driven to make decisions that bring benefits to themselves at the expense of other stakeholders. This is because the directors have considerable voting rights and also make judgements about as to how the company should be run. Therefore this greater power leads them to become less concerned about the interests of shareholders, which, in turn, will lead to decreased firm performance. These results are different from the conclusions of Tomar and Bino (2012) and Jensen & Meckling (1976) who found a positive relationship between board director share ownership and firm performance. Similarly, the number of board meetings suggests a negative significant relationship with TVAIC ($p<0.01$) and TVAE ($p<0.05$). These results are consistent with the findings of Fernandez et al. (2014), Vafeas (1999), and Danoshana and Ravivathani (2013). Fernandez et al. (2014) suggested that up to 12 board meetings per year is adequate for the directors to discuss and establish the strategic lines of business and emphasized that board meetings should not develop into social encounters. Nomination committees showed an unexpected significant negative relationship with TVAE ($p<0.05$). This may perhaps indicate that the costs associated with nomination committees outweigh the benefits provided by them. These results are inconsistent with those of Heenetigala (2011) and Klein (1998) which suggest a positive association between the two variables. No significant associations were found between board gender diversity and TVAPC, TVAIC and TVAE ($p>0.10$), which is similar to the findings of Suganya & Kengatharan (2017). Also, there is no significant relationship between educational level diversity and any of the dependent variables ($p>0.10$). However, Senthuran and Velnampy (2015) identified a weak positive relationship between educational level diversity and ROE.

The results of the panel regression analysis also comply with some of the regression results. The percentage of non-executive board directors is shown to have a negative relationship with TVAPC and TVAE ($p<0.05$). Also, a significant negative association was indicated for the number of annual board meetings with TVAIC and TVAE ($p<0.05$). Furthermore, the results indicate that the percentage of shares held by directors is negatively related with TVAPC ($p<0.01$).

The above discussion denotes that certain hypotheses (see Section 3.4) are supported under certain analyses. However, there are mixed results for the relationship between the selected board characteristics and the performance of Sri Lankan banking and finance sector companies and therefore the results are not conclusive, which is also the case in the existing literature.

5   CONCLUSION

Responding to the many global financial scandals, much attention has been given to the corporate governance guidelines and corporate governance codes that operate within a country developed, with the major focus on the characteristics of the board of directors. At the same time, advances in the global economy have made companies highly reliant on

intellectual capital assets as companies are no longer capable of attaining sustainable competitive advantage through the sole use of the traditional physical and financial resources (Cuganesan, 2006). The banking and finance sector of Sri Lanka is fast growing and is subjected to rapid technological advancements and innovations. The existing literature indicates that the complexity of the financial sector leads to more severe agency problems and therefore recommends the implementation of good corporate governance practices within these organizations.

Therefore, the overall purpose of this study is to provide an analysis of the association between board characteristics and firm performance of the banking and finance sector in Sri Lanka. In contrast with much of previous research, the present study defines firm performance within the concept of VA. It explores the relationship between board characteristics and the VA efficiency of the firm's physical capital and intellectual capital resources, both separately and conjointly. As the study investigated the relationship between two variables, the quantitative approach was chosen as the study approach. The objectives of the study were to determine the levels of board characteristics and VA efficiency in the Sri Lankan banking and finance sector and to examine the relationships that exist between board characteristics and each of the dependent variables. A sample of 41 listed companies consisting of 52 listed banks and finance companies under the Bank, Finance & Insurance sector on the CSE as at 29th March 2018 was chosen for the study based on the availability of information. The required data was gathered from the annual reports of the companies for the five-year period from 2013 to 2017.

Overall, the results indicated that most of the selected governance characteristics complied with the requirements of the code of best practices and provide evidence that board size, proportion of non-executive board directors, number of annual board meetings, board share ownership and existence of a nomination committee have a significant negative relationship with the VA efficiency of total resources in the banking and finance sector of Sri Lanka. Nevertheless, it is safe to conclude that the study produced mixed results as the associations depicted between the variables under the different analysis methods do not converge entirely, which is also the case in the extant literature. However, in general, the results of both the correlation and regression analyses carried out for the present study show that value added efficiency is negatively associated with the percentage of non-executive board directors and the number of annual board meetings.

The Code of Best Practice on Corporate Governance (2013) states that the board should consist of an adequate number of non-executive directors of ability and competence to be responsible for the board's decisions and include either at least two non-executive directors or such number of non-executive directors equivalent to one third of the total number of directors, whichever is higher. However, despite the fact that a majority of outside directors is essential to reduce the conflict of interest among shareholders and to carry out the monitoring and advising function efficiently, there should be a limit to this majority. Executive directors whose knowledge of banks and finance companies could complement non-executive directors' ability are important for the efficient functioning of boards. The results of the present study support the presence of a trade-off between the monitory and information needs of the board as depicted by the negative association between the proportion of non-executive directors and value added efficiency of total resources. Therefore, it is essential that an optimum combination of executive and non-executive directors is maintained rather than overly independent boards to create value for the firm.

Also, the negative association between the number of board meetings and value-added efficiency indicates that it would be beneficial to limit the number of board meetings to a certain level so that the board can effectively formulate strategic decisions for the company. The high frequency of annual board meetings customarily held in Sri Lanka compared to other countries may suggest that this negative relationship between the two variables reflects the business culture of the country and is therefore a symptomatic indication of the inefficiency that exists in the Sri Lankan banking and finance sector.

It is hoped that the present study will benefit society as a whole by providing an understanding of the existing corporate governance practices and future governance requirements of the Sri Lankan banking and finance sector. Furthermore, the study attempts to capture the concept of intellectual capital by recognizing the increasing gap between a firm's book value and market value. The use and application of alternative measures such as the VAIC methodology along with traditional performance financial measures will help companies face the business environment of the digital age more successfully.

However, the study has several limitations. First, the present study was limited to the banking and finance sector of Sri Lanka, and second, the measures used to represent board characteristics may not represent all the dimensions required. Future research should be extended to other sectors and cover more board characteristics. Also, a comparative analysis can be performed either between the different sectors in Sri Lanka or between Sri Lanka and other countries. Such a comparative analysis between Sri Lanka and other countries could serve to measure Sri Lanka's VA efficiency performance and intellectual capital performance against countries with similar or opposite settings.

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EMLOYABILITY SKILLS OF ACCOUNTING GRADUATES: PERCEPTIONS OF EMPLOYERS, ACCOUNTING UNDERGRADUATES AND EDUCATORS IN SRI LANKA

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Abstract

Today there is stiff competition among accounting graduates but their employability skills do not match employers' expectations resulting in a supply-demand gap. The present research attempts to identify the most important employability skills of accounting graduates as perceived by employers, accounting undergraduates and educators and to examine the gap in their perceptions regarding importance of the employability skills. Employability skills are determined on the basis of prior studies and the models and a structured questionnaire was developed to ascertain the skills. Accordingly, 134 undergraduates, 23 educators and 66 employers responded to the survey. Mean ranking and one-sample *t*-test were used to identify the most important skills and one-way ANOVA with post-hoc analysis were performed to identify the gaps in the perceptions of the three stakeholders on the skills. As the most important skill, both the employers and undergraduates ranked 'Time Management' skills, while educators ranked 'Professional Judgement'. 'Marketing' was ranked the least important skill by all three groups. Also, significant gaps were found in the perceptions of the three stakeholders of the importance of 19 of the 80 skills listed. Although there is some similarity in their perceptions, there are also some significant gaps in their perception of the importance of the employability skills of accounting graduates in Sri Lanka. These research findings are expected to benefit accounting graduates, employers, educators and the general public in Sri Lanka and also help to make policy decisions on the employability skills of accounting graduates.

Keywords: Accounting graduates, Accounting undergraduates, Educators, Employers, Employability skills, Sri Lanka

1. INTRODUCTION

The accounting profession has received worldwide attention in the face of technological advances, globalization and corporate failures (Albrecht & Sack, 2000, as cited in Kavanagh & Drennan, 2008), which have increased competition among organizations and reduced the cost of information. Thus, employers are in search of a wide variety of skills and attributes from new accounting graduates to gain and maintain competitive advantage and face problems of skills shortage (Birrell, 2006, as cited in Kavanagh & Drennan, 2008). Employability requires a combination of accomplishments, talents, personal strengths and understanding for individual and professional success for the benefit of the workforce, general public and the economy as a whole (Yorke & Knight, 2003, as cited in Weligamage, 2009). According to the literature, there are two types of skills that subsumed under employability skills, subject skills and transferable skills. Subject specific skills can be

attained through education and vocational training whereas transferable skills are inbuilt individual characteristics and skills that can be used in any given job (King & Cox, 2006).

Abayadeera and Watty (2014) found an expectation-performance gap in accounting education of Sri Lanka and Albrecht and Sack (2000, as cited in Kavanagh & Drennan, 2008), showed that employers' perceptions of accounting education are outdated or irrelevant and do not meet the demand of the market. Kavanagh and Drennan (2008) found a noticeable gap between the perceptions of accounting undergraduates and the expectations of employers in Australia. Accordingly, the researcher showed that the university accounting programme failed to adequately develop the required essential non-technical and professional skills. Also, Kavanagh et al. (2008) concluded that graduates should be more "job ready" persons. Lee and Blaszczynski (1999) stated that employers expect students to have learnt a multitude of skills beyond a knowledge of accounting information including communication skills, use of computers and internet tools, working in a group environment and problem solving skills. Ali, Kamarudin, Suriani, Saad and Afandi (2016) stated that employers consider skills development more than the improvement of the knowledge base in Malaysia. Abayadeera and Watty (2014) found an expectation-performance gap in accounting education in Sri Lanka as perceived by university educators and employers, though their research was limited to one accounting degree programme and to a low response rate from employers (12.4 per cent). Therefore, these limitations point to opportunities for further future research.

The findings in the above literature and the limitations in previous studies in Sri Lanka justify the need for further investigation to find out the perception gaps among employers, educators and undergraduates regarding the employability skills of accounting graduates. Accordingly, this study addresses two main objectives; first, to identify the most important employability skills of accounting graduates as perceived by employers, accounting undergraduates and educators and second to examine the gaps in the perceptions of employers, accounting undergraduates and educators on importance of the employability skills of accounting graduates.

In the view of the researchers, there are only a few studies on this topic in the Sri Lankan context and foreign context. Thereby, this study will help to fill the gap related to the local and foreign empirical studies, while these research findings will benefit all accounting graduates, employers, educators, policy makers and the general public, in developing curricula, conducting job interviews, attract potential employment providers, revise and modify recruitment procedures and implementing policies.

The remaining section of this research is structured as follows; the next section discusses the previous studies relating to this topic and the research gap. Section 3 discusses the methodology including the research approach, population, sample, data collection and analysis strategies. The findings of the study are discussed in Section 4 followed by the conclusion, limitations, implications and future research directions in the final section.

2. LITERATURE REVIEW

The discussion begins with the concept of employability and employability skills, followed by the models of employability skills of accounting graduates. Thirdly, the empirical studies in Sri Lanka and abroad are discussed of the perceptions of stakeholders such as employers, graduates and educators of the employability skills of accounting graduates. Finally, the research gap in the existing literature is considered.

2.1   Definition of Concepts

The literature discusses the concepts of employability and employability skills of accounting graduates as follows.

Definition of Employability

Many scholars have studied employability and defined it in different terms: Yorke and Knight (2003, as cited in Weligamage, 2009) defines it as "a set of achievements-skills, understanding and personal attributes- that make graduates more likely to gain employment and be successful in their chosen occupation, which benefits themselves, the community and economy." On the other hand, Harvey (2002) explained that even though there are many definitions of employability, they can all be narrowed down to two. The first group is that it is the abilities and characteristics of a graduate for selecting a preferred job opportunity and to be retained in the profession. The second is concerned about empowering with both physical and emotional capabilities for life-long learning.

Definition of Employability Skills

Employability skills are the critical skills employees need in the workplace such as communication, problem solving, positive attitude, behaviour, adaptability, working with others, scientific, technological and mathematical skills (The Conference Board of Canada, n.d.). Weligamage (2009, p. 116) stated that in the literature there are a number of different terminologies used for the term 'employability skills'. Most countries use "generic skills" as a key term for the employability skills. King and Cox (2006) call employability skills as "a combination of transferable skills and subject skills". Further, they stated graduates are not employable without both transferable skills and subject skills. Also, Jackling and De Lange (2009) refer to employability skills as a mixture of technical skills and generic skills.

2.2   Models of Employability Skills of Accounting Graduates

The literature refers to the following models of employability skills of accounting graduates.

**2.2.1   International Education Standard 3 (2015) Initial Professional Development-
Professional Skills**

IES 3 (2015) Initial Professional Development- Professional Skills standard were developed and approved by the International Accounting Education Standards Board (IAESB). The International Education Standard (IES) prescribes the learning outcomes for professional skills that aspiring professional accountants are required to demonstrate by the end of their Initial Professional Development (IPD). Those learning outcomes fall under four main professional skill categories: intellectual, interpersonal and communication, personal, and organizational skills, that aspiring professional accountants need to perform their role successfully. Under intellectual skills category, evaluating information from various sources, applying professional judgment, critical analysis, and problem solving skills are included. Further, under the category of interpersonal and communication, team work, oral and written communication skills, communicating with people of different cultural and linguistic backgrounds, consultative skills and negotiation skills are included. IES 3 also covers lifelong learning, professional scepticism, ability to anticipate challenges, initiative, and time and resource management skills under the category of personal skill. Furthermore, it includes

people management skills, delegation skills, ability to apply tools and technology to increase efficiency and effectiveness, decision making skills, self-reviewing skills, leadership skills and meeting deadlines under organizational skills.

2.2.2 QAA (2016) – Subject Benchmark Statement- Accounting 2016

Subject Benchmark Statements form part of the UK Quality Code for Higher Education (Quality Code) which sets out the expectations of providers of higher education in the UK reviewed by QAA. These statements describe the nature of academic and study standards expected from graduates in specific subject areas and for particular qualifications. Some cognitive abilities and generic skills can be identified according to this statement such as critical evaluation skills, independent and self-management learning skills, problem solving skills, ability to evaluate information from various sources, numeracy skills, and ability to use information and communication technology, oral and written communication skills and teamwork skills.

The above models facilitate the identification of some of the employability skills of accounting graduates. Accordingly, some common skills were identified in both models such as critical analysis/critical evaluation, problem solving skills, independent and self-management learning skills, team work, ability to evaluate information from various sources, oral and written communication skills and ability to use information and communication technology. However, there are more skills elaborated in IES 3(2014) Initial Professional Development- Professional Skills framework than in the QAA (2016) – Subject benchmark statement- Accounting 2016.

2.3 Empirical Studies on Employability Skills and Perceptions Gaps in Regard to their Importance

Under following sections, many employability skills in foreign and local contexts are identified, which are also compared and contrasted. Finally, a research gap is also identified.

2.3.1 Local and Foreign Empirical Studies on Skills

The literature analyses comprehensively the employability skills of accounting graduates. As many as 124 skills have been identified in 19 studies, of which 80 skills under five categories were selected for the current study: 7 skills under *Intellectual skills*, 31 under *Technical and Functional skills,* 24 skills under *Personal Skills,* 9 skills under *Interpersonal and Communication Skills* and 9 skills under *Organizational and Management Skills*.

2.3.2 Gaps in Perceptions on the Importance of the Employability Skills of Accounting Graduates

Abayadeera and Watty (2014) modified Bui and Porters' (2010) framework to identify the expectation gap of employability skills of accounting graduates in Sri Lanka. From the modified Bui and Porters' (2010) framework the researchers found a significant expectation-performance gap in generic skills of accounting graduates from the perspective of employers. The researchers considered it essential to develop, teach and assess the generic skills of accounting graduates in the university programme. Kavanagh and Drennan (2008) observed some similarity between the expectations of employers and the perceptions of accounting graduate students but a significant gap still existed in Australia, although both groups accept

the importance of some skills such as analytical/ problem solving skills, team work, oral and written communication and continuous learning. Moreover, there were remarkable gaps in the skills of business awareness, basic accounting skills and ethics/ fraud/professionalism which employers rank highly but not regarded by students as important skills. Also, graduates are expected to be more "job ready" by employers. Abayadeera and Watty (2016) found that the perceptions of accounting undergraduates and employers are not significantly different in respect of the majority of skills, but employers attach more importance than accounting undergraduates to work ethics, attitudes and values, dedication, self-motivation and meeting tight deadlines. Conversely, the perceptions of undergraduates are significantly higher than those of employers on the importance of right personality and smart appearance. Lee and Blaszczynski (1999) stated that employers expect students to be equipped with a multitude of skills and not only knowledge of how to use accounting information, such as communication skills, use computer and internet tools, working in a group environment and problem solving skills. Jackling and De Lange (2009) found that the perceptions of accounting graduates of skills development in their university course are different from those of employers. Ali, Kamarudian, Suriani, Saad, and Afandi (2016) also found a significant difference between educators and employers in Malaysia in regard to the importance of graduates' skills.

Considering all these findings in the literature, the researcher observed some similarity in the perceptions of the skills of accounting graduates but a significant gap existed in most countries.

2.4   Research Gap

Even though, the literature indicated a significant perception gap among employers, educators and accounting undergraduates regarding the importance of the employability skills of accounting graduates, there is a dearth of studies on the subject of this study both in Sri Lanka land abroad. This study attempts to fill this gap. The next section elaborates on the methodology of the current study.

3.   METHODOLOGY

This section mainly discusses the research approach, data collection tools, population and sample size and analytical techniques that were used in this study.

This study used the quantitative approach which is appropriate for assessing the level of importance and gaps in the perceptions of employers, accounting undergraduates and educators on the importance of the employability skills of accounting graduates. Most similar studies used this approach (Abayadeera, 2014; Joseph, 2010; Mohd Ali, 2016).

The population of this study consisted of accounting undergraduates and educators in the top four state universities in Sri Lanka as per world ranking, i.e., University of Colombo, University of Kelaniya, University of Ruhuna, and University of Sri Jayewardenepura respectively (Ministry of Higher Education and Highways, 2017), and in one private degree programme termed BSc.(Applied Accounting) degree offered by School of Accounting and Business (SAB) of the Institute of Chartered Accountants of Sri Lanka, and employers of accounting graduates. The researcher selected 100 employers, 150 accounting undergraduates and 50 educators for the sample. However, responses were received from 134 undergraduates, 66 employers and 23 educators in response rate of 89.3%, 66% and 46%

respectively. The convenient sampling method was used because the researcher could not develop a sampling framework.

Questionnaire development

The set of skills based on the literature survey was used to develop the questionnaire. Accordingly, 80 skills were identified, classified and modified and to improve the quality of the questionnaire, it was subjected to the expert opinion of two senior academics and a pilot survey was done with colleagues. After finalizing the questionnaire it was distributed among the respondents (refer Appendix 1 for the finalized skills).

Three versions of the questionnaire consisting of two sections were developed for undergraduates, employers and educators. Section 1 was on demographic information and Section 2 on the assessment of the importance of employability skills of accounting graduates on a five-point Likert scale (1= *'Highly Not Important'* to 5= *'Highly important'*). The skills were classified into five categories: intellectual skills, technical and functional skills, personal skills, interpersonal and communication skills and organizational and management skills.

3.4   Analytical strategy

First, the data was cleaned and screened. There after descriptive statistics were used to analyse the demographic data of the respondents. Mean ranking was used to identify the most important employability skills of accounting graduates. A one-sample *t*-test was used to examine whether the mean value was statistically significantly different from the neutral value of 3. Further, the gaps in the perceptions of employers, accounting undergraduates and educators on the importance of the employability skills of accounting graduates were analysed using One-way ANOVA analysis with post-hoc tests.

The results of the descriptive statistics and the *t*-test are shown in the next section.

4. FINDINGS AND DISCUSSION

This section discusses the descriptive statistics of the respondents and next identifies the highly rated skills and the lowest rated skills of accounting graduates based on the perceptions of the three stakeholders. Thereafter, gaps in the perceptions of the educators, employers and undergraduates on the importance of the employability skills of accounting graduates are examined. These analyses were performed and depicted according to the methodologies mentioned above.

4.1   Descriptive Statistics of Demographics

This section describes the demographic statistics of the respondents. The Table 1 below summarizes the demographic statistics of the respondents.

Table 1: Demographics of Undergraduates, Employers and Educators

	Undergraduates	Employers	Educators
Gender			
Male	49 (36.6%)	32 (48.5%)	10 (43.5%)
Female	85 (63.4%)	34 (51.5%)	13 (56.5%)
Total	**134 (100%)**	**66 (100%)**	**23 (100%)**
Age			
20 - 25	133 (99.3%)	7 (10.6%)	1 (4.3%)
26 - 30	1 (0.7%)	29 (43.9)	8 (34.8%)
31 - 40		21 (31.8%)	7 (30.4%)
41 - 50		8 (12.1%)	6 (26.1%)
Over 51		1 (1.5%)	1 (4.3%)
Total	**134 (100%)**	**66 (100%)**	**23 (100%)**
University / Institution			
University of Sri Jayewardenepura	74 (55.2%)		10 (43.5%)
University of Colombo	20 (14.9%)		5 (21.7%)
University of Kelaniya	7 (5.2%)		2 (8.7%)
University of Ruhuna	17 (12.7%)		3 (13%)
The School of Accounting and Business of the ICASL	16 (11.9%)		3 (13%)
Total	**134 (100%)**		**23 (100%)**
Category of the audit firm			
Big 3 Audit firms (KPMG, PwC or EY)	30 (22.4%)	10 (15.2%)	
Other audit firms	32 (23.9%)	5 (7.6%)	
Total	**62 (46.3%)**	**15 (22.7%)**	
Category of the sector			
Banking	7 (5.2%)	6 (9.1%)	
Manufacturing	4 (3%)	20 (30.3%)	
Finance	6 (4.5%)	7 (10.6%)	
BPO	3 (2.2%)	4 (6.1%)	
Other	4 (3%)	12 (18.2%)	
Total	**24 (17.9%)**	**49 (74.2%)**	
Level of Employment			
Partner		2 (3%)	
Senior management		20 (30.3%)	
Middle management		21 (31.8%)	
Executive Level		20 (30.3%)	
Operation Level		3 (4.5%)	
Total		**66**	
Current designation			
Temporary Lecturer			3 (13%)
Lecturer (Probationary)			3 (13%)
Lecturer			4 (17.4%)
Senior Lecturer			12 (52.2%)
Professor			1 (4.3%)
Total			**23 (100%)**

The above table gives the demographic data, according to the data of undergraduates, 63.4% of respondents of undergraduates were female and 36.6% male and 99.3% of respondents

were in the 20 to 25 age group and 0.7% in the 26-30 age group. Most of the respondents (55.2%) were from University of Sri Jayewardenepura and the lowest (5.2%) from the University of Kelaniya. Among the employers, 51.5% of respondents were female and 48.5% male. Age-wise, 43.9% of respondents were between 26 and 30 years and 1.5% over 51. Also, 15.2% of the respondents were from the Big 3 audit firms (KPMG, PwC or EY) and 7.6% were from other audit firms. The majority of respondents (30.3%) were from the manufacturing sector. Of them 31.8% were middle level managers and 30.3% senior level managers. Demography-wise, 56.5% of educators were female and 43.5% male. Age-wise, the majority of responders were in the 26-30 age group (34.8%) and lowest (4.3%) in the age group of 20-25 and over 51 years. Also, 43.5% of educators who responded were from the University of Sri Jayewardenepura and 8.7% from the University of Kelaniya. Most of them (52.2%) held the position of Senior Lecturer.

4.2   Ranking of skills based on their importance

The table below shows the twenty skills included in the questionnaire that the respondents have marked as the 'most important skills' and the 'least important skills'. Based on the Likert scale the mean values derived were interpreted, as *1 – Highly Not Important, 2 – Not Important, 3 – Moderate, 4 – Important, 5 – Highly Important.*

According to the mean values employers ranked time management as the most important skill followed by English language proficiency (rank 2), work-life balance (rank 3), teamwork (rank 4), achieve given targets by the management (rank 5). According to the perceptions of educators apply professional judgement is the highest most important skill with financial reporting (rank 2), work-life balance (rank 3), continuous learning (rank 4) and professional ethics (rank 5). Also, undergraduates ranked time management as the highest skills followed by accounting standards (rank 2), team work (rank 3), English language proficiency (rank 4), apply professional judgement (rank 5).

Both undergraduates and employers ranked time management as the highest, most important skill. However, educators do not consider time management as the most important skill for accounting undergraduates because it is not marked among the ten highest, most important skills by the educators. All three stakeholders ranked English language proficiency, work-life balance and problem solving skills as the most important skills. However, there were also notable gaps in the perceptions of the three stakeholders for some skills.   For an example, employers consider achieving targets set by management, meeting tight deadlines and professional behaviour as the most important skills, although not mentioned by educators and undergraduates. Therefore, both educators and undergraduates should give attention to these skills in order to capture the job opportunities in accounting field. In addition, both employers and undergraduates ranked team work, work experience and self- motivation highly but not educators. In such a case, educators should include these skills also in their curriculum.

On the one hand, educators and undergraduates attached high importance to apply professional judgement, financial reporting, continuous learning, professional ethics, accounting standards, accountability and taking responsibility. However, those skills were not ranked by the employers as the most important. The Table 2 below indicates some similarity among the perceptions of employers, educators and accounting undergraduates, but some significant differences still exist in the ranking.

Table 2: Mean Ranking and One-sample *t*-test

		Panel A - Highly Important Skills								

	Employer (*n* = 66)			Educators (*n* = 23)			Undergraduate (*n* = 134)		
Rank	**Skills**	**Mean**[a]	**SD**	**Skills**	**Mean**[a]	**SD**	**Skills**	**Mean**[a]	**SD**
1	Time management	4.80**	0.401	Apply professional judgement	4.70**	0.559	Time management	4.63**	0.544
2	English language proficiency	4.71**	0.576	Financial reporting	4.65**	0.487	Accounting standards	4.63**	0.571
3	Work-life balance	4.68**	0.469	Work-life balance	4.59**	0.590	Teamwork	4.60**	0.601
4	Teamwork	4.68**	0.586	Continuous learning	4.59**	0.590	English language proficiency	4.60**	0.615
5	Achieve given targets by the management	4.68**	0.501	Professional ethics	4.57**	0.662	Apply professional judgement	4.55**	0.644
6	Work experience	4.67**	0.506	English language proficiency	4.57**	0.590	Problem solving	4.55**	0.678
7	Meeting tight deadlines	4.67**	0.616	Accounting standards	4.57**	0.728	Continuous learning	4.54**	0.608
8	Professional behaviour	4.61**	0.551	Problem solving	4.57**	0.507	Work experience	4.54**	0.722
9	Problem solving	4.61**	0.579	Accountability	4.55**	0.510	Self-motivation	4.53**	0.558
10	Self-motivation	4.61**	0.523	Taking responsibility	4.55**	0.510	Financial reporting	4.53**	0.657

		Panel B - Highly not Important Skills								

	Employers			Educators			Undergraduate		
Rank	**Skills**	**Mean**[a]	**SD**	**Skills**	**Mean**[a]	**SD**	**Skills**	**Mean**[a]	**SD**
1	Marketing	3.06**	1.108	Marketing	3.43**	0.728	Marketing	3.23**	1.061
2	Research	3.20**	0.932	Project Management software	3.52**	0.730	Human resource management	3.52**	0.979
3	Audit software	3.21**	1.117	Human resource management	3.57**	0.788	Business and company law	3.75**	0.799
4	Project Management software	3.29**	1.147	Business and company law	3.57**	0.662	Economics	3.77**	0.831
5	Economics	3.32**	0.947	International Business	3.70**	0.635	Project Management software	3.78**	0.904
6	Bookkeeping	3.41**	1.052	Audit software	3.70**	0.765	Research	3.79**	0.832
7	Human resource management	3.42**	1.096	Entrepreneurship	3.73**	0.883	Numeracy	3.81**	0.818
8	Numeracy	3.55**	0.880	E-commerce	3.74**	0.689	Entrepreneurship	3.90**	0.936
9	Accounting theory	3.58**	0.962	Numeracy	3.74**	0.752	Business statistics	3.93**	0.911
10	Entrepreneurship	3.62**	1.078	Communication software (e.g.MS Outlook)	3.74**	0.964	Commitment to the Public Interest	3.96**	0.803

[a]Based on the one sample t-test performed, the significance of the difference between the test value of 3 and the mean values are also indicated where **$p<.01$ and *$p<.05$.
Source: Author Constructed

The above table also shows the lower ranked skills as per the perception of the three stakeholders. Employers highlighted *marketing, research, audit software, project management software, economics* as the least important skills. Further, educators attached a lower level of importance to skills such as *marketing, project management software, human resource management, business and company law, and international business*. In addition, undergraduates marked *marketing, human resource management, business and company law, economics, and project management software* as the least important skills of accounting graduates. Further, based on the one sample *t*-test all the most important skills and least important skills are statistically significantly different with a test value of 3 and their particular mean values.

4.3 Perception gaps in the three groups on the importance of the skills

The Table 3 below shows the gap in the perceptions of employers, accounting undergraduates and educators in regard to the importance of the employability skills of accounting graduates. One-way ANOVA analysis and Tukey's post-hoc test were performed to examine the significant differences among the perceptions of the three stakeholders. There were statistically significant differences ($p<.05$) and ($p<.01$) among the perceptions of the three stakeholders for the nineteen skills. The other sixty one skills were not statistically significantly different ($p>.05$) in the perceptions of the three groups.

The perceptions of employers, educators and undergraduates were significantly different at the significant level of 0.01 for the skills*: Research, Accounting software skills, Accounting information system, Bookkeeping, Auditing and Assurance, Financial reporting, Management accounting, Economics, Accounting theory, Communication software (e.g.MS Outlook), Project Management software (e.g.MS Project), Audit software*. Also, there were statistically significant differences at the level of 0.05 in the perceptions of the three stakeholders on *Accounting Standards, Meeting tight deadlines, Time management, Achieve given targets by the management, Teamwork, Project management and Corporate Governance* skills.

Further, the Table depicts how those perceptions are significantly different in respect of the employability skills of accounting graduates. Both undergraduates and educators attach greater importance to the skills of Research, Accounting software skills, Bookkeeping, Financial reporting, Management accounting and Economics, Accounting information system, Auditing and Assurance and Accounting theory than do employers. Further, undergraduates and employers attach more importance to communication software (e.g.MS Outlook) skills than educators. Moreover, undergraduates perceive the skills of Accounting standards, Project Management software (e.g.MS Project) Audit software and Project management skills as more important than do employers. Further, this Table depicts that employers more than educators perceive the skills of Time management, Achieve given targets by the management and Teamwork to be important. Also employers give more importance to the skill of Meeting tight deadlines than undergraduates. It can be concluded that while there is some similarity among the perceptions of the three stakeholders, a significant gap still exists in the perceptions of the importance of employability skills of accounting graduates in Sri Lanka.

Table 3: One-Way ANOVA results based on the perceptions of three stakeholders

Skills		N	Mean	SD	F - statistic	Significant different groups
Research	Undergraduates	134	3.79	.832	14.370**	Employers and Undergraduates;
	Educators	22	4.14	.834		Employers and Educators
	Employers	66	3.20	.932		significant at 1%
Accounting software skills	Undergraduates	134	4.50	.598	13.211**	Employers and Undergraduates;
	Educators	23	4.52	.790		Employers and Educators
	Employers	66	4.02	.690		significant at 1%
Accounting information system	Undergraduates	134	4.47	.657	9.591**	Employers and Undergraduates
	Educators	23	4.43	.788		significant at 1% ; Employers
	Employers	66	4.03	.679		and Educators significant at 5%
Bookkeeping	Undergraduates	134	4.06	.865	11.443**	Employers and Undergraduates;
	Educators	23	4.13	1.058		Employers and Educators
	Employers	66	3.41	1.052		significant at 1%
Auditing and Assurance	Undergraduates	134	4.34	.767	16.638**	Employers and Undergraduates
	Educators	22	4.23	.612		significant at 1% ; Employers
	Employers	66	3.67	.865		and Educators significant at 5%
Accounting standards	Undergraduates	134	4.63	.571	4.611*	Employers and Undergraduates
	Educators	23	4.57	.728		significant at 1%
	Employers	66	4.32	.844		
Financial reporting	Undergraduates	134	4.53	.657	7.945**	Employers and Undergraduates;
	Educators	23	4.65	.487		Employers and Educators
	Employers	66	4.15	.808		significant at 1%
Management accounting	Undergraduates	134	4.18	.830	6.948**	Employers and Undergraduates;
	Educators	23	4.39	.499		Employers and Educators
	Employers	66	3.77	.941		significant at 1%
Economics	Undergraduates	134	3.77	.831	7.722**	Employers and Undergraduates;
	Educators	23	3.96	.706		Employers and Educators
	Employers	66	3.32	.947		significant at 1%

Skills		N	Mean	SD	F - statistic	Significant different groups
Accounting theory	Undergraduates	134	4.19	.796	11.860**	Employers and Undergraduates
	Educators	23	4.13	.757		significant at 1% ; Employers
	Employers	66	3.58	.962		and Educators significant at 5%
Communication software (e.g.MS Outlook)	Undergraduates	134	4.16	.793	5.011**	Undergraduates and Educators
	Educators	23	3.74	.964		significant at 5% and Employers
	Employers	66	4.33	.664		and Educators significant at 1%
Project Management software (e.g.MS Project)	Undergraduates	134	3.78	.904	5.909**	Undergraduates and Employers
	Educators	23	3.52	.730		significant at 1%
	Employers	66	3.29	1.147		
Audit software	Undergraduates	134	4.03	.981	14.708**	Undergraduates and Employers
	Educators	23	3.70	.765		significant at 1%
	Employers	66	3.21	1.117		
Meeting tight deadlines	Undergraduates	134	4.43	.676	3.327*	Employers and Undergraduates
	Educators	22	4.41	.503		significant at 5%
	Employers	66	4.67	.616		
Time management	Undergraduates	134	4.63	.544	4.062*	Employers and Educators
	Educators	22	4.50	.512		significant at 5%
	Employers	66	4.80	.401		
Achieve given targets by the management	Undergraduates	134	4.47	.743	3.717*	Employers and Educators
	Educators	22	4.27	.703		significant at 5%
	Employers	66	4.68	.501		
Teamwork	Undergraduates	134	4.60	.601	3.405*	Employers and Educators
	Educators	23	4.30	.635		significant at 5%
	Employers	66	4.68	.586		
Project management	Undergraduates	134	4.11	.792	3.981*	Undergraduates and Employers
	Educators	23	4.00	.674		significant at 5%
	Employers	66	3.76	.962		
Corporate Governance	Undergraduates	134	4.13	.883	3.611*	
	Educators	23	4.30	.703		
	Employers	66	3.83	.904		

4.4   Discussion

This section discusses the key findings of the analysis and notes the consistency or inconsistency of the findings with the literature on this topic. This study identified the most important employability skills of accounting graduates as perceived by employers, accounting undergraduates and educators, and also examined the gaps in their perceptions of the employability skills of accounting graduates.

This study first described the most important employability skills of accounting graduates as perceived by the three stakeholders. Employers gave more importance to English language proficiency (rank 2), teamwork (rank 4), work experience (rank 6), meeting tight deadlines (rank 7), problem solving (rank 9) and self- motivation (rank 10). Abayadeera and Watty (2016) also found that employers gave more importance to meeting tight deadlines, self-motivation, problem solving, team work and English language proficiency. However, they did not give greater importance to work experience (Abayadeera & Watty, 2016). Furthermore, employers rated problem solving and team work as the most important skills in Australia (Kavanagh & Drennan 2008), but not on self-motivation. Based on the undergraduates perceptions, team work (rank 3), English language proficiency (rank 4), problem solving (rank 6), continuous learning (rank 7), and work experience (rank 8) skills are the most important skills rank in this study. The Australian study also indicated that continuous learning and problem solving were the most important skills perceived by the students (Kavanagh & Drennan, 2008). Abayadeera and Watty (2016) also proved that teamwork and work experience were the most important skills perceived by the undergraduates. Similarly, Belwal, Priyadarshi and Al Fazari (2017) stated that the perceptions of students on the employers' selection criteria discloses that team work, English language proficiency and work experience were the most significant employability skills in Oman.

Finally, this study analysed the gaps in the perceptions of the three stakeholders on the importance of the employability skills of accounting graduates. Statistically significant differences ($p<.05$) and ($p<.01$) were found in the perceptions of 19 of the 80 skills, namely, *Research, Accounting software skills, Accounting information system, Bookkeeping, Auditing and Assurance, Financial reporting, Management accounting, Economics, Accounting theory, Communication software (e.g.MS Outlook), Project Management software (e.g.MS Project), Audit software, Accounting standards, Meeting tight deadlines, Time management, Achieve given targets by the management, Teamwork, Project management and Corporate Governance.* Moreover, both undergraduates and educators give more importance than employers to research skills. Abayadeera and Watty (2014) also found that educators perceived a greater importance of research skills than did employers. The conclusion is that while there is some similarity in the perceptions of the stakeholders, a significant gap also exists in respect of the importance of the employability skills of accounting graduates in Sri Lanka. There is a considerable expectation-performance gap in Sri Lanka in terms of generic skills of accounting graduates (Abayadeera & Watty, 2014).

5. CONCLUSION

Even though Abayadeera and Watty (2014) found an expectation-performance gap in accounting education in Sri Lanka among university educators and employers, their study was limited in scope as only one accounting degree programme was studied as well as the response rate of employers was low (12.4 percent). These limitations point to opportunities

for future research. Further, there is a dearth of empirical studies on the perception gaps in respect of Sri Lankan and foreign accounting graduates' employability skills. This study first identified the most important employability skills of accounting graduates as perceived by employers, accounting undergraduates and educators and then examined the gaps in the perceptions of the three stakeholders on the importance of the employability skills of accounting graduates in Sri Lanka. To achieve these objectives, first the employability skills of accounting graduates were listed based on prior studies (Kavanagh & Drennan, 2008; Joseph et al., 2010; Abayadeera & Watty, 2014; Jackling & De Lange, 2009; etc.) and also on several models of employability skills. For data collection, a structured questionnaire was developed with three versions and distributed among the accounting undergraduates, educators of four state universities and one private institution and employers. The respondents included with 134 undergraduates, 66 employers and 23 educators.

The first objective of this study was to identify the most important employability skills of accounting graduates as perceived by employers, accounting undergraduates and educators. This objective was achieved through "mean" ranking and one sample t-test. The most important skills were ranked by employers: time management (rank 1); English language proficiency (rank 2), work-life balance (rank 3), teamwork (rank 4), and achieving targets set by management (rank 5). The findings relating to some skills were supported by prior studies of Abayadeera and Watty (2016) and Kavanagh & and Drennan (2008). However, employers did not attach more importance to work experience in the study by Abayadeera and Watty. Also, Australian employers did not consider self-motivation as important (Kavanagh & Drennan 2008). In terms of perceptions of undergraduates, the undergraduates of this study ranked time management as the highest skill followed by accounting standards (rank 2), teamwork (rank 3), English language proficiency (rank 4), and professional judgement (rank 5). Similar perceptions were reported by Abayadeera and Watty (2016), Kavanagh and Drennan (2008) and Belwal, Priyadarshi and Al Fazari (2017). Finally, this study analysed the gaps in the perceptions of the stakeholders on the importance of the employability skills of accounting graduates. The researcher found statistically significant differences ($p<.05$) and ($p<.01$) in the perceptions of the stakeholders on 19 of the 80 skills. The conclusion is that while there is some similarity in the perceptions of the three stakeholders, a significant perception gaps still exists in regard to employability skills of accounting graduates in Sri Lanka. Abayadeera and Watty (2014) also found a considerable expectation-performance gap in Sri Lanka in terms of generic skills of accounting graduates and Kavanagh and Drennan (2008) revealed some similarity in the expectations of employers and the perception of accounting graduates despite having a significant gap in Australia.

The findings of this study are expected to benefit accounting graduates, employers, educators and policy makers. Accounting graduates searching for employment opportunities will be able to benefit from the study findings in facing job interviews and sharpening their professional capabilities to satisfy potential employment providers. Further, educational institutes offering accounting degrees and professional qualifications could use these research findings to modify their curricula and their educational programmes. Moreover, employers and internship providers in the industry could use these findings study to revise and modify their recruitment procedures so as to select the best candidates for their available accounting posts. This research will have significant policy implications in regard to the employability skills of accounting graduates.

This study has certain limitations. It covered only four top universities and one private accounting degree programme for reasons of accessibility. Future researchers can cover

every university which offer accounting degrees. Further, only an online and paper-based questionnaire was used to collect data, therefore future researchers can conduct interviews to discover the perceptions of the stakeholders.

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Appendix 1: Final List of Employability Skills used in the questionnaire

Skill List	Kavanagh and Drennan (2008)	Joseph et al., (2010)	Abayadeera and Watty (2014)	Jackling and De Lange (2009)	Ali et al., (2016)	Castillo (2014)	Hancock et al. (2009)	Tempone et al. (2012)	Howcroft (2017)	Montano et al. (2001)	Towers-Clark (2015)	Belwal et al. (2017)	De Villiers (2010)	Altarawneh (2016)	Ngoo et al. (2015)	Saad and Idris (2015)	Chaplin (2017)	Lin (2008)	Klibi and Oussii (2013)	QAA (2016) Subject Benchmark Statement	IES (2015)	Expert opinion
1. Intellectual skills																						
Analytical	√	√			√	√					√		√	√	√	√	√		√	√	√	
Creativity	√						√	√	√	√	√		√	√		√	√			√	√	√
Critical thinking	√		√		√	√	√	√	√	√	√			√			√			√	√	√
Problem solving	√		√	√	√	√	√	√	√	√	√			√		√			√	√	√	
Research	√				√						√			√			√				√	√
Able to deal with complexity			√					√						√								
Apply professional judgment																						√
2. Technical and functional skills																						
Accounting software skills/ Accounting Information system	√	√	√	√	√	√	√		√	√				√	√		√		√	√	√	√
Bookkeeping	√		√	√	√		√							√		√		√	√			
Auditing and Assurance			√		√		√							√	√	√	√		√			
Risk analysis	√				√									√	√				√			
Financial Reporting standard					√									√	√		√					
Taxation					√		√							√	√			√	√			
Reporting							√							√							√	√
Numeracy							√							√								
Awareness of social and ethical problems in accounting practice			√																			
Financial modelling			√																			

82

Skill List	Kavanagh and Drennan (2008)	Joseph et al., (2010)	Abayadeera and Watty (2014)	Jackling and De Lange (2009)	Ali et al., (2016)	Castillo (2014)	Hancock et al. (2009)	Tempone et al. (2012)	Howcroft (2017)	Montano et al. (2001)	Towers-Clark (2015)	Belwal et al. (2017)	De Villiers (2010)	Altarawneh (2016)	Ngoo et al. (2015)	Saad and Idris (2015)	Chaplin (2017)	Lin (2008)	Klibi and Oussii (2013)	QAA (2016) Subject Benchmark Statement	IES (2015)	Expert opinion
Management accounting					√										√		√	√√				
Business and company law					√																	
Accounting theory					√																	
Marketing					√													√√				
Human resource management					√													√				
Business statistics					√																	
Corporate Finance					√																	
corporate Governance					√																	
International Business					√																	
Economics															√							
E-commerce															√							
Financial accounting															√							
Internal control														√								
Spreadsheet package (e.g. MS Excel).																						√
Presentation software (e.g. PowerPoint)																						√
Word-processing package (e.g. MS Word)																						√
Communication software (e.g. MS Outlook)																						√
Project Management software (e.g. MS Project)																						√
Audit software																						√
Work experience	√							√														

Skill List	Kavanagh and Drennan (2008)	Joseph et al., (2010)	Abavadeera and Watty (2014)	Jackling and De Lange (2009)	Ali et al., (2016)	Castillo (2014)	Hancock et al. (2009)	Tempone et al. (2012)	Howcroft (2017)	Montano et al. (2001)	Towers-Clark (2015)	Belwal et al. (2017)	De Villiers (2010)	Altarawneh (2016)	Ngoo et al. (2015)	Saad and Idris (2015)	Chaplin (2017)	Lin (2008)	Klibi and Oussii (2013)	QAA (2016) Subject Benchmark Statement	IES (2015)	Expert opinion
3. Personal skills																						
Professional behavior																						√
Self-motivation	√													√						√		
Continuous learning	√			√	√	√			√	√			√	√	√				√		√	
Flexibility	√							√					√				√	√	√		√	
Meeting tight deadlines			√		√	√	√		√	√									√		√	
Achieve given targets by the management																						√
Self- management						√	√						√		√					√	√	
professional scepticism																					√	
Hard working						√	√															
Work independently						√																
Time management						√	√				√		√	√								
Professional ethics	√	√					√	√					√	√	√		√				√	
Commitment to the Public Interest																						√
Cross functional (awareness about marketing, production, etc.) appreciation																						√
Integrity													√					√				
Self-confidence													√	√				√				
Work- life balance													√									
Accountability													√									

84

Skill List	Kavanagh and Drennan (2008)	Joseph et al., (2010)	Abavadeera and Watty (2014)	Jackling and De Lange (2009)	Ali et al., (2016)	Castillo (2014)	Hancock et al. (2009)	Tempone et al. (2012)	Howcroft (2017)	Montano et al. (2001)	Towers-Clark (2015)	Belwal et al. (2017)	De Villiers (2010)	Altarawneh (2016)	Ngoo et al. (2015)	Saad and Idris (2015)	Chaplin (2017)	Lin (2008)	Klibi and Oussii (2013)	QAA (2016) Subject Benchmark Statement	IES (2015)	Expert opinion
Taking responsibility														√			√					
Intrapreneurship (concept that focuses on employees of a company that have many of the attributes of entrepreneurs)																						√
Self-Discipline																	√					
Deal with uncertainty																						√
Entrepreneurship																		√				
Punctuality																						√
4. Interpersonal and communication skills																						
Oral communication	√		√		√	√	√	√	√	√	√			√	√	√	√	√		√	√	
Written communication	√	√	√	√	√	√	√	√	√	√			√	√	√	√	√	√	√		√	
Teamwork	√		√	√	√	√	√	√	√	√	√	√		√		√	√	√	√		√	
Negotiation	√		√		√		√	√		√	√			√	√		√	√	√		√	
Listening	√		√		√	√	√	√					√	√	√			√	√			
Cross-cultural appreciation	√												√									
Reading skills	√				√			√	√										√			
English language proficiency										√												
Presentation skills														√	√	√						
5. Organizational and Management skills																						
Decision-making	√		√	√									√	√		√	√			√		
Leadership	√		√	√		√	√	√					√	√	√	√		√	√		√	

85

Skill List	Kavanagh and Drennan (2008)	Joseph et al., (2010)	Abavadeera and Watty (2014)	Jackling and De Lange (2009)	Ali et al., (2016)	Castillo (2014)	Hancock et al. (2009)	Tempone et al. (2012)	Howcroft (2017)	Montano et al. (2001)	Towers-Clark (2015)	Belwal et al. (2017)	De Villiers (2010)	Altarawneh (2016)	Ngoo et al. (2015)	Saad and Idris (2015)	Chaplin (2017)	Lin (2008)	Klibi and Oussii (2013)	QAA (2016) Subject Bemchmark Statement	IES (2015)	Expert opinion
Project management	√	√	√		√	√	√										√	√	√			
Change management																						
Strategic management																						
Delegation skills										√	√									√		√
Planning								√	√	√	√				√					√		
Conflict resolution														√								
Organizing skills								√	√	√	√				√					√		

FACTORS THAT INFLUENCE THE PERCEPTIONS
OF A PROFESSIONAL ACCOUNTING CAREER
AMONG MANAGEMENT UNDERGRADUATES IN SRI LANKA

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Abstract

Accountancy is a renowned and demand-driven career in most parts of the world. However, organizations are concerned about the dearth of qualified accountants in the labour market, which is a widespread problem in the world. Thus, the objective of this study is to identify the perceptions of management undergraduates in Sri Lanka and the factors that influence their choice of a professional accounting career. A self-administered structured questionnaire was distributed among 334 first year management undergraduates of selected universities following a common programme. The performance measure used in this study incorporated mean ranking and one sample t-test for data analysis. According to the findings of the study, management undergraduates hold a positive or a highly positive perception of a professional accounting career with a significance of $p<0.05$. The majority intends or highly intends to pursue a career in accounting. However, as many management undergraduates make future plans and career decisions based on their perceptions, it is important that the relevant institutes eliminate shortcomings and develop the Sri Lankan accounting education system in order to attract and enthuse the best management undergraduates to choose a professional accounting career path. By doing so, the supply of quality, creative and talented accountants' in the job market can be increased so that firms can select and recruit the best candidates for the job.

Key Words: Accounting Education, Career Choice, Factors, Management Undergraduates, Perception, Professional Accounting Career

1. INTRODUCTION

According to Wilder and Stocks (2004), employing high quality graduates is critical for the future development of the accounting profession. Nevertheless, in today's global economy, there are limitless career openings available for capable graduates. Therefore, the accounting profession should become increasingly competitive and attractive if it is to attract quality recruits. However, the limited availability of qualified accountants has become a major issue since 1970 throughout the world, including the USA, Canada, Australia, Malaysia and New Zealand (Trump & Hendrickson, 1970). In 2013, Churchman observed that even leading organizations have difficulty in enrolling qualified graduates. A few accounting professionals have argued that the perceptions of management undergraduates of the accounting profession motivate them to pursue an accounting career (Cohen & Hanno, 1993; Felton et al., 1994).

Several studies on what influences a graduate's choice of a major have shown a dearth of quality accounting professionals in the job market for organizations to employ. For this

reason, this study has four objectives: first, to assess the perceptions regarding a professional accounting career, second, to identify the factors that influence such perceptions; third to determine the most important and significant factors that positively affect such perceptions; and fourth, to determine the most important and significant factors that negatively affect such perceptions in the Sri Lankan context.

The study is expected to create awareness and assist experts and professionals to overcome challenges and develop accounting education so as to attract quality management undergraduates to major in accounting. Employers will then be able to effortlessly select and recruit the right candidate to fulfil the human resource needs of their organizations. Furthermore, the study will help to overcome the sparsity of studies in Sri Lanka on the subject under discussion compared to international studies such as Marriott and Marriott (2003) and Jackling and Carlero (2006). The study will produce new knowledge to fill the existing gap.

As explained above, this study identifies the significant factors that influence the perceptions of management undergraduates in choosing accounting as a career path. The study is designed to achieve the listed research objectives, address the research questions and provide solutions to the distinguished problem of deficiencies in the accounting professionals in the industry. Besides, the study is expected to meet the existing dearth of local studies on the subject and assist professional accounting bodies to induce management undergraduates to major in accounting by making the subject more interesting for them.

A literature survey follows in Section 2 and the methodology of the study such as the research approach, population, sample size, data collection methods and the data analysis method is discussed in Section 3. Section 4 elaborates the findings of the study and Section 5 provides the conclusion, summary, limitations, implications and future research directions.

2. LITERATURE REVIEW

2.1   Introduction

This section reviews the existing local and international literature to determine the key concepts, assumptions, outcomes and findings and the background to the Sri Lankan accounting education pathway and the professional accounting career as a whole. Furthermore, this section examines theories and empirical studies on the perceptions of management undergraduates of the accounting profession and the existing knowledge gap.

2.2   Definition of Concepts

2.2.1   Career

Geiciki (2002) defines career as the occupational, commercial or industrial activities of a person during his education or other activities; Redman and Wilkinson (2001) as the use of a man's judgment and capabilities, calling, timely work, ability and creating and developing business systems; and, Adefolaju (2015) as an individual's form of earnings as well as behavior and concepts in everyday life. Akomolafe (2003) asserts that a person's profession could either make or blemish him or her delight and satisfaction.

2.2.2   Career Choice

Career choice refers to picking a career over other professions in which an individual is willing to invest time and energy in attaining expert knowledge (Zotorvie, 2016). According to Sharf (1997, as cited in Zotorvie, 2016), career choice "relates to choices that individuals make at any time in the career they seek to pursue: it can be a specific work or leisure activities that led him in the direction of a particular career". A career decision must be founded on solid learning, information, suitable guidance, individual identity and other intrinsic and extrinsic elements, on newly emerging patterns, future openings and vocational alternatives based on the prevalent market patterns and practices and employment situations of different segments (Ahmed, Sharif & Ahmad, 2017).

2.3   The Sri Lankan Context

Initially, the accounting practice was influenced by developed countries through colonialism rather than as a response to the societal needs of the country (Hove, 1986; Briston, 1978). In the colonial period, the British introduced the plantation sector to the Sri Lankan economy to which they directed their business activities. The plantation companies were owned and managed by the British in the beginning and later they provided on the job training to local staff. This was the first accounting training given in Sri Lanka. A few private education institutes such as St. Benedict's Institute in Kotahena and St. Patrick's College in Jaffna conducted classes in business subjects mainly for students preparing for external examinations in Sri Lanka (Wijewardena & Yapa, 1998). From the mid 1940's till the end of the 1950s, the main accounting specialist body in Sri Lanka was the Accountancy Board set up to control and directs the choice of appropriate personnel for accounting practices. They were called Ceylon Registered Accountants. Potential accountants in Sri Lanka had to rely on the professional bodies in U.K to acquire their professional qualifications since there was no local professional body of accountants even by the late 1950s. In December 1959, the Institute of Chartered Accountants of Sri Lanka (ICASL) was established under Act of Parliament No. 23 of 1959 replacing the Accountancy Board. ICASL has been the local professional body for accounting education and training since then. A National Diploma in Accountancy (NDA) was introduced in 1943 with the intention of preventing frauds, errors and malpractices in the Ceylon tea estates and the Ceylon Railway. Later, this programme was converted to a Higher National Diploma in Accountancy (HNDA) in 1946, which came to be the first professional accounting course in Sri Lanka. HNDA is considered as an alternative to a B.Com degree offered by the Sri Lankan universities (Jabbar, 2015).

Commerce education was also introduced during the colonial days in a few leading schools. By the mid-1960s, General Commercial Knowledge, Commercial Arithmetic and Accounting had been added to the educational programme of a substantial number of government schools (Wijewardena & Yapa, 1998). Also, a two-year teacher training programme was begun at the Maharagama Teachers' College in 1960. In the beginning of 1960s, the Vidyodaya University initiated accounting studies by introducing two bachelor's degree programmes in Business Administration and Public Administration at General/Honours level (Wijewardena & Yapa, 1998).

One of the significant advances in accounting education in this period was the rapid development of accounting studies in the university system. In 1992, a separate academic division in accounting was begun at the University of Sri Jayewardenepura with a four-year programme of theoretical and practical accounting. Another essential component of this

programme was that each undergraduate was required to complete a 60-week programme of practical training in a chosen organization as a mandatory requirement of the third and fourth years of the programme (Wijewardena & Yapa, 1998).

The first stage in the academic pathway to a professional accounting career starts at the GCE Ordinary Level. Accounting subjects were offered to students who wish to proceed with an accounting career and subsequently, it was mandatory for students to choose commerce stream subjects for the GCE Advanced Level to be eligible for local university entry. While some students' eligible to do their undergraduate studies in local universities, some chose to enrol in private universities for further studies in accounting.

In contrast, students doing the Cambridge International General Certificate of Secondary education (IGCSE), which is the world's most popular qualification in secondary education, sit for the IGCSE Edexcel Ordinary and Advanced Level Examinations. However, when it comes to acquiring professional qualifications from institutes such as the Institute of Chartered Accountants of Sri Lanka (ICASL), Chartered Institute of Management Accountants (CIMA), Association of Accounting Technicians (AAT), Association of Chartered Certified Accountants (ACCA), etc, a student who has passed his or her Advanced Level examinations with three simple passes in any stream is entitled to follow the above courses.

2.4   Theories and Models on Career Choice

Specialists in the field of training and behavioral science point to different components that impact the accounting career choice among students. The subsection below discusses a few theories related to this study.

2.4.1   Social Cognitive Career Theory

The Social Cognitive Career Theory (SCCT), developed by Lent, Brown and Hackett in 1994, deals with the career development process based on the Social Cognitive Theory propounded by Bandura in 1986 (Mao, 2013). SCCT states that the elements that influence an individual's career decision making process are the person's behavior and environment (Zotorvie, 2016). Leung (2008) proposes three segmental models to explain education and career choice, and education and career performance. The models centre around three variables, namely, self-efficiency, outcome expectations and personal objectives.

2.4.2   Theory of Vocational Choice

The Theory of Vocational Choice (TVC) introduced by Holland suggests that one's personality and the environment in which one works affect the vocational stability, satisfaction and achievement of that individual (Spokane, 1985). In other words, TVC offers a straightforward structure on career interest and the environment that could be utilized in a profession (Gross & Gaier, 1974). Holland suggested that occupational interest defines one's personality and that professional interest can be abstracted into six typologies, namely, Realistic, Investigative, Artistic, Social, Enterprising and Conventional. Holland also proposed that individuals seek a vocational environment that enables them to express their values and enhance their skill and abilities through career choice and development process (Leung, 2008).

2.4.3 Theory of Reasoned Action

The Theory of Reasoned Action (TRA) was developed by Fishbein and Ajzen in 1975 to determine the links between attitudes, intentions, beliefs, norms and behaviours of people. A person's behavior is determined by his or her behavioral aim to perform it. This objective itself is dictated by the individual's attitude and the subjective norms of behavior (Law, 2010; Law & Yuen, 2012). In previous studies, Sheppard et al., 1988 and Cohen and Hanno, 1993 suggested TRA as appropriate for analyzing the factors influencing career choice, moral choice and consumer behavior. Consequently, the theory suggests that an undergraduate's intention to pick a career will be firmly identified with his or her state of mind and subjective norms concerning the career (Law, 2010; Law & Yuen, 2012).

2.4.4 Theory of Planned Behaviour

The Theory of Planned Behavior (TPB) formulated by Icek Ajzen in 1985 is an extension of the Theory of Reasoned Action (TRA) (Samsuri, Afrin & Hussin, 2016; Byrne & Willis, 2005). According to Samsuri, Afrin and Hussin, the explanation behind the expansion is the constraint of the first model in managing behaviour over which individuals have deficient volitional control. The individual's beliefs, intentions and perceptions relating to the accounting profession have been tested with the TPB, which is considered the base of the conceptual framework of the study and widely used by researchers in similar studies. TPB creates an enhanced theoretical foundation to argue the outcomes and the facts of the study compared to other theories and models identified.

2.5 Empirical Studies on Career Choice

Research reveals the level of perception: whether management graduates perceive a positive or negative perception of a professional accounting career. Felton et al., (1994), Byrne and Wills (2005), Jackling (2001), Hammani and Hasssain (2010), Germanou et al. (2009), Paolillo and Estes (1982), Jackling and Calero (2006) declare that management graduates have a positive perception of a professional accounting career whereas Jackling (2012), Cohen and Hanno (1993), Mauldin et al., (2000), Seamann and Crooker (1999), Fisher and Murphy (1995), Parker (2001) and Laswas (2006) conclude that graduates form a negative image of the accounting profession.

Earlier, Paolilo and Estes (1982), Felton et al. (1994), Ahmed et al. (1997), McDowell and Jackling (2007) and Geiger and Oglby (2000) identified a variety of factors that influence career decision making (refer Appendix 1 of this article). These factors include both extrinsic (i.e. factors which can influence from outside) as well as intrinsic interests (i.e. factors inherited or located within a person). According to Felton et al., (1995), extrinsic factors such as opportunity for advancement and perceived benefits influence the choice of management undergraduates. Also, Byrne and Willis (2005) suggest that personal characteristics such as gender and prior educational experience in accounting would influence the undergraduates' major selection.

Zhang (2006) discovered that undergraduates' awareness of and capacity in the chosen major is a vital factor in influencing their selection of a career path. A positive perception of accounting major tends to attract students easily (Saemann & Calero, 1999, Adam et al., 1994., Mauldin et al., 2000). This argument is further supported by Jackling and Carero (2006), who argue that aspects such as interest in the subject of accounting influence the

career decisions of an individual. Paolilo and Estes (1982) and Mauldin et al. (2000) established that referent groups such as parents, relatives, teachers, friends, etc. have the power to influence the undergraduate's selection of a major. Pimpa (2004) and Byre et al. (2012) also support the view statement that referents have power over management undergraduates career choice.

Tan and Laswad (2006) drew the conclusion that referents play a major role in a graduate's career choice and intent to major in accounting. Another factor that influences the perception of management undergraduates to pursue a career in accounting is the vast opportunities the profession opens for undergraduates. Accounting is a profession that provides diverse of prospects in the business world (Samsuri, Arifin & Hussin, 2016). According to a survey conducted by ACCA, being a member of a professional body not merely carries financial benefits but also provide assistance for graduates from their employers and the opportunity to discover a range of career paths.

Apart from for the factors influencing career choice, graduates are keen to seek a career that is held in high esteem by society (Odia & Ogeidu, 2013). According to Byrne and Willis (2005), accounting was ranked 5th and 7th among ten professional courses by accounting and non-accounting graduates. Previous studies such as Hutaibat (2012) and Mustapha and Hassan (2012) concluded that salary has a positive significant relationship between management undergraduates' perception and their intention to pursue a career in accounting. In contrast, Jackling et al. (2006) concluded that salary has no significant influence on management undergraduates becoming professional accountants.

Conversely, studies such as by Bougen (1994) and Cory (1992) have identified that accounting is viewed as a profession involving dull and time consuming work. Besides, the unappealing image on accounting is scattered through negative information communicated about the profession by the media and other sources (Cory, 1992; Murphy, 2000; Albrecht & Sack, 2000). Students typically perceive accounting as a highly rule-based type of education and a profession to as number crunchers, concentrating on mathematical accurateness, routing recording and computation techniques (McDowall & Jackling, 2010; Fisher & Murphy, 1995).

Albrecht and Sack (2000), Marriott and Marriott (2003) and Parker (2001) have shown that the stereotypical view on the importance of higher numeric, technical and other generic skills to pursue a career in accounting has negatively influenced undergraduates' choice of accounting as a career. In fact, several studies have highlighted the significant influence of their early employment experience in the accounting profession which restrained graduates from choosing accounting as a major (Carcello et al., 1991; Dean et al., 1988). Carcello et al. (1991) further states that the difference between the heavy workload and long working hours in the accounting profession and the students' career expectations is another significant factor that negatively affects the perception of management undergraduates. Marriott and Marriott (2003) state that the necessity to keep up with frequent changes in accounting concepts, rules and standards is less interesting and being employed as an accountant is less enjoyable or is perceived as more unsociable than they did at the commencement of their studies.

2.6   Gap in the Literature

Past studies make a wide range of suggestions concerning the relationship between the factors influencing perceptions of a professional accounting career. Further, the literature indicates a paucity of studies and mixed evidence of the perception of management undergraduates in a professional accounting career in the Sri Lankan context. This study expects to fill this gap in the literature through new research and new evidence of importance to users.

3   RESEARCH METHODOLOGY

This section discusses the research approach, population and study sample, data collection and data analysis strategies used by the researcher.

The study follows a quantitative approach as the most appropriate strategy for this study. This approach provides the researcher the opportunity to test the hypotheses derived from the existing literature: determine the relationship or link between the variables and factors that influence the perception of management undergraduates and the professional accounting career. Similar studies by Aziz, Ibrahim, Sadik and Tajuddin (2017) and Samsuri, Afrin and Hussin (2016) have followed the same approach to detect the relationship between the variables and to identify how variables influence one another.

The population for this study consists of all first-year management undergraduates of Sri Lanka following a common programme at Sri Lankan University Grant Commission approved universities such as the University of Colombo and the University of Sri Jayewardenepura. Prior studies Jackling and Calero (2006) and Tan and Laswad (2006) examined the graduate's career choice of first year management students. As pointed out by Karnes et al. (1997), fundamental aspects of the career decision making process and timing of career choice might be irrelevant due to subject hindsight if the research is built on students who have already chosen accounting as a career.

The reason behind is that, according to Accounting Education Commission (1992) (as cited in Jackling & Calero (2006)), the first course in accounting at undergraduate level has a major influence on the perception of students of their major and the profession. Furthermore, the graduates will be provided with sufficient information and knowledge that will lead to better decision making and draw the interest of the best management undergraduates to major in accounting so as to provide quality professionals to the job market.

Convenience sampling, which is a form of a non-probability sampling technique used to select a sample from, the University of Colombo and the University of Sri Jayewardenepura, which are UGC approved bodies with university status under the Universities Act No. 16 of 1978 and located in the Western province offering a common curriculum in the first year of study to the management undergraduates. This ensured the homogeneity of the sample since the students enrolled in these two universities are of the same age, location, education qualifications, etc.

The research sample was derived from the population of the study. In other words, it was a fragment of the population, namely a sample of 334 candidates chosen from the total population of the management undergraduates of Sri Lanka as of today. The size was in keeping with a 95% of confidence level and 5% margin of error on an assumed total population of 2500 management undergraduates.

3.1 Questionnaire Development

The method used for primary data collection was a questionnaire similar to those used in similar studies. The questionnaire was developed by conducting comprehensive literature survey and consisted of close ended, multiple choice and Likert-scale questions. It was examined by a group of experts and pilot tested on a small group of management undergraduates of the University of Sri Jayewardenepura.

The questionnaire also explained its purpose and confidentiality to enable the respondents to respond frankly and uninhibitedly. It was distributed among 334 management undergraduates of the two selected universities. The questionnaire had three parts as follows:

Part 1 - Demographics
Part 2 - Perception on Professional Accounting Career
Part 3 - Factors affecting negatively the choice of a professional accounting career
Part 4 - Factors affecting positively the choice of a professional accounting career

Part 1 comprised the demographic variables to gather information about the sample population. Part 2 included two Likert-type scale questions ranging from 1 (Highly Negative) to 5 (Highly Positive) to identify the perceptions of management undergraduates of a professional accounting career and intention to pursue a career in accounting. Parts 3 and 4 included factors that influence the perception of management undergraduates negatively and positively using Likert scale type of question (i.e. 1 – Strongly Disagree, 2 – Disagree, 3 – Moderate, 4 – Agree and 5 – Strongly Agree).

3.2 Data Analysis Strategies

The data collected from the 334 management undergraduates was tested and assessed using the SPSS (Statistical Package for the Social Science) software. The collected data was screened and cleaned before subjecting it to SPSS for testing and analysing.

The first research objective was to identify the Sri Lankan management undergraduates' perceptions of a professional accounting career; the second was to identify the factors documented by prior researchers in similar studies that influence such perception; the third and fourth research objectives were to identify the important and significant factors that influence the perceptions and career choice decision negatively and positively through mean ranking and performing a one sample *t*-test to test whether the mean values were significantly different from the neutral value '3' of the 5-point Likert scale.

4 FINDINGS AND DISCUSSIONS

This section presents the results of the analyses of the demographic variables of the sample, descriptive analyses on academic performance in the common programme of the degree, perception and intention of management undergraduates towards a professional accounting career and statistical significant factors that influenced their perception in choosing a career in accounting through findings of the study and a discussion on the results achieved in Sri Lankan context.

4.1 Descriptive Statistics

4.1.1 Descriptive Statistics on Demographic Variables

The sample of the research study consists of a total of 304 management undergraduates from both University of Sri Jayewardenepura and University of Colombo. As per the Table 1, out of the 304 applicants, the majority are females (71%) and 29% are males. According to the Sri Lankan University Statistics (2016), in the year of admission 2015/2016, 2014/2015, 2013/2014 and 2012/2013, number of admitted females are greater than number of male candidates admitted.

Table 1: Descriptive Statistics on Demographic Variables

Demographic	Categories	N	%
Gender	Male	88	29
	Female	216	71
	Total	**304**	**100**
Age	19 - 20 years	26	9
	21 - 22 years	275	90
	23 and above	3	1
	Total	**304**	**100**
University of the Undergraduate	University of Sri Jayewardenepura	167	55
	University of Colombo	137	45
	Total	**304**	**100**
Professional Qualification	Having an accounting professional qualification	246	81
	Not having an accounting professional qualification	58	19
	Total	**304**	**100**
Type of professional qualification	ICASL	152	50
	AAT	79	26
	CIMA	40	13
	ACCA	12	4
	CMA	12	4
	Other	9	3
	Total	**304**	**100**
Gross Household Parental Income	Rs. 20,000 and below	102	34
	Rs. 20,001 - Rs. 50,000	113	37
	Rs. 50,001 - Rs. 80,000	46	15
	Rs. 80,001 - Rs. 110,000	21	7
	Rs. 110,001 and above	21	7
	Total	**303**	**100**
Prior Internship Experience	Yes	82	27
	No	214	72
	Total	**296**	**100**
Sector of Internship	Big 4 Audit Firms	24	30
	Other Audit Firms	10	13
	Non – Audit Firms	46	58
	Total	**80**	**100**
Area of Internship	Accounting	28	35
	Non - accounting	22	28
	Both Accounting & Non – Accounting	30	38
	Total	**80**	**100**

Among the 304 applicants, 167 represent management undergraduates enrolled in University of Jayewardenepura whereas the 137 management undergraduates are from University of Colombo following the common programme in their degree. In other words, 55% of the total sample represents management undergraduates' from the University of Jayewardenepura while 45% management undergraduates are from University of Colombo. From the aggregate valid 304 responses, 26 candidates are between the ages 19 – 20 years though 3 applicants falls under the category 23 years and above. However, majority of applicants are accounted for to be in between 21 – 22 years of age.

80.92% of management undergraduates from the total sample is pursuing or completed a professional qualification and 19.08% does not have or presently enrolled in pursuing a professional qualification in accounting. The most common professional qualification among these set of candidates is the Chartered Qualification offered by Institute of Chartered Accountants of Sri Lanka (ICASL). Least number of students follows the Association of Chartered Certified Accountants (ACCA) qualification and the Certified Management Accountants (CMA) qualification.

Majority of the candidates among the sample size falls into the category where their gross household monthly parental income is between Rs. 20,001 and Rs. 50,000 which is 37.3% from the total sample. Moreover, 102 or 33.7% of the total sample falls in the category of having a gross household parental income below Rs. 20,000 monthly, which is even lesser than the mean household income of Sri Lanka in 2016 which is Rs. 62,237 (Household Income and Expenditure Survey Final Report, 2016). From the total, a proportion of 6.9% candidates fall among the Rs. 110,001 and above category.

A minority (27.7 %) of the sample population had previous internship experience whereas the majority (72.3%) did not. Of the total 27.7% of respondents who has prior working experience, 46 had gained experience in the non-audit sector and the majority in the non-audit sector are from industries such as banking, finance, logistics, manufacturing and service (not tabulated).

A total of 34 respondents had worked in audit firms, 24 of whom in the Big 4 audit firms (Deloitte, Ernest and Young, KPMG and PwC) and 10 worked in other audit firms such as B.R.D.S & Company, H.M Karunarathna, Jayaweera & Company, etc (not tabulated). The majority of 37.5% respondents who had prior internship experience had gained knowledge in accounting and non-accounting areas. However, 35% and 27.5% of the total of 82 respondents who had prior internship experience were enrolled to do tasks in accounting and non-accounting respectively.

4.1.2 Descriptive Statistics on Perception and Intention of Management Undergraduates

The first research objective of the study was to identify the perceptions of management undergraduates of Sri Lankan universities. Table 2 shows the descriptive statistics and one sample *t*-test findings relating to the perceptions of management undergraduates of a professional accounting career and their intention to choose a professional accounting career.

The findings on the mean values indicate a perception of 3.78 and the management undergraduate's intention of 3.75 to choose a career in accounting, which are statistically significantly higher than 3 at $p<0.01$ level under the one-sample *t*-test. This means that the

96

majority of undergraduates (i.e., 71.1%) share a positive and highly positive perception of a professional accounting career, while 70.7% intend and highly intend to pursue a career in accounting (not tabulated). However, 22.70% of the sample population's perception was neutral and 6.25% held a negative perception of a career in professional accounting. 10.85% of the respondents prefer not to choose a career in professional accounting. Be that as it may, 18.42% of the sample population are indifferent about whether they want a career in professional accounting or not.

Table 2: Perception and Intention of Management Undergraduates on Professional Accounting Career (Descriptive Statistics and One Sample *t*-test)

	Mean[a]	Median	Std. Deviation	Skewness	Kurtosis
Perception of the Management Undergraduates of Sri Lanka on a Professional Accounting Career	3.78[**]	4.00	.760	-.601	.549
Management Undergraduates Intention to choose a Professional Accounting Career	3.75[**]	4.00	.896	-.807	.549

[a]Based on the one sample *t*-test performed the significance between the test value of 3 and the mean values are indicated, where [**]*p<.01 and* [*]*p<.05*

4.1.3   Important and Significant Factors that Positively Influence Perception

The third research objective was to determine the importance as well as significant factors that positively influence the perceptions of management undergraduates of choosing a major in accounting in order to pursue a professional accounting career. The mean values were based on the Likert scale type of questions used in the questionnaire, i.e. 1 – Strongly Disagree, 2 – Disagree, 3 – Moderate, 4 – Agree and 5 – Strongly Agree. The test value considered in the one sample *t*-test is 3.

Table 3 is an abstract of the findings of descriptive statistics and the one sample *t*-test of the 17 variables that were included in the questionnaire as factors that positively influence the perceptions of management undergraduates of a career in professional accounting. The one sample *t*-test showed the *p*-value of the 17 variables as less than 1% (0.01). In other words, all the variables are identified to be statistically significant at the *p*<0.01 level.

According to the mean ranking results, the majority stated that the main variable that influenced their perception positively to major in accounting to pursue a career is that professional accounting is seen as a career with greater potential to earn a higher salary than in other professions. Studies by Ahmed et al. (1992), Bundy and Norris (1992), Carpenter and Strawser (1970), Cohen and Hanno (1993), Felton et al. (1994, 1995) and Inman et al. (1989), Lowe and Simons (1997), Myburgh (2005) and Tan and Laswad (2006) are a few similar studies that cited higher salary as one of the variables that influence the perception of management undergraduates' career choice decision making.

Table 3: Factors Positively Affecting the Perception of Management Undergraduates towards a Professional Accounting Career (Descriptive Statistics and One Sample t-test)

Factor	Mean	Median	Std. Deviation	Skewness	Kurtosis
1. Greater potential to earn a high salary in the field of accounting	3.96**	4.00	.747	.053	-1.197
2. Challenging work environment available in the field of accounting	3.94**	4.00	2.928	12.988	182.926
3. Higher opportunity for advancement in the field of accounting	3.91**	4.00	2.798	13.079	183.457
4. Possessing higher qualifications in the field of accounting	3.78**	4.00	.817	-.356	0.238
5. Greater opportunity to work as a team in the field of accounting	3.73**	4.00	.742	-.084	-0.334
6. Higher career prospects in the field of accounting	3.73**	4.00	.717	-.251	-0.039
7. Higher job satisfaction in the field of accounting	3.72**	4.00	.807	-.204	-0.407
8. Higher prestige and status of an accounting career	3.72**	4.00	.797	-.419	0.449
9. Higher degree of numeric, technical and other generic skills related to accounting	3.71**	4.00	.670	-.246	0.637
10. Higher aptitude (talent) in the field of accounting	3.66**	4.00	.718	-.004	0.137
11. Having higher work experience in the field of accounting	3.62**	4.00	1.662	8.596	106.416
12. Higher job security in the field of accounting	3.62**	4.00	.817	-.085	-0.237
13. Higher enjoyment of the topics in accounting	3.59**	4.00	.737	-.682	1.231
14. Ability to exercise greater creativity in the field of accounting	3.58**	4.00	.793	.034	-0.462
15. Ample job opportunities in the field of accounting	3.56**	4.00	.726	-.073	0.173
16. Referent group influence (e.g., Parents, Relatives, Friends, Lecturers, etc.) for a career in accounting	3.42**	4.00	.901	-.639	0.426
17. Higher influence of media of a career in accounting	3.4**	3.00	3.00	3.00	3.00

Based on the one sample t-test performed the significance between the test value of 3 and the mean values are indicated, where **p<.01 and *p<.05*

Together with greater potential to earn a high salary in the field of accounting, a challenging work environment, greater opportunities for advancement in the field of accounting and gaining higher qualifications in the field of accounting, and working as a team were listed as the top five variables that influence the perceptions of management undergraduates' career choice decision making. Cohen and Hanno (1993), Hermanson, Hermanson and Ivancevich

(1995), Myburgh (2005) and Tan and Laswad (2006) are some studies that cited the above variables as factors that influence the career choice of management undergraduates.

The dominant influence of the media and referent groups is a variable with the lowest mean value compared to the other variables. Nevertheless, the one sample *t*-test indicated that even though the mean value is relatively low, media and referent groups have a significantly higher mean value than the neutral value 3 of a 5-point Likert scale.

4.1.4 Important and Significant Factors that Negatively Influence Perception

The fourth research objective was to determine the importance as well as significant factors that negatively influence the perception of management undergraduates of a major in accounting for pursuing a professional accounting career. The mean values extracted are based on the Likert scale type of question used in the questionnaire, i.e. 1 – Strongly Disagree, 2 – Disagree, 3 – Moderate, 4 – Agree and 5 – Strongly Agree. As in the earlier section, the test value recorded in the one sample t-test is 3. Table 4 shows the variables tested by conducting descriptive analysis and one sample *t*-test to identify whether they are significantly different than the neutral value of 3 of a 5-point Likert scale.

The one sample *t*-test findings indicate that from the listed 9 variables, 7 variables have a mean value significantly higher value than the neutral value 3 of the 5-point Likert scale used and thereby could be considered quite significant factors that discourage the undergraduates from engaging in further studies in accounting or intending to pursue a career in professional accounting. The main factor out of these 7 is the frequent changes in concepts, rules and standards. Undergraduates believe that they need to keep up with the frequent changes in the standards in order to succeed as a professional accountant, which is quite challenging.

Together with the need to keep up with frequent changes in accounting concepts, rules and standards, variables such as heavy workload and long working hours, rule based type of education, uninteresting accounting coursework, dull and time-consuming work, requirement for higher numeric, technical and other generic skills in accounting and negative information communicated about the accounting profession by the media and other sources are other variables that have been ranked as high and significantly higher than the neutral value of 3 (i.e., based on *t*-test results). Studies by Albrecht and Sack (2000), Marriott and Marriott (2003), Parker (2001), Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006), Inman et al. (1989), Jackling (2002) and Zeff (1989) cite the above variables as factors that negatively influence the perception of choice of professional accounting career of management undergraduates in the Sri Lankan context.

Table 4: Factors Negatively Affecting the Perceptions of Management Undergraduates towards a Professional Accounting Career (Descriptive Statistics and One Sample t-test)

	Mean	Median	Std. Deviation	Skewness	Kurtosis
1. Necessity to keep up with frequent changes in accounting concepts, rules and standards	3.46**	3.00	.962	-.003	-.581
2. Heavy workload and long working hours	3.44**	4.00	1.158	-.417	-.560
3. Rule based type of education	3.44**	4.00	.973	-.516	.224
4. Lack of interest in accounting coursework	3.42**	3.50	.996	-.251	-.509
5. Dull and time-consuming work	3.4**	3.00	1.049	-.426	-.113
6. Need for higher numeric, technical and other generic skills in accounting	3.24*	4.00	1.028	-.888	-.203
7. Unsatisfactory work experience	3.10	3.00	.983	.091	-.473
8. Accounting profession is perceived as unsociable	3.01	3.00	.951	-.024	-.779
9. Negative information communicated about the accounting profession by the media and other sources	2.72**	3.00	1.005	-.024	-.916

Based on the one sample t-test performed the significance between the test value of 3 and the mean values are indicated, where **$p<.01$ and *$p<.05$*

4.2   Discussion

The findings of the first research objective identified that the management undergraduates holds a positive or a highly positive perception towards professional accounting career in Sri Lankan context even though the researcher found that there is mixed evidence on the level of perception towards professional accounting career through literature review. However, similar studies such as Felton et al., (1994), Byrne and Wills (2005), Jackling (2001), Hammani and Hasssain (2010), Germanouet al., (2009), Paolillo and Estes (1982), Jackling and Calero (2006) also acknowledged that the management graduates has a positive perception towards a professional accounting career.

The mean ranking results and the one sample *t*-test findings of the research objective three propose that factors such as greater potential to earn a high salary, challenging working environment available, higher opportunity for advancement, possessing higher qualifications and greater opportunity to work as a team in the field of accounting are identified to influence positively on the management undergraduate's perception and their intention to choose a professional accounting career. Similar studies such as Cohen and Hanno (1993), Hermanson, Hermanson and Ivancevich (1995), Myburgh (2005) and Tan and Laswad (2006) also cited the following variables as factors that positively influence the career choice of management undergraduates.

According the outcomes of the research objective four, factors such as necessity to keep up with frequent changes in accounting concepts, rules and standards, heavy workload and long

working hours, rule based type of education, uninteresting accounting coursework and dull and time consuming work influence negatively on the management undergraduate's perception and their intention to choose a professional accounting career. Similar studies such as Albrecht and Sack (2000), Marriott and Marriott (2003), Parker (2001), Allen (2004), Inman et al. (1989), Jackling (2002) and Zeff (1989)also cited the following variables as factors that negatively influence the career choice of management undergraduates.

5. CONCLUSION

In the past, researchers have conducted various analyses of undergraduates' choice of a professional accounting career and their perceptions of choosing accounting as a major. The main purpose of this study was to identify the perceptions and the factors that influence them among management undergraduates in regard to a professional accounting career in the Sri Lankan context.

In agreement with the research findings, a majority (71.7%) of undergraduates from the sample selected shared both a positive and a highly positive perception of a professional accounting career. Also, 70.7% of the respondents both intend and highly intend to pursue a career in accounting. The mean values of perception of management undergraduates in Sri Lanka of a professional accounting career and intention to choose a professional accounting career are 3.78 and 3.75 respectively, which is significantly higher than 3, the neutral value of the 5-point Likert scale.

Factors such as greater potential to earn a high salary, a challenging work environment, higher opportunities for advancement, possessing higher qualifications, and greater opportunity to work as a team are listed as the five main variables that positively influence the perception of management undergraduates' career decision making. On the other hand, constraints with the fourth objective of the study such as necessity to keep up with frequent changes in accounting concepts, rules and standards, heavy workload and long working hours, rule-based type of education, uninteresting accounting course work and dull and time consuming work were the five main variables that negatively influence the perception of management undergraduates.

According to the findings of the study, professional accounting bodies such as ICASL, ACCA, CIMA, CMA, AAT and accounting education regulatory bodies must progressively improve and develop their accounting education to attract talented undergraduates to major in accounting. They should also take necessary steps to eliminate any existing problems in the accounting education system through continuous research and development to motivate management undergraduates to choose accounting as a major and make accounting education coursework more interesting.

In addition, accounting educators must promote the identified factors that positively influence the perception of management undergraduates of professional accounting career decision making such as greater potential to earn a high salary, challenging work environment, higher opportunity for advancement, possessing higher qualifications and greater opportunity to work as a team in the field of accounting while considering ways to eliminate the negative factors such as frequent changes in standards, rules and regulations, heavy workload, long working hours, rule-based type of education, uninteresting accounting coursework, and dull and time-consuming work.

Although the research is designed to reach its objectives, there are a few inevitable limitations. One of them is that the research focused solely on one of the pathways to a professional accounting career. The population of the study was limited to management undergraduates of Sri Lanka, omitting school leavers. Also, the questionnaire incorporated only the main positive and negative variables as factors that influence the perception of the undergraduates of a professional accounting career.

Future researchers doing similar studies can include school leavers in the population so as to expand the scope of identifying the perceptions of a professional accounting career in the Sri Lankan context. Similarly, other than collecting data from a self-administered structured questionnaire, the researcher can conduct personal interviews after collecting data through a questionnaire as the interviewer has the opportunity to further probe or follow up. This will provide the researcher an opportunity to directly connect with the respondents and interpret their verbal language such as change in the tone of voice, emotions, behaviour as well as their nonverbal language such as facial expressions, gestures, body language, etc.

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APPENDIX

Appendix 1 –Identifying the main variables that influence the perception through literature review

#	Factors/ Variables	Felton et al (1994)	Byrne and Willis (2005)	Jackling (2001)	Inman et al (1989)	Jackling and Calero (2006)	Paolillo and Estes (1982)	Cohen and Hanno (1993)	Mauldin et al (2000)	Seamann and Crooker (1999)	Ahmed et al (1997)	McDowell and Jackling (2007)	Tan and Laswad (2006)	Odia & Ogeidu (2013)	Marriott and Marriott (2003)	Fishery and Murphy (1995)	Albrecht and Sack (2000)	Laswas (2006)	Myburgh (2005)	Lowe and Simons (1997)	Parker (2001)	No. of Articles
1	Potential to earn a high salary	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	16
2	Referents		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				13
3	Enjoyment of topics in the area	✓	✓		✓	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓				13
4	Prestigue or status		✓	✓	✓		✓	✓	✓		✓			✓		✓	✓				✓	11
5	Job opportunities		✓				✓	✓	✓	✓		✓		✓			✓	✓				9
6	Opportunity for advancement			✓	✓		✓	✓	✓			✓	✓	✓		✓	✓		✓			11
7	Aptitude for career				✓	✓			✓		✓	✓			✓				✓			7
8	Opportunity to work as a team				✓		✓	✓			✓	✓	✓		✓	✓	✓		✓			10
9	Career prospects	✓			✓		✓	✓		✓		✓									✓	6
10	Job security			✓			✓									✓	✓	✓				5
11	Numerical skills	✓	✓			✓		✓				✓				✓				✓		6
12	Field that is challenging		✓		✓			✓					✓						✓	✓		5
13	Working hours				✓			✓				✓					✓					4
14	Requires creativity	✓				✓												✓				3
15	Promotion	✓			✓											✓						3
16	Gender	✓	✓											✓			✓				✓	4
17	Job satisfaction				✓										✓		✓					3
18	Qualification				✓			✓					✓	✓			✓		✓			5
19	Exercise Leadership				✓	✓										✓						3
20	Ethical values					✓								✓			✓					3
21	Quality family life				✓		✓										✓					3
22	Motivation				✓				✓	✓												3
23	Work experience											✓	✓				✓					3
24	Generic Skills	✓			✓																	2
25	Cost of education			✓	✓																	2
26	Increase in knowledge											✓				✓						2
27	Course satisfaction	✓				✓																2
28	Media												✓									1
29	Working enviornment															✓						1
30	Quality ifestyle																✓					1

USING BENEISH M SCORE MODEL TO DETECT RED FLAGS OF CORPORATE FINANCIAL STATEMENT FRAUD IN SRI LANKA

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Abstract

Technological advancements and the continual evolution of the global business environment provide both enhanced tools and additional challenges for perpetration and concealment as well as the prevention, detection and investigation of financial statement fraud. Increasingly external auditors and forensic accountants are being asked to play an important role in helping organizations prevent and detect financial statement fraud. Detecting financial statement fraud is not an easy task and requires thorough knowledge about the nature of fraud, how it can be committed and concealed. The purpose of the study is to identify the red-flags of financial statement fraud in public limited companies listed in Colombo Stock Exchange in Sri Lanka by applying the Benish M Score model. It is found that, in each year (2013-2017) considered for the study, there are companies with a Beneish M Score of greater than -2.22, which can be gauged for possible manipulations on those financial statements. Paired sample *t*-test analysis shows that, DSRI (Days' Sales in Receivables Index), LVGI (Leverage Index), TATA (Total Accruals to Total Assets) out of eight ratios occupied in the Beniesh model are statistically significantly different between manipulated and non-manipulated firms. As such, it is recommended that Benish M Score model can be used as a risk assessment tool to identify the red flags of possible fiancial statemet fraud in business entities in Sri Lanka. This paper aims at broadening knowledge of external auditors, forensic accountants, regulators and other stakeholders on detecting red-flags of financial statement fraud in Sri Lanka.

Key words: Benish M Score Model, Days' Sales in Receivables Index, Financial Statement Fraud, Leverage Index, Total Accruals to Total Assets

1. INTRODUCTION

Fraud and financial crimes have existed from time immemorial, and grown over the centuries and become more complex and difficult to investigate resulting in dire consequences for business and the economy. Detecting fraud is not an easy task and requires a thorough knowledge of the nature of the fraud, why it was committed and concealed (The Association of Certified Fraud Examiners [ACFE], 2016a). The "fraud triangle" developed by Cressey in 1953 is a model for explaining the factors that cause someone to commit occupational fraud. It consists of three components which, together, lead to fraud: perceived unshareable financial need, perceived opportunity, and rationalization (Cressey, 1973). Cressey's fraud theory explains why trust violators commit fraud and is widely used by regulators, professionals and academics.

Many companies expect more returns from their employees in order to maximize their wealth. They contribute to the employees' ability to rationalize their behaviour even if it is unethical, illegal or fraudulent leading to fraud in organizations (Kassem & Higson, 2012). ACFE estimated that 5% of business revenue is lost owing to fraud and fraudulent behaviour during months before discovery. The total loss caused by fraud is estimated at USD 6.3 billion, with an average loss of $2.7 million. Furthermore, most discoveries occur more by whistle-blowers' tips than pre-designed internal control systems providing evidence that 39.1% of fraudulent activities are discovered by employee tips (ACFE, 2016a).

The nature of fraud is that much of its cost is hidden. Because concealment is an intrinsic component of most fraud schemes, some frauds are never uncovered; further, of the cases that are detected, many are never measured or reported. In addition, most frauds carry substantial indirect costs, including lost productivity, reputational damage and related business losses, as well as costs associated with investigation and remediation of the issues that allowed them to occur. The result is the equivalent of a financial iceberg; some of the direct losses are plainly visible, but there is a huge mass of hidden harm that we cannot see (ACFE, 2016a).

Financial statement fraud continues to be a significant problem for businesses of all sizes. The generally accepted definition of financial statement fraud is "the deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements in order to deceive financial statement users" (ACFE, 2016b).

Financial statement fraud is the costliest type of fraud, generating median losses valued at USD 1 million (ACFE, 2016a). It can negatively influence the capital markets as a consequence of losing investor confidence and irrevocable damage to the company's reputation. Other major implications include significant losses of shareholder value due to abnormal stock price decline, delisting by the stock exchange, and material assets sales upon fraud discovery, etc.

The survey (ACFE, 2016a) estimated that the typical organization loses 5% of revenue in a given year as a result of fraud. The total loss caused by the cases in the study exceeded USD 6.3 billion, with an average loss per case of USD 2.7 USD million. The median loss for all cases in the study was USD 150,000, with 23.2% of cases causing losses of USD 1 million or more. Asset misappropriation was by far the most common form of occupational fraud, occurring in more than 83% of cases, but causing the smallest median loss of USD 125,000. Financial statement fraud was at the other end of the spectrum, occurring in less than 10% of cases but causing a median loss of USD 975,000. Corruption cases fell in the middle, with 35.4% of cases and a median loss of USD 200,000 (ACFE, 2016a). Therefore, it is important to investigate empirically the applicability of eight-variable Beneish M-model to ascertain the occurrence of financial statement fraud or the tendency to engage in earnings manipulation in public limited companies registered. Accordingly, the the objectives of the study are, first to test the validity of the eight-variables Beneish M-model, and second, to identify how many listed companies that manipulated the financial statements as per the eight-variables Beneish M-model, and third to identify how many listed companies that have not manipulated financial statements as per the eight-variables Beneish M-model, and finally to determine most significant variables in the Beneish M-model for detecting financial statement fraud in listed companies.

2.   LITERATURE REVIEW

The literature review summarizes the key findings of relevant research and systematically examines the fraud triangle theory, the fraud diamond theory and the Benish M Score Model and its usefulness for identifying red flags and detecting financial statement frauds.

2.1   Fraud Triangle

Cressey Donald, working on his PhD in criminology (1953), focused on embezzlers and interviewed about 200 people who had interacted for embezzling funds. He formulated his hypothesis as follows: "Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-sharable, are aware that this problem can be secretly resolved by violation of their position of financial trust and are able to apply it to their own conduct to adjust their conception of themselves as trusted persons to their conception of themselves as users of the entrusted finds or property" (Cressey, 1973). Upon completion of his interviews, he developed what still remains the classic model for the occupational offender. Over the years, his hypothesis has become better known as the "Fraud Triangle". One leg of the triangle represents Pressure, the second leg Opportunity and the final leg stands Rationalization. The Fraud Triangle views them as key conditions that tend to be present when fraud occurs. Within each of these broad risk categories, many different and specific potential red flags may be visible within a company.
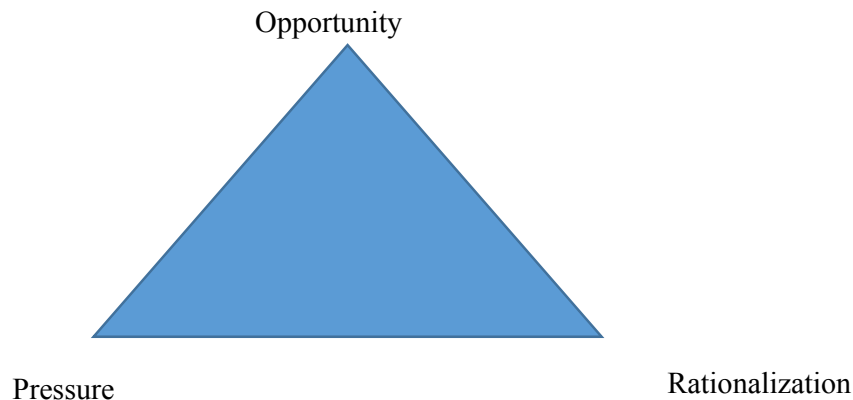
Figure 1: Fraud Triangle

2.2.1   Pressure

Pressure, as explained by Cressey in 1953, is the incentive that could motivate an individual to be involved in fraud. The pressure could result from personal problems such as financial pressures or addiction pressures, or from the work environment. Management or other employees may find themselves offered incentives or placed under pressure to commit fraud. For example, remuneration or advancement is significantly affected by individual, divisional, or company performance; and individuals may have an incentive to manipulate results or to put pressure on others to do so. Pressure may also come from the unrealistic expectations of investors, banks, or other sources of finance (Gupta, 2015).

2.2.2 Opportunity

Pressure creates the motive for the crime to be committed, but the employee must also perceive that he/she has an opportunity to commit the crime without being caught. This perceived opportunity constitutes the second element. In Cressey's view, there are two components of the perceived opportunity to commit a trust violation: general information and technical skill. General information is simply the knowledge that the employee's position of trust could be violated. Technical skill refers to the abilities needed to commit the violation. These are usually the same abilities that the employees need to have in order to obtain and keep his position in the first place.

2.2.3 Rationalization

The third and final factor in the fraud triangle is rationalization. Cressey pointed out that rationalization is not an *ex post facto* means of justifying a theft that has already occurred. Significantly, rationalization is a necessary component of the crime before it takes place; in fact, it is part of the motivation for the crime. Because the embezzler does not view himself as a criminal, he must justify his misdeeds before he ever commits them. Rationalization is necessary so that the perpetrator can make his/her illegal behaviour intelligible to himself/herself and to maintain his/her concept of himself/herself as a trusted person.

2.3 Fraud Diamond Theory

Wolfe and Hermonson (2004) argued in their research that perceived pressure or incentive might exist along with an opportunity and a rationalization to commit fraud, and fraud is unlikely to take place unless the fourth element is present: capability (capacity). In other words, potential perpetrators must have the skills and ability to actually commit a fraud. Hence, Wolfe and Hermonson (2004) added another variable, namely, capability to the conventional fraud triangle developed by Cressey in 1973.

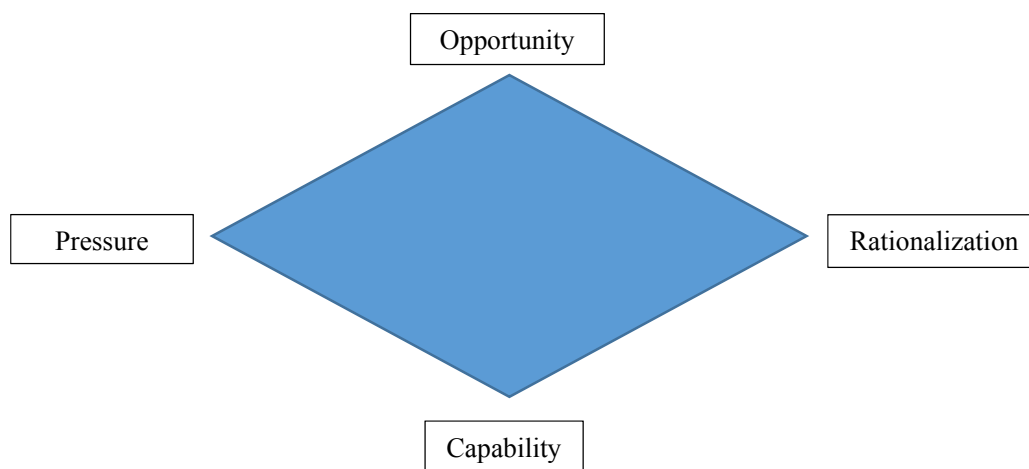Figure 2 below presents the complete set of elements of the fraud diamond theory.

Figure 2: Fraud Diamond Theory

The authors believe that the fraud triangle could be expanded to improve both fraud prevention and detection by considering a fourth element. In addition to addressing pressure, opportunity and rationalization, the researchers four sided "fraud diamond" also considers an individual's capability: personal traits and abilities as playing a major role in whether the fraud may actually occur even with the presence of the other three elements.

2.3.1 Capability

A person's position or function within a company may give him or her the ability to create or exploit an opportunity for fraud not available to others. According to Wolfe and Hermonson (2004), the fraudster also has the necessary traits and abilities to be the right person to pull it off and has recognised this particular fraud opportunity and can turn it into reality. Wolfe and Hermonson identified important observable traits related to the individuals' capacity to commit fraud. Those threats include: (a) authoritative position or function within the organization, (b) intelligence to exploit the accounting and internal control system, (c) ego and confidence, and (d) ability to effectively deal with stress.

2.4 Beneish M Score Model

Beneish (1999) developed a model to capture either the financial statement distortions that can result from manipulation or the preconditions that might prompt companies to engage in such activity. The results suggest a systematic relationship between the probability of manipulation and some financial statement variables. This evidence confirms the usefulness of accounting data for detecting manipulation and assessing the reliability of reported earnings. The model identifies approximately half the companies involved in earnings manipulation prior to public discovery.

Tarjo and Herawati (2015) analysed the ability of the M-score Beneish model to detect financial statement fraud. The results showed that that overall the model was able to detect financial statement fraud. Descriptive statistics and logistic regression analysis were employed to analyse the data. The gross margin index, depreciation index, index of sales and general administrative burden and total accruals were all significant in detecting financial statement fraud whereas sales index, asset quality index, and leverage index were found not statistically significant in detecting financial fraud. On the other hand, Repousis (2016) investigated empirically the eight-variables Beneish M-model to ascertain occurrence of financial statement fraud or tendency to engage in earning manipulation. The results showed that 8,486 companies or 33 per cent of the whole sample had a greater than -2.2 score, which signals that companies are likely to be manipulators. Also, for manipulators, results using F-distribution showed that days sales in receivable index (DSRI), asset quality index (AQI), depreciation index, selling, general and administrative expenses index (SGAI), total accruals to total assets index and leverage index (LVGI) were significant at 99 per cent confidence level in the Beneish M-score.

Kamal and Ezirien (2016) measured the reliability of the Beneish M-Score model in detecting financial statement fraud in Malaysian public listed companies. They found it reliable in detecting earnings manipulation and financial statement fraud by 82% in 14 out of 17 listed companies charged for fraudulent financial reporting and irregularities in firms' financial reports.

MacCarthy (2017) examined whether the Altman Z-score and Beneish M-model could detect financial statement fraud and corporate failure of Enron Corporation. Five-year financial information was collected from the US SEC Edgar database covering the period 1996 to 2000. The Beneish M model revealed that the financial statements for the five years studied were manipulated by management. On the basis of this analysis, the researcher argued that stakeholders would be better protected when the two models are used simultaneously than when only the Altman Z-score is used and recommended that the Altman Z-score and Beneish M-Model should be used together as an integral part of every audit. Further, Talab, Flayyih, and Ali (2017) also examined the role of the Beneish M-score model in detecting earnings management practices using the data collected for listed banks on the Iraqi Stock Exchange in 2014 and 2015. The study concluded that the M-score model was useful for detecting earning manipulations and malpractices in the companies. Further, it can be applied to improve the quality of financial reporting for the protection of potential investors. Dalnial et al. (2014) investigated any significant differences between the means of financial ratios of fraudulent and non-fraudulent firms to identify which financial ratio was significant in detecting fraudulent reporting using a sample of 65 fraudulent firms and of 65 non-fraudulent firms among Malaysian public listed firms between 2000 and 2011. The study found that there are significant mean differences between the fraud and non-fraud firms in ratios such as total debt to total equity and account receivables to sales.

Anh and Linh (2016) examined earnings management detection among Vietnamese companies listed on the Hochiminh Stock Exchange (HOSE) using the Beneish M-score model in a sample of 229 non-financial Vietnamese listed companies during 2013-2014. The results showed that 48.4% non-financial Vietnamese listed companies were involved in earnings management and the sample observations fitted the Beneish M-score model. The M-score model was found to be useful for detecting earnings manipulation   could be applied for better financial reporting quality and better protection for investors.

Razali and Arshad (2014) reported that the effectiveness of the corporate governance structure reduced the likelihood of fraudulent financial reporting and enhanced the credibility of financial reporting. The authors used an integrated Beneish M-score model and Altman's Z-score model to detect fraudulent financial reporting.

Financial statements frauds and manipulations have become a common problem in Sri Lanka too with consequences for business as well as the economy of the country as shown by a few recent corporate failures. In 2014 the High Court ordered the winding up of Touchwood Investments PLC following the crisis in the company and its inability to service the dues owed to investors. One of the main reasons leading to this situation at Touchwood Investments PLC was the manipulation of financial statements in valuing its plantations in accordance with the International Accounting Standard (IAS) 41: Agriculture. The company auditors, KPMG, Ford Rhodes, Thornton and Co., qualified the audit opinion on the ground that the discount rate used (12%) was too low and did not reflect the long term risk free rate and the premium for other risk factors thus resulting in an overstatement of biological assets.

The collapse of the Golden Key Credit Card Company also signalled a systemic collapse of some large finance companies as well as banks and could be trigger the global financial crisis to spill over to Sri Lanka in 2008 due to the frauds and contraventions of the provisions of the Finance Act No.78 of 1988. These financial scandals emphasize   the need for tools to detect possible financial statement frauds in the companies.

Furthermore, KPMG's study of fraud in Sri Lanka (2011/2012) revealed that 83% of respondents accepted that incidents of fraud had increased while 62% maintained that fraud within their respective industries had increased in the same period. On the other hand, only 51% accepted that fraud had increased in their own organizations. In turn, 70% of respondents agreed that there was fraud within their organizations, 64% of which were in the private sector and 89% in the government sector. In addition, the EY fraud study (2015) found that 91% of employees admitted that bribery and corruption were widely prevalent in Sri Lanka and 62% attributed the increase in corruption to tough economic times and increased competition. Further, it exposed that offering entertainment (36%) was justified in aiding business, 44% thought it was acceptable to amend financial reports to provide a more positive outlook of results and 46% said there had been no change in their companies' efforts to combat fraud, bribery and corruption over the last two years.

Accordingly, with the aim of understanding the fundamental motives of financial statement fraud, this exploratory study reveals the determinants of financial statement fraud and discusses the important aspects of detecting financial statement fraud in Sri Lankan organizations.

3. METHODOLOGY

This chapter explains the research strategy adopted, sampling process, data collection techniques and regression models of the study concludes the chapter.

3.1 Research Approach

There are two methodological approaches, namely, quantitative and qualitative and the researcher selects an approach based on ontological and epistemological assumptions. This study is addressing the nature of the problem using data followed by a theory, which involves testing of theories, symbolizes social reality as an external, objective reality. Thus, this study is quantitative as it is usually associated with positivism philosophical stance.

3.2 Beneish M-Score

Beneish (1999) developed a model to distinguish between earnings manipulators who violate accounting rules and non-manipulators by utilizing financial statement variables. Prior to its development, he created a profile of earnings manipulating firms as identified by the US SEC's accounting enforcement measures. The model named Beneish M-score, consisted of eight ratios to capture either financial statement distortions resulting from earnings manipulation or to identify the inclination to engage in earnings manipulation as shown below:

$$M\text{-}Score = -4.84 + 0.92DSRI + 0.528GMI + 0.404AQI + 0.892SGI + 0.115DEPI - 0.172SGAI + 4.679TATA - 0.327LVGI$$

The details of the eight independent variables in the form of indices based on Beneish (1999) are given below:

DSRI: **Days' Sales in Receivables Index**
This measures the ratio of the days' sales in receivables versus the prior year as an indicator of revenue inflation.

GMI: **Gross Margin Index**

This measured the ratio of gross margin versus prior year. A firm with poorer prospects is more likely to manipulate earnings.

AQI: **Asset Quality Index**

Asset quality is measured as the ratio of non-current assets other than property, plant and equipment to total assets versus the prior year. It intends to measure the company's risk propensity to capitalize cost.

SGI: **Sales Growth Index**

This measures the ratio of sales versus the prior year. While sales growth is not itself a measure of manipulation, the evidence suggests that growth companies are likely to find themselves under pressure to manipulate in order to keep up appearances.

DEPI: **Depreciation Index**

This is a measure of the ratio of the rate of depreciation versus the prior year. A slower rate of depreciation may mean that the firm is revising useful asset life assumptions upwards or adopting a new method that is income-friendly.

SGAI: **Sales, General and Administrative Expenses Index**

This measures the ratio of SGA expenses to the prior year and is used on the assumption that analysts would interpret a disproportionate increase in sales as a negative signal about a firms' future prospects.

LVGI: **Leverage Index**

This measures the ratio of total debt to total assets versus the prior year. It is intended to capture debt covenants incentives for earnings manipulation.

TATA: **Total Accruals to Total Assets**

This assesses the extent to which managers make discretionary accounting choices to alter earnings. Total accruals are calculated as the change in working capital accounts other than cash less depreciation. It measures a risk relating to accrual policies being used as a financing mechanism for losses.

3.3   Sample and data analysis

The financial statements of the manufacturing sector listed companies were analysed for the six-year period from 2012 to 2017. As per the statistics provided by Report to the Nation (2016), the manufacturing sector is the third highest industry victimized by employee fraud, the first being the banking sector and second highest is the public sector entities.

Details extracted from the financial statements of six consecutive periods of manufacturing companies were to used to calculate the Beneish M-score model total score. Cut-off scores greater than -2.22 were applied to gauge potential earnings manipulation practice and financial statement frauds of the companies investigated. Furthermore, each of the eight variables indices of the Beneish M-Score was scrutinized against the defined manipulation threshold as provided by Beneish (1999).

Descriptive statistics, paired sample t-test to analyze the data, and the results and the discussion is presented in the next section.

4. DATA ANALYSIS

This chapter presents and discusses empirical results which used to test the hypotheses of the study.

4.1 Beneish M Score

As explained in the preceding section, the Beneish M-score was calculated for five consecutive years using the financial statements of listed companies in the manufacturing, construction, healthcare, service and trading sectors in order to identify the possible manipulations in the financial statements. Cut-off scores greater than -2.22 were applied to detect potential earnings manipulation practices and financial statement fraud in the companies investigated. The results of the analysis are summarized in Tables 1 to 5 for each year of the current study. Accordingly, results of the Beniesh M score calculation indicates that in each year of the current study, there were companies with a score of greater than -2.22, which could indicate possible manipulation or fraud in their financial statements.

4.1.1 Results of the Beneish M Score for the financial year 2016/2017

As shown in Table 1 below, seven companies in the manufacturing sector, one company in the healthcare sector, and one company in the trading sector were identified as likely manipulators in the financial year 2016/2017.

Table 1: Results of the Beneish M Score for the financial year 2016/2017

Industry	No. of firms likely to be Manipulated Financial Statements (FS)	No. of firms likely to be Non-Manipulated FS	Total No. of firms selected to the study	Total No of firms in the industry	No. of firms Manipulated FS as a %	No. of firms Non-Manipulated FS as a %
Manufacturing	7	24	31	41	23%	77%
Construction	-	4	4	4	-	100%
Healthcare	1	4	5	7	25%	75%
Service	-	7	7	8	-	100%
Trading	1	6	7	9	14%	86%

4.1.2 Results of the Beneish M Score for the financial year 2015/2016

As shown in the Table 2 below, eight companies in manufacturing sector, one company in construction sector, one company in service sector and one company in trading sector are identified as likely to be manipulators for the financial year 2015/2016.

Table 2: Results of the Beneish M Score for the financial year 2015/2016

Industry	No. of firms likely to be Manipulated Financial Statements (FS)	No. of firms likely to be Non-Manipulated FS	Total No. of firms selected to the study	Total No of Firms in the industry	No. of firms Manipulated FS as a %	No. of firms Non-Manipulated FS as a %
Manufacturing	8	26	34	41	24%	76%
Construction	1	3	4	4	25%	75%
Healthcare	0	5	5	7	-	100%
Service	1	6	7	8	14%	86%
Trading	1	6	7	9	14%	86%

4.1.3 Results of the Beneish M Score for the financial year 2014/2015

As shown in the Table 3, four companies in manufacturing sector, one company in healthcare sector one company in service sector and two companies in the trading sector are identified as likely to be manipulators for the financial year 2014/2015.

Table 3: Results of the Beneish M Score for the financial year 2014/2015

Industry	No. of firms likely to be Manipulated Financial Statements (FS)	No. of firms likely to be Non-Manipulated FS	Total No. of firms selected to the study	Total No of Firms in the industry	No. of firms Manipulated FS as a %	No. of firms Non-Manipulated FS as a %
Manufacturing	4	30	34	41	12%	88%
Construction	0	4	4	4	-	100%
Healthcare	1	4	5	7	20%	80%
Service	1	6	7	8	14%	86%
Trading	2	5	7	9	28%	72%

4.1.4 Results of the Beneish M Score for the financial year 2013/2014

As shown in the Table 4, ten companies in manufacturing sector, two companies in construction sector, two companies in healthcare sector one company in service sector and two companies in the trading sector are identified as likely to be manipulators for the financial year 2013/2014.

Table 4: Results of the Beneish M Score for the financial year 2013/2014

Industry	No. of firms likely to be Manipulated Financial Statements (FS)	No. of firms likely to be Non-Manipulated FS	Total No. of firms selected to the study	Total No of Firms in the industry	No. of firms Manipulated FS as a %	No. of firms Non-Manipulated FS as a %
Manufacturing	10	24	34	41	29%	71%
Construction	2	2	4	4	50%	50%
Healthcare	2	3	5	7	40%	60%
Service	1	6	7	8	14%	86%
Trading	2	5	7	9	28%	72%

4.1.5   Results of the Beneish M Score for the financial year 2012/2013

As shown in the Table 5, six companies in manufacturing sector, one company in construction sector, one company in healthcare sector and two companies in the trading sector are identified as likely to be manipulators for the financial year 2012/2013.

Table 5: Results of the Beneish M Score for the financial year 2012/2013

Industry	No. of firms likely to be Manipulated Financial Statements (FS)	No. of firms likely to be Non-Manipulated FS	Total No. of firms selected to the study	Total No of Firms in the industry	No. of firms Manipulated FS as a %	No. of firms Non-Manipulated FS as a %
Manufacturing	6	27	33	41	18%	82%
Construction	1	3	4	4	25%	75%
Healthcare	1	4	5	7	20%	80%
Service	0	7	7	8	0%	100%
Trading	2	5	7	9	28%	72%

4.2   Paired Sample *t*-test

Since the current current study examines whether the eight ratios used in the Beniesh model are significantly different between manupulated and non-manipulated firms, the above Beniesh M score calculations were extended to enable a paired sample *t*-test in order to compare the equality of the sub-samples of manipulated and non-manipulated firms.

Tables 6 and 7 give the paired sample statistics and results of the *t*-test respectively. According to *t*-values and their statistical significance shown in the Table 7, comparisons of manipulated DSRI and non-manipulated DSRI, manipulated LVGI and non-manipulated LVGI, as well manipulated TATA and non-manipulated TATA reveal statistically significant differences in terms of their mean values. Therefore, it can be concluded that DSRI, LVGI

and TATA ratios used in the Beniesh model are statistically significantly different between manipulated and non-manipulated firms in the manufacturing sector in Sri Lanka.

Table 6: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DSRIM	1.529	20	.9839	.220
	DSRINM	.920	20	.3670	.0820
Pair 2	GMIM	1.045	20	.347	.0776
	GMINM	1.137	20	.429	.096
Pair 3	AQIM	1.162	20	1.394	.311
	AQINM	.869	20	.314	.070
Pair 4	SGIM	1.180	20	.292	.065
	SGINM	1.224	20	.670	.150
Pair 5	DEPIM	1.160	20	.951	.212
	DEPINM	.976	20	.246	.055
Pair 6	SGAIM	.983	20	.185	.041
	SGAINM	.959	20	.296	.066
Pair 7	LVGIM	.860	20	.346	.077
	LVGINM	1.066	20	.285	.063
Pair 8	TATAM	.148	20	.168	.037
	TATANM	-.058	20	.082	.018

Table 7: Results of the Paired Sample t-test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean Diff. | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
					Lower	Upper			
Pair 1	DSRIM – DSRINM	.608	1.116	.249	.085	1.130	2.437	19	.025
Pair 2	GMIM – GMINM	-.092	.518	.115	-.334	.150	-.794	19	.437
Pair 3	AQIM – AQINM	.292	1.393	.311	-.359	.944	.939	19	.359
Pair 4	SGIM – SGINM	-.043	.622	.139	-.335	.247	-.315	19	.756
Pair 5	DEPIM – DEPINM	.184	.923	.206	-.248	.616	.892	19	.384
Pair 6	SGAIM – SGAINM	.024	.265	.059	-.099	.148	.411	19	.685
Pair 7	LVGIM – LVGINM	-.205	.451	.100	-.416	.005	-2.037	19	.046
Pair 8	TATAM – TATANM	.206	.177	.039	.123	.289	5.191	19	.000

5. CONCLUSION

Financial statement frauds and manipulations have become a common problem in today's business context causing dire consequences for business as well as the economy. Detecting fraud is not an easy task and requires a thorough knowledge of the nature of the fraud, why it is committed and concealed. Given this complexity, the current study tried to investigate the applicability of the Beniesh M Score model to capture either the financial statement distortions that can result from manipulation or preconditions that might prompt companies to engage in such activity. This model employs eight ratios calculated with financial statement figures to capture either financial statement distortions resulting from earnings manipulation or to identify the inclination to engage in earnings manipulation.

For the current study, listed companies of five sectors of the Colombo Stock Exchange were used over five consecutive years 2012/2013 to 2016/2017. The results suggest that in each year of the study, there are companies with a Beneish M Score of greater than -2.22, which could indicate possible manipulations of their financial statements. Further, the analysis was extended to include a paired sample t-test in order to investigate whether there were significant differences in the ratios between manipilated and non-manupulated firms indicated by the Beniesh M Score. Results of the t-test show that three ratios, DSRI, LVGI and TATA out of eight used in the Beniesh model are statistically significantly different as between manipulated and non-manipulated firms. With these results, it can be concluded that the Benish M Score model could be used as a supplementary or risk assessment tool to identify possible manipulations and frauds in the financial statemets.

Thus it is concluded that top level management, auditors, forensic accountants, regulatory authorities and other stakeholders can use the Benish M Score model to detect the red flags of financial ststement frauds in Sri Lankan context. Findings of this study need to be interpreted in light of its limitations, although most of these are common to this type of study. The period for analysis is short it would be of interest to extend the time horizon. Furhter, the sample of companies selected are limited and care needs to be taken when generalizing results to other countries and cross-contextual comparison is also not facilitated through this study

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