NEED FOR INFLATION ACCOUNTING IN INDIA

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Abstract
India, as a developing country experiences the mixture of low and high rate of inflation. India's corporate sectors have not encouraged the application of inflation accounting due to non-mandatory from the law. During price level changes conventional accounting system has not served the purpose of financial reporting. The aim of the present paper is to study the relevance of inflation accounting in India and analyse the perception of users on effects of inflation on the decision making and the limitations of historical cost accounting. Rate of inflation was calculated by using monthly consumer price index and averaged for a year. Ten years (2006-07 to 2015-16) inflation rate was collected. A sample of forty investors and forty preparers were selected by applying judgement sampling method. Responses were collected by developing questionnaire. Hypotheses were framed and tested by using one-way ANOVA. The findings of the study show that there is a significant difference in variation of annual rate of inflation and there is no significant in the perception on the limitations of historical cost accounting during price level changes between investors and preparers. The study suggested to the companies to disclose the inflation adjusted financial statement as a supplementary information in the annual reports.

Key words: Inflation, Historical cost accounting, inflation accounting, financial statements .

Introduction

Financial statements are most commonly prepared in accordance with an accounting model based on recoverable historical cost and the nominal financial capital maintenance concept (IASB 2011). In India the corporate sectors are preparing and disclosing the financial statements under historical cost accounting system. Historical cost accounting is based certain concepts and conventions. Money measurement is one of the concepts in historical cost accounting. According to this concept all the transactions are measured and recorded in terms of money. It assumes that measuring unit of money is stable. A stable rupee is a rupee which successfully performs its functions as a means of exchange, unit of account and a store of value because its purchasing power is stable. In practical stable purchasing power is not possible. If the inflation increases the purchasing power of rupee decreases and vice versa. India, as a developing country experiences the mixture of low and high rate of inflation. High inflation has been with us in India for the last four decades. Most recently, we have experienced an average of more than 9% inflation between 2006 to 2013. Production and investment become more risky during inflationary period (Raghuram G. Rajan 2016).The companies act of 2013 mandate the companies to prepare historical cost financial statements. Income tax act of India also considers the profit and other financial information based on historical cost accounting. Institute of Chartered Accountants of India (ICAI), accounting standard setting body of India has not issued any accounting standard to encourage the preparation of inflation adjusted financial statements during inflationary period except the IND AS 29 " Financial Reporting in Hyperinflationary Economies". The application of this standard is compulsory when the country experience hyperinflation. According to the studies by George J.Staubus (1976), Yaniv Konchitchki(2011), Berna Kirkulak (2009), Musa Inuwa Fodio (2012) and others even low rate of inflation also effect on the financial statements. The aim of the present study is to discuss the status of rate of inflation in India and analyse the perception of users on effects of inflation on their decision making and analyse the limitations of historical cost accounting during price level changes. To achieve these objectives both primary and secondary data were used. Hypotheses were framed and tested by using One-Way ANOVA. The findings of the study show that there is a significant variation in annual rate of inflation in India. Respondents perceived that inflation effects their decision making always; when it may be low, high or medium. There is no significant difference in the perception of investors and preparers in the limitations of historical cost financial statements during price level changes. Respondents agreed that historical financial statements mislead the economic decisions by assuming stable monetary unit and this leads to overstatement of profit by mismatching of current cost with current revenue. Capital of the company cannot be protected due to overpayment of dividend and tax. Except historical cost accounting model other models also provide useful economic information for users. Inflation accounting is considered as the best model for preparing

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financial statements during price level changes. Hence the study suggested to the policy makers to encourage the preparation of inflation adjusted financial statements in the company's annual report so the stakeholders get benefited.

Review of Literature

Inflation accounting is as old as inflation (David Tweedie and George Whittington 1984). This concept was originated during the year of 1865 to 1896 when the United States experienced deflation. Before the First World War, Irvin fisher published "The purchasing power of money" for indexation to overcome to the problem of inflation. At the end of 1974 greatest inflation was experienced by UK and USA. This leads to urgency to overcome the limitations of historical cost accounting due to inflation. Hence they issued first accounting standard on the inflation accounting i.e., PSSAP7. And in the same year CPP proposals were issued by the FASB in the USA and by the Canadian and Australian professional bodies. In India also recognising the importance of problem of inflation on the financial statement ICAI issued guidance note on "Accounting for changing prices" 1982 based on the UK's accounting standard. But it has withdrawn in the year of 2008. At present IND AS 29 "Financial reporting in hyperinflationary economies" is dealing with inflation accounting. The applicable of this standard is mandatory only when the country experience hyper inflation. The study collected and reviewed many literatures. The summary of important literatures was presented in the following paragraph.

Edward Ketz (1978) has been conducted the research to assess the feasibility and the impact of the general price level adjustments on the users of the information. The purpose of his study was to provide empirical research on the utility of general price level information as compared information. This empirical study focuses on the predictability of business failure by two accounting procedures. The methodology involves discriminate analysis. Failed firms were chosen from the 1970-75 period and the non-failed firms were chosen from the 1968-73 period. The financial ratios were calculated for 100 firms. They framed the hypothesis and tested by using reduced discrimenent model. It was found that the general price level procedure performs better in terms of the error rate of misclassifying failed firms and the expected costs of misclassification.

Sasson Bar-Yosef and Baruch Lev (1983) examined the relationship between dividends and six prices –adjusted earnings measures includes constant dollar and current cost income from continuing operations both with and without purchasing power gains or losses. They derived the inflation –adjusted data from the FASB statement 33 data bank for the period of 1979 and 1980. Cross sectional regression analysis was used to analyse the data. The results indicate that historical cost earnings and dividend changes are more strongly related than price adjusted earnings and dividends. According to this study conventional reported historical cost earnings remain the best measure in terms of accounting for dividend changes. And the author stated that price adjusted earnings data reported under FASB statement No 33 will convey very little useful information about firms dividend decisions.

Charles G Caller and David C Kleinman (1985) examined the uses of return on investment ratio under historical cost accounting and inflation accounting to investors and managers. They collected data of financial statements from 1964 to 1981 of four firms. Regression and correlation analyses were used to analyse the data. To analyse the impact of inflation on return on investment, the ratio of return on investment, discount rate and quick ratio was calculated. The result of the study was that historical cost accounting provides a misleading return on investment for investors and corporate managers. They suggested to use the inflation adjusted data for decision making.

Musa Inuwa fodio and Yinka Mashood Salaudeen (2012) analysed the value relevance of historical cost accounting and inflation adjusted accounting information in Nigeria. They restated the sixty seven sample companies historical financial statements into inflation adjusted financial statements by using Parker 1977 approach. Regression analysis was used to measure the joint effect of the earning numbers on security prices. The finding of the study shows that inflation adjusted data was more value relevant than historical cost accounting information. The study suggested to the policy makers of Nigeria to encourage the preparation of inflation adjusted data as a complimentary to historical cost accounting in the annual reports.

Baxi et al (2012) analysed the difference in the profit between historical and inflation accounting system. Five sample companies from public and private steel industry were selected. The historical cost financial statements of 2005 to 2010 of

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sample companies were restated. Findings of the study revealed that there was a significant difference in the profit under two accounting systems. The authors suggested to the ICAI to frame the standard to deal with inflation accounting.

In India very limited research was conducted on the subject of inflation accounting. India's corporate sectors preparing and disclosing the historical cost financial statements during price level changes as per the Companies act of 2013. Hence there is a need to study the performance of historical cost accounting during price level changes. And to examine the relevance of application of inflation accounting in India.

Objectives

1. To study the Status of rate of inflation in India from 2006-07 to 2015-16
2. To examine the perception of investors and preparers on the effects of inflation on their decision making
3. To analyse the perception of investors and preparers on the performance of historical cost accounting during price level changes

Hypotheses

1. "There is a significant fluctuation in the rate of inflation in India"
2. "There is a significant difference in the perceptions between investors and preparers on the performance of historical cost accounting during price level changes"

Research Methodology: Research methodology includes both primary and secondary data.

Population and sample of respondents

Population of the respondents includes users of annual reports of the companies. There are various users of companies' annual report. They are management, creditors, investors, preparers, government, regulators and bankers etc. The present study selected only two groups of users. They are investors and preparers. Investors consist of dealers and stock brokers. Preparers consists chief financial officers and chartered accountants. The population of investors and preparers are unlimited. Hence the study collected forty responses in each group of investors and preparers by applying judgement sampling method. Questionnaire was developed and issued to individual respondents and collect the responses by explaining the objective and purpose of the study. Dichotomous and five point likert scale questions were asked to the respondents. In five point likert scale "5" indicates strongly agree and"1" indicates strongly disagree.

Collection of inflation data: To know the status of purchasing power value of Indian rupee inflation data was collected from the labour bureau of India, one of the statistical organisations in India. Monthly consumer price index (CPI) was collected and averaged for a year to measure the inflation.

Data Analysis: Fully filled questionnaire were classified and coded according the group of the users and type of the questions. The responses were entered in the SPSS software. Descriptive statistics and one way ANOVA was used to analyse the data.

Results and Discussion

Annual rate of inflation in India

April to March monthly consumer price index was averaged to calculate the annual rate of inflation. Table 1 shows the annual rate of inflation in India from 2006-07 to 2015-16. The annual rate of inflation was high with 12.32% in the year of 2009-10 and low with 5.65% in the year of 2015-16. The average annual rate of inflation from 2006-07 to 2015-16 was 8.5%.

Table 1,Annual Rate of inflation in India

Year	Rate of inflation (%)
2006-07	6.69
2007-08	6.21
2008-09	9.09
2009-10	12.32
2010-11	10.53

2011-12	8.42
2012-13	10.43
2013-14	9.72
2014-15	6.3
2015-16	5.65
Mean	**8.5**
SD	**2.25**

Source: Labour Bureau of India

As per the table 1 the annual rate of inflation has the variation. India's rate of inflation was the mixture of increasing and decreasing trend. Hypothesis was framed to test whether the annual rate of inflation has the significant fluctuation in India.

H0: "There is no significant fluctuation in annual rate of inflation in India"

H1: "There is a significant fluctuation in annual rate of inflation in India"

Table 2,Results of One way ANOVA

Rate of inflation	Sum of Squares	Df	Mean Square	F	p-value
Between groups	551.83	9	61.31	29.8	0.000*
Within groups	226.07	110	2.05		
Total	777.90	119			

*p-value is significant at 0.01 levels

(Source: SPSS data analysis)

Table 2, the results of ANOVA reject the null hypothesis and accept the research hypothesis as the p-value is 0.00, which is less than the 0.01 levels. It shows significant fluctuation in the annual rate of inflation in India.

Over the period of ten years the average rate of inflation in India is 8.5%. It was quite high. India experiencing significant variation in the annual rate of inflation. High rate of inflation with fluctuation create the uncertainty to conduct the business activities and in decision making. Inflation creates economic uncertainty and is a dampener to the investment climate slowing growth and finally it reduce savings and thereby consumption (Manjit Kour 2014). The raw materials, labours and other cost of the productions factor increase due to inflation. Historical cost accounting fails to recognise the importance and problems of inflation in the financial statements. In a period of general inflation, the relevance of historical costs is brought into question because they do not reflect consistently the current financial position or recent performance of the firm (Modugu et al 2012)

Perception of Investors and preparers on effects of inflation on their decision making

Dichotomous questions were used to know the perceptions of investors and preparers on effects of inflation on their decision making.

Table-3,Perception of investors and preparers on effects of inflation on their decision making

	% of Responses	
Respondents	Yes	No
Investors N=40	90%	10%
Preparers N=40	95%	5%

(Source: Survey Responses)

90% of the investors agreed that inflation effects on their selling and buying shares of investment decision. And 95% of the preparers agreed that inflation effects on management decision.

Table 4,Perception of investors and prepares on effects of inflation on decision making when it is low, medium high or always

	% of Responses			
Respondents	**Low**	**Medium**	**High**	**always**

Investors	**5%**	**5%**	**10%**	**80%**
Preparers	**Nil**	**Nil**	**8%**	**92%**

(Source: Survey Responses)

Table 4 shows multiple objective answers from investors and preparers on effects of inflation on the economic decisions when it is low, medium, high or always. 80% of the investors and 92% of the preparers perceived that inflation effects on their investment decisions and management decisions always; when the rate of inflation may be low, medium or high. As per the Ind AS 29, the company should prepare inflation adjusted only when the country experience hyperinflation. As per the perceptions of respondents even low and high rate of inflation also effects their decisions. They need of systematic system or mechanism which explains and shows the effect of inflation. Application of inflation accounting serves the purpose of investors and preparers decisions. Because historical cost accounting fails to provide the real profit or real growth of the company during inflationary period with the following limitations.

Table 5,Perception of investors and preparers on the performance of historical cost accounting system during price level changes

Sl.No	Limitations of historical cost financial statements	% of Responses			
		Users N=40		Preparers N=40	
		Strongly agree/ agree	Mean	Strongly agree/ agree	Mean
1	Assumes stable monetary unit which is not true during inflation	**73%**	**4.30**	72%	**4.23**
2	Mismatch between current cost and current revenue	**77%**	**4.32**	81%	**4.31**
3	Overstates the profit	**71%**	**4.11**	75%	**4.08**
4	Shows higher EPS than actual	63%	3.80	61%	3.78
5	Fails to protect the capital during inflationary period	55%	3.80	53%	3.79
6	Fails to provide current value of assets and liabilities	57%	3.86	70%	**4.19**

(Source: Survey Responses)

Table 5 shows the perception of investors and preparers on the limitations of historical financial statements during price level changes. Five point likert scale questions were asked to the respondents. Majority of the investors and preparers felt that historical cost accounting mislead the investment and management decision by its certain limitations during price level changes. The mean value is above 4 indicates that respondents were strongly agree on the limitations of historical cost accounting.

1. **Historical cost accounting assumes stable monetary unit which is not true during inflation:** one of the concept under historical cost accounting is stable monetary unit. All the transactions and events are recorded in terms of stable monetary unit irrespective of price level changes. It is not true that during inflation the purchasing power of money will decline. 73% of the investors and 72% of the preparers agreed this statement as the mean value is 4.30 and 4.23 respectively.
2. **Mismatch between current costs with current revenue:** under historical cost accounting sales are measured and recorded in terms of current value. Cost of goods sold and depreciation was calculated on the basis of acquisition cost of the materials and fixed assets. This results into mismatch of current revenue with current cost. 77% of the Investors and 81% of the preparers agreed this statement as the mean value is 4.32 and 4.31 respectively.
3. **Overstatement of profit:** Profit is the key factor for all the decisions of companies. Historical cost accounting states higher profit than the actual due to mismatch of current cost with current revenue, which is illusory. Decisions based on the historical cost profit mislead the investors and management. 71% of the investors and 75% of the preparers agreed this limitation as the mean value is 4.1 and 4.08 respectively.
4. **Shows higher Earning Per Share (EPS) than actual**: overstatement of profit and under valuation of fixed assets under historical cost accounting shows higher EPS than the actual. EPS is one of the important profitability ratios used for decision making. EPS under historical cost accounting is exaggerated. 63% of the

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investors and 61% of the preparers averagely agreed on this statement as the mean value is 3.80 and 3.78 respectively.

5. **Fails to protect capital during inflationary period:** Historical cost accounting maintains only the financial capital of the company. Overstatement of profit is creating the problem of overpayment of dividend and tax. Overpayment of tax, dividend and inadequate depreciation charges erode the capital of the company. Operating capability of the firm not maintained by nominal value of capital. Hence historical cost accounting fails to protect capital during inflationary period. 55% of the investors and 53% of the preparers averagely agreed with mean value of more than 3.
6. **Fails to provide current value of assets and liabilities:** Historical cost accounting records the fixed assets in terms of acquisition cost of the asset. Due to price level changes the assets value remain not same at the replacement. Liabilities also recorded in terms of nominal value. It fails to show the real amount of assets and liabilities of the company. 70% of the preparers agreed this statement as the mean value is 4.19. 57% of the investors also averagely agreed on this statement with the mean value of 3.86

During price level changes historical cost accounting fails to provide real profit and real financial position of the company by ignoring inflation. The basic objective of financial reporting is to providing true and fair view of financial position and financial performance was not achieved. Hypothesis was framed to test whether a significant difference is existing in the perception of investors and preparers on the limitations of historical cost financial statements.

Hypothesis

H0: "There is no significant difference in the perceptions between investors and preparers on the performance of historical cost accounting during price level changes"

H1: "There is a significant difference in the perceptions between investors and preparers on the performance of historical cost accounting during price level changes".

Table 6,Results of One way ANOVA

Rate of inflation	Sum of Squares	Df	Mean Square	F	p-value
Between groups	0.378	1	0.378	1.48	0.227
Within groups	19.91	78	0.255		
Total	20.28	79			

*p-value is insignificant at 0.01 levels, (Source: SPSS Data analysis)

The result of ANOVA is given in Table 6. The result rejects the research hypothesis and accepts the null hypothesis as the p-value associated with the mean difference in the performance of historical cost financial statements between the perception of users and preparers is more than 0.05. The result shows that there is no significant differences in perception of users and preparers in the performance of historical cost financial statements.

Both users and preparers agreed that historical cost financial statements mislead the investment and management decisions by ignoring inflation.

Suggestions for practice

Historical cost financial statements suffered from many limitations during inflationary period. Hence the company should prepare and disclose the inflation adjusted financial statements as supplementary to historical cost financial statements in the annual report so the stakeholders can analyse the impact of inflation on their decision making.

Suggestion for further research

The present paper collected and analyse the responses of only investors and preparers about effects of inflation and the limitations of historical cost accounting. . Future research can be extended to collect and examine the responses from other users of the annual report like regulators, government, bankers etc.

Conclusion

The application of inflation accounting is necessary in India. Inflation is a permanent characteristic of Indian Economy. The annual rate of inflation was in the year of 2009-10 with 12.32%. From 2006-07 to 2015-16 the average rate of inflation in

India was 8.5%. IASB (IFRS) staff paper recommended to the IASB that 8% rate of inflation was considered to be high and that country should prepare inflation accounting. The findings of the study shows that inflation is affecting economic decision making of the investors and preparers always; when it may be low, high or medium. There is no difference in the perception of investors and preparers on the effects of inflation and the limitations of historical cost accounting. It means that both are agreed that inflation is affecting on their decisions and historical cost accounting fails to provide the real financial information of the company. Critics argue that even 2% rate of inflation also effects the investor's decisions. India's corporate sectors are preparing and disclosing the financial statements under historical cost accounting system. Historical cost accounting fails to provide the real information of the company during price level changes by ignoring the rate of inflation in the financial statements. It creates the many problems. Due to mismatch of current cost with current revenue it overstates the profit. Based on this profit the company pay the tax and dividend higher which causes the erosion of capital. Operating capital is not maintained by historical cost accounting. Inadequate amount of depreciation will create risk at the time of replacement of asset. It fails to provide the real value of assets and liabilities. To provide true and fair view of financial information preparation and disclosure of inflation accounting is necessary along with the historical cost financial statements in the annual reports of the Indian companies. It is helpful for the investors for buying and selling decisions, dividend expectations. Preparers can make better decision making in their companies to cope up with the inflation. Hence the study suggested to the companies to disclose the inflation adjusted data as a supplementary to historical cost financial statements. The companies act and other regulatory bodies also should encourage the preparation and disclosure of inflation adjusted data in the annual reports. The present study is limited to the responses of investors and preparers. It provides the direction for further research to analyse the perceptions of regulators, government and bankers on the usefulness of inflation adjusted information.

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