IMPACT OF INFLATION ON FINANCIAL PERFORMANCE: A CURRENT COST APPROACH

Dr. Someshwari.T, Assistant Professor, Government First Grade College, Byndoor
Dr. M. Veena, Assistant Professor, Government First Grade College, Ankola

Abstract

The aim of this study is to analyse the financial performance under the historical cost and current cost accounting. A simple random sample of two companies was drawn from thirty BSE SENSEX companies. Financial statements of 2016-17 to 2018-19 were restated under current cost accounting based on the consumer price index. The study reveals that there is a significant difference in performance of the companies between historical cost accounting and current cost accounting. The study suggests that the companies should disclose the current cost financial statements as supplementary information. These financial statements help for the investors and management in decision making.

Keywords: Inflation, Historical Cost Accounting, Current Cost Accounting, Financial Performance

1. INTRODUCTION:

Profit is a yardstick to measure the financial performance of the company. It is helpful for the different stakeholders in making decisions. Investors invest their money in profitable companies to get more return. To identify the profitable companies, an investor compares the performance of different companies based on net profit of the company. The profit figure is ascertained through preparing the profit and loss accounting in India. Profit and loss statement is a financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time. These records provide information that shows the ability of a company to generate profit by increasing revenue and reducing costs. Financial statements are prepared based on historical cost accounting (HCA) in India. Historical cost is defined as the aggregate price paid by the firm to acquire ownership and use of an asset, including all payments necessary to obtain the asset in the location and condition required for it to provide services in the production or other operations of the firm (Hendriksen & Breda, 1992, p. 491). Historical cost accounting is a conventional system of accounting which assumes that monetary value or purchasing power of money will remains unchanged. Critics argue against this practice, as the rate of inflation raises purchasing power of money will decline. By ignoring the rate of inflation in preparing the financial statements cause minimizes the costs and maximizes the revenue. This leads to overstatement of profit. The overstated profit is only the nominal profit rather than the real profit. It will not give a clear picture to measure the growth performance of the company. Investors are interested in real financial performance of the company. Historical cost accounting fails to provide true financial performance of the company.

Overstatement of profit is harmful by over distribution of dividend, excess payment of tax and it erode the capital. In the periods of inflation, historical cost accounting fails to maintain the operating capital by exaggerated and illusory figures of profits (S. A Effeiong, 2011). Therefore there is a need of to examine the effect of inflation on financial statements.

Accounting for price level changes (inflation accounting) was advocated to overcome the limitations of financial statements. Inflation accounting is a system of accounting in which all the transactions are measured in current rupees and financial statements are prepared at the end of the period, which is measured in current rupees. There are two main approaches in inflation accounting. i.e., general price level accounting and current cost accounting. The aim of the present study is to analyze the financial performance between historical cost accounting and current cost accounting.

The present work contributes to an understanding the issue in three ways. First it studies the rate of inflation and value of rupee over the period of ten years. Second, it restates the financial statement under the current cost accounting to calculate net profit. Third, it analyzes the differences in financial performance between HCA and CCA through paired sample t-test at 0.05 level significance.

The finding of the study was that there is a significant difference in financial performance between HCA and CCA. The study suggests to disclose the current cost financial statement as supplementary information for better decision making.

2. REVIEW OF LITERATURE:

Current cost accounting is widely used before 19 century. Many debates and exposure drafts and accounting standards were drawn in USA and UK. Askoan Anandarajan (2005), Berna Kirkulak, Cagnur Kaytmaz Balsari (2009), Yaniv Konchitchki (2011), Dr. Musa Inuwa Fodio (2012), Maurice Moonitz (1970) has studied the impact of inflation on financial statements and stock prices through genreal price level accounting.

Summary of the important literature on current cost accounting are given below.

Edward P. Swanson (1990) analyzed the differential between historical, replacement and current cost depreciation. A sample of 75 firms that reported under both methods for 1979, the evidence is consistent with the hypothesis that measurement errors from technological change are smaller in current-cost depreciation than in re-placement-cost depreciation.

George Whittington (1994) studied the role of current cost accounting in public utilities. The paper highlighted the use of current cost accounting to replace the fixed assets. It explains relationship between assets ratio and market ratio. The paper stated the problems in implementation of current cost accounting.

Nur Barizah Abu Bakar and Julia Mohd. Said (2007) has studied both historical cost accounting and current cost accounting. They discussed the merits and demerits of both accounting system in decision making with imaginary illustrations. Finally they concluded that there is a difference in conventional and current cost accounting. And the usefulness is depends on the interests of the persons or companies.

The above studies are mainly based on examining of differences in depreciation and analyses the differences between historical and current cost accounting. There is no studies have been done to analyze the financial performance during the time of inflation based on current cost accounting with reference to Indian companies. This paper provides the overview of inflation accounting, its approach and analysis of financial performance under both historical and current cost accounting in India.

3. OBJECTIVES OF THE STUDY:

1. To study the theoretical frame work of inflation accounting in India.
2. To examine the financial performance of the companies under current cost accounting.

4. HYPOTHESIS:

1. "There is a significant difference in financial performance between historical cost accounting and current cost accounting"

5. RESEARCH METHODOLOGY :

5.1. Sample of Companies:

The population of the study includes thirty sensex companies which are listed in Bombay Stock Exchange. Five public sector companies were taken as a sample frame. A simple random sampling of two companies i.e. GAIL and BHEL was taken for the study.

5.2. Data collection from annual reports:

Financial statements of sample companies of 2016-17 to 2018-19 were taken from annual reports of the companies.

5.3. Restatement of financial statements:

The sample company's financial statements were restated as current cost financial statements based on the consumer price index. The consumer price index is available in Labor Bureau of India. The financial statements were restated as per guidance of note on "accounting for changing prices" issued by Institute of Chartered Accountants of India. Current cost financial statements include depreciation adjustment, cost of sales adjustment, monetary working capital adjustment and gearing adjustment.

5.4.Assumption for Restatement:

- The base year of 2001 taken as the base year.
- Consumer Price Index was used as measurement of inflation.
- Due to lack of asset acquisition data in the annual report, depreciation charge was obtained by multiplying total inflation adjusted value of asset by the proportion of historical cost depreciation charge to total historical cost value assets.

5.5. Data Analysis:

Descriptive statistics and paired sample t-test was used to analyze the differences in financial performance between historical cost accounting and current cost accounting.

6. Empirical Results :

6.1. Rate of inflation in India:

Inflation is a common economic phenomenon in developing and as well as developed countries. Table No 1 shows the value of rupee in India from 2009-10 to 2018-19.

Table No 1: Average Consumer Price Index and Value of Rupee

Year	Average Consumer Price Index (Base year =2001 Base Index=100)	Value of Indian Rupee
2009-10	100.06	0.99
2010-11	104.04	0.96
2011-12	108.07	0.92
2012-13	112.20	0.89
2013-14	117.15	0.85
2014-15	125.00	0.80
2015-16	143.91	0.69
2016-17	144.83	0.69
2017-18	162.75	0.61
2018-19	179.75	0.55

Source: SOURCE: LABOUR BUREAU, GOVT OF INDIA

The value of Rupee is calculated by dividing the base index by current index. i.e.

Value of rupee= $\frac{Base\ index}{Current\ index} X1$

Table: 1 Shows perfect negative correlation between the consumer price index and the value of rupee. Increase in the consumer price index leads to decrease in the value of rupee.

The monetary unit which is used as a standard of measurement does not have a constant value and shrinks in value as the prices rise. The HCA ignores this decline in the value of rupee and keeps adding transactions acquired at different dates with rupees of varying purchasing power. Thus, in historical accounts, monetary unit (Rupee) used to measure incomes and expenditures, assets and liabilities, has a mixture of values depending on the date at which each item was originally brought into the accounts.

Identifying the importance of inflation adjusted financial statements Institute of Chartered Accountants of India has brought down the Guidance Note of "Accounting for Changing Prices" in 1982. It is based on UK accounting standard of SSAP15. The guidance note clearly explains the methodology to restate the financial statements under general price level accounting and current cost accounting. Only few companies in India such as Infosys Technologies, Oil and Natural Gas Company Ltd, BHEL were disclosing current cost financial statements. This guidance note was withdrawn in the year of 2008. In the international level IAS 29 "Financial Reporting in Hyperinflationary Economies" deals with inflation accounting. Disclosure of inflation adjusted financial statements is mandatory when the economy experience the hyperinflation. The rate of inflation in India in 2010-11 is 12.62(Labour Bureau of India) is nearer to hyperinflation. As the inflation increases the historical cost accounting does not holds good to ascertain the "real" (inflation adjusted) profit and financial position of the company. Table no.2 shows the growth in financial performance BHEL and GAIL under HCA and CCA.

TABLE 2: FINANCIAL PERFORMANCE UNDER HISTORICAL COST ACCOUNTING AND CURRENT COST ACCOUNTING

Rs in Crores

Company	Historical Cost Accounting			Growth in performance	Current Cost Accounting			Growth in performance
	2016-17	2017-18	2018-19		2016-17	2017-18	2018-19	
BHEL	2859.39	3138.21	4310.64	893.61*	2000	2579.4	2987.82	170.98
GAIL	2601.46	2803.7	3139.84	133.9	1960.33	2120.28	1904.55	-55.86

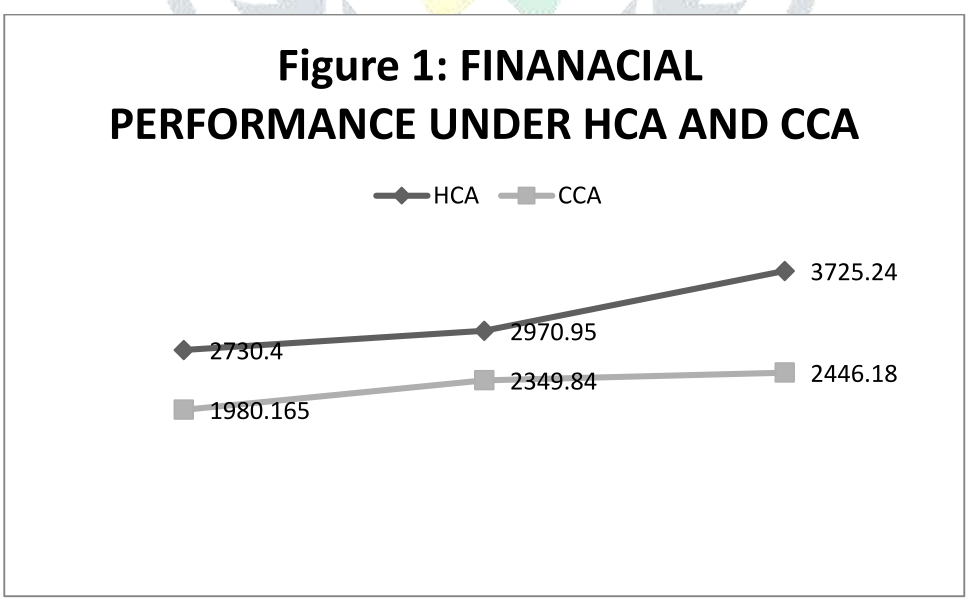
Source: Historical Cost Accounting data from annual reports.

*Growth in performance =3138.21-2859.39= 278.82 893.61

4310.64-3138.21= 1172.43

The table 2 shows the net profit is an indicator of financial performance of the company. As per the historical cost accounting the nominal performance of the BHEL and GAIL is Rs 893.61and Rs 133.9 crores without adjusting for price level changes. If the price level changes are taken for consideration and it is measured in current rupees the real performance of the companies is 170.98 crores and Gail incurred loss of Rs55.86 crores. The companies are misleading for the investors by providing more profit than the actual profit. As the inflation increases the cumulative rate of inflation will affect the financial statements significantly in future year. In this study the company GAIL has incurred a loss of Rs 55.86 crores. Current cost accounting helps for the company to manage the risk of inflation for future. Current cost calculates the depreciation in current cost considers the loss or profit on monetary working capital and maintains the current cost reserves account. It provides the real profit, so the company can avoid overstatement of profit, over distribution of dividend and taxes. Current cost financial statements helps for the company to maintain the operating capital.

Figure 1 shows the differences in profit between historical cost accounting and current cost accounting.



In figure 1 to calculate the profit under HCA and CCA two companies' profits were averaged.

It shows the gap in the profit between the historical and current cost accounting. The level of difference is tested through the following hypothesis.

6.2.Testing of Hypothesis:

H0: “There is no significant difference in financial performance between historical cost accounting and current cost accounting”

H1: “There is no significant difference in financial performance between historical cost accounting and current cost accounting”

T- TEST RESULT OF FINANCIAL PERFORMANCE BETWEEN HISTORICAL COST ACCOUNTING SYSTEM AND CURRENT COST ACCOUNTING

System of Accounting	Mean	SD	Mean differences	SD	t-value	Df	p-value
HCA	3142.19	519	883.47	348.62	4.38	2	0.04*
CCA	2258.72	246					

**p value is significant at 0.05 level*

The results of t-test are given in Table. The result rejects the null hypothesis and accepts the research hypothesis as the p-value associated with the mean difference in financial performance between the historical cost accounting system and current cost accounting system is <0.05. The result shows that there is statistically significant difference in the financial performance between historical cost and current cost accounting.

Historical cost accounting is assumed the measurement of monetary unit is constant. It will take price level changes for preparing financial statements. Depreciation is charged on the basis of acquired cost of assets. HCA is based on the financial capital maintenance. Under this concept a profit is earned only if the financial (or money)amount of the net assets at the end of the period exceeds the financial (or money) amount of net assets at the beginning of the period, after excluding any distribution to and contributions from owners during the period. Financial capital maintenance can be measured either nominal monetary units or units of constant purchasing power. (IASB framework 2010)

Current cost accounting method has, as a basic principle, that operating profits should only be measured and reported after the capital of the firm has been maintained, (Dean, 1994). The operating capital is maintained when the financial statements are prepared at current basis. Current cost accounting based on physical capital maintenance concept. Under this concept a profit is earned only if the physical productive capacity of the

entity at the end of the period exceeds the physical predictive capacity at the beginning of the period, after excluding any distribution to, and contributions from owners during the period. (IASB framework 2010)
The current cost financial statement has four adjustments such as cost of sales adjustment, depreciation adjustment, monetary working capital adjustment and gearing adjustment.

The cost of sales adjustment refers to the difference between the current cost of inventories at the date of sale and the amount charged as the cost of goods sold in computing the historical cost profit. Symbolically it can presented as COSA= Cost of sales under CCA- Cost sales under HCA
Depreciation is calculated on the basis of current market value of the assets, whereas in HCA it is based on acquired cost of the assets. Depreciation adjustment is the differences in depreciation between HCA and CCA.
Monetary working capital adjustment deals with the impact of inflation on trade debtors and trade creditors.

The gearing adjustment reflects the effect of financing assets by borrowing on the current cost profit attributable to shareholders. The purpose of the gearing adjustment is to allocate equitably the current cost adjustments in order that the full burden should not fall on ordinary shareholders, where they themselves have not financed the entire assets in respect of which the adjustments are made. This adjustment, subject to interest on borrowing, indicates the benefit or cost to shareholders which is realized in the period, measured by the extent to which a proportion of the net operating assets are financed by borrowing. The current cost profit attributable to shareholders is the surplus after making allowance for the impact of price changes on the shareholders' interest in the net operating assets, having provided for the maintenance of lenders' capital in accordance with their repayment rights.

Current Cost accounting considers the price level changes in assets, liabilities, expenses and income. It is based on the concept of physical capital maintenance. The profit is determined only after the maintaining of operating capability of the firm. The current cost adjustments lead difference in profit between HCA and CCA. The results show the significant difference between two systems. Historical cost accounting gives "Nominal" profit. But investors, creditors, management and other stakeholder's needs "real" profit to decision making based on the financial performance of the company.

7. SUGGESTIONS :

The company should disclose the current cost financial statements as supplementary data to the historical cost accounting. Because the current cost financial statements are prepared on the basis of historical cost financial statements. Supplementary information of current cost gives the effect of inflation on financial performance of the company. It would help for the investors to invest their money in "real" profitable projects, lenders to lend the money and for management to face the inflation risk uncertainty in future.

8. CONCLUSION:

The present study analyzed the differences in financial performance between HCA and CCA. It examined the effect of inflation on value of the rupee. In India the rate of inflation increasing over the period of ten years and it effects of on the value of rupee. The study shows significant differences in profit between HCA and CCA at 0.05 level. The study suggests to disclose the current cost financial statements as supplementary information. The study is limited to two public companies of three years financial statements. Effects of inflation on dividend, tax can be done for further research.

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