



## Inventory Management and Organizational Performance of Noodles Firm in Anambra State

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**Abstract:** The study examined the inventory management and organizational performance of noodles firm in Anambra State. The objectives of the study were to: determine the extent to which inventory control affects cost effectiveness in organizational performance; evaluate the extent to which inventory turnover affects cost effectiveness in organizational performance; determine the effect of inventory reward accuracy on operating efficiency in organizational performance; determine the effect of automated inventory system on operating efficiency in organizational performance. Four research questions and hypotheses were formulated in line with the objectives. This study was anchored on the Theory of Constraints (TOC). It adopted the survey method of research. Data were generated through primary and secondary sources. The method for data collection was questionnaire which was administered randomly among the staff of the selected firms. The population of the study was six hundred and thirty-two (632); while five hundred and seventy-seven (577) was retrieved from the respondents. The hypotheses were tested using the regression method at 0.05% level of significance. The findings of the study revealed that: Inventory control has significant effect on cost effectiveness in organizational performance. Inventory turnover has significant effect on cost effectiveness in organizational performance. Inventory reward accuracy has significant effect on cost effectiveness in organizational performance. The study conclude that adequate inventories kept in noodles companies did smoothen the production process. The study recommended that Organizations should train their personnel in the area of inventory control management as that would empower them to be in charge for smooth running of the inventory management activities or programme. It further recommended that top management should place emphasis on the proper Inventory turnover techniques and measuring of efficiency deviations to identify weaknesses in the process of managing inventories. It also recommended that manufacturing firms develop a policy framework to facilitate faster Implementation of the best inventory reward accuracy which can improve profitability.

**Keywords:** Inventory Management, Performance, inventory control, cost effectiveness, operating efficiency

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## 1.1 INTRODUCTION

In the past, inventory control was not seen as necessary. In fact, excess inventories were considered as indication of wealth. Management, by then, considered over stocking beneficial (Zariyawati, Hirnissa, & Diana-Rose, 2017). But today, firms have started to embrace effective inventory management (Susan & Michael, 2000). Managers, now more than ever before, need reliable and effective control in order to reduce costs and remain competitive. Lyson (2016) posits that inventory management enhances profitability by reducing costs associated with storage and handling of materials. There are several reasons for keeping inventory. Too much stock could result in funds being tied down, increase in holding cost, deterioration of materials, obsolescence and theft. On the other hand, shortage of materials can lead to interruption of products for sales, poor customer relations and underutilized machines and equipment.

The inventory cost management of any organization represents an important decision making function at all stages of the product manufacturing, distribution and sales chain. Apart from being a major portion of total current assets of many organizations. According to Tweneboah-Koduah, (2017), inventory often represents as much as 40% of the capital of industrial organizations. Sawaya and Giauque (2006) also stated that inventory represents 33% of a company's assets and as much as 90% of working capital. As inventory constitutes a major segment of a company's assets, it is crucial that good inventory management practice is put in place to ensure the organization's growth and profitability to sustain the business as a going concern. This means that the right materials are in stock in the right quantity, and are available at the required time. Proper and regular checks on stores inventory are conducted to avoid pilferage, wastage and loss of customers due to stock-outs. Making the right order for inventories (buying of stocks that are needed by customers) at all times would promote high turnover, thereby, improving the profit level of the organization. Profit of an organization can easily be maximized with the help of an effective inventory management system in place. Profit maximization is all about cost minimization and revenue maximization. An effective inventory management improves the firm's total performance through matching inventory management practices and a competitive advantage, especially now that most organizations operate in a more competitive industries or sectors all over the world, Mahidin, Saad, Mohd, & Yusoff, (2015). The main goal and objective of inventory management system is to keep at the necessary required inventory at any time so that production runs smoothly without interruption whatsoever (Panigrahi, 2013). Inventory is the second largest assets as shown in the statement of financial position in brewery industry. It is only exceeded by equipment and the physical facilities (Eneje, Nweze, & Udeh, 2012).

Inventory management refers to keeping or maintaining the firm's stocks at a level that a firm will only incur the least cost consistent with other management's set objectives or targets (Kwadwo, 2016). Inventory management is about ensuring that all input materials of production available to the firm are maintained at a level where production is not interrupted as well as ensuring that operational cost is kept at a minimal level without affecting operation efficiency (Eneje, Nweze, & Udeh, 2012). Inventory management entails planning, organizing, controlling and directing. All these coordinated efforts are meant to ensure the achievement of efficiency in all operations of the firm. Such operations may include procurement, stocking and transportation (Akindipe, 2014). Mismanagement of inventories may lead to significant financial problems for a firm (Muhayimana, 2015).

Inventory management is of high importance in financial management decision. This is because excess or shortage of this may bring danger to the company (Duru, Oleka & Okpe, 2014). The objective of inventory management is to maintain a system that minimizes total cost, while specifically, it establishes that the amount of stock to be ordered is optimal as well as the period between orders (Anene, 2014). Excess

inventory consumes a lot of space, can increase possibility of spoilage, leads to a financial burden and loss while insufficient inventory has the potential of interrupting business operations (Swaleh & Were, 2014).

Inventory management is vital and needed in various areas within the firm, especially in a supply network so as to protect production against any disturbance of running out of production inputs or materials and goods (Ogbo, Onekanma & Ukpere, 2014). Management of Inventory is crucial to a firm since it plays a decisive role to enhance efficiency and improve the firm competitiveness ability against the firm competitors. Effective inventory management is all about holding the right amount of inventory required by the business at any point in time (Swaleh & Were, 2014). Inventory management involves the creation of a purchasing plan which will help to ensure that all items or materials are available when needed as well as tracking the existing inventories and its use (Muhayimana, 2015).

## **1.2 Statement of the Problem**

The main goal of inventory management is about balancing the conflicting economics of holding less stock or too much stock at any point in time (Kumar & Bahl, 2014). Return maximization on investment of inventories presents a considerable proportion of firm working capital which is the key function of the firm financial manager (Mathuva, 2013). However, most managers ignore the saving potential that arise from proper management of inventories, trying to treat inventories as a necessary evil and not as an asset that requires to be managed. As such, some firms do not plan adequately to control their inventory holding. This, however, usually leads to under-stocking and causing the firm to stop or slow its production. This finally results in the firm's ineffectiveness (Anichebe & Agu, 2013). According to Schreibereder (2006), many organizations usually fail to examine their investment in inventory.

In Nigeria, more and more institutions, including small and medium firms, are increasingly adopting inventory management systems with the aim of achieving competitive advantage and enhancing their performance (Swaleh & Were, 2014). However, the main challenge today among firms in Nigeria is about the need to enhance efficiency and improving on effectiveness at the same time. Nigerian firms are known to have a poor inventory management technique which has negatively affected the firm's ability to service and satisfy their customers (Thogori & Gathenya, 2014). Thus, the need to study effect of inventory management on performance of noodles firm in Anambra State. In addition, several studies have been carried out on inventory management across the world and in Nigeria too. There is a study by Folinas & Shen (2014) on effect of inventory turnover and inventory days on performance of the firms in United Kingdom's agricultural machinery industry. The study revealed that inventory days are vital to the financial performance of organizations, however to varying degrees. Additionally, Eneje, Nweze, and Udeh (2012) studied the effect of raw materials inventory management on profitability of brewery companies in Nigeria. The study established that efficient management of the raw material inventory significantly affects the profitability of the brewery firms in Nigeria. In Kenya, Thogori & Gathenya (2014) examined the role of inventory management on customer satisfaction and established that most firms in Kenya have a poor management of inventory systems, which negatively affects the firm's ability to satisfy their customers. Sitienei and Memba (2015) also explored the effects of inventory management on the profitability of the cement manufacturing firms. The study established a negative relation between inventory turnover, conversion period of inventory and storage cost with the firm's profitability. Inventory constitutes an essential element of working capital administration (Akinyomi & Tasie, 2001). If inventory is not properly managed, it can result in liquidity crisis which may eventually lead to corporate failure. Although various empirical investigations have been carried out on inventory management, literature reveals that only limited studies have so far been carried out on manufacturing firms in the aspect of inventory management. Most authors use chi-square as their method of data analysis, but in this study the

researcher used Analysis of variance and regression analysis. Thus the current inquiry focused on the effect of inventory management on organizational performance: A study of noodles firm in Anambra State.

### 1.3 Objectives of the Study

The broad objective of this study was to analyze the Inventory Management and Organizational Performance: A study of noodles firm in Anambra State. The specific objectives were to;

- i. Determine the extent to which inventory control affects cost effectiveness in organizational performance;
- ii. Evaluate the extent to which inventory turnover affects cost effectiveness in organizational performance;
- iii. Determine the effect of inventory reward accuracy on operating efficiency in organizational performance; and
- iv. Determine the effect of automated inventory system on operating efficiency in organizational performance;

### 1.4 Hypotheses

The following research hypotheses were formulated

Ho<sub>1</sub>: inventory control has no significant effect on cost effectiveness in organizational performance?

Ho<sub>2</sub>: inventory turnover has no significant effect on cost effectiveness in organizational performance?

Ho<sub>3</sub>: inventory reward accuracy has no significant effect on cost effectiveness in organizational performance?

Ho<sub>4</sub>: Automated inventory system has no significant effect on cost effectiveness in organizational performance?

## REVIEW OF RELATED LITERATURE

### 2.1 Theoretical Review

#### 2.1.1 Theory of Constraints

This study will be anchored on the Theory of Constraints (TOC)

The Theory of Constraints (TOC) is a management philosophy developed by Goldratt (1984) in his book, *'The Goal'* that is geared to help organizations continually to achieve their goals. The Theory of Constraints facilitates the examination of assumptions underlying traditional manufacturing rules, policies, and measures. It focuses on the few critical constraints that limit the success of the system. Further, it precludes sub-optimization by ensuring that solutions to complex problems are effective at the company level. It aimed to initiate and implement breakthrough improvement through focusing on a constraint that prevented achieving a higher level of performance. It postulates that an organization is a system, and every system has at least one constraint limiting it from achieving its goal of making (more) money. In order to improve the performance of the system, these constraints must be identified (described) and corrective measures taken (a prescription). Identifying the constraints helps to focus the limited resources to the weakest part for the system to improve.

The Theory of Constraints provides a global system methodology that promotes achieving the organizational goal of making more money both now and in the future (Lakshmii & Ramakrishna, 2012). Cyplik, Hadaś, and Domański (2009) stated that the Theory of Constraints approach could be used to guide a single firm to concentrate on exploiting resources based on different logistics cost along the supply chain. This study is concerned with inventory as a constraint that can be focused on to cause system improvement. The approach uses certain parameters to ensure appropriate levels of inventory. These parameters are: a) Inventory is held as close as possible to the demand and source to ensure quick shipping of goods. b) Upper limits of stock are kept by having buffer inventory c) Quick placement of orders whenever inventories decrease, d) buffer inventory should always be adjusted to reflect changes in the rates of demand. There are constraints that complicate successful inventory management: uncertain demand, costs lead times, production prices and so on. Underlying this research is the belief that inventory management in Flour Mills companies is faced with some challenges such as escalating inventory costs, untrained personnel, inaccurate record keeping and demand variability.

#### Relevance of the theory to this study

The Theory of Constraints helps manufacturing companies in inventory management. By Theory of Constraints methodology, a logistics was analyzed by means of a holistic view, in other words, it was defined as a group of dependent elements and, therefore, the logistics performance was dependent on the efforts of inventory management. Every system must have had at least one constraint, and this was explained by the fact that if there were nothing to limit the system's performance, it would have been infinite. The Theory of Constraints was, therefore, useful in accessing the influence of inventory management on the performance of manufacturing companies in Nigeria.

Webometrics-Effect of Inventory Management on Organizational Performance					
SN	Author (s)	TOPIC	Variables	method	Major findings
1	Oladimeji, Wori megb e, & Wori megb e, (2020 )	examined the inventory manageme nt and organisatio nal performan ce	interest rate, inflation rate, liquidity, exchang e rate	OLS	Inventory management leads to better organizational performance in the manufacturing sector than in the service sector.
2	Sporta (2018 )	determine the effects of inventory control techniques on the organizatio n's performan ce	levels of materials , economi c order quantity, perpetua l inventor y system, and ABC	Survey	The study found that inventory management improves stock and management but also promotes efficiency alongside cutting costs.

			analysis technique		
3	Anichebe & Agu (2013)	effects of inventory management on organizational effectiveness in selected organizations in Enugu	inventory management and organizational effectiveness	Survey	There is a significant relationship between good inventory management and organizational effectiveness.
4	Agu, Obi-Anike & Eke (2016)	the extent at which inventory control affects the productivity of selected manufacturing firms	inventory control, demand management and customer satisfaction	Pearson product moment correlation coefficient	There is a positive relationship between demand management and customer satisfaction of selected manufacturing firms.
5	Enock, Namusonge, Makokha & Ngeno (2017)	analyze the effect of inventory management on supply chain performance	profitability, reliability, cost, responsiveness, flexibility and asset management efficiency	Multiple regression and Correlation analysis	The study established that textile manufacturing firms in Kenya have the adoption of inventory management as a factor of supply chain influencing performance .

6	Akinlabi (2021)	Examined the effect of inventory management practices on the operational performance of selected flour mills companies in Nigeria.	Inventory turnover, operational performance, automated inventory system, Inventory shrinkage, Inventory investment	Pearson Product Moment Correlation and Regression Analysis	Inventory turnover was found to be positively and significantly related to operational performance.
7	Akinlabi, Asikhia, & Obamiro (2018)	examined effect of inventory management practices on the operational performance of flour milling companies in Nigeria	inventory shrinkage customers' satisfaction. inventory control and cost effectiveness, inventory management practices, operational performance	Survey	Inventory shrinkage had a significant negative effect on customers' satisfaction.
8	Ugwu and Nwako	Determine the impact of inventory management	inventory management on firm	OLS	Inventory management model techniques tested have a positive

	(2020 )	nt on firm performan ce in Nigeria	performa nce		significant impact on firm performance
9	Ogbo, Onek anma and Wilfred (2014 )	Examined the impact of effective inventory control manageme nt on organizatio nal performanc e	effective inventory control managem ent and organizati onal performa nce	OLS	Flexibility in inventory control management is an important approach to achieving organizational performance.
10	Oladejo and Ajala (2016 )	Studied the Stakeholder s' perceptions of the inventory manageme nt practices impact on performanc e of Medium scale food industry in Nigeria	inventory managem ent and performa nce of Medium scale food industry	Survey	there was significant difference in the perception of the impact of inventory management practices at 5% level of significance.
11	Abduraheem <i>et al.</i> (2011 )	Effect of inventory manageme nt on small business finance from Kwara State	inventory managem ent and small business finance	Survey	There is a strong positive relationship between inventory management and profitability of small businesses in Kwara State .
12	Ogonu, Ikegw uru and Nwok ah (2018 )	effect of inventory manageme nt on customer satisfaction	inventory managem ent and customer satisfactio n	Survey	The study revealed that the lean inventory management system emerged as the most significant positive impact on customer satisfaction.



13	Oballah <i>et al.</i> (2015)	investigated the effect of inventory management practices on organizational performance in public health institutions in Kenya	inventory management practices and organizational performance, investment and inventory records accuracy	Survey	Inventory investment and inventory records accuracy have a positive influence on organizational performance.
14	Khan,. and Siddiqui,. (2019).	investigated the effect of various inventory management factors on firm's efficiency.	Inventory Accuracy, Lean Inventory, and Stock Availability	Structural Equation Modelling	The results showed Inventory Accuracy, Lean Inventory, and Stock Availability has a positive and significant impact on efficiency.
15	<a href="#">Atnafu</a> , & <a href="#">Balda</a> , & <a href="#">Liu</a> , S (2020).	Examine the impact of inventory management practice on firms' competitiveness and organizational performance.	Inventory management practice on firms' competitiveness	Structural equation modeling	Higher levels of inventory management practice can lead to an enhanced competitive advantage and improved organizational performance.
16	Mulandi, & Ismail, (2019).	Effect of inventory management practices on performance of commercial state corporation	inventory management practices on performance	descriptive research design	Inventory management has a positive and significant relationship with the performance of commercial state corporations in Kenya

17	Faraz & Danish (2019)	ns in Kenya investigated the effect of various inventory management factors on firm's efficiency.	Inventory Accuracy, Lean Inventory, and Stock Availability and efficiency	Structural Equation Modelling	Inventory Accuracy, Lean Inventory and Stock Availability have a positive and significant impact on efficiency.
18	Fatogun, & Sadiq (2019)	examines inventory management and organizational performance of the selected Small and Medium Enterprises	inventory management and organizational performance	Simple percentage and mean	Inventory management has a positive and significant impact on the performance.
19	. Opoku Fiati, Kaku, Anko mah, and Opoku Agye mang, (2020)	Examined the effect of different inventory management practices on the operational performance of manufacturing firms in Ghana	inventory management practices on the operational performance	Ordinary least square regression analysis	Manufacturing firms in Ghana have a high preference for Strategic Supplier Partnership.
20	Orga,& Mba h, (2017).	ascertain the effect of effective inventory management	effective inventory management	Survey	The result of the study shows that inventory management has a positive effect on the organizational growth

nt system in organizatio nal performan ce of departmen tal stores in South East, Nigeria	system in organizat ional performa nce	of departmental stores in the South East.
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### 3.1 METHODOLOGY

A Descriptive research design was used. Descriptive survey was more preferred in this study since this research design was used to obtain information concerning the current phenomena under study. The study was carried out in Anambra State. The primary data for this research work were collected by using or utilizing two components of survey research, which are responses from the questionnaire and short personal interaction with the staff of the firm. The population of this study comprised of all the staff of noodles firms in Anambra state. The population of the study was six hundred and thirty-two (632) staff from different departments. In this study the method used for data collection was structured questionnaire. Statistics such as frequency count and percentages were put to use in the analysis of research questions while hypotheses were tested using simple regression analysis.

### 3.2 Model Specification

The fundamental linear equation which forms the model is drawn from the theoretical and empirical literatures reviewed in the previous chapters, it is observed that there is a casual link between the inventory management and the organizational performance of noodles firm in Anambra state. In this section, we pursue the same objective further by specifying our model. The model is to verify the objectives. This approach is to modify the model by specifying a multiple regression equation made up of inventory management as a function of organizational performance. As a result, the model is specified below,

$$ORG = f(INC, INT, IRA, AIS)$$

Where

ORGP = Organizational performance

INC = Inventory control

INT= Inventory turnover

IRA= inventory reward accuracy

AIS= automated inventory system

f=Functional Notation

The above equation can be put in an econometric form as;

$$ORG = b_0 + b_1 INC + b_2 INT + b_3 IRA + b_4 AIS + \mu$$

Where;

b <sub>0</sub>	=	Autonomous or intercept
b <sub>1</sub>	=	Coefficient of parameter INC
b <sub>2</sub>	=	Coefficient of parameter INT
b <sub>3</sub>	=	Coefficient of parameter IRA
b <sub>4</sub>	=	Coefficient of parameter AIS
μ	=	Stochastic variable or error term

## PRESENTATION ANALYSIS AND INTERPRETATION OF DATA

### 4.1 INTRODUCTION

The study sought to establish the Effect of Inventory Management on Organizational Performance: A study of noodles firm in Anambra State. The data was collected using self-administered questionnaire. This chapter presents the findings of the study. It also discusses the results of the study. This section presents the questionnaire issued and the ones that were returned to the researcher for analysis. However, the number of questionnaire distributed was six hundred and sixty-nine (699), whereas five hundred and seventy-seven (577) were filled well and returned in good condition. The number of returned questionnaire was used for the analysis of the study.

**Table 4.1: Respondents' Demographic Variables**

#### 4.1.1 Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	451	75.5	78.2	78.2
Female	126	21.1	21.8	100.0
Total	577	96.6	100.0	

Source: Field Survey 2023

The above table reveals that the four hundred and fifty-one (451) of the respondents which represents 78.2 persons were male respondents, while one hundred and twenty-six (126) respondents which represent 21.8% were female respondents. By implication, male respondents were more than female respondents by 56.1 respondents in our selected population sample for this study. The implication of this is to enable us to know the number of female and male that successfully returned their questionnaire

#### 4.1.2 Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Married	384	64.3	66.6	66.6
Single	193	32.3	33.4	100.0
Total	577	96.6	100.0	

Source: Field Survey 2023

In the table above, out of the five hundred and seventy-seven (577) respondents, three hundred and eighty-four (384) of the respondents were married, while one hundred and ninety-three (193) respondents which represent 33.4 percent are single. It is, therefore, glaring that the majority of the respondents are married as at the time of this study. Thus, marital status table helps us to know the number of single and married, and respondents that answered the distributed questionnaire.

#### 4.1.3 Level of Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid WAEC/NECO	123	20.6	21.3	21.3
BSC/HND	177	29.6	30.7	52.0
MSC/MBA	198	33.2	34.3	86.3
PHD	79	13.2	13.7	100.0
Total	577	96.6	100.0	

Source: Field Survey 2023

The table above indicates that one hundred and twenty-three (123) respondents representing 21.3% percent maintain to have acquired WAEC OR NECO while 30.7% percent of the respondents which represents one hundred and seventy-seven (177) have BSC/HND. However one hundred and eighty-nine (189) respondents which represents 34.3 percent have either MSC or MBA. Moreso, seventy-nine (79) respondents which represents 13.7% have acquired Ph.d. This is the one of the demographic items which helped us to identify the educational qualification of the respondents.

#### 4.1.4 AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-25	313	52.4	54.2	54.2
26-33	132	22.1	22.9	77.1
34-40	31	5.2	5.4	82.5
41-50	37	6.2	6.4	88.9
51-ABOVE	64	10.7	11.1	100.0
Total	577	96.6	100.0	

Source: Field Survey 2023

Table above depicted the age bracket of the respondents. The distribution shows that 54.2% of the respondents are between the age brackets of 18 to 25 years while 22.9% respondents are within the age bracket of 26-33 years. On the same note, 5.4% of the respondents are within the age bracket of 34 - 40 years. On the same note, 6.4% of the respondents are within the age bracket of 41 - 50 years, while the remaining respondents representing 11.1% are within the age bracket of 51 years and above.

#### 4.1.5 Years in service

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-10	293	39.0	50.8	40.4
11-15	161	27.0	27.9	68.3
16-20	80	13.4	13.9	82.1
21-above	43	7.2	7.5	100.0
Total	577	96.6	100.0	

Source: Field Survey 2023

The table above indicates that two hundred and ninety-three (293) respondents which represents 50.8% percent maintain that they have been in the services for 10years or less while 27.% percent of the respondents which represents one hundred and sixty-one (161) have worked in the local government for over 15years. However eighty (80) respondents which represent 13.9 percent either have worked for 16-20 years. More so, forty-three (43) respondents which represent 7.3% have worked between 21years and above. This is the demographic item which helped us to identify the number of years the respondents have worked.

#### 4.2 Multiple Regression Analysis

Multiple regression result was employed to test the effect of independent or explanatory variables on the dependent variables. The result of the multiple regression analysis is presented in the tables below.

**Table 4.2.1 Summary of the Regression Result**

The result of the multiple regressions formulated in chapter three is presented in the tables below.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.437 <sup>a</sup>	.514	.507	1.16679	.114	18.315	4	572	.000	1.616

a. Predictors: (Constant), INC, INT, IRA, AIS

b. Dependent Variable: ORGP

Table 4.2.1 shows that  $R^2$  which measures the strength of the effect of independent variable on the dependent variable have the value of 51%. This implies that 51% of the variation in quality services is explained by variations in inventory control, inventory turnover, inventory reward accuracy and automated inventory system. This was supported by adjusted  $R^2$  of 51%. In order to check for autocorrelation in the model, Durbin-Watson statistics was employed. Durbin-Watson statistics of 1.616 in table 4.3.1 showed that the variables in the model are not auto-correlated and that the model is reliable for predications.

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	99.737	4	24.934	18.315	.000 <sup>b</sup>
Residual	778.714	572	1.361		
Total	878.451	576			

a. Dependent Variable: ORGP

b. Predictors: (Constant), INC, INT, IRA, AIS

The f-statistics value of 18.315 in table above with f-statistics probability of 0.000 shows that the independent variables have a significant effect on dependent variables such as inventory control, inventory turnover, inventory reward accuracy and automated inventory system which can collectively explain the variations in organizational performance .

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.402	.199		2.021	.044	.011	.792
	INC	.227	.131	.146	2.736	.003	.030	.483
	INT	.148	.137	.087	3.085	.000	.120	.417
	IRA	.014	.205	.005	2.066	.002	.388	.416
	AIS	.641	.185	.245	3.463	.000	.277	1.004

a. Dependent Variable: QS

**A'priori Criteria:** This is determined by the existing business theories; it also indicates the signs and magnitude of the business parameter under review. In table above, we found out that inventory control inventory management has a positive sign given its value as .227. This implies that a unit increase in inventory control increases the organizational performance by 22%, this conforms to the a' priori expectation. Inventory turnover has a positive sign given its value as .148; this implies that a unit increase in Inventory turnover increases the organizational performance by 14%, this conforms to a' priori expectation. Inventory reward accuracy has a positive sign given its value as .014; this implies that a unit increase in Inventory reward accuracy increases the organizational performance by 14%, this conform to theoretical expectation. Automated inventory system has a positive sign given its value as .641; this implies that a unit increase in Automated inventory system has significant positive effect on the organizational performance by 61%, this conforms to theoretical expectation.

However, inventory control variables have regression t-value of 2.736 with a probability value of 0.003. This implies that inventory control has a positive and significant effect on profitability. Inventory turnover has a regression t-test of 3.085 with an organizational performance value of 0.000 implying that Inventory turnover variable has a positive and significant effect on organizational performance.

On a similar note, inventory reward accuracy variable has a t-test value of 2.066 and a probability value of 0.002. This shows that inventory reward accuracy has a positive and significant effect on organizational performance. Inventory reward accuracy has a regression coefficient of 3.463 with a probability value of

0.000. This implies that Inventory reward accuracy has a positive and significant effect on profitability. Automated inventory system has a regression coefficient of 3.463 with a probability value of 0.000. This implies that automated inventory system has a positive and significant effect on profitability

### 4.3 Hypotheses Testing

#### Hypothesis One

Ho<sub>1</sub>: Inventory control has no significant effect on cost effectiveness in organizational performance.

##### Interpretation:

Drawing inference from our regression result in table 4.4.5 above, the analysis showed that the t-value of inventory control (INC) is 2.736 which is more than 2 while its probability is 0.003 less than  $p < 0.05$  level of significance and at the 95% level of confidence intervals: (lower bound=0.030, upper bound=0.483) Thus, we reject the null hypothesis (H<sub>0</sub>) and accept the alternate hypothesis (H<sub>1</sub>) which said that inventory control has a significant effect on cost effectiveness in organizational performance.

#### Hypothesis Two:

Ho<sub>2</sub>: Inventory turnover has no significant effect on cost effectiveness in organizational performance.

##### Interpretation:

From table 4.4.5, inventory turnover (INT) in cost effectiveness has shown a statistically positive significant relationship on cost effectiveness in organizational performance Council with t- value = 3.085 which is more than 2; with  $P=0.000$  less than  $P < 0.05$  level of significance. The 95% level of confidence intervals: (Lower bound=0.120, upper bound= (0.417) Thus, we accept the alternate hypothesis (H<sub>1</sub>) and reject the null hypothesis (H<sub>0</sub>) which implies that Inventory turnover has a significant effect on cost effectiveness in organizational performance.

#### Hypothesis Three

Ho<sub>3</sub>: Inventory reward accuracy has no significant effect on cost effectiveness in organizational performance.

##### Interpretation:

Drawing inference from the regression result table 4.4.3 above, the findings showed that t-value of representative inventory reward accuracy (IRA) is 2.066 which is more than 2; with  $P= 0.002$ , which is less than  $P < 0.05$  level of significance and at the 95% level of confidence intervals: (lower bound=0.388, upper bound=0.416). Based on the above findings, we accept (H<sub>1</sub>) and reject H<sub>0</sub>) which statistically suggested that inventory reward accuracy has a significant effect on cost effectiveness in organizational performance

#### Hypothesis Four

Ho<sub>4</sub>: Automated inventory system has no significant effect on cost effectiveness in organizational performance.

##### Interpretation:

Drawing inference from our regression result in table 4.4.5 above, the findings showed that the t-value of Automated inventory system (AIS) is 3.463 which is greater than 2, with  $P=0.000$  which is less than  $P < 0.05$  level of significance and at 95% level of confidence intervals: (lower bound= 0.277, upper bound=0.344) which means zero lies within the confidence interval with which the researcher worked. Based on the findings from the result, we reject the null hypothesis (H<sub>0</sub>) and accept the alternative hypothesis (H<sub>1</sub>)



which stated that automated inventory system has a significant effect on cost effectiveness in organizational performance

## CONCLUSION AND RECOMMENDATION

### 5.1 Conclusion

Inventory is a vital part of current assets mainly in manufacturing concerns. Huge funds are committed to inventories as to ensure the smooth flow of production and to meet consumer demand. However, maintaining inventory also involves holding or carrying costs along with opportunity cost. Inventory management, therefore, plays a crucial role in balancing the benefits and disadvantages associated with holding inventory. Efficient and effective inventory management goes a long way in the successful running and survival of a business firm. When organizations fail to manage their inventory effectively they are bound to experience, stock out, a decline in productivity profitability, customer dissatisfaction. Inventory management is a critical management issue for most companies – large companies, medium-sized companies, and small companies. Effective inventory flow management in supply chains is one of the key factors for success. The challenge in managing inventory is to balance the supply of inventory with demand. A company would ideally want to have enough inventories to satisfy the demands of its customers- no lost sales due to inventory stock-outs. On the other hand, the company does not want to have too much inventory staying on hand because of the cost of carrying inventory. Inventory management is necessary at different locations within an organization or within multiple locations of a supply chain, to protect (the production) from running out of materials or goods. The study concludes that adequate inventories kept in noodles companies will smooth the production process.

### 5.2 Recommendations

1. Organizations should train their personnel in the area of inventory control management that will empower them to be in charge for the smooth running of the inventory management activities or programme
2. The study recommended that top management should emphasise the proper Inventory turnover techniques and measuring of efficiency deviations to identify weaknesses in the process of managing inventories.
3. The study recommended that manufacturing firms develop a policy framework to facilitate faster Implementation of the best inventory reward accuracy which can improve profitability.
4. There is need to consider the staff and their job assignment to automated inventory system in order to improve organizational performance through compulsory training programmes for all employees

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