Impact of Historical Cost and Fair Value on Selected Financial Ratios: A Study in Listed Plantation Companies under Colombo Stock Exchange (CSE).

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Abstract

The main focus of this study is to identify impact of historical cost and fair value on selected financial ratios of selected listed plantation companies in Colombo Stock Exchange (CSE) from the financial year 2009/10 to 2014/15. International financial reporting standard (IFRS) very clearly states that biological assets which mean living plants and animals must be carried at fair value. Also IFRS suggests that agricultural assets must be carried at their net fair value when they were harvested. After the adoption of international financial reporting standard in Sri Lanka, many corporate specially listed plantation companies started to adopt the fair value as a measurement for historical cost base from the financial year 2012/2013. There are several measurement techniques are available such as historical cost, current cost, fair value and present value.This study covers three financial years (2009/10 to 2011/12) under the historical cost base measurement as well as three financial years (2012/13 to 2014/15) under the fair value base measurement. Descriptive statistics and inferential statistics of this study confirmed that there is mean differences in the financial ratios under the historical cost and fair value measurement however there is no significant mean differences in the financial ratios under the historical cost and fair value measurement.

Keywords: *Historical cost, fair value, financial ratios and plantation companies*

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1. Introduction

Financial reporting is one of the major functions of the financial accounting. Here financial statement plays a vital important role in the decision making. Generally management of the company has responsibility to prepare the financial statement. Every stake holders of the company pays key concern on financial statement especially shareholders have key interest on the company's financial statement. Financial statement of the company is prepared based on the accounting standards and accounting policies. Sri Lanka adopted international financial reporting standards from 1st January 2012. Management of the company may able to do the earnings management and earnings manipulation on the financial statement according to their personal benefits/ interest. Due to that there is huge problem in the financial reporting which is one of the contemporary issues in the financial reporting. Measurement plays a vital role in the earnings management and earnings manipulation on the financial statement. Specially according to international/ Sri Lanka financial reporting standards suggest some measurement techniques for some specific area here some management has possibility to use measurement for earnings management and earnings manipulation on the financial statement. There are 20 listed plantation companies in Sri Lanka which major companies adopted international financial reporting standards from 1st January 2012. IFRS very clearly states that biological assets which mean living plants and animals must be carried at fair value. Also IFRS suggested that agricultural assets must be carried at their net fair value when they were harvested. After the adoption of international financial reporting and international accounting in Sri Lanka, many corporate specially listed plantation companies started to adopt the fair value as a measurement for historical cost base from 2012/2013 financial year. There are several measurement techniques are available such as historical cost, current cost, fair value and present value. Mainly Sri Lankan companies were more familiar with historical host as measurement in the financial reporting for a long period of time. Generally historical cost and fair value measurement is the major measurement base in the financial reporting. Historical cost means that assets are recorded at the amount of cash or cash equivalents paid or the fair value of consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation or in some circumstances at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business on the other hand fair value measurement base means that assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal. Liabilities are carried at their settlement values; that is, the undiscounted amounts of cash or cash equivalents expected to be paid to satisfy the liabilities in the normal course of business. Very high profile corporate companies also faced corporate failure by improper financial reporting in international as well Sri Lanka so this particular study involves finding out the impact of historical cost or fair value on selected financial ratios in accounting. For this purpose the researchers selected more specific companies from plantation sector.

Historical Costs Accounting

Cristea (2017) stated that historical costs accounting is one of the most popular model in the world. When applying this model, companies have to satisfy the prudence principle perceptions and that's why we are unable to revaluate assets on higher values. When revaluating on lower values there is applied the computation of impairment. Historical cost accounting provides information about the effect of using historical cost model on profitability ratios, liquidity ratios and assets turnover ratio. Researchers clearly noted that historical costs accounting linearly behaves profitability and liquidity ratios. The inverse tendency could be seen (however marginal) for assets turnover ratio. Historical costs accounting, proportional tendency is visible within earnings per share (EPS) analysis. All other ratios with the exemption of debt ratio and financial leverage show identical tendency, but less proportional. The inverse tendency of debt ratio and financial leverage could be explained by the fact that higher the value of these ratios, higher the debt exposure of the company.

Fair Value Accounting

Cristea (2017) pointed that fair value accounting is currently used mainly for revaluation of selected financial instruments, investment properties and biological assets. Fair value accounting provides us information about profitability ratios, liquidity ratios and assets turnover ratio. Fair value accounting behaves all profitability ratios in line with revaluation. Fair value model has marginal impact also on liquidity ratios and assets turnover, but these ratios show us inverse tendency. Fair value accounting provides us information about the debt ratios and earnings per year. Fair value accounting is the most sensitive ratios such as EPS and interest coverage. Marginal influence of the revaluation is visible for Assets/Debts ratio and Equity/Debts ratio. Researchers clearly stated that debt ratio and financial leverage comport similarly and prove the inverse tendency against other financial measures. This inverse tendency is explicated by the fact that higher the value of these ratios, higher the debt exposure of the company.

2. Statement of the Problem

Financial reporting measurements of performance and financial position directly or indirectly affect all most every stakeholder of the firms. Every company followed the historical based measurement in Sri Lanka also many company is following the historical cost as measurement in current world also. IFRS very clearly states that biological assets which mean living plants and animals must be carried at fair value. Also IFRS suggested that agricultural assets must be carried at their net fair value when they were harvested. After the adoption of international financial reporting and international accounting in Sri Lanka, the many corporate specially listed plantation companies started to adopt the fair value as a measurement for historical cost base from 2012/2013 financial year. Here assets and revenue of the plantation companies are high valuable as well specific one. there are number of high profile corporate met the corporate failure due to the various reason so there is a fundamental question may arise that whether the adoption of fair value as measurement for the historical cost is best way to improve the quality of earnings and financial reporting as well. Adoption of the fair value in financial reporting is one of the contemporary issues in financial reporting of all the country and especially for the developing country. Generally the shareholders of the company are very key interest on the financial statements. Shareholders are ensuring the company's financial performance and position through the financial ratios an also they are using much financial ratios to make top level decisions specially sale of shares like that. Growing controversy surrounds the question of measurement in financial reporting which is mainly because of a perceived movement away from the traditional basis of measurement as historical cost towards a new basis as fair value.
Research Questions (RQ) of this study can be seen such as,

- **RQ_1:** Is there any significant mean differences in the financial ratios under historical host measurement and fair value measurement?

- **RQ_2:** Does financial ratios favorable level under the historical cost base measurement in the financial reporting?
- **RQ_3:** Does financial ratios favorable level under the fair value base measurement in the financial reporting?

3. Significance of the Research

Contemporary issue in the financial reporting plays a huge demand in the financial accounting in the current world. Also measurement bases in the financial accounting and selection of the measurement base are very subjective and one of the most contemporary issue in the financial reporting. Especially plantation companies of Sri Lanka faced lot of problem after adopting of the international financial reporting standards particularly adopting the fair value for the historical cost measurement base. Researchers were unable to find any researches on this particular area in Sri Lanka due to that this study is much relevant to the plantation companies to find the impact of historical cost or fair value on selected financial ratios in accounting which may help to the companies to avoid corporate failure and understand about the reality of the financial reporting. Also this particular study will develop literature in this field on this specific and needed area.

4. Research Objectives

a) Main objective

The Main objective of this study is to identify the impact of historical cost and fair value on selected financial ratios of selected listed plantation companies in Colombo Stock Exchange (CSE)**.**

b) Sub objectives

The following objectives are considered as sub objectives of this research,

- To reveal level of financial ratios under the historical cost base measurement financial reporting of listed selected plantation companies in Sri Lanka**.**
- To find out the level of financial ratios under the fair value base measurement financial reporting of listed selected plantation companies in Sri Lanka**.**
- To compare the mean differences of financial ratios under the historical cost base and fair value base measurement financial reporting of listed selected plantation companies in Sri Lanka.
- To make the possible suggestions and recommendations on historical cost and fair value base measurement financial reporting to the top level management and stake holders of listed selected plantation companies in Sri Lanka.

5. Literature Review

The choice between fair value and historical cost accounting is one of the most widely debated issues in the accounting literature. Goncharov (2015) examined the effect of fair value accounting and issues with its implementation on the volatility of stock prices. This paper used the U.K. investment trust setting to derive a theoretical relationship between stock price volatility and the volatility of fair value earnings components. It then examined whether the effect of fair value earnings components on stock price volatility was consistent with theoretical predictions. Researcher found that stock price volatility is higher than the volatility of fair value earnings and that this effect was due to an unrealized earnings component. This finding appeared to be by the lack of accuracy of some fair value estimates and the artificial earnings volatility due to a mismatch between assets measured at fair value and liabilities measured at historical cost. Researcher corroborated this result by showing that fair value earnings lead to greater stock price volatility when investment trust shares were traded by unsophisticated investors and were followed by fewer analysts.

The historical cost of an item is the actual cost paid for the item (Historical Cost Accounting, 2009). The historical cost used can be the pure historical cost, which is the cost of the item ignoring inflation rates or the historical cost adjusted for changes in price levels (Jensen, 2007). Fair value accounting is also called mark-to-market accounting. This is an accurate description because the assets and liabilities are valued on the financial statements based on the prices and information available in the market for the asset or liability or a similar market. To better understand whether preferences revealed by the managers reflect market demand and supply forces, we analyze the observed choices from an economic cost-benefit perspective. On the demand (benefit) side, fair value accounting seems superior to historical cost on most qualitative characteristics described in the Financial Accounting Standard Board's (FASB) conceptual framework (Hermann et al. 2006).

Academic debate is usually concerned with financial instruments and framed within the agency theory, assuming information asymmetry between market participants and the existence of perfect versus imperfect market conditions. Barth and Landsman (1995) concluded that in perfect and complete markets a fair value accounting based balance sheet reflects all value relevant information. However, in more realistic market settings management discretion applied to fair valuation can detract from balance sheet and income statement relevance. Watts (2003) stated that fair valuation is subject to more manipulation and, accordingly, is a poorer measure of worth and performance than historical cost. He pointed that any attempt to ban accounting conservatism is sure to fail and that accounting cannot compete with the market in valuing the firm (Watts, 2006). Ball (2006) complains that fair valuation does not necessarily make investors better off, and that its usefulness has not been demonstrated. Rayman (2007) concludes that fair value accounting is liable to produce absurdities and misleading information, if it is based on expectations that turn out to be false. Ronen (2008) complains that fair value suffers from a lack of reliability and can be subject to manipulation.

Pranil et al. (2011) concluded that users perceive fair value accounting information as useful for their decision making purposes. Furthermore, fair value information is costly to be incorporated into financial reports, however, preparers do find fair value to be applicable and of relevance to them. The study was carried out in the finance sector of Fiji. They consider the perspectives of both the preparers and the users of fair value information from the finance sector. Carmen and Adriana (2011) developed a literature review on fair value studies. The purpose of the study was to synthesize the main results of accounting research literature empirically approaching fair value measurement. Therefore, their analysis imposes the use of literature review methodology. After briefly introducing the concept of fair value, the first part of the paper follows the shift taking place in accounting paradigms when it comes to accounting models. The main part of the paper discusses empirical studies on fair value by closely analyzing their research design, the employed research methodology and the obtained results. The originality of the paper as well as its contribution consist in offering a comprehensive overview on studies in accounting research literature that analyze fair value accounting through an empirical approach. Discussing the relevance and reliability of such studies further impacts upon the relevance of their results and how they can be used.

Danimir et al. (2009) stated that using historic in present financial statement is like using a modern car with century old engine. This makes earnings estimates difficult to make. Using fair value without manipulation will result in decision useful information. Researcher also argued that quality of accounting information does not depend on the standard set it’s indeed its quality depends on the behavior of the accountant and the objective of the agent. The level of manipulation can be reduced by understanding for whom the financial statement is prepared and why it is prepared. Manipulation is inevitable when using fair value by financial sector business as they are more sensitive to financial assets, as discussed in Danimir et al 2009.

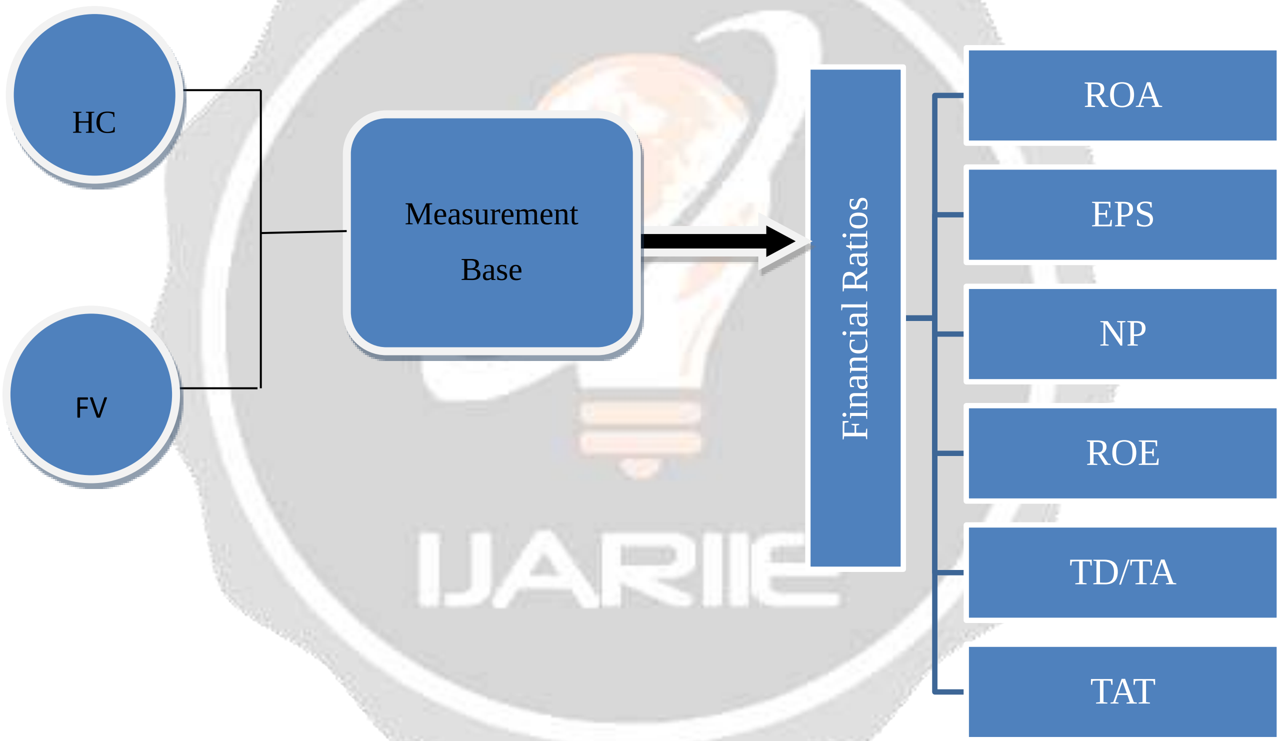
Christensen et.al(2012) did a study on fair value in valuing property, plant and equipment which deals with fair value accounting as an alternative to the historical cost, the study found a range of results, including: The fair value is applied to the non-financial assets; such as buildings and equipment, be less efficient for decision makers when compared to historical cost, and financial reporting standards provided feature not offered by other standards that preceded it, as it provided corporate field to choose between historical cost and fair value for non-financial assets , with a commitment to stability and the disclosure of accounting policy used. The study will focus on the impact of discretionary fair value asset and on earning before and after the adoption of SLFRS 13, which will be in line with the critiques argument against fair value method which led to management discretion even when level 1 input is available. Further whether fair value method results in lack of information to the users as discussed in (Neil and John 2014). It is believed that flexibility involved is used for the benefits of management to meet or beat the expectation of analyst and stakeholders, further even when quoted price is available it’s still manipulated.
Taplin, Yuan and Brown (2014) examined the use of fair value accounting for investment properties by 96 randomly selected Chinese listed companies’ year ending 2008 annual reports. Half the sampled companies use fair value while half use historical cost, both methods being allowable under International Financial Reporting Standards (IFRS) and Chinese Accounting Standards (CAS). This represents the lowest possible level of comparability when there are only two choices of method. There was evidence that companies with above average volatility in earnings were more likely to use fair value than historical cost. The consequences for domestic and international harmony for regulators and investors were discussed in the context of the opening of Chinese markets to international investment. Strouhal (2015) studied the issues of currently used valuation models in financial reporting systems. Researcher pointed that during last three decades there could be seen a visible trend of shifting from traditional historical costs accounting towards fair value accounting. The analytical part of this paper revealed that the impact of studied

valuation models on selected financial ratios with the purpose of identifying the most and the less sensitive ones on various valuation models.

Argilés, Blandon and Monllau (2011) performed an empirical study with a sample of Spanish farms valuing biological assets at historical cost (HC) and a sample applying fair value (FV), finding no significant differences between both valuation methods to assessed future cash flows. Most tests of this study revealed more predictive power of future earnings under fair valuation of biological assets, which was not explained by differences in volatility of earnings and profitability. The study also evidenced the existence of flawed HC accounting practices for biological assets in agriculture, which suggested scarce information content of this valuation method in the predominant small business units existing in the agricultural sector in advanced western countries.

6. Conceptualization of the Research

According to the best of the empirical and theoretical literature review the following conceptual model developed for this study.



Where,
HC : Historical Cost
FV : Fair Value
ROA : Return on assets
EPS : Earnings per share
NP : Net profit
ROE : Return on equity
TD/ TA : Total debt to total assets
TAT : Total assets turnover

7. Methodology

a) Sample Technique

There are twenty sectors and 299 companies (www.cse.lk) have listed in Colombo stock exchange as at 02nd February 2018. Plantation sector selected for this study due to the much application of fair value in the financial reporting as per the international financial reporting standards. There are twenty companies have listed under the plantation sector in CSE as at 02nd February 2018. 13 companies selected as sample for this study by using the judgmental sampling technique from the twenty listed plantation companies. Available data and fair value adoption considered as judgment on the sample selection.

b) Data Analysis Method

Descriptive statistics and inferential statistics have been used in this study to analyze the data to meet the research objectives and answer the research questions of this study.

c) Data Collection Techniques

This research closely concerned with secondary data of the selected listed plantation companies from the financial year 2009/10 to 2014/15. Generally all the listed companies are publishing the annual report which consist the financial statement of the company. All the relevant data has been collected from the published annual report for the analysis. Every company's financial statement has the independent audit report especially from the chartered accountant of Sri Lanka; such data for this study is more accurate and valuable.

d) Mode of Analysis

The collected data interpreted and simplified to make them eligible for the research purpose. The data analyses for this research performed with the help of latest version of the most relevant statistical package SPSS and Microsoft excel program. This study mainly concerned about the financial ratios level under the two measurement base such as historical cost and fair value. Financial ratios are the dependent variables of this research.

8. Results and Interpretation

Descriptive statistics and inferential statistics performed in this study. Analysis of the study revealed the following results for this study.

a) Descriptive Statistics

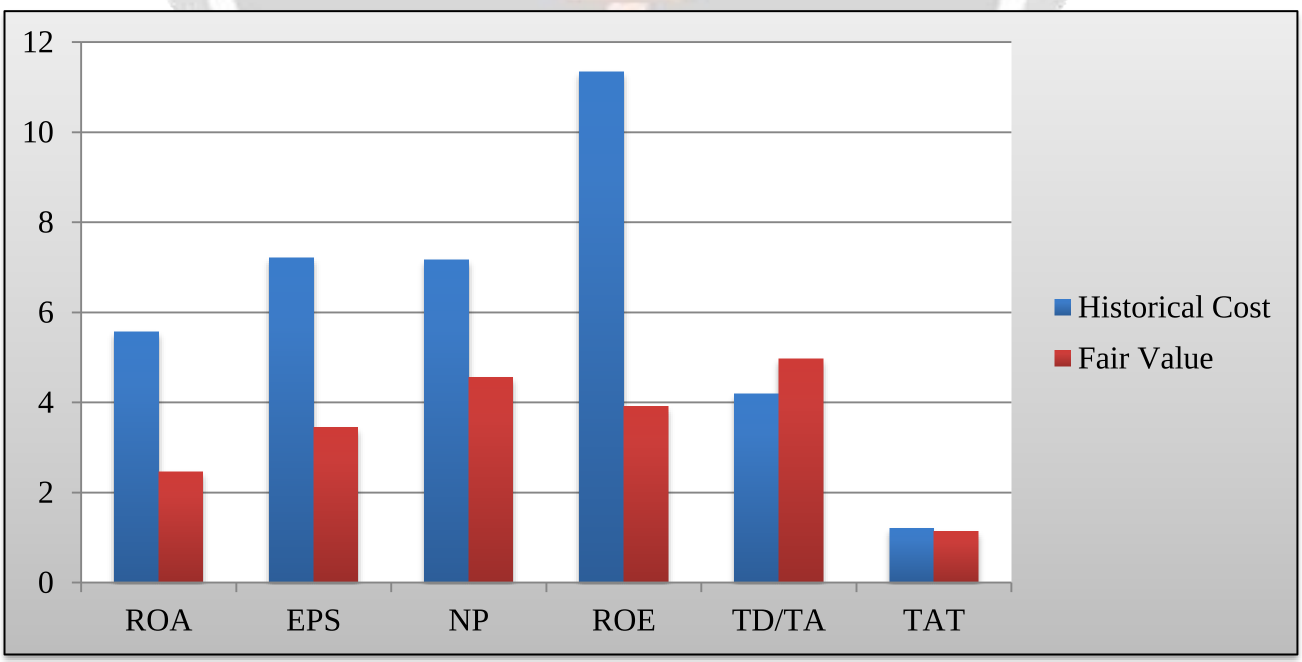


Chart 1: Financial ratios under historical and fair value base

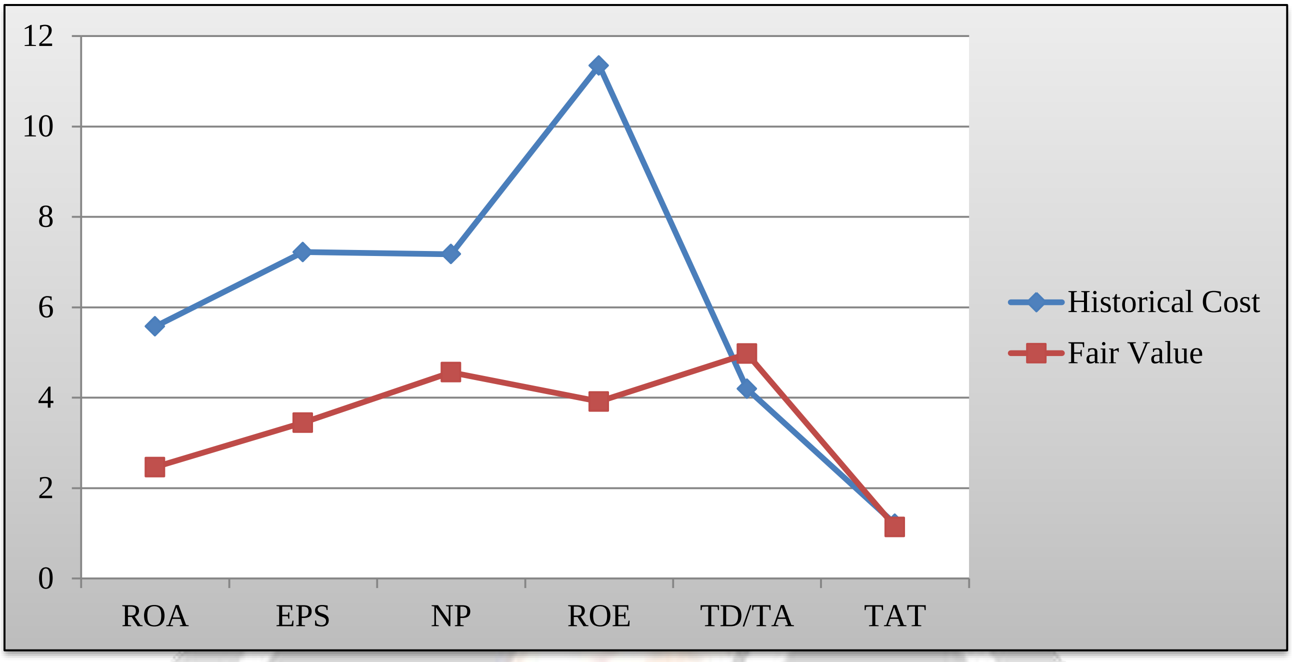


Chart 2: Financial ratios under historical and fair value base

According to the chart 1 and 2, it can be seen that there is the mean difference on financial ratios under the historical cost and fair value measurement base. Specially all the selected financial ratios were higher than financial ratios under the fair value base measurement however total debt to total assets is little higher than financial ratios under the historical cost base measurement.

b) Inferential Statistic

	Years	Mean	Std. Deviation
Return on Assets	Historical Cost	5.576	1.054
	Fair Value	2.465	3.684
Earnings Per Share	Historical Cost	7.220	0.405
	Fair Value	3.446	3.876
Net Profit	Historical Cost	7.175	0.408
	Fair Value	4.563	4.428
Return on Equity	Historical Cost	11.346	1.287
	Fair Value	3.916	7.954
Total Debt to Total Assets	Historical Cost	4.196	0.475
	Fair Value	4.973	0.576
Total Assets Turnover	Historical Cost	1.209	0.052
	Fair Value	1.140	0.085

Table 1: Group Statistics

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Return on Assets	Equal variances assumed	2.076	.223	1.406	4	.232
	Equal variances not assumed			1.406	2.325	.278
Earnings Per Share	Equal variances assumed	6.565	.062	1.677	4	.169
	Equal variances not assumed			1.677	2.044	.233
Net Profit	Equal variances assumed	3.690	.127	1.017	4	.366
	Equal variances not assumed			1.017	2.034	.414
Return on Equity	Equal variances assumed	2.874	.165	1.597	4	.185
	Equal variances not assumed			1.597	2.105	.245
Total Debt to Total Assets	Equal variances assumed	.346	.588	-1.802	4	.146
	Equal variances not assumed			-1.802	3.862	.149
Total Assets Turnover	Equal variances assumed	1.470	.292	1.192	4	.299
	Equal variances not assumed			1.192	3.323	.311

Table 2: Independent Samples Test

According to the table 1 and 2, it can be seen that there is mean differences in financial ratios under the historical cost and fair value base measurement but there is no significant mean differences in the financial ratios.

9. Conclusion

According to this particular study it can be concluded that there is mean differences in the selected financial ratios under the historical cost and fair value measurement. Further it can be seen that selected financial ratios were high level except total debts to total assets in historical cost measurement base than fair value base measurement. However this study concluded that there is no significant mean differences in the selected financial ratios under the historical cost and fair value measurement. Management of the plantation company has more and more responsibility to understand this situation and ensure the present applied measurement whether right decision or not. Here it can be seen that selected financial ratios were different level under the historical cost and fair value measurement. Generally shareholders are using the financial ratios to make their investment decisions. Shareholders also should consider this two different measurement bases and those impact on the financial ratios to make more relevant investment decisions.

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