

# THE IMPACT OF IFRS ADOPTION ON FINANCIAL RATIOS: EVIDENCE FROM LISTED MANUFACTURING COMPANIES IN SRI LANKA

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## **Abstract**

*Since the world economy is getting globalized, the pass practices of accounting could not be able to satisfy the information requirement of global stakeholders. Therefore the concept of harmonizing the accounting practices has been put forward and realized by the implementation of International Financial Reporting Standards (IFRS) issued by International Accounting Standard Board (IASB). The main purpose of this research is to examine the impact of adopting IFRS on financial ratios in Sri Lankan listed manufacturing sector companies. The data were collected for the period of eight years from 2008/2009 to 2015/2016 by using annual report published on listed manufacturing sector in Colombo Stock Exchange (CSE). The total sample period is divided to two part as pre IFRS & post IFRS adoption periods for comparison. The ratios which are selected to the analysis are current ratio, earning per share, debt to equity ratio & return on equity ratio. The findings of the study suggest that there is no significant difference between the ratios calculated as per previous local accounting standards and as per IFRS except earnings per share ratio and current ratio. The impact was not found to be significant for debt equity ratio and return on equity ratio. The IFRS adoption is more likely to exhibit a favorable impact on financial statements. This study adds new knowledge to the existing literature of IFRS adoption since the data used are more recent than most IFRS studies around the world and the study focuses on a content of developing country while most of other studies have carried out in the context of developed countries.*

**Keywords:** Financial Ratios, IFRS Adoption, Listed Manufacturing Companies, Colombo Stock Exchange

## **1. Introduction**

### ***1.1 Background of the Study***

Accounting standards are a set of principles and guidelines which should be followed by companies in preparing and publishing their financial information periodically. Always shareholders & potential investors are looking at financial information for getting their investment decision. Therefore, all listed entities are legally bounded to prepare the financial statements according to the given set of accounting standards. The European Union and more than 120 other countries around the world are required or permit the use of International Financial Reporting Standards (IFRS) issued by IASB or a local variant of such standards in their financial reporting framework.

IFRS is a single set of accounting standards that the corporate sector should adopt in preparing and communicating financial information to the stakeholders across the world. IFRS are designed as a common global language of business affairs so that the financial statements are comparable and understandable across international boundaries. Financial statements that are based on common universal accounting principles will enable the world to exchange and analyze financial information in a meaningful manner.

Before 2012, Sri Lanka had Sri Lankan Accounting Standards hereafter called SLAS for preparing and reporting financial information. Although the conceptual basis and many of the general principles under SLAS are similar to IFRS in certain respects, many differences still exist. These differences can impact figures presented in the financial statements hence can reasonably be expected differences in financial ratios computed under IFRS and SLAS.

The objective of the current study is to analyze the impact of IFRS adoption on the financial statements and more specifically in Sri Lanka and to provide evidence of the impact caused by shift in regimes onto financial ratios. Since Sri Lankan listed companies required to apply IFRS from 2012, results of this study show preliminary evidence of the potential influence of IFRS on selected financial ratios in the areas of liquidity, leverage, and profitability. This study will contribute to the enrichment of both domestic and international literature that relates to the adoption and implementation of IFRS.

### ***1.2 Research Problem***

The adoption of IFRS around the globe has inspired the researchers to investigate the impact of IFRS adoption on financial reporting and capital market

efficiency. It is argued that application of single set of high-quality accounting standards around the globe leads to better functioning of capital markets. According to Ball (2006), mandatory IFRS adoption has the potential to facilitate cross – border comparability, increase reporting transparency, decrease information cost, and reduce information asymmetry, and thereby increase liquidity, competitiveness, and efficiency of market. But these benefits could be achieved thought IFRS adoption only if IFRS provide superior information for market participates than the previous set of local standards.

Most of the studies have reported that there is an increase of profitability ratios (Stent et al., 2010, Black and Maggin, 2016&Blanchette, 2011). In case of developing countries, from the inception, adoption of IFRS was problematic since there were contradictory arguments for and against the adoption of IFRS in those countries. According to Chebaane and Othman (2004), the adoption of IFRS by developing economies was controversial because on one hand, IFRS are considered as developed standards, which require a high level of economic development in order to be implemented successfully. Due to globalization effect lot of countries have to adopt IFRS in their financial statements. This leads to

arise two major changes in financial statements.

- ❖ Classification changes
- ❖ Fair value adjustments.

When investors taking decisions, they always compare the financial figures with last year / past figures. Due to major changes (IFRS adoption) they were unable to compare figures. Consequently, researchers in European countries have investigated that “whether there is any significant difference by adopting IFRS on financial statements”. But their findings may not be applied to a county like SriLanka due to the social, economic and other differences exist between developed and developing nations. Therefore, it would be important to investigate that whether there is any impact of IFRS adoption on financial ratios in the SriLankan context as a developing nation.

### ***1.3 Objectives of the Research***

This study examines the impact of IFRS adoption on the financial ratios in the context of developing countries. In order to achieve this purpose, this study attempts to address the following research questions.

1. Is there an immediate impact of IFRS adoption on financial ratios of Sri Lankan listed manufacturing companies?

2. Is there a favorable long term impact of IFRS adoption on financial ratios?

IFRS is a new practice implemented in Sri Lanka. So most of the persons who are engaged with the decision making are not aware on the impact of this new adoption on their decision makings. Therefore, this study tries to provide an understanding about the significant changes in financial statement elements upon IFRS adoption.

#### ***1.4 Hypothesis Development***

As per the review of literature, it is evident that findings in relation to the impact of IFRS adoption on financial ratios are inconclusive. Despite the widespread adoption of IFRS adoption by many countries, yet few empirical studies have examined the effects of mandatory adoption of IFRS on financial ratios and those studies also present mixed results (Black and Maggina, 2016; Stent et al., 2010)&(Iatridis, 2010).

H1= There is an immediate effect of IFRS adoption on financial ratios.

H1a= There is an immediate effect of IFRS adoption on current ratio

H1b= There is an immediate effect of IFRS adoption on debt to equity ratio

H1c= There is an immediate effect of IFRS adoption on earnings per share ratio

H1d= There is an immediate effect of IFRS adoption on return on equity ratio.

#### **H2= IFRS adoption more likely to exhibit a favorable effect on financial ratios**

H2a= The adoption of IFRSs is more likely to exhibit a favorable impact on current ratio

H2b= The adoption of IFRSs is more likely to exhibit a favorable impact on debt-to-equity ratio

H2c= The adoption of IFRSs is more likely to exhibit a favorable impact on earnings per share ratio

H2d= The adoption of IFRSs is more likely to exhibit a favorable impact on return on equity ratio

## **2. Literature Review**

### ***2.1 Ratios Disclosures***

Borhan et al. (2014) found whether there is any impact of financial ratios on the financial performance of a chemical company: Lyondell Basell Industries (LYB). Some selected ratios: current ratio (CR) and quick ratio (QR) represent the liquidity ratios; debt ratio (DR) and debt equity ratio (DTER) represent the leverage ratios, while operating profit margin (OPM) and net profit margin (NPM) represent the profitability ratios. LYB faced financial problems after its merger and the financial performance of

the company shrank to negative due to the world financial crisis. However, this company has bounced back after a year and is now the world's third largest chemical company based on revenue. The financial ratios were measured from 2004 to 2011, quarterly. The results show that CR, QR, DR and NPM have a positive relationship while DTER and OPM have a negative relationship with the company's financial performance. Among the six ratios, CR, DR and NPM show the highest significant impact on the company's performance.

## ***2.2 Importance of Financial Ratio***

Kaminski et al. (2004), tried to identify whether the fraudulent financial reporting is a matter of grave social and economic concern. The Tread way Commission recommended that the Auditing Standards Board requires the use of analytical procedures to improve the detection of fraudulent financial reporting. This is an exploratory study to determine if financial ratios of fraudulent companies differ from those of non-fraudulent companies. Fraudulent firms were identified by examining the SEC's Accounting and Auditing Enforcement Releases issued between 1982 and 1999. The fraudulent firms (n/479) were then matched with no fraudulent firms on the basis of firm size, time period, and industry. Using this matched-pairs

design, ratio analysis for a seven-year period (i.e. the fraud year 2 /+ 3 (years) was conducted on 21 ratios. Overall, 16 ratios were found to be significant. Of these, only three ratios were significant for three time periods. Out of the 16 statistically significant ratios, only five were significant during the period prior to the fraud year. Using discriminate analysis, misclassifications for fraud firms ranged from 58 percent to 98 percent. These results provide empirical evidence of the limited ability of financial ratios to detect and/or predict fraudulent financial reporting.

## ***2.3 The Impact of Socio Environment Factors on IFRS Adoption in Different Countries.***

Zeller et al. (2016), found the extent to which the previously identified relationships have changed, and if appropriate, to establish an entirely new taxonomy of manufacturing industry financial ratios. The authors used principal component analysis (PCA) to identify factor patterns for 58 financial ratios over the ten-year period 2004-2013. The validity of employing PCA was confirmed using the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. This study identified four additional financial analysis factors beyond the seven established by prior research. Notably, a

separate cash flow factor did not surface as it was the case in earlier work, but an entirely new factor (current position) was identified.

#### **2.4 Consequences of IFRS Adoption**

Lin and Yen (2016) examined whether and how auditors' and audit clients' IFRS-related experience alter auditors' pricing decisions in the initial years of IFRS adoption in China. The authors conducted the analysis by examining audit fees from 4,129 sample observations that issued A-shares in the Shanghai and Shenzhen stock exchanges from 2005 to 2008. The authors empirically test the association between audit premiums and auditors' and auditees' IFRS experience. The authors found that auditors with IFRS experience charged significantly higher audit premiums in the initial years of IFRS adoption. The authors also found that audit clients' with IFRS experience paid significantly lower incremental fees. The authors further found that the increased fees charged by audit firms with IFRS experience are independent of the degree of changes in the financial reporting complexity of their clients. In contrast, audit clients with IFRS experience paid lower incremental fees only when they underwent a high degree of changes in financial reporting complexity.

Khelif and Achek (2016) identified four main topics related to the effect of IFRS adoption on audit fees, audit market and audit report lag and the influence of auditor choice on IFRS compliance. For each reviewed stream of research, the authors presented its theoretical underpinning and summarize its main results. Based on 26 empirical studies, the review reveals four main findings. First, IFRS adoption is associated with increased audit fees. Second, IFRS adoption has had an effect on audit market through auditor choice, audit switching and audit market concentration. Third, IFRS adoption has increased audit report lag. Finally, the authors document that audit quality, as proxied by auditor type, may play an important role in enforcing the compliance with IFRS.

Okafor et al. (2016) investigated that whether financial information prepared and disclosed under International Financial Reporting Standards (IFRS) has incremental value relevance vs information prepared under generally accepted accounting principles (GAAP) in Canada. The authors employed a difference methodologies and estimate value relevance using: first, the adjusted R<sup>2</sup> of regressions of stock price on book value and earnings; second, the adjusted R<sup>2</sup> of regressions of stock returns on earnings and changes in earnings; and

third, a time series incremental association returns estimation. The authors use multiple models including a model similar to the Ohlson (1995) model and a modified Balachandran and Mohanram (2011) model to investigate value relevance in the period 2008-2013. The authors provide empirical evidence, based on unique Canadian environment, that accounting information prepared and disclosed under IFRS exhibits higher price and returns value relevance than accounting information prepared previously under local GAAP. Sensitivity analyses and yearly trends regressions produce collaborating evidence.

Hessayri and Saihi (2018) addressed the question of whether the commonly documented IFRS benefits are capable of influencing inducing shareholders to increase their equity investment in adopting firms. This study is performed on publicly listed firms in three emerging countries, namely, Morocco, South Africa and Turkey. The design of the ownership database allows a panel analysis for the years 2001 through 2011. The findings supported the evidence of increases in equity holdings following a firm's IFRS adoption. More specifically, institutional investors and institutional

block holders (both domestic and foreign) invest more heavily in the stocks of the firms that have committed to IFRS.

### ***2.5 Fair Value Accounting Emphasis by IFRS***

Fair value accounting represents a departure from the traditional historical cost principle. IFRS puts a much greater emphasis on fair value than that rendered under earlier LKAS. It primarily responds to the needs of investors which are given deliberate importance in IFRS compared to other users (IASB, 2001, par. 10; Chua and Taylor, 2008). Since investors need market-based values to make decisions regarding buying or selling stocks, many items in financial statements are required or eligible for fair value accounting under IFRS. Estimating fair value involves various degrees of subjectivity depending on the availability of an active market for the assets and liabilities in question. Currently, the IASB and the FASB are jointly developing a new Standard to improve guidance for calculating fair values and to enhance related disclosure (IASB Staff, 2010). In general, fair value is mandatory in measuring transactions at initial recognition under IFRS. Table 2.1 summarized the areas which Fair Value accounting is emphasis in IFRS.

**Table 2. 1 Fair value requirement & type of fair value accounting**

Fair value requirement	Type of fair value accounting
Fair value mandatory Impairment (IAS 36)	Through profit & loss
Financial instrument hold to collect (IFRS 9)	Through profit & loss
Financial instrument hold collect & sell (IFRS 9)	Through OCI
Biological assets (IAS 41)	Through profit & loss
Fair value optional Property plant and equipment (IAS 16)	Through OCI
Intangible assets (IAS 38)	Through OCI
Investment property (IAS 40)	Through profit & loss

## 2.6 Impact of IFRS Adoption on Financial Ratios

Black and Maggina (2016) investigated that the effects of IFRS adoption on financial statement data and their usefulness in Greece. Additionally, the authors examine the effect on the informativeness /usefulness of financial statement data for stock prices in Greece and the effect of the Greek Financial Crisis. Additionally, the authors examined

the effect on the informativeness/usefulness of financial statement data for stock prices in Greece and the effect of the Greek Financial Crisis. The results indicate that several financial ratios were dramatically affected by IFRS adoption in Greece. In contrast to other countries, IFRS has not resulted in improved statistical behavior of these ratios in Greece: the ratios are highly skewed and the normality of their distribution is not improved. Additionally, when examining the usefulness of financial statement data for stock prices in Greece, results indicate that IFRS adoption did not necessarily improve the usefulness of the financial statements. However, the authors do found that since the financial crisis in Greece, these IFRS financial statement measures are significant when regressed on stock prices.

Stent et al. (2010) examined the financial statement impacts of adopting NZ IFRS during 2005 through 2008. The effects of NZ IFRS on the financial statements and ratios of first-time adopters of NZ IFRS for a stratified random sample of 56 listed companies are analyzed. In total, 16 of these were early adopters and 40 of which waited until adoption of NZ IFRS became mandatory. The analysis of the financial statement impact of NZ IFRS is conducted in the context of the accounting choice literature. The results



show that 87 per cent of firms are affected by NZ IFRS. The median and inter-quartile ranges indicate that for most firms the impact of NZ IFRS is small. However, the maximum and minimum values indicate the impact can be large for some entities. The impact has considerable effects on common financial ratios.

As the world economy is getting globalized, the parties using accounting information have faced new problems. Those problems stem from different accounting practices of countries. Although many international organizations have carried out studies on the harmonization of different accounting practices, IASB (previously named as International Accounting Standards Committee (IASC)) has been universally accepted and officially recognized organization. Therefore the idea of harmonizing the international accounting has been realized by the implementation of standards (International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS)) issued by IASC/ IASB. Agca and Aktas (2007) investigated the extent of differences between the results of financial ratios gathered from financial statements prepared as per IAS/IFRS in accordance with the provisions of Turkish Capital Markets Board's commu-

niqué Series XI, No.: 25 and the financial statements prepared as per the legislation before this communiqué within Istanbul Stock Exchange (ISE).

Blanchette (2011) provided preliminary evidence of the impact on financial ratios caused by the transition to IFRS in Canada. The effects of IFRS on financial ratios in the areas of liquidity, leverage, Coverage and profitability are discussed and verified using a sample cohort of early adopters in Canada. The preliminary evidence reveals significantly higher volatility to most of the ratios under IFRS when compared to those derived under pre-changeover Canadian GAAP. While the means and medians of IFRS ratios differ from the means and medians of the same ratios under pre-changeover Canadian GAAP, the differences are not statistically significant overall. However, important individual discrepancies are in some cases observed. Naturally, analysts using ratios for analytical purposes during the transition period need to be vigilant as ratios computed under IFRS are not directly comparable with those derived under pre-changeover Canadian GAAP. It is recommended that heightened attention be directed to the new feature – comprehensive income – which incorporates unrealized gains and losses that bypass the income statement. The

suggested analytical tools best suited to mitigate the contributing effect include reliance on comprehensive-Return on Assets (ROA) and comprehensive-Return on Equity (ROE).

A number of multi-national companies are establishing their businesses in various countries with emerging economies. Different accounting frameworks and guidelines for different countries have created confusion for users of financial statements. India, being an emerging economy calls for convergence of Indian Accounting Standards (Indian GAAP) with IFRS, an attempt has been made to assess the impact of IFRS adoption upon the key financial ratios of Indian company namely Wipro Ltd. Gupta et al (2017) conducted from the year 2009-10 to 2014-15. Debt Equity ratio, debt to total assets ratio, current ratio, net profit ratio, return on capital employed and return on equity ratios have been used in the study to arrive at an empirical conclusion. Empirical analysis revealed that the IFRS adoption will create a significant impact on debt to total assets ratio, net profit ratio, return on capital employed ratio and return on equity owing adoption of fair value measurement, differential revenue recognition norms, differential valuation of deferred tax asset and liability etc.

### **3. Methodology**

The current study investigates whether there is an impact on the financial ratios of Sri Lankans listed manufacturing companies is experienced due to the transition to IFRS comparing financial ratios computed under IFRS with those obtained under SLAS in order to confirm whether there is any significant difference between IFRS and SLAS. To do this, the ratios before and after the conversion need to be calculated and eventually a statistical test need to be performed to check whether those differences are significant. There are two kinds of research philosophies in the word, as quantitative and qualitative approach while current study based on purely quantitative approach. This study selected all listed manufacturing companies on Colombo Stock Exchange (CSE) as a 2014-15. Debt Equity ratio, debt to total assets ratio, current ratio, net profit ratio, return on capital employed and return on equity ratios have been used in the study to arrive at an empirical conclusion. Empirical analysis revealed that the IFRS adoption will create a significant impact on debt to total assets ratio, net profit ratio, return on capital employed ratio and return on equity owing adoption of fair value measurement, differential revenue recognition norms, differential valuation of deferred tax asset and liability etc.

### 3. Methodology

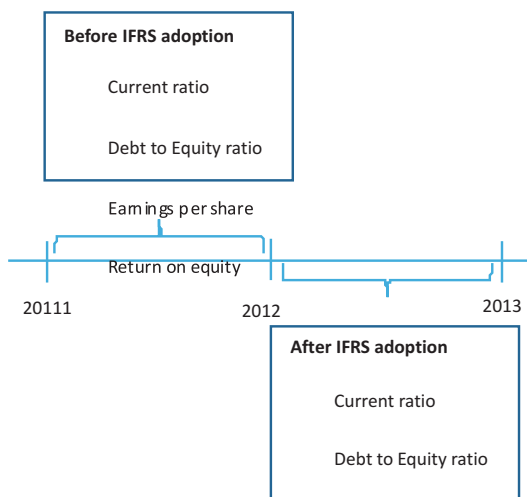
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**Table 3.1 Type of financial ratios**

Description	Amount
No of Listed manufacturing companies	41
Incorporate after 2009/ Not available annual report.	11
No of companies for selected to analysis	30

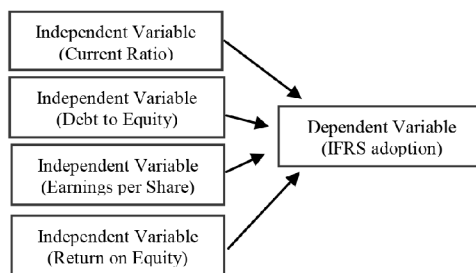
### 3.1 Conceptual Framework for Testing H1

Following conceptual framework is developed to show the deference between pre and post IFRS adoption on financial ratios. Here current ratio, debt to equity ratio, earnings per share and return on equity ratio considered as dependent variable.



### 3.2 Conceptual Framework for Testing H2

The conceptual framework is developed to show the effect of IFRS adoption on financial ratios. Here current ratio, debt to equity ratio, earnings per share and return on equity ratio considered as independent variable & IFRS adoption is considered as dependent variable.



**3.Logistic Regression Model for testing H2**

The following logistic regression is used to identify that whether there is any likelihood relationship between IFRS adoption and independent ratios. Descriptive statistics and logistic regression technique were used as analytical tools following Iatridis, 2010.

$$RR = \beta_0 + \beta_1CR + \beta_2DE + \beta_3EPS + \beta_4ROE$$

Equation 3. 1 Financial statement effect equation

Where,

RR = dummy variable representing the regulatory regime (pre- and post-adoption period)

CR = current ratio

DE = debt to equity ratio

EPS= earnings per share

ROE = return on equity

**Table 3. 2 Type of financial ratios**

Ratio category	Ratio	
Liquidity ratios	Current ratio	√
	Quick ratio	×
Profitability ratios	Return on assets ratio	×
	Return on equity ratio	√
	Earnings per share ratio	√
Leverage ratio	Debt to equity ratio	√
	Debt to worth ratio	×
	Equity ratio	×

**3.3 Variable Selection**

Table 3.2 interprets the category of financial ratios. Liquidity ratios, profitability ratios and leverage ratios only considered for the current study. Current ratio is selected for testing liquidity level, debt to equity ratio is selected for testing leverage of the companies and Return on equity ratio and earnings per share ratio is selected for testing profitability of the companies.

**3.3.1 Current Ratio**

The current ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations. To calculate the ratio, analysts compare current assets to current liabilities. Current assets include cash, accounts receivable, inventory and other assets that are expected to be turned into cash in less than a year. Current liabilities include accounts, wages, taxes payable, and the current portion of long-term debt. The formula for calculating a company's current ratio is as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

**3.3.2 Debt to Equity Ratio**

Debt/Equity (D/E) Ratio, calculated by dividing a company's total liabilities by its stockholders' equity, is a debt ratio used to measure a company's financial leverage. The D/E ratio indicates how much debt a company is using to finance

its assets relative to the value of shareholders' equity. The formula for calculating D/E ratios is:

Debt/Equity Ratio = Total Liabilities / Shareholders' Equity

### **3.3.3 Earnings per Share**

Earnings per Share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company's profitability. EPS is calculated as:

EPS = (Net Income - Dividends on Preferred Stock) / Average Outstanding Shares

### **3.3.4 Return on Equity**

Return on Equity (ROE) is the amount of net income returned as a percentage of shareholders equity. Return on equity (also known as "return on net worth" [RONW]) measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Return on Equity = Net Income/Shareholder's Equity

### **3.4 Data Analysis Techniques**

Data was collected from audited financial statements prepared under IFRS and SLAS for the same time / period and ratios calculated using figures from both set of statements. To perform

the study, first of all financial ratios, are calculated for each firm under SLAS & IFRS. More specially, current study calculates the differences by subtracting a mean value of every financial ratios calculated under local accounting standards in 2011/12 financial year from the mean value of financial ratios calculated under restated financial figures in 2011/12. Further, statistical significance of the differences between pre- and post-adoption effect was tested.

The data obtained from the various sources were further analyzed using Statistical Package for the Social Sciences (SPSS) & Microsoft Excel. The average difference between paired (matched) samples, tested using Paired t-test (if data is normally distributed) or Mann-Whitney test/ Wilcoxon on rank sum (if ordinal/ skewed data) test.

Eviews software was used to identify any likelihood relationship between IFRS adoption and independent ratios. Descriptive statistics, logistic regression technique & Wald test were used as analytical tools.

## **4. Findings and Discussion**

Under the analysis, it has been examined the initial effect and long term effect of IFRS adoption on financial ratios. To investigate the immediate effect on financial ratios upon to IFRS adoption,

financial data for the financial year 2011/12 considered together with the financial data for the same year restated under IFRS in 2011/2012 year and presented as comparatives of the financial statement of 2012/13.

#### **4.1 Testing for H1: The Immediate Impact of IFRS Adoption on Financial Ratios**

##### **4.1.1 Descriptive Statistics of Financial Ratio**

This section exhibits the summary of descriptive statistics for the financial ratios used to test H1 of current study. This section contains the mean, standard deviation, minimum and maximum of financial ratios (CA, DE, EPS, ROE) for 2011/12 prepared under local standard and the same information for the 2011/2012 restated financial statement following IFRS.

**Table 4.1 Descriptive Statistics of Financial Ratios - 2011/12 Financial Year (Under LAS)**

	N	CR	DE	EPS	ROE
Minimum	30	0.13	-1.83	-2.04	-0.47
Maximum	30	10.60	1.42	25.1	0.93
Mean	30	1.77	0.04	5.53	0.16
Std.					
Deviation	30	1.84	0.44	6.70	0.23

The descriptive statistics of financial ratios summarized in Table 4.1 are a collection of descriptive statistics, which summarized the data set calculated under pre IFRS adoption period. Descriptive statistics can be divided into measures of central tendency and measures of variability, or spread. Measures of central tendency comprise the mean, median and mode, whereas measures of variability comprise the standard deviation or variance, the minimum and maximum variables.

The average (mean) of the current ratio of listed manufacturing companies in Sri Lanka is 1.7796 under the local accounting standards applying period (2011/2012). It shows effective liquidity level within the sector. The Simple mean of squared distance from the mean is 1.84. No more spreading area from the mean value. The maximum current ratio of data set is 10.60 and minimum one is 0.1349.

The average (mean) of the debt to equity ratio of listed manufacturing companies in Sri Lanka is 0.045 the local accounting standards applying period (2011/2012). It shows 4.5% of the invested capital from debt financing. The Simple mean of squared distance from the mean is 0.444. The maximum current ratio of data set is 1.42 and minimum one is -1.838.

The average (mean) of the earning per share ratio of listed manufacturing companies in Sri Lanka is 5.53 the local accounting standards applying period (2011/2012). It shows earning power of share is Rs.6 pre each. The Simple mean of squared distance from the mean is 6.70. The maximum current ratio of data set is 25.17 and minimum one is -2.04.

The average (mean) of the return on equity ratio of listed manufacturing companies in Sri Lanka is 0.166 the local accounting standards applying period (2011/2012). It interpret when invest one rupee in equity capital return may be Rs.0.166. The Simple mean of squared distance from the mean is 0.291. The maximum current ratio of data set is 0.935 and minimum one is -0.4790.

**Table 4.2 Descriptive Statistics of Financial Ratios - 2011/12 Financial Year (Under IFRS)**

	N	CR	DE	EPS	ROE
Mini mum	30	0.13	0	-2.22	-0.43
Maxi mum	30	10.49	1.42	25.1	7.61
Mean	30	1.91	0.11	6.12	0.39
Std.					
Devia tion	30	1.83	0.26	7.35	1.37

According to table 4.2 the average (mean) of the current ratio of listed manufacturing companies in Sri Lanka is 1.914 under the 2011/2012 restated financial figures. It shows effective liquidity level within the sector. The Simple mean of squared distance from the mean is 1.830. No more spreading area from the mean value. The maximum current ratio of data set is 10.49 and minimum one is 0.134.

The average (mean) of the debt to equity ratio of listed manufacturing companies in Sri Lanka is 0.110 under the 2011/2012 restated financial figures. It shows 11% of the invested capital from debt financing. The Simple mean of squared distance from the mean is 0.268. The maximum current ratio of data set is 1.426 and minimum one is 0.000.

The average (mean) of the earning per share ratio of listed manufacturing companies in Sri Lanka is 6.125 under the 2011/2012 restated financial figures. It shows earning power of share is Rs.6 pre each. The Simple mean of squared distance from the mean is 7.354. The maximum current ratio of data set is Rs.25.17 and minimum one is Rs.-2.220. The average (mean) of the return on equity ratio of listed manufacturing companies in Sri Lanka is 0.394 under the 2011/2012 restated financial figures. It interpret when invest one rupee in

equity capital return may be Rs.0.39. The Simple mean of squared distance from the mean is 1.377. The maximum current ratio of data set is 7.615 and minimum one is -0.438.

**Table 4.1 Differences Between Ratios Calculated for 2011/12 as per LKAS and IFRS**

	CR	DE	EPS	ROE
	PRE	PRE	PRE	PRE
Mini	30	0	1.83	-0.18
mum				0.04
Maxi	30	-0.10	0	0
mum				6.68
Mean	30	0.13	0.06	0.58
Std.				0.22
Devi	30	-0.01	-0.17	0.65
ation				1.13

Table 4.3 illustrates deferences of descriptive statistics of all four financial ratios, which were calculated as pre and post IFRS financial statements. Mean value of the CR is increased from 1.77 to 1.91. DE ratio's mean value is increased by 0.06. Then mean value of EPS increased from 5.53 to 6.12. ROE's mean value is decreased by 0.22.

#### 4.1.2 Testing the Normality

Test of normality is applied to decide whether a set of data is well-modeled by a normal distribution or not, and to compute how probable an underlying random variable is to be normally

distributed. In this study, Kolmogorov - Smimov test and Shapiro- Wilk normality test have been used to test the normality of variable. According to the results of these two tests, it is suggested that none of the variable use in the current study is normally distributed.

#### 4.1.3 Wilcoxon Signed Rank Test

Empirical analysis of the differences between the ratios calculated from the two set of financial statement has been done using Wilcoxon Signed Rank test. In the current study non parametric version of t-test is used since data is not normally distributed. (Stent et al., 2010).

**Table 4. 4Test Statistics for Wilcoxon Signed Rank Test**

	CR	DE	EPS	ROE
	POST	POST	POST	POST
	- CR	- DE	- EPS	- ROE
	PRE	PRE	PRE	PRE
Z	-3.14b	-.98b	-2.23b	-1.30b
Asymp.	.002	.326	.0376	.191
Sig. (2-				
tailed)				

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Table 4.4 interprets summary of the result of Wilcoxon Signed Rank Test. Null hypothesis is "there is no significant impact of IRFS adoption on financial ratio". Alternative hypothesis is "there is any significant impact of IFRS adoption



on financial ratio". According to the result; Z statistic for CR is significance. Its leads to conclude that there is significant impact of IFRS adoption on current ratio.

Table 4.4 indicates Z statistic for DE and ROE are not significant. Its leads to conclude that there is no significant impact of IFRS adoption on both ratios. As per the results of the table 4.4 ROE's significant amount showed as 0.191. This is not significant at 95% confidence level. Therefore, null hypothesis cannot be rejected. Accordingly, it is concluded that there is result is there is no any significant effect of IFRS adoption on ROE ratio.

Hypothesis	Hypothesis Accepted or rejected
H1a: There is an effect from adopting IFRS on current ratio	Accepted
H1b: There is an effect from adopting IFRS on debt to equity ratio	Rejected
H1c: There is an effect from adopting IFRS on earning per share ratio	Accepted
H1d: There is an effect from adopting IFRS on return on equity ratio adoption on ROE ratio.	Rejected

4.2 Testing for H2: The IFRS adoption is more likely to exhibit a favorable effect on financial ratios

#### 4.2.1 Logistic regression Model

Logistic regression is the appropriate regression analysis to conduct when the dependent variable is dichotomous (binary). Like all regression analyses, the logistic regression is a predictive analysis. Logistic regressions used to describe data and to explain the relationship between one dependent binary variable and one or more nominal, ordinal, interval or ratio-level independent variable.

**Table 4.5 Result of Logistic Regression Test**

Variable	Coefficient
C	0.2560
LCR2	-0.0166
LEPS2	0.0907
LROE2	0.0377
DE	0.3863

regression output. The results indicate that H1 holds, implying that IFRS implementation is more likely to exhibit a favorable impact on the financial ratios of firms. The transition to IFRSs does not appear to adversely affect. Debt to equity, earning per share & Return on equity ratio have the positive coefficient. It means IFRS adoption positively effected on financial ratios except current ratio

**4.2.2 Wald Test**

The Wald test is a way of testing the significance of particular explanatory variables in a statistical model. In logistic regression we have a binary outcome variable and one or more explanatory variables. For each explanatory variable in the model there will be an associated parameter.

As presented in table, Wald Test has been performed and it was concluded that the null hypothesis should be rejected, leads to accept alternative hypothesis data set is not equal to zero, that means there is a difference between post and pre adoption period data. The result shows probability value of .0000 in percent significant level which will lead to reject null hypothesis. That means there is a difference between post and pre IFRS adoption data.

**Table 4.62 Wald Test Summery Table**

Test			
Statistic	Value	df	Probability
F-statistic	0.527	(4, 235)	0.000
Chi-square	2.109	4	0.000
Null Hypothesis: C(1)=0,C(2)=0,C(3)=0,C(4)=0			
Hypothesis		Hypothesis Accepted or Rejected	
H2: The adoption of IFRSs is more likely to exhibit a favorable impact on financial ratios		Accepted	
Null Hypothesis			
Summary:			
Normalized			
Restriction (= 0)	Value	Std. Err.	
C(1)	0.256	0.000	
C(2)	-0.016	0.000	
C(3)	0.090	0.000	
C(4)	0.037	0.000	
C(5)	0.386	0.000	

According to the result of Wald test and the logistic regression analysis conclude that the adoption of IFRSs is more likely to exhibits a favorable impact on firm financial measures.

Hypothesis	Hypothesis Accepted or rejected
H2a: The adoption of IFRSs is more likely to exhibit a favorable impact on current ratio	Accepted
H2b: The adoption of IFRSs is more likely to exhibit a favorable impact on debt to equity	Accepted
H2c: The adoption of IFRSs is more likely to exhibit a favorable impact on earnings per share	Accepted
H2d: The adoption of IFRSs is more likely to exhibit a favorable impact on return on equity	Accepted

## 5. Conclusion

This study attempted to investigate the impact of IFRS adoption on financial ratios of listed manufacturing companies of Sri Lanka. In case of the first research objectives, based on the result of the analysis, it can be concluded that there is an immediate impact of IFRS adoption on financial ratios, such as Current Ratio & Earnings Per Share. Other ratios are not significantly affected by IFRS adoption. In examining the second hypothesis, the results provide evidence that adoption of IFRSs is more likely to exhibit a favorable impact on firm financial ratios. When considering each individual variable, it indicates that Return on Equity, Earnings per share and Debt to Equity Ratio have positive coefficients. Current ratio has a negative coefficient value. This led to provide evidence that the IFRS adoption exhibits a favorable impact on most of firm's financial ratios. The results presented in current study are pertinent and significant to both Sri Lankan investors and to accounting

standard setting bodies such as the IASB and the FASB internationally and CA Sri Lanka locally. Since it tries to some extent answer the relatively unanswered question of whether or not the current IFRS based regulatory framework has been fruitful in terms of an increased economic decision usefulness among financial statement information, which facilitates equity investors with resourceful material as well as with valuable insights on the relevance and reliability of Sri Lanka accounting numbers.

Further it is expected that the current study would be useful in regions other than the Sri Lanka, particularly in countries where developing nations are compulsory to follow and where the accounting philosophy is the same. The study might also be of value to emerging nations with an investment environment similar to the Sri Lanka and where IFRS reporting recently have been or will be adopted.

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