

MEASURING RELATIONSHIP BETWEEN INFLATION ACCOUNTING AND PERFORMANCE MEASUREMENT

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ABSTRACT

Inflation, in the context of constant price-level growth, is one of the most significant economic problems in many countries, particularly in developed countries putting their impact over production and asset costs. As financial statements are held on historical cost basis, they do not consider the effects of increasing asset and production costs. This may often result in overstated income, under-priced cash, deceptive market image etc. Thus, the financial statements prepared under historical accounting are usually proven to be statements of historical evidence and do not represent actual market importance. This does not show the True Market image to accounting record users, and their demand adds to the need for inflation accounting. This study is examined to relationship between inflation accounting and Performance measurement of the company by taking the Views of 150 Respondents, being the Manager, Accountants, Chartered Accountants and Accounting department personals regarding the impact of the inflation accounting on company's performance measurement. For this purpose, sample of 5 companies SAIL, Tata steel, Bhushan steel, JSW steel, Jindal steel is gathered by using close ended structured questionnaire. The data gathered is analysed with Statistical tools like Correlation, Multiple regression with ANOVA analysis to find out the Predictors of the Performance in the company and the impact of the use of inflation accounting using SPSS software. The findings of the study present the relationship between inflation accounting and performance measurement and also the way it can be helpful for growth of the companies.

Keywords: *Inflation, Inflation Accounting, Steel Companies, Correlation, Linear Regression.*

Introduction

Inflation accounting is better known as 'price level accounting'. It is a special accounting technique used to adjust the financial statements. The company's financial statements are adjusted when there is a material amount of price inflation, causing historical Information on the financial statements to be irrelevant or less useful. A number of retail stores rely on financial records that are focused on historical records. Knowledge becomes less valuable to companies and consumers of financial statements when inflation has not been considered. The usage of past charges on the financial results is unethical when the statistics were misleading and less accurate. The sums are also overstated in the accounting statements. Overstatement creates a misleading analogy, and a representation of the weak point of the market becomes impossible to pin out. It cannot be denied that the historical cost base is good when one needs to measure assets. However, issues occur as rates change over time between the days when properties were acquired and the present day. In this situation, the usage of past costs would not be important as the key justification for the calculation is to demonstrate the most recent economic benefit expressed in the financial results.

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An economic institution would choose profits calculated in actual terms, taking into consideration the impact of inflation, in order to determine the true buying power of that benefit or benefit. When the income results are calculated and viewed on a historical expense basis, they neglect the impact of adjustments in the market patterns of assets and sales. The goal of this analysis is to demonstrate the connection between the major determinants of recorded benefit prepared in Historical Cost Theory and Current Cost Theory. The analyses shall demonstrate if the major components of the benefit selected for this analysis, overall sales and depreciation, tax, and dividends, have some substantial effect on the recorded profit utilizing the two hypotheses set out above. Output assessments by financial statements influence all stakeholders in the organization; thus, any adjustment on the basis of measurements will have a broad impact. Controversies now encircle the framework for calculating revenue or benefit by historical expense accounting. It is argued that the principal clashes with the existing concept of measurement, particularly when there is a shift in the valuation of currency. However, it is assumed that the calculation of sales should be focused on actual expenses in order to demonstrate the impact of adjustments in the cash value of purchases and products recorded in the financial statements.

Reviews of Literature

Phiri (2017) notes that, depending on the amount of information they have, his study was carried out to learn more about how individuals will respond to inflation and aspirations. Individuals have struggled to grasp the inflation-price relationship and were ignorant of past and future inflation steps. This may suggest that respondents have a poor grasp of the entire idea of inflation and therefore struggle to recognize food costs and inflation. In addition, it is very necessary to control inflation perceptions since it is the central component of monetary policy. Hidden cultures prohibit people from noticing the upward trends of inflation in financial statements, according to Hillier et al. (2016), since it is possible to cover profits and asset prices. To escape the accountability of potential customers, companies indulge in these concealments. The valuation influence of International Financial Reporting Requirements (IFRS) on capital markets is already a fundamental international topic in doubt, Hiller et al. (2016) observed. IFRS can be adopted by over 120 countries that are developing or underdeveloped. The usefulness of financial reporting for economic decisions relies solely on the accounting rules used in the preparation and quality of the results. Mikoyan and Lodge (2016) argue that globalization has made domestic inflation less immune to constraints on domestic capacity. A sudden rise in demand for commodities will translate into higher imports rather than wage/price rises in costs or international competition curbs. Income or wage rises often impact markets that are exposed to foreign competition. A huge cost rise continues to lower the exposure of incomes to changes in efficiency. Tawiah et al. (2015) added that inflation accounting violates the fundamental concept of credit transfers. It measures the numerical benefit or loss of the credit price explicitly, with the assumption that the credit price and the retail price will remain the same. "Inflation accounting may argue that this price difference is intended solely to deter credit sales or purchases or to offset the risk of default, but not to take care of inflation" (Tawiah et al., 2015).

Theories

- **Current Cost Accounting Theory**

Meigs (1984), 'Present Cost Accounting is concerned with the valuation of the total asset to the corporation and incorporates the cost of replacement, realizable value and present value that can be added to those properties.' The present cost principle is based heavily on the idea of the existing concern; assets are priced on their current prices, taking into consideration fluctuations in market levels and other variables influencing asset values. The existing expense philosophy is generally assumed to help the entity's capital maintenance. The profits gained by this principle represent the real surplus that a firm receives after matching its sales with the cost of assets, taking into consideration inflation-related price adjustments. The valuation of all inputs and services utilized during the derivation of revenue during an accounting cycle is recognized under current costs on the basis of their "current value at the time of consumption or realization" (Anao, 1987). As a consequence, the new cost theory aims to reflect the cost of activities and assets in the actual present-day value, the benefit derived using this theory would best describe the organization's results. The new cost theory gives the value of balancing the current operational expenses with the current income producing these sales. As the financial statement represents the pattern of market shifts prevailing in the economy, the new cost theory thus offers a more important foundation for predictive decision making. Jones (2009) The current cost hypothesis has been largely questioned on the grounds that the benefit arising from historical cost transfer to current cost is simply a paper statistic that is not backed in the company by a physical commodity.

- **Current Purchasing Power Accounting Theory**

Present purchasing power accounting (CPPA) theory assumes that if the historical cost of the commodity is changed to current prices, the actual price of an asset is equal and precise, taking into consideration the degree of price changes utilizing the General Price Index (GPI). The system uses the official, accepted and defined general price index (GPI) as a conversion basis to represent adjustments in historical cost-based income statements and financial condition statements at the general price stage. With respect to the equal buying power unit, the approach facilitates the reporting of financial statements. (Glautier & Underdown, 1986; Blake, 1959) Existing Buying Power Principal Characteristics A more financial statement must be prepared and included on a historical expense basis in the financial statement. The restated income statement as well as the restated financial status statement are contained in the additional declaration. The relevant basis used in the planning of a declaration under the new buying power is the historical cost-based financial statement. Market prices, wholesale price indices or the general price index are the indexes or indices used for restating goods recorded at historical expense. Items prepared using existing buying power in financial statements are essentially divided into monetary and non-monetary items. Whereas adjustment for non-monetary items is necessary, no adjustment for monetary items is needed. Net damages or profits on monetary products are typically contained in the income statement. Non-monetary and monetary items Non-monetary items This extends to items that may not have the potential to have a real or recognized sum of currency. They are commodities, the worth of which depends on the economic situation; they do not have a defined cash value exchange. Equipment, plant and equipment, property and development and inventory are included. Monetary things These involve funds that are receivable, such as bank deposits, currency, and accounts and notes. They can quickly be translated into a currency of a determinable or set number.

- **Replacement Cost Theory**

Under standard business practices, a business that is worried is supposed to continually replace its assets. The assets of the company are then re-established utilizing existing replacement costs and therefore balanced with the current profits produced by those assets (Glautier and Underdown, 1986).

The replacement cost calculation of company properties would not inherently provide the same meaning as the existing cost-based measurement. If the inflation impact on prices is considered by existing costs, replacement costs would go a step further and understand peculiar human conditions such as shortages, government embargoes, etc. Company profit is the excess of new sales minus running expenses and depreciation based on existing replacement costs This principle means that assets are measured in values representing fluctuations in current markets and particular phenomena impacting individual assets that may contribute to market changes for those assets. The principle of replacement costs offers a market benefit in such a manner that the expense displayed in the account is the true price at which such assets are put where the need exists. This creates market forecasting and effective opportunities for preparation. The principle of depreciation costs helps firms to manage their capital correctly. In current words, earnings are registered, thereby representing current price factors and asset variables. Based on historical expenses, earnings paid as dividends would represent the real surplus received by the company over the financial year and not a fake surplus.

- **Exit Value (Net Realisable) Theory**

In their disposal costs, this theory allows for properties to be assessed. The corporation accepts a liquidation position and therefore specifies all funds for non-related (arm's length) group disposition transactions in their present market prices (Anao, 1987) The principle also implies that liabilities can be borne at the existing prices of their settlement. However, as these things are realized, obligations and properties are calculated depending on the amount of cash that would be spent or earned. The values used are undiscounted and not indexed for any aspect, including inflation, in this theory. This attribute is often seen during liquidation by a valuator (Muller,1997).

Research Methodology

The analysis designs are expo facto and exploratory test designs. The community for this analysis comprises the Indian Stock Market firms that are quoted (NSE). The community was chosen on the basis of a duty to conform with the stipulated laws, principles and requirements required by the Securities and Exchange Commission (SEC) and the Financial Reporting Council when compiling and releasing their financial statements (FRC). Secondary data were obtained from their annual reports for the analysis from 5 cited firms, namely SAIL, Tata steel, Bhushan steel, JSW steel, Jindal steel sample of 5 companies. By using 5 points Likert scale (strongly oppose to strongly agree), close-ended standardized questionnaire, the primary data is gathered from 149 respondents, including accountants, supervisors, and CA of steel firms.

Data Analysis

The actual and the current purchasing power (CPP) inflation accounting data is gathered for the net profit of the companies selected and presented as under:

Table 1: Net profit of companies

Companies	Current Purchasing Power (CPP) based Inflation Accounting data					Actual NPR				
	19-Mar	18-Mar	17-Mar	16-Mar	15-Mar	19-Mar	18-Mar	17-Mar	16-Mar	15-Mar
SAIL	0.2	-3.68	-10.02	-12.84	1.52	3.25	-0.83	-6.37	-10.29	4.57
Tata steel	11.86	4.14	3.52	10.27	12.36	14.91	6.99	7.17	12.82	15.41
Bhushan steel	12.02	5.67	6.49	5.66	3.45	15.07	8.52	10.14	8.21	6.5
JSW steel	7.47	4.26	3.19	-12.16	1.65	10.52	7.11	6.84	-9.61	4.7
Jindal steel	-3.99	-4.96	-10.77	-13.72	-5.37	-0.94	-2.11	-7.12	-11.17	-2.32

The Net Profit Ratio reveals that the ratio measured on the basis of inflation accounts is smaller than the ratio calculated on the basis of historical costs for both firms, since historical accounts overestimate net profit and we find that it has decreased after change. And after correction, there is no difference in net sales since we presumed that purchases happened during each year, so the net sales have been transformed to an average index. Therefore, the inflation-based ratio has diminished. As a consequence of higher depreciation and net loss resulting from the impact of inflationary monetary assets and also due to higher taxes based on historical accounts, net benefit after tax as per historical basis converted into loss on the actual purchasing power (CPP) basis.

To analyse the secondary data gathered from the historical records of the company and the Inflation data collected to compare them the following hypothesis is developed:

H₁: There is a significant relationship between inflation accounting and performance measurement.

Table 2: Correlation

Statistics										
	SAIL_I	Tata_I	Bhushan_I	JSW_I	Jindal_I	SAIL_O	Tata_O	Bhushan_O	JSW_O	Jindal_O
X	-4.984	9.39	5.41	0.942	-8.01	-1.93	11.46	9.68	3.91	-4.73
M	-3.88	10.75	4.25	3.87	-5.59	-0.83	12.82	8.52	6.84	-2.32
	6.322	4.11	3.27	7.84	4.31	6.32	4.11	3.27	7.84	4.3
Company	Correlation							SAIL_O		
	r							.961**		
	Sig.							0		
SAIL_I	N							5		
								Tata_O		
	r							.629**		
	Sig.							0		
Tata_I	N							5		
								Bhushan_O		
	r							.832**		
	Sig.							0		
Bhushan_I	N							5		
								JSW_O		
	r							.872**		
	Sig.							0		
JSW_I	N							5		
								Jindal_O		
	r							.981**		
	Sig.							0		
Jindal_I	N							5		

** . Correlation(r)(2-tailed) is significant at the 0.01 level.

In order to test the first hypothesis, the Pearson Correlation between original and Inflation accounting figures of Net profit is used. According to table (2), P-value of NPR between Original and Inflation accounting figures are significant respectively ($p < 0.01$). this means that there is a positive relationship between NPR original and under inflation accounting figure, although the inflation accounting figures is less due to adjustment.

Further the primary data collected were analysed to measure the variable that makes Adoption of inflation accounting for improving performance measurement, the following hypothesis is made:

H₁: The variables of Inflation accounting significantly used to improve performance measurement in steel companies.

To check out the above hypothesis the data gathered were analysed with multiple regression method with SPSS software and the results are as under:

Descriptive Statistics				
Variables	SPSS code	Mean	Std. Deviation	N
Adoption of inflation accounting significantly improves performance measurement	Adopt_IA	4.047	0.26852	149
The declaration of inflation accounting details in the fiscal report aids investors in operational calculation judgments.	Adop_1	4.0738	0.26237	149
Investor decision-making needs the authenticity and validity of inflation accounting knowledge	Adop_2	3.9597	0.41718	149
The availability of all inflation accounting details is needed for management decision-making in selected companies' annual report.	Adop_3	4.0403	0.3049	149
The declaration of inflation accounting details is important for long-term investor decision-making in the annual report of selected companies	Adop_4	4.0537	0.25429	149
The historical records have utterly skewed the viability and financial status of an enterprise during inflation.	Adop_5	3.8658	0.55334	149
Accounting for inflation would eliminate distortions from accounts.	Adop_6	3.906	0.51126	149
Inflation-adjusted accounts will act as a clearer reference to management choices.	Adop_7	4.0738	0.26237	149
In embracing inflation accounting, major Indian firms can lead the way.	Adop_8	4.0537	0.25429	149
Inflation accounting is not adopted by most businesses in India because it is too complex and challenging.	Adop_9	4.1678	0.40939	149
It does not allow significant differences to the findings published	Adop_10	4.1678	0.40939	149
Inflation accounts are not planned by several other firms in the country.	Adop_11	4.1275	0.37287	149
Preparing indexes for the estimation of transaction prices and adjustment of monetary working resources is a daunting activity.	Adop_12	4.1611	0.38672	149

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
2	1.000b	0.994	0.987	0.00012	0.065	44800.984	1	146	0

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	10.671	2	5.336	384.64319	.000c
	Residual	2.0254	146	0.0138726		
	Total	12.6964	148			

c. Predictors: (Constant), Adop_3, Adop_4

Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
2	(Constant)	-1.022	0		0	1			
	Adop_3	0.5	0	0.568	79730113.44	0	0.967	1	0.305
	Adop_4	0.5	0	0.474	66497484.1	0	0.952	1	0.254

a. Dependent Variable: Adopt_IA

The regression results show that with Adjusted R square of 98.7 percent and Dependent Variable Adopt_IA; two variables Adop_3 and Adop_4 explain the dependent variables. the Model fit ANOVA is 384.64319 which is also significant (p<.000c). this means that two variables Adop_3 and Adop_4is predicting the use of Inflation accounting for improving performance measurement in steel companies.

Conclusion

This paper was intended to analyse whether organizational actions and financial results are affected by inflation accounting. Findings from this report also established that inflation affects corporate choices and financial efficiency. This was supported by the outcomes of prior research that agreed with this report (Naudon & Perez, 2017; Ebiaghan, 2019). The analysis shows that the organizations' operational income is greatly influenced by the values levied as either taxation or depreciation, or received as dividends, in so far as the estimated benefit is directly linked to the operating costs of the company and the accounting basis utilized by the corporation is also directly related to its recorded profit, the metric used to calculate income as well as. The results confirm that the availability of all inflation accounting details is needed for management decision-making in selected company's annual report (Adop_3) and The declaration of inflation accounting details is important for long-term investor decision-making in the annual report of selected companies (Adop_4).

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