

# An Empirical Analysis of Inflationary Impacts on Profitability and Value of Selected Manufacturing Firms in Nigeria

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## Abstract

The study investigated the nature of the relationship between inflation and the value of firms in the manufacturing sector of a developing economy like Nigeria. It also tried to discern the nature of the relationships between inflation and profitability (proxied by return on assets) and economic value added and return on assets. The study employed secondary data collated from the audited financial statements of the sampled firms. These were analyzed using multiple regressions and analysis of variance. Results indicate a strong negative relationship between inflation and firm value and an insignificant negative relationship between inflation and return on assets (proxy for profitability). Further, the relationship between return on assets and economic value added is insignificant. Inflation, even at low level, seriously understates the true value of the firm. The implication of the findings is deducible from the fact that accurate estimation of the real value of the firm necessitates incorporating inflation element to arrive at the value of investments in fixed assets and other long term investments. It also highlights the fact that most business failures are caused by unwise investments in fixed assets that could easily have been detected if inflation rate is incorporated to get at the real cost of investible funds.

**Keywords:** Inflation, Return on Assets, Firm Valuation, Manufacturing Firms

## 1. Introduction

### 1.1 Background of the Study

The influence exerted by inflation on financial statements prepared, assuming a stable currency, dates back to the early 20<sup>th</sup> century, when accountants of the USA and UK for the first time started to observe and discuss the effects inflation produces on financial statements. They, then, introduced the theory of index number and the notion of purchasing power. Further, the Great Depression of the 1930s saw many countries adopting inflation accounting principles in financial reports to reflect inflation distorted figures. According to Konchitchki (2011), inflation, a state of rising prices or of disequilibrium in which an expression of purchasing power tends to cause increase in price level, impacts heavily on costs and revenues, assets and liabilities.

As regards cost and revenues, Spyrou (2004) asserts that both will rise but whether it results into extraordinary profits would be determined by how much opening stock was available at old prices with the company and how much later the demand for increasing wages is entertained by the company. In case of monetary assets and liabilities, a company loses as a creditor and gains as a debtor in real terms. For fixed assets such as land and buildings, the company would be holding gains in monetary terms, but may have neutral impact in real terms. That is, the rise in prices is neutralized by the fall in value of money. He also noted that while the effects of inflation are not recognized in nominal financial statements, such effects may have economic consequences in that unrecognized inflation gains and losses usually turn into cash flows over time. The effects were very significant even during periods of low inflation. Similarly, McIntyre (1982) and Warr (2005) acquiesced that the financial statements prepared under historical accounting have generally proved to be the statement of historical facts and do not reflect the current or real worth of business. This deprives the users of accounting information like management, shareholders, creditors, financial analysts and the public at large to have a right picture of the business to make right decisions.

On the other hand, the lack of a relevant local standard yet on inflation or price level changes in the thirty-two (32) Statement of Accounting Standards (SAS) of the repealed Nigerian Accounting Standards Board (NASB) Act, No. 22 of 2003 now replaced by Financial Reporting Council (FRC) Act, No. 26 of 2011 implies that both local and multinational companies adopt IAS 8 (Accounting policies, Changes in Accounting Estimates and Errors); Financial Reporting Standards, FRS 7 (Fair Values in Acquisition Accounting); Statement of Standard Accounting Practice, SSAP 7 (Accounting for Changes in the Purchasing Power of Money); International Financial Reporting Standards, IFRS 9 paragraph 4.4 (all other financial assets must be included in the statement of financial position at fair value), Financial Accounting Standards Board (FASB) No. 33 (disclosure of value information on either adjusted price level or current cost) and SSAP 16 (Current Cost Accounting).

However, most related local studies on 'Nigerian companies' were based on registered subsidiaries of multinationals and not indigenous firms as these local firms are either acquired or stifled out of existence by the much more experienced transnational firms. Further, this study became necessary as these local studies stressed macroeconomic effects of inflation. Fortunately, this study combined both multinational and surviving

indigenous companies taking cognizance of each sampled firm's specifics. In other words, the study accentuated the impact of inflation at microeconomic level in a bid to fill the identified gap. Moreover, the foreign related studies were conducted in economies dissimilar to the Nigerian economic climate and their findings might not be useful to our rugged terrain riddled with dried up local firms.

### *1.2 Statement of the Problem*

It seems that the non-existence of an equivalent local standard in Nigeria on price level changes for now has mandated that the final accounts of companies including indigenous firms should be prepared using standards foreign to our peculiar environment thereby exacerbating inflation problems for real equity valuations. At issue are the distortions in earnings and book values characteristic of the use of historical cost unadjusted for general price level changes. Warr (2005) observed that the economic value added is calculated using information produced from conventional historical cost accounts implying that inflation can distort information content and applications of the performance measurement criteria. It can distort economic value added through three factors: the operating profit, the cost of capital (WACC), and capital base. These distortions may result in inefficient investments. Earlier on, Berliner (1993) asserted that the historical cost principle, which is the traditional accounting reporting method, is grossly inadequate in periods of rising prices. The problem with this method is that selling prices are stated in current prices while costs of the assets used in generating sales are stated in historical costs, that is, acquisition costs. This approach results in overstated profits leading to overpayment of taxes and dividends. It also reduces the operating ability of the company's assets and does not maintain the capital of the firm.

Three different channels can be identified in order to explain the negative effect of inflation on firm valuation: increasing inflation induces a decrease in future real earnings and correlates positively with risk aversion and high expected discount rates, both driving stock prices downwards for a given expected real cash flow and the money illusion approach (Campbell and Vuolteenaho, 2004; Bekaert and Engstrom, 2008). However, Hughes, Liu and Zang (2003) postulated that hyper-inflation can have severe distortionary effect on the pattern of capital structure which is easily deducible from company accounts. This study therefore seeks to capture the distinct impact of inflation proxied by consumer price index (CPI) on return on assets and value of the firm in Nigeria. Note that the study will be of immense benefits to practicing managers and accountants, financial analysts, investors and prospective investors, as it attempts to highlight the consequences of not considering inflation especially in acquiring long term investments / fixed assets.

### *1.3 Objectives of the Study*

The study is primarily concerned with ascertaining the influence exerted by inflation on firms' value. Specifically, it will focus on:

- examining the relationship between inflation and firm value of the sampled manufacturing firms in Nigeria;
- examining the relationship between inflation and profitability of the sampled manufacturing firms in Nigeria; and
- examining if the increased profits of most firms during inflationary period contribute to real economic value added (EVA) of the sampled manufacturing firms in Nigeria.

## **2. Literature Review**

### *2.1 Conceptual Review*

In our economy, money (the naira) is used both as a medium of exchange and as a measure of real value as determined by the amount of goods and services for which it can be exchanged. The amount of goods or services for which a naira can be exchanged is called the purchasing power of the naira. Most countries' economies have been characterized by significantly increasing prices of most goods and services. This general increase in prices results in *inflation*, which is a decrease in the purchasing power of the nation's currency or an increase in the general price level (Muthama, Mbaluka & Kalunda, 2013). It denotes a persistent increase in the level of consumer prices or a persistent decline in the purchasing power of money, that is, inflation is things getting more expensive. HelmKamp, Imdieke and Smith [1986] and Khan and Jain (2004) suggested that the general price level is the weighted average price of all goods and services in the economy. Price level changes are either specific price changes or the general price level changes. The specific price changes refer to changes in the prices of specified goods and services such as bread, motor car, computers, and medical services. Specific prices may increase or decrease from one period to another.

Inflation accounting, however, deals with two principal issues. On the one hand, IFRS (2004) describes it as a complex of financial reporting procedures used for recording the results of inflation in an enterprise based on the axiom that the currency referred to in accounting statements is stable. These financial statements are prepared and published by the firm at the end of the financial year. Its adjustments depend mostly on the

purchasing power of the consumers in that quite in a significant number of countries, hyperinflation prevents from using the purchasing power. Conversely, apart from just recording and observing inflation dependent problems, inflation accounting offers a range of arrangements, designed to solve the issues, arising from creeping inflation, walking inflation, running inflation, and hyperinflation.

Firm value can generally be increased by reducing the weighted average cost of capital (WACC). Fernandez (2011) and Sabal (2007) describe it as just the rate at which the free cash flows must be discounted to obtain the same result as in the valuation using equity cash flows discounted at the required return to equity. Current cost may be appropriate for stocks and depreciable items. Net realizable value may be selected to measure all other non-monetary resources and obligations. The goal of financial reporting should be to present the economic realities of a firm's activity, including such information which will enable management to better deal with inflationary pressures. For instance, in an inflationary environment, FIFO results in inventory profits, that is profits that arise merely from holding inventory and fails to provide the best matching of costs and revenues. However, the financial statements of a company using the LIFO approach as opposed to FIFO generally reflect conservative profits, because, LIFO buffers the effects of inflation; better matching of current costs with current revenues.

## 2.2 Empirical Reviews

Ochieng and Kinyua (2013) investigated the relationship between inflation and dividend payout for firms quoted on the Nairobi Securities Exchange. They also considered the relationships between exchange rate, Treasury bill rate and dividend payout. The study employed multiple correlation technique to analyze data collated from a subset of the 59 listed companies at their exchange for the period 2002 to 2011. The study revealed, via a coefficient of determination of 0.055, that inflation rate has statistically insignificant impact on dividend payout. However, a positive correlation exists between exchange rate, Treasury bill rate and dividend payout. Umaru and Zubairu (2012) critically and empirically examined the influence of inflation on the growth and economic development of Nigeria using time series data extracted from Central Bank of Nigeria (CBN) for the forty-one year period 1970 – 2010. The study employed Augmented Dickey-Fuller (ADF) test statistics for confirming presence of unit root (i.e. non-stationary condition) and the Granger causality test to determine the existence of causation between Gross Domestic Product (GDP) and inflation using F statistic. The study revealed that all the entered variables are stationary via ADF and GDP causes inflation. Further, there is a positive relationship between inflation and GDP.

Konchitchki (2011) looked into the effect of inflation and nominal financial reporting on firm performance and stock prices. He adopted the content analytical technique and observed that though the monetary unit assumption of financial accounting assumes a stable currency (i.e., constant purchasing power over time), yet, even during periods of low inflation or deflation, nominal financial statements violate this assumption. He notes that, while the effects of inflation are not recognized in nominal statements, such effects may have economic consequences. Further, that unrecognized inflation gains and losses help predict future cash flows as these gains and losses turn into cash flows over time. He, also, discovered significant abnormal returns to inflation-based trading strategies, which suggest that stock prices do not fully reflect the implications of the inflation effects for future cash flows. Additional analysis reveals that stock prices act as if investors do not fully distinguish monetary and nonmonetary assets, which is fundamental to determining the effects of inflation. Based on the above, he posited that, although inflation effects are not recognized in nominal financial statements, they have significant economic consequences, even during a period in which inflation is relatively low.

Jubaedah and AbdulRazak (2016) although studied the impact of financial performance, capital structure and macroeconomic factors on the value of the firm highlighted the significant influence exerted by the independent variables (financial performance, capital structure, inflation and exchange rates) on corporate value. The study achieved this using panel regression analysis on cross-sectional time series data collated from the audited annual reports of twenty textile firms listed on Indonesian stock exchange. Daferighe and Charlie (2012) examined the relationship between inflation and the performance of the stock market, specifically, Nigerian Stock Exchange (NSE). The study employed time series (secondary) data on the exchange for a twenty year period (1991-2010). It developed four models made up of four dependent variables (market capitalization ratio, total value of shares traded ratio, percentage change in all share indexes and turnover ratio) and a single independent variable. The results of multiple regression indicated negative relationships between the regressands and the single regressor (inflation). It aligned with the result of a later study conducted by Zhongqiang (2014).

Effiong, Udoayang and Asuquo (2011) investigated the correlational and differential influence of historical cost and current cost profits on the operating capabilities of the firm. They adopted the survey technique to investigate thirty-one (31) Nigerian companies carrying first-tier securities under seventeen industrial classifications. Their financial statements were adjusted for effects of price changes using the Consumers' Price Index (CPI). Correlation influence between the historical cost profits on the operating ability of the firm was measured and established on one hand and that of current cost profits on the other hand.

Differential impacts of the method of profit measurement on the operating capability of the firm was equally measured and established. The weighted value of students' t-distribution reveals a correlation which is materially significant between profits and operating ability of the firm. In addition, the F-test result reveals substantial differential impacts of profits measured on historical and current cost bases on the operating ability of the firm during periods of rising prices. They postulated that the operating ability of the firm is significantly influenced by the reported profit. That is, the profits declared and distributed will, to a greater extent, increase or reduce the operating capabilities and operational capacity of the firm.

Saeedi and Akbari (2010) in their study of the impacts of inflation on the effectiveness of economic value added (EVA) of firms in Iran adopted both survey and panel techniques in choosing a sample of 374 firms over a period of 6 years (2002-2007). Quota sampling method ensured proper representation of production companies. They investigated the relative ability of the adjusted EVA and nominal EVA to measure firm performance as reflected in stock returns, stock prices, net assets and operating cash flows. Using an inflation-corrected EVA metric, they measured the sensitivity of EVA to a high two-digit rate of inflation. Except for Cement, Metals and Metal products, Pharmaceutical and Chemical industrial groups, they found no evidence that adjusted EVA is superior to nominal EVA for firm performance evaluation on the basis of stock price. Also, except for Metals and Metal products industrial group level, the results do not show that adjusted EVA is superior to nominal EVA for evaluation of firm performance on the basis of operating cash flows. Collectively, the results show that they cannot strongly concur that for the companies listed in Tehran Stock Exchange the adjusted EVA is superior to nominal EVA for firm performance evaluation as reflected in stock return, stock market price, net assets and operating cash flows. Therefore, in spite of the high rate of inflation in Iran the results of this study are inconsistent with Warr (2005).

Bradley and Jarrell (2003) examined the effects of inflation on the standard Constant-Growth valuation model using content analytical method. They discover that the presence of inflation vitiates the generally accepted expression of this model for the value of a firm that either makes no new investments or invests only in zero net present value projects. In other words, if expected inflation is positive, the generally accepted and widely used expression for the value of the firm under either of these two conditions seriously understates the true value of the firm, even at modest levels of inflation. They also examine the effects of inflation on the firm's weighted-average cost of capital (WACC). They also find that the popular WACC equation developed by Modigliani and Miller in 1958 (M&M, 1963) is not inflation-neutral when stated in nominal terms. Specifically, when expected inflation and corporate tax rates are positive, the nominal M&M WACC understates the firm's true nominal WACC by a significant amount. They deduced how to adjust the standard M&M formula to correct for this understatement and concluded that the WACC equation developed by Miles & Ezzel (1980) is inflation-neutral when stated in nominal terms, and thus, there is no need to adjust the equation in the presence of positive expected inflation which is invaluable in the practical application of company valuation techniques.

However, some of the studies are limited to two-digit inflation rate in that the ideal / desired rate for most economies is creeping inflation ( $x < 3\%$ ) and walking inflation ( $3\% < x < 10\%$ ). This became imperative as most Governments have achieved single digit inflation rate in due course. Moreover, recent studies have proven that inflation adjusted figures are far more realistic than nominal figures in the ascertainment of a company's real networth. Comparative studies of nominal and inflation adjusted figures should have adopted specific price index in line with current cost accounting (CCA) principles since consumer price index is most suitable when current purchasing power (CPP) method is adopted.

### *2.3 Theoretical Framework*

This study is anchored on the multifaceted theories of inflation (Classical Theories including Quantity Theory of Money, Keynesian Theory, Monetarism, and Structuralism). As regards classical theories, Adam Smith in Gokal and Hanif (2004) argued that growth was self-reinforcing as it exhibited increasing returns to scale. Moreover, he viewed savings as a creator of investment and hence growth. Therefore, he saw income distribution as being one of the most important determinants of how fast (or slow) a nation would grow. He also posited that profits decline – not because of decreasing marginal productivity, but rather because the competition of capitalists for workers will bid wages up (cost-push inflation). Next, the quantity theory of money refers to the identical or equal relationship between national income estimated at market prices and the velocity of circulation of the money supply. Based on this theory, there is a positive relationship between price levels and the money supply. That is, when the money supply increases by a certain percentage the price levels will also increase by an equal percentage. According to this theory, it is believed that inflation is caused by an expansion in the money supply of a given economy.

Contrastingly, Keynesian theory asserted that an increase in general price level or inflation is created by an increase in the aggregate demand which is over and above the increase in aggregate supply. If a given economy is at its full employment output level, an increase in government expenditure (G), an increase in private consumption (C) and an increase in private investment (I) will create an increase in aggregate demand; leading



towards an increase in general price levels (demand-push inflation). Such an inflationary situation is created due to the fact that at optimum or full employment of output (maximum utilization of scarce resources) a given economy is unable to increase its output or aggregate supply in response to an increase in aggregate demand (Dornbusch, Fischer, and Kearney, 1996; Arato, 2009). The monetarist's theory implicitly states that when the money supply is increased in order to grow or increase production and employment, it creates an inflationary situation within an economy. A monetarist believes increases in the money supply will only affect or increase production and employment levels in the short run and not in the long run. That is, there will be a positive relationship between inflation levels and money supply. The monetarists explain this relationship using the theory of natural rate of unemployment.

Conversely, the structuralism's theory states that the main reason for inflation is the in-elasticity in the structures of the economy. This theory is mainly used to explain the nature and basis of inflation in developing countries including Nigeria. Originating in Latin America, this theory states that the inflation rates in developing countries are affected by the in-elasticity of the following: production level and capacity, capital formulation, institutional framework, high in-elasticity in the agricultural sector, in-elasticity of the labor force and employment structures. The relevance of these theories to the study is embedded in the fact that the accurate estimation of behavior of most independent variables discussed above facilitates ascertainment of the firm's real value and real profits. One of the most important objectives of most companies besides profit maximization is the ascertainment of the firm's real net worth. Big firms invest huge amounts on fixed assets and need to recoup the sum in addition to a realistic interest on investment. This is only possible if plausible investment opportunities are analyzed incorporating inflation element in the equation to get at the most viable investible projects. The relevance of the inflation theories to this study lies in the fact that most business failures are caused by unwise investments in fixed assets that could easily have been detected if inflation rate is incorporated to get at the real required rate of return or real cost of investible funds especially in developing countries where infrastructures are barely present. Further, the structuralism's theory of inelasticity in the structures of a developing economy best described the situation in Nigeria characterized by bureaucratic and other bottlenecks in such areas as employment, production, institutional frameworks and physical infrastructures.

### 3. Methodology

This section is concerned with identifying the strategies, if taken, could result in the accomplishment of the stated specific objectives. In pursuance of these objectives, the study adopts the panel quantitative approach in analyzing / reviewing data collated in lieu of a subset of all the manufacturing firms publicly listed at the Nigerian Stock Exchange (NSE). The collated secondary data is bounded within the relevant range of the study: 12 year period (2003-2014) yielding 439 observations. Mean economic value added (EVA) adjusted for inflation were calculated for the relevant period with respect to the sample of 38 manufacturing firms studied. Firm value ( $FV_{it}$ ) is computed by discounting the present value of future cash flows at the risk free rate. The latter is equivalent to the returns on government treasury bills (floats between 12% and 14% in Nigeria). The subsequent figures were deflated by total assets to facilitate linearity. These firms were purposely drawn ensuring each of the newly grouped twelve (12) strata / sectors of the NSE are represented.

Inflation ( $INFLA_{it}$ ) rates are collated from CBN statistical bulletin and bullions. Logarithm of Total Assets ( $LnTA_{it}$ ) and Gross Domestic Product Growth Rate ( $GDPGR_{it}$ ) are adopted in the study as control variables. Pearson correlations, multiple regressions including ANOVA were used to test the relationship between the variables given that the study made use of secondary data. In order to ascertain the impact of inflation on profitability and value of the firm; and the relationship between economic value added ( $EVA_{it}$ ) and firm profits proxied by return on assets ( $ROA_{it}$ ); three models are developed thus:

$$FV_{it} = \beta_0 + \beta_1 INFLA_{it} + \beta_2 ROA_{it} + \beta_3 LnTA_{it} + \beta_4 GDPGR_{it} + \epsilon_{it} \quad (1)$$

$$ROA_{it} = \beta_0 + \beta_1 INFLA_{it} + \beta_2 LnTA_{it} + \beta_3 GDPGR_{it} + \epsilon_{it} \quad (2)$$

$$EVA_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 LnTA_{it} + \beta_3 GDPGR_{it} + \epsilon_{it} \quad (3)$$

$\epsilon_{it}$  = the error term including noise in the sample which can be attributed to industry as a whole and / or firm specific information, the business environment and other features.

$\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  are constants and coefficients.

#### 4. Results

Table 4.1 Descriptive Statistics

		EVA	FV	ROA	INFLA	LnTA	GDPGR
N	Statistic	439	439	439	439	439	439
Minimum	Statistic	-1.56	4.42	-1.10	.054	.001	-.185
Maximum	Statistic	1.49	9.05	5.22	.179	20.7	1.16
Mean	Statistic	.047	6.22	.178	.119	15.8	.260
	Std. Error	.011	.071	.014	.002	.104	.015
Std. Dev.	Statistic	.220	1.48	.301	.042	2.17	.305
Skewness	Statistic	.892	.501	10.7	-.225	-2.31	1.89
	Std. Error	.117	.117	.117	.117	.117	.117
Kurtosis	Statistic	14.2	-1.22	182	-1.17	16.7	3.90
	Std. Error	.233	.233	.233	.233	.233	.233

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Table 4.3(a) Regression Equation 1

Model 1 Summary<sup>b</sup>

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
1	.652a	.425	.420	1.1264	.425	80.250	4	434	.000	1.752

a Predictors: (Constant), INFLA, ROA, GDPGR, LnTA

b Dependent Variable: FV

Table 4.3(b)

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	407.278	4	101.819	80.250	.000b
	Residual	550.649	434	1.269		
	Total	957.927	438			

Table 4.4(a) Regression Equation 2

Model 2 Summary<sup>b</sup>

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
2	.093a	.009	.002	0.3001	.009	1.259	3	435	.288	1.705

a Predictors: (Constant), GDPGR, LnTA, INFLA

b Dependent Variable: ROA

Table 4.4(b)

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	.340	3	.113	1.259	.288b
	Residual	39.180	435	.090		
	Total	39.520	438			

Table 4.5(a) Regression Equation 3

Model 3 Summary<sup>b</sup>

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
3	.055a	.003	-.004	.2201	.003	.441	3	435	.724	.977

a Predictors: (Constant), GDPGR, LnTA, ROA

b Dependent Variable: EVA

Table 4.5(b)

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	.064	3	.021	.441	.724b
	Residual	21.073	435	.048		
	Total	21.137	438			

Source: Authors' IBM SPSS 20 Output of Collated Secondary Data

Table 4.1 depicts the statistical description of the variables using measures of central tendency (mean) and dispersion (standard deviations). The large standard deviations (see EVA and SG) are attributed to the sampled firms emerging from the diverse 95 sub-sectors of the Nigerian Stock Exchange (NSE). The standard error (that depicts how close to the true population mean the sample values are) is quite small confirming the sample distribution is normally distributed. Table 4.2 showed a strong (perfect) negative association between firm value and inflation at both 5% and 1% levels of significance.

For the regression analysis, all the requested variables entered for the models. The Durbin-Watson statistic (1.752) revealed an absence of autocorrelation. Further, the result of tables 4.3(a) and 4.3(c) strengthened the correlation result. For model 1, the systematic variation is explained by 42.5% coefficient of determination ( $R^2$ ) at P-value = 0.000. That is, 42.5% of the variation in firm value is explained by changes in inflation, return on assets, logarithm of total assets and gross domestic product growth rate. The summary ANOVA table depicts that the value of  $F = 80.25$  is very significant at P-value = 0.000 and explains significantly the variations in the value of the firm. Conversely, model 2 indicated that the systematic variation is explained by only 0.9% coefficient of determination ( $R^2$ ) at P-value = 0.288. For model 3, the systematic variation is explained by only 0.3% coefficient of determination ( $R^2$ ) at P-value = 0.724. In other words, the relationship between inflation and return on assets on the one hand; and EVA and the predictors (ROA, LnTA and GDPGR) are both insignificant.

## 5. Conclusion

This study ascertained empirically the influence exerted by inflation on the value and profitability of the firm. The results affirm a perfect negative relationship between inflation and the value of the firm and insignificant relationship between inflation, economic value added and profitability. Firms must ensure that in their choice of viable investments, specifically, purchase of fixed assets to incorporate the inflation rate to arrive at realistic NPV values. Positive inflation (creeping and walking inflation) has been found to be invaluable in the survival and growth of companies and by extension, most economies. Hence, managing inflation effectively and efficiently necessitates the application of one of such inflation accounting techniques as simple revaluation, current purchasing power, and / or current cost accounting that is most suitable for the firm's circumstance. Further, inflation adjusted figures in the financial statement enables the ascertainment of the firm's real net worth ensuring the firm is neither undervalued nor overvalued.

To attract investors via the use of current value of assets, revaluation of assets should be done periodically using CPI (specific prices) to ensure the values of assets shown in the balance sheet actually depict the firm's real net worth. Firms should formulate better inventory holding strategies as a key to fight inflation and negotiate in advance from banks and financial institutions for procuring working capital finance to stabilize the operating abilities of the firm. Such important inflation-induced innovation / developments in financial markets as flexible interest rate, lenders participation in equity and financial futures should be assimilated whole into the company's financial policies / strategies.

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