

Effect of Inflation on Working Capital Management of Business Organizations (A Case Study of Maiduguri Flour Mills Limited)

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Abstract: *The study assessed the effect of inflation on the working capital management of firms. To achieve this objective, data were collected from primary sources with the help of a questionnaire administered to a sample of 86 respondents drawn from the staff of the case study using the purposive sampling technique. A chi-square-squared to test the hypothesis. The findings of the study revealed that inflation has a significant effect on working capital management in firms. The study therefore recommends that inflation should always be factored into working capital budget computation, and adjustments to accommodate the effects of inflation should always be carried out when assessing all components of working capital in a firm, including conversion costs.*

Keywords: *Inflation, Capital, Business Organizations and Effect*

1. INTRODUCTION

Pandey (1990) states that business executives do recognize that inflation is incorporated into the analysis of capital investment. They argue that the inflation process can be increased to cover increasing costs and efficient management in all business sectors. The most vital time for a finance manager is to meet up with working capital, because working capital is one of the top headaches for them, especially in the period of inflation. Current assets, by their nature, constitute more than half of the assets in a business, regardless of their size and volatility. Therefore, it becomes necessary and inevitable that a study to critically examine the challenges of working capital management in the inflation of any economy be undertaken. It is against this background, therefore, that this study is embarked upon to assess the effect of inflation on working capital management at Maiduguri Flour Mills Nig. Ltd.

Leshe, Howard (1999) defined working capital as consisting of those assets used within the business with a lower amount due to those that await settlement in the short term for the value supplied. In whatever form in this book titled *Working Capital Management and Control*, he went further to explain that working capital originated at a time when most industries were closely related to agriculture; at this point, process them and sell the fish product before the next harvest period.

Engune F.B. (2001), in his book "Financial Management and Theory and Practices," views working capital in terms of the "Gross and Net" concept.

The term gross working capital refers to the firm's investment in current assets, while net working capital refers to the difference between the current assets and liabilities, in most cases when reference is made to working capital. In essence, working capital management refers to the management of the firm's current assets and financing those assets. It is this sum that must be founded by the proprietor of the business, whether in the form of permanent capital, external borrowing on a long-term or medium-term basis, or internally floating back profit. To this end, the basis of the definition above is that working capital represents the money that is required for the day-to-day running of an organization. It can be either "gross" or "net" working capital; therefore, it represents the amount that is acquired by deducting current liability for the current assets.

The concept of working capital management is a combination of the terms "working capital" and "management." Pandey (2009) sees working capital in two aspects: the gross concept and the net concept. The gross concept, simply called working capital, refers to a firm's investment in current assets. Current assets are the assets that can be converted into cash within an accounting year (or operating cycle) and include cash, short-term securities, debtors, bills receivable, and stock (inventory). The net concept of working capital, on the other hand, refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders that are expected to mature for payment within an accounting year and include creditors, bills payable, and outstanding expenses. Net concept working capital can be positive or negative. A positive net concept of working capital will arise when current assets exceed current liabilities.

Pandey (2009), in his book, described net working capital as the arithmetic difference between current assets and current liabilities and emphasized two things: a weak liquidity position poses a threat to the solvency of the company and makes it unsafe and unsound. Negative working capital means negative liquidity and may prove to be harmful for the company. Excessive liquidity is also bad, which may be due to mismanagement of current assets. Working capital refers to the firm's investment in cash, marketable securities, receivables, and inventories, less current liabilities such as creditors, bank overdrafts, etc.

James (1998) defined working capital as "the excess of current assets over current liabilities." It is the same as the net current assets.

Wise Greek (2010) defined working capital as a measurement of an entity's current assets after subtracting its liabilities, sometimes referred to as operating capital. It is a valuation of the amount of liquidity a business or organization has for the running and building of the business. Generating speaking, companies with higher amounts of working capital are better positioned for success. They have liquid assets needed to expand their business operations, as desired changes in working capital will impact business cash flow. When working capital increases, the effect of each flow is negative. This is often caused by the liquidation of inventory or the drawing of money from accounts that are due to be paid by the business. On the other hand, a decrease in working capital translated into less money to settle short-term debt. Working capital is among the important things that contribute to the success of a business. Without it, a business may not function properly or at all. Not only does a lack of working capital render a company unable to build and grow, but it may also leave a company with too little cash to pay its short-term obligations. Simply put, a company with a very low amount of working capital may run the risk of running out of money. When a company has too little working capital, it can face financial difficulties and may even be forced into bankruptcy.

Akpan (2006) defined management as "the direction of human behaviors towards a particular goal or objective." In general, the organized pursuit of an objective by individuals or groups of persons is called management activity. Thus, working capital management, put together, comprises all aspects of the administration of both current assets and current liabilities. It is concerned with the judicious acquisition, organization disbursement, and utilization of both current assets and current liabilities so as to achieve corporate objectives with maximum efficiency.

In Foel F. Houston's (2001) book, it is discussed that the need for working capital to run day-to-day business activities cannot be overemphasized. It is hard to find a business firm that does not require any amount of working capital. Indeed, firms differ in their requirements for working capital.

Atam Mayo (2003) He explains in his book that cash is the basic input needed, it is also running on a continuous basis, and it is also the ultimate output expected to be realized by selling services or products. Cash is used in the purchase and procurement of raw materials, equipment, plants, etc. for the smooth operation of the business. It includes cash in hand, cash at the bank, and other near-cash assets or demand deposits like marketable security.

The book of Atam Mayo (2003) explains that the firm's effects on getting customers to pay their bills at a certain time fall within accounts receivable management; on the other hand, the firm's decisions about when to pay its bills involve account payable management. All these activities fall within the realm of cash managers. In the financial manager's office, there is also no management of the cash function by preparing a cash budget. This cash budget tells us the likely availability of cash with respect to both firms and their magnitude. The cash budget serves as the foundation for cash planning and control. In addition to a cash budget, the firm needs systematic information on

cash as well as some kind of control system. Usually, the information is computer-based as opposed to manual-based.

According to the work of Pandey (2009), firms need to hold cash for the following reasons:

James Van Horne (1998) explained in his book that there is a close relationship between cash and marketable securities and that they should be properly managed. It may be disposed of instantly upon their conversion into cash.

Pandey (2009) explains that when a firm sells its product or services and does not receive immediate cash, it is said to be granted trade credit by customers. He further explained that trade credit creates receivables or book debts, which the firm expects to collect in the near future.

On the other hand, Mayo (1998) looked at it from an efficient point of view. Efficient management is concerned with the problem of achieving an optimum level of investment in working capital. Again, the interest and administrative cost of carrying the debtor and the cost of bad debt: Also, the analysis of individual customers is an instrument in deciding the level of risk a company is prepared to take in extending credit or debt. Collection management also helps establish the volume of debtors and bad debt.

Jhingan, (2002), in his "micro and macroeconomics," has said that inflation is a deadly parasite that has eaten into our economy and whose effects are felt in varying degrees by every citizen and in all sectors of the economy. It is a problem that has often proved difficult to tackle, largely because any meaningful attempt at carrying it out would entail a trade-off among other micro-economic and social objectives such as increasing employment, economic growth, and social safety. Money has the advantage of measuring, stretching, or contrasting over time so that what was measured by one of its units this year before will differ from the year after in an inflationary period.

Jhingan, (2002) added that inflation refers to a general increase in prices and a fall in the purchasing value of money. He says that inflation may also be defined as a persistent rise in the general price level. However, the prices of all goods and services may not be persistent in the period of inflation because the command of money over goods decreases while the command of goods increases.

According to Nnamchi, (2001), prices rise when there is excess purchasing power for goods available at current prices. But what brings about the excess purchasing power? Experience of inflation over the past thirty years supports the idea that there is no single cause; the inflationary phenomenon was pronounced in the 1970s, when the country witnessed double-digit inflation rates owing mainly to the monetization of foreign exchange receipts accruing largely from sales of crude petroleum and large public sector expenditure on massive construction activities.

It has been generally established that the performance and profitability of a firm largely depend on the manner of its working capital management. If a firm is inefficient in managing its working capital, it will not only reduce profitability but may also lead to a financial crisis. Both inadequate and excessive working capital are detrimental to a business concern. Excessive working capital can result in idle funds, which could be used to earn profit, while inadequate working capital will interrupt operations and also impair profitability (Chowdhury and Amin, 2007).

Working capital management According to Machiraju (1999), working capital management involves the administration of current assets and current liabilities, which consists of optimizing the level of current assets in a partial equilibrium context. Working capital management involves the relationship between a firm's short-term assets and its short-term liabilities. Osisoma (1977) also describes working capital as the regulation, adjustment, and control of the balance of a current asset. In order to manage working capital efficiently, he notes that there must exist two elements: necessary components and desirable quantities. He further demonstrated that good working capital management must ensure acceptable relationships between components of a firm so as to make an efficient mix that guarantees capital adequacy.

Thus, working capital management should make sure that the desirable quantities of each component of working capital are available for management. Khan and Jain (2007) also stress that working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities, and the interrelationships that exist between them. Working capital management involves liabilities. The goal of working capital management is to ensure that a firm is able to continue its operation and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses.

Chowdhury and Amin (2007) conducted this study on the impact of overall working capital policies on the profitability of pharmaceutical firms listed on the Dhaka Stock Exchange. Primary and secondary data were used for the period 2000–2004 to analyze the working capital management policies. The results indicate that for the overall performance of the pharmaceutical industry, working capital management played a vital role, and there existed a positive relationship between current asset management and the performance of firms. On the other side, the questionnaire data used for the study highlighted that firms in this industry have been efficient in managing their cash, account receivables, and accounts payable. Further, this industry maintained a large volume of inventories, but maintaining large inventories didn't reflect inefficient management for this industry.

Another important study on the relationship between liquidity management and operating performance was conducted by Wang (2002). His study also examined the relationship between liquidity management and corporate value for firms in Taiwan and Japan. He found a negative relationship between the cash conversion cycle, return on assets, and return on equity, which was also sensitive to industry factors. The results of the study indicated that although there were differences in the financial systems and structural characteristics of both countries, aggressive

liquidity management increased performance, which also led to an increase in corporate value for Japanese and Taiwanese firms.

Management in Pakistan, like Raheman *et al.* (2010), analyzed the impact of working capital management on the performance of the manufacturing sector in Pakistan. Furthermore, Raheman *et al.* (2010), in another study, analyzed the impact of working capital management on firm performance for nine groups of sectors. Afzar and Nazir (2008) investigated the factors determining the working capital requirement for a sample of 204 firms in sixteen manufacturing subsectors during 1998–2006. The results of their study indicate that working capital management plays a significant role in a firm's profit, risk, and value creation. Further, it also requires day-to-day supervision and maintaining the proper level of its components like cash, receivables, payables, and inventory. Another study by Afzar and Nazir (2007) investigated the relationship between aggressive and conservative working capital policies for a sample of 205 firms in 17 sectors listed on the Karachi stock exchange during 1998–2005. They find a negative relationship between the profitability measures of firms and the degree of aggressiveness of working capital investment and financing policies.

Alipour (2011) researched working capital management and corporate profitability while taking a sample of 1063 companies on the Tehran Stock Exchange. To test the hypothesis, multiple regressions and the person's correlation were used. He analyzed that the sale and profit of a company are greatly influenced by the working capital management. Due to inefficient working capital management, a company may be incapable of paying its debts on time. The results show a significant relationship between cash conversion cycle, average collection period, inventory turnover in days, and profitability.

2. RESEARCH METHODOLOGY

Method of Data Collection

The methods used in this project to collect data were:

- **Questionnaire**

Questionnaire: It is the most commonly used technique in collecting data. It takes the form of a list of questions that are well constructed by the researcher so that they can be measured. Through questionnaires, the information collected tends to be accurate, as the respondents are allowed to fill out the questionnaires at a convenient time.

POPULATION

Population is defined as a collection of a quantity of individuals or things that are to be observed in a given problem situation. For the purpose of this study, therefore, the population represents the entire management and staff of the Flour Mills Nigeria Plc. Maiduguri branch. **SAMPLING SIZE**

The sample size for this research work is 86 respondents, which comprised both the senior and junior staff of the case study.

SAMPLE TECHNIQUES

The sampling technique used in the study is stratified random sampling.

SOURCE OF DATA

The data used for this study were drawn from a primary source with the use of a questionnaire constructed by the researcher based on a Likert scale.

METHOD OF DATA COLLECTION

The questionnaires were administered to the respondents randomly and were retrieved after two weeks. It was only the staff of the case study that were involved in working capital management that were served with the questionnaire, believing that they were more knowledgeable in the area.

Method of Data Analysis

The data collected for this study were analyzed using descriptive statistics such as percentages and frequency tables, while hypotheses were tested with chi-square.

The chi-square formula is stated as:

$$x^2 = \sum \frac{fo - fe}{fe}$$
$$fe = \frac{\text{Total row} \times \text{total column}}{\text{grangtotal}}$$

Where:

fo = observed frequency

fe = expected frequency

VALIDITY AND RELIABILITY OF THE INSTRUMENT

This study used a questionnaire that was constructed by the researcher and later given to the supervisor and experts in the field of accounting for assessment and appropriate suggestions, which were duly incorporated.

3. DATA PRESENTATION AND ANALYSIS

TEST OF HYPOTHESES

One hypothesis was formulated in this study, which was tested using Chi-Square.

Hypothesis 1

H₀₁: Inflation has no significant effect on working capital management.

This hypothesis was addressed in questions 5 to 8 of the questionnaire, where the result is presented in Table 4.6 and the hypothesis test is summarized in Table 4.9.

Observed Frequency

Table 3.0: Observed Frequency

QN	SA	A	U	D	SD	TOTAL
Q4	30	44	2	3	1	80
Q5	38	33	3	4	2	80
Q6	43	20	4	7	6	80
Q7	50	15	2	8	5	80
TOTAL	161	112	11	22	14	320

Table 3.1: Computation of Chi-Square Value

S/N	F _o	F _e	F _o -F _e	(F _o -F _e) ²	(F _o -F _e) ² /F _e
1	30	40.25	-10.25	105.0625	2.6102
2	38	40.25	-2.25	5.0625	0.1258
3	43	40.25	2.75	7.5625	0.1879
4	50	40.25	9.75	95.0625	2.3618
5	44	28	44	256	9.1429
6	33	28	5	25	0.8929
7	20	28	-8	64	2.2857
8	15	28	-13	169	6.0357
9	2	2.75	-0.75	0.5625	0.2045
10	3	2.75	0.25	0.0625	0.0227
11	4	2.75	1.25	1.5625	0.5682
12	2	2.75	-0.75	0.5625	0.2045
13	3	5.5	-2.5	6.25	1.1364
14	4	5.5	-1.5	2.25	0.4091
15	7	5.5	1.5	2.25	0.4091
16	8	5.5	2.5	6.25	1.1364
17	1	3.5	-2.5	6.25	1.7857
18	2	3.5	-1.5	2.25	0.6429
19	6	3.5	2.5	6.25	1.7857
20	5	3.5	1.5	2.25	0.6429
TOTAL					32.591

Table 3.3: Summary of Chi-Square Test for Hypothesis 1

	Extent of Contribution of Personal Income Tax to Revenue Generation in Borno State
Chi-Square	32.591
Df	12
No of items.	4

From the result presented in Table 4.8, the computed chi-square result is 32.591, which is greater than the table value of 21.0261 at the 5% (0.05) level of significance with a degree of freedom of 12. Therefore, the null hypothesis is rejected, while the alternative hypothesis, which states that inflation has a significant effect on working capital management, is accepted.

The findings of this study revealed the following:

1. Inflation has an effect on all the components of working capital.
2. Inflation reduces firms' efficiency in working capital management.
3. Inflation reduces firms' effectiveness in working capital management, and
4. Inflation affects the conversion costs of working capital.

The findings of this study are also discussed in line with the specific objectives and the analyses carried out. The main objective of the study is to determine the effect of inflation on working capital management in a firm. This was answered by the results in Tables 3.2 and 3.3, which revealed that inflation has a significant effect on the working capital management of a firm.

CONCLUSION

The broad objective of the study is to assess the effect of inflation on working capital management in firms. The constant increase in the inflationary rate, which is alarming, and the acute scarcity of working capital in firms generally call for a scholarly study such as this. The need to factor inflation into working capital planning cannot therefore be overemphasized.

The problem still remains that there is a need to establish whether inflation has an effect on working capital management. In order to overcome this problem, therefore, the views of finance officers in firms were examined in this study in order to establish whether inflation has an effect on working capital management. Specifically, the following conclusions were reached: Inflation has a significant effect on working capital management in firms, and it affects all the components of working capital as well as conversion costs.

Based on the research findings and conclusions reached, the study makes the following recommendations:

1. Inflation should always be factored into the working capital budget computation.
2. Adjustments to accommodate the effects of inflation should always be carried out when assessing all the components of working capital in a firm, including conversion costs.

Although the study found empirical evidence assessing the effects of inflation on working capital management, there is still much to be done in this area. Other researchers may conduct further studies in the following areas:

- i. Effect of inflation on the cost of non-current asset replacement
- ii. The effect of inflation on the production cost of goods
- iii. The study can be replicated by using a larger sample size, in a different geographical setting, or in an entirely different economy.

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