

**ASSESSING THE EFFECT OF ORGANIZATIONAL AND MARKETING  
INNOVATIONS ON MEDIUM SCALE FOOD WHOLESALE MARKETING  
FIRM ABIA STATE, NIGERIA**

**Onwumere Joseph**

Department of Agribusiness and Management  
Michael Okpara University of Agriculture, Umudike, Abia state,  
Nigeria.

**Onyebu Chinwe Monica**

Department of Entrepreneurship  
Michael Okpara University of Agriculture, Umudike, Abia state, Nigeria.

**Orji Mauris Aturuchi**

Department of Marketing  
Michael Okpara University of Agriculture, Umudike, Abia state,  
Nigeria.

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**ABSTRACT:** *The study assessed the effect of organizational and marketing innovations on selected medium scale food wholesale marketing firms in Abia State, Nigeria. The study focused on medium scale flour food wholesale marketing firms. The study employed a Yaro Yamen sample size estimation method to cull out 50 firms from the entire sample frame. These firms were randomly selected for the studies of various variables of interest. Data were gotten from respondents via questionnaire. The data analyses were carried out with descriptive statistics, income statement analysis, probit and multiple regression analyses. The study showed that the majority of flour food wholesale marketing firms in the study area were established between the periods of 6-10 years ago. The highest number of employee of the food wholesale marketing firms fall within the period of 11-20. The result also indicates that sole proprietorship were the highest ownership structure evidenced from the study. The greater number of the firms' employee skills were semi-skilled. The firm's major source of capital was gotten through equity source of finance. The dominant organization's innovation strategies most adopted by the food wholesale firms were price strategy, product approaches, continuous and improvement aspect of innovation. The study however ensured a high quality management which confirmed a positive relationship between profitability and firms' growth. This attests to a signal of efficiency in the firms' management. The factors affecting organizational and marketing innovation strategies had significant relationships among the models respectively. Further, the effect of organizational and marketing innovation on medium scale flour food wholesale marketing firms performance and efficiency plausible as firm gross margin indicated sound profitability. Thus, there is the need for medium scale flour food wholesale marketing firms to employ the employ organizational and marketing innovation strategies complementarily in responding to the ever changing market needs of the food industry.*

**KEYWORDS:** Organizational, Marketing, Innovation, Food, Medium, Wholesale, Firm

## INTRODUCTION

Today, medium scale food wholesale marketing firms operate in a competitive and dynamic environment in which nothing but change is constant in respect to the firms existence, size, ownership structure, employee skills, sources of capital, innovation types adopted etc. Meanwhile organization's innovations were focused mainly not in only two types of activities i.e "organization and marketing innovations" which are seen as complementary to technological Innovation. Lau (2008) noted that the over increasing attentions of medium scale food wholesale marketing firms to innovation originated from the crucial role this factor plays in acquiring a suitable competitive advantage. Hence, innovation is said to be essential to success and survival of both manufacturing and service food firm, because of its' crucial role towards the growth of the firm. Meanwhile, Innovation adds to food wholesale firm capacity, thus enabling it to correspond to environmental changes. The major drawback in assessing the effect of organizational and marketing innovation by most medium scale food wholesale marketing firms (flour wholesale firms) is caused by the firm's inability to highlight the effect of organizational and marketing innovations on its innovative performance. However, innovation here requires a culture of innovation that supports new ideas, process and gradual ways of getting things done in a business firm. Hence, the benefits of an innovative firm in promoting a culture of innovation should foster; cross functional team building, independent creative thinking to see things from new perspectives and putting oneself outside of the parameters of a job function and risk taking by employers while lessening the status quo. Meanwhile, innovation is all about changes, new ideas and looking outside oneself to understand one's environment, Damanpour (1992). Furthermore, the increasing wave of negligence of innovations brought to limelight on the other problems associating with enhancing most medium scale food wholesale marketing firms' performance. Thus, not examine the socio-economic factor affecting food wholesale marketing firms, inability to properly identify the organizational innovations adopted by food wholesale marketing firms, not effectively ascertain the firms' profitability and efficiency constitutes to the firms' inefficiency. Notwithstanding, poor analysis of the determinant of organizational and marketing innovations and its inability to determine the effect of their organization's innovations also contributes to its inefficiency. While emphasizing on this, innovation here encompasses of strategies, structural and behavioral dimensions, Gera (2004). This notion is subject to various definitions and interpretations as noted by Lam, (2004). Black (2005), view organizational innovation as including components such as; work force training, work design etc. which according to Uhmlener (2007) viewed organization innovation into three types of practices such as, management practices, teamwork, knowledge management etc, production approaches such as change in work organization, total quality management and business re-engineering, and external relationship. Marketing innovation comprises of; product strategy, price or sales strategy and promotion strategy as it is been noted by Rust (2004) which leads to tactical marketing actions such as change in design in or packaging, change in sales or distribution methods and advertising etc. which aim at increasing firm's productivity. Based on the afore mentioned backdrops, the study examined the effect of organizational and marketing innovations on medium scale food wholesale marketing firms with particular interest on several kinds of flour marketing firms in Aba and Umuahia, Abia State, Nigeria.

## METHODOLOGY

The study area is Abia State Nigeria. This research work centers on the effects of organizational and marketing innovations of food wholesale marketing firms. Particularly in this study, the flour food wholesale marketing firms were studied following the enormous market demand for flour in the State. Aba and Umuahia were the major cities and commercial nerve centers of Abia State. Educational institutions, business organizations and companies are all situated within them. Hence, this study aims at covering the major part of the cities of Aba and Umuahia in Abia State. In realizing the inherent difficulties in studying the entire number of selected food wholesale marketing firms in Aba and Umuahia, Abia State, Nigeria, the study adopted a random sampling of flour food wholesale marketing firms to carry out a proper and sizable summary. In determining the sample size of the respondents out of the entire one hundred selected food wholesale marketing firms, Yare Yemen's sample technique was used in arriving at sample size of fifty (50) respondents (medium scale food wholesale marketing firm's). Yare Yemen's sample size determination;

$$n = \frac{N}{1 + N(e)^2}$$

n= sample size of food wholesale food marketing firms in Aba and Umuahia, N= total population of food wholesale marketing firms in Aba and Umuahia, E= error term or stochastic variable.

In search of relevant information for the study, the researcher used primary data in carrying out the study.

In testing the hypotheses, several analytical model based on the objectives to enable him assess the effect of organizational and marketing innovations on food wholesale marketing firms in Aba and Umuahia, Abia State.

Objective one and two "to examine the features of food wholesale marketing firms and, to identify the organizational and marketing innovation adopted by food wholesale marketing firms in the study area", is been analyzed using descriptive statistics (tables, frequency and percentage). Objective three "to ascertain the firm's profitability and efficiency" is analyzed using income statement. Objective three "to analyze the determinants of organization's innovation used by food wholesale marketing in the study area", is analyzed using probit model. Objective five "to determine the effect of organizational and marketing innovations on food wholesales marketing firms" is being analyzed using multiple regression model.

(a) In ascertaining the firm's profitability and efficiency, the income statement model use is stated below;

$$\text{Income statement} = \text{TC} = \text{TR}$$

Where; TC=total cost, TR=total revenue

(b) The multivariate probit econometric model used in analyzing the determinants of organization's innovations is stated thus;

$$Y_i = 1 \text{ if } x_i \beta_i + \sum \epsilon_i > 0, \\ Y_i = 0 \text{ if } x_i \beta_i + \sum \epsilon_i \leq 0, \quad i = 1, 2, \dots, n,$$

Where;

x= vector of explanatory variables,

y=explained variables

ie: Y=organization's innovations (dependent variables)

X=determinants of organization's innovations (independent variables)

Thus; Y=y<sub>1</sub>, y<sub>2</sub>, y<sub>3</sub>

y<sub>1</sub>= organizational innovation (organization innovation 1, and 0 for otherwise)

y<sub>2</sub>= marketing innovation (marketing innovation 1, 0 for otherwise)

y3= technological innovation (technological innovation 1, 0 for otherwise)

$$y1 = \beta_1 + \beta_1 x_1 + \beta_2 x_2 + \dots + u_i$$

x1 =work arrangement (work arrangement and otherwise 0)

x2=employee participation to manager (employee participation 1, otherwise 0)

x3 =quality management (quality management 1, otherwise 0)

x4 =work force training (work force 1, otherwise 0)

x5 =motivational packages/incentives (motivational packages/incentives 1, otherwise 0)

x6 =use of promotions (yes 1, no 0)

x7=group participation (group participation 1, otherwise 0)

x8=product modification (product modification 1, otherwise 0)

x9 =employee work schedule (work schedule 1, otherwise 0)

$$y2 = \beta_1 + \beta_1 x_1 + \beta_2 x_2 + \dots + u_i$$

x1 =different price strategy (different price strategy 1, otherwise 0)

x2 =promotion strategy (promotion strategy 1, otherwise 0)

x3 =distribution method (direct 1, indirect 0)

x4 =sales method (sales method 1, otherwise 0)

x5 =packaging (packaging 1, otherwise 0)

x6=product design (product design 1, otherwise 0)

$$y3 = \beta_1 + \beta_1 x_1 + \beta_2 x_2 + \dots + u_i$$

x1 =management commitment (management commitment 1, otherwise 0)

x2 =positive strategic thinking/proper idea generation (yes 1, no 0)

x3 =long term perspectives (long term perspectives 1, otherwise 0)

x4 =responsiveness to change (yes 1, no 0)

x5 =effective research (yes 1, no 0)

(c) The multi-regression analysis used in determining the effect of organizational and marketing innovations on food wholesale marketing firms' performance is stated below;

$$y_i = f(x)$$

$$y_i = f(x_1 + x_2 + \dots + u_i)$$

Where;

y=food wholesale marketing firms' performance

x1=organizational innovation (organizational innovation 1, otherwise 0)

x2=marketing innovation (marketing innovation 1, otherwise 0)

u<sub>i</sub>=error term.

## RESULTS AND DISCUSSIONS

An Analysis of Features of the selected Food Wholesale Marketing Firms' features in terms of; year of existence or age in operation, firms' size, firms' ownership structure, employee skills and sources of capital.

### Analyses of Food Wholesale Marketing Firms according to its year of Existence or Age in Operation

The result of Medium Scale Food Wholesale Marketing Firms According to Age or Year of Existence are presented in table 1

**Table 1: Distribution of Medium Scale Food Wholesale Marketing Firms According to Age or Year of Existence of the Firms**

Year of existence/operation	Frequency	%
0-5	2	4
6-10	23	46
11-15	20	40
16-20	4	8
20& above	1	2
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: field data 2012**

Table 1 shows that very few medium scale food wholesale marketing firms in the study area were newly established. For instance, about 2 medium scale firms comprising 4% of the total medium scale food wholesale marketing firms were newly established in the last 5 years. The result indicates that, medium scale food wholesale marketing firms in the study area were greater in number within the last 10 years. Meanwhile, about 23 of the medium scale food marketing firm which made up of 46 percent of the total medium scale food firm were in existence in the study area within the last 15 years, about 40 percent of the total medium scale food firm were in existence. The reason for this remains a subject yet to be investigated. Increase income is suggested as the reasons for such.

### **Analyses of Food Wholesale Marketing Firms according to the Firm Size**

The results on firm size by medium scale food wholesale marketing in the study area was presented in the table 4.3In table 2.

**Table 2: Distribution Medium Scale Food Wholesale Marketing Firms According to Firm Size.**

Firms size	Frequency	%
1-10	18	36
11-20	19	38
21-30	10	20
31-40	7	6
41% above	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: field Data 2012**

The data shows that medium scale food wholesale marketing firms within the size of 1-10 were 36% in number of the total medium scale food wholesale marketing firms. Further, 38%

of medium scale firms were within the time of 11-20. The data shows that medium scale food wholesale marketing firms are larger in size and in number and also in scope of development than other periods. However, this is the fact that medium firms appear fairly larger in the last 30 years. This is on the ground that the medium firm harbours most average food wholesale marketing firms in the study area.

### **Analyses of Food Wholesale Marketing Firms according to Ownership Structure**

The results on ownership structure by medium scale food wholesale marketing in the study area was presented in the table 3.

**Table 3: Distribution of Medium Scale Food Wholesale Marketing Firms According to Firm Ownership Structure**

Ownership structure	Frequency	%
Sole proprietorship	38	76
Partnership	12	24
Joint venture	–	–
Franchising	–	–
Licensing	–	–
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: field data 2012**

In table 3, sole proprietorship is the dominant pattern of business ownership. The proportion of medium scale firms were 76% the entire food wholesale marketing firms in the study area. Partnership consists of 24 percent of the medium scale food firms in the study area. Hence, the result impressed heavily that the idea partnership business firms is beginning to gain ground in the study area.

### **Analysis of Food Wholesale Marketing Firms according to Employee Skills**

The various employee skills of the food wholesale marketing firms are shown in table 4.

**Table 4: Distribution of Medium Scale Food Wholesale Marketing Firms According to Levels of Employee Skills**

Employee skills	Frequency	%
Skilled	–	–
Semi-skilled	30	60
Unskilled	20	40
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: field data 2012**

The highest level of employee skills of medium scale food wholesale marketing firms according to table 4 was semi-skilled which comprise 60% of the total medium scale food marketing firms in the study area. The minimum labour skills of medium scale food wholesale marketing firms were unskilled corresponding 40% for medium scale food firms in the study area. The results attests to the fact that skillfulness is important for efficient and effective performance of food wholesale marketing firms. Firms managers and employees with better skills appreciate improve methods of technologies and tends to be more productive. Managerial ability in record keeping, rational decision thinking, cost reduction and maximization of opportunities are enhanced with high skill. Apart from enhancing productivity, higher level of skills can leads to development of a more progressive and business-like attitudes, greater appreciation of the values of time punctuality.

### **Analysis of Food Wholesale Marketing Firms according to Sources of Capital.**

The results on sources of capital by medium scale food wholesale marketing in the study area was presented in the table 5.

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**Table 5: Distribution of Medium Scale Food Wholesale Marketing Firm According to their Source Capital**

<b>Source of capital</b>	<b>Frequency</b>	<b>%</b>
<b>Equity</b>	<b>50</b>	<b>100</b>
Bank loan	30	60
Cooperatives	15	30
Informal institutions	10	20
Quassi-self	–	–

*Source: field data 2012*

Allowing multiple decisions among entrepreneurs of food wholesale marketing firms (flour wholesale dealers), the results shows that medium scale food wholesale marketing firms have their major fund source as equity or personal capital (100%). This underlined the over ruling importance of personal capital sources over other sources of capitalization. Since majority of capital lenders will not extend their capital to any firm except there are some level of personal savings in the firm because of its security connotation. The result also showed the percentage at which medium scale food wholesale marketing firms financed their businesses through debt financing or bank loan. 60% of the medium scale food wholesale marketing firm's sources of finance is bank loan. This indicates that the food firms have more reserve. In the aspect of cooperative source of finance, the food firms obtain 30% of their capital source from cooperative. Other form of capital sourcing that was identified wasn't at the tune o food wholesale marketing firms. Meanwhile, quassi-self implies to any self financing practice of borrowing or emergence fund raising by managers of a firm to meet up with any unbudgeted occurrences in business.

### **An analyses of the Innovation types Adopted by food wholesale marketing firms**

The innovation types adopted by the medium scale food wholesale marketing firms in the study area was discussed in respect to; marketing, organizational and technological innovation.

#### **An analyses of the Innovation types according to Marketing Innovation**

The results on marketing innovation adopted by the medium scale food wholesale marketing in the study area was presented in the table 6

**Table 6: Distributions of Medium Scale Food Wholesale Marketing Firms according to the type of Marketing Innovation Adopted**

<b>Marketing innovation</b>	<b>Frequency</b>	<b>%</b>
Price strategy	23	46
Product strategy	16	32
Sales and distribution method	5	10
Promotion strategy	6	12
<b>Total</b>	<b>50</b>	<b>100</b>

*Source: field data 2012*

The dominant marketing innovation type adopted by the medium scale food wholesale marketing firm in the study area was pricing strategy (discount). 46% of the firm's total marketing strategy was price strategy. This underline the over ruling importance of price strategy by the medium scale food wholesale marketing firms in the study areas. The table also indicates that about 32% of medium scale food wholesale marketing firm's marketing strategy in the study area adopted product strategies. This result indicates that, small firms adopted greater product strategy. About 12% of the medium scale food wholesale marketing firm's marketing strategy adopted by them was sales and distribution method. The table also identified that 12% of the firm's marketing strategy in the study area was promotion strategy. Meanwhile, the above results as seen in table 6 shows that marketing innovations is an imperative for unlocking the potentials of medium scale food wholesale marketing firms in the study area.

#### **An analyses of the Innovation types according to Organizational Innovation**

The results on organizational innovation adopted by medium scale food wholesale marketing in the study area was presented in the table 7

**Table 7: Distribution of Medium Scale Food Wholesale Marketing Firm According to Organizational Innovation**

<b>Organizational innovation</b>	<b>Frequency</b>	<b>%</b>
Production approaches	30	60
Management practices	14	28
Relationship management	6	12
<b>Total</b>	<b>50</b>	<b>100</b>

*Source: field data 2012*

The organizational innovations adopted by the medium food wholesale food marketing firms are tabulated in table 7 above. The data showed that, about 60% organizational innovation adopted by the food wholesale marketing firm focus on production approaches (quality management). The result attests to the fact that medium scale food wholesale marketing firms favourably adopted production approaches. Furthermore, about 28% of the total medium scale food wholesale marketing firm's organizational innovation in the study area was management practices. In the same hand, the table indicates that 12% of medium scale food wholesale firm's organizational innovation adopted by them was relationship management. The result shows that there is need for more relationship among the food wholesale marketing firms in the study area in respect to their customers.

#### **An analyses of the Innovation types according to Technological Innovation**

#### **Distribution of Medium Scale Food Wholesale Marketing Firms According to Technological Innovation (Marketing and Product Perspectives).**

The results on Marketing Perspectives of organizational innovation adopted by medium food wholesale marketing in the study area was presented in the table 8

**Table 8: Distribution of Medium Scale Food Wholesale Marketing Firms under Marketing Perspectives**

<b>Marketing perspectives</b>	<b>Frequency</b>	<b>%</b>
Continuous	30	60
Dynamically	20	40
Discontinuous	–	–
<b>Total</b>	<b>50</b>	<b>100</b>

*Source: field data 2012*

The results on product Perspectives of organizational innovation adopted by small, medium and large food wholesale marketing in the study area was presented in the table 9

**Table 9: Distribution of medium scale food wholesale marketing firms under product perspectives**

<b>Product perspectives</b>	<b>Frequency</b>	<b>%</b>
Improvement	30	60
Proliferation	20	40
Advancement	–	–
<b>Total</b>	<b>50</b>	<b>100</b>

*Source: field data 2012*

The result of the analysis on technological innovation under marketing perspectives was presented in Table 8. Allowing multiple decisions by medium scale food wholesale marketing firms, the report in the table 8 indicates that, 60% of the food wholesale marketing firms adopted continuous aspect of marketing innovation perspectives under technological innovation. In the case of dynamically innovation, about 40% the firm's technological innovation by the food wholesale marketing was dynamically innovation. The result does not show any positive outcome in respect to the discontinuous aspect of the firm's technological innovation. The results here indicate that, discontinuous innovation is not favourable to the food wholesale marketing firms in the study area.

Also, Table 9 indicates that the rate at which medium scale food wholesale marketing firms adopted product improvement, product proliferation and product advancement as an aspect of product perspectives of technological innovation appears the same as seen in table 8

#### **Analysis of food wholesale marketing firms' profitability and efficiency using income statement, return on sales, investment and gross profit indicators**

A general analysis of the firms' profitability and efficiency using income statement elements involving costs, operating returns and other performance indicators of medium scale food marketing firms (flour wholesale marketing firms) are presented below.

#### **Income Statement of the Average Medium Scale Food Wholesale Marketing Firm**

The result of income statement of medium scale food firm is presented in table 10

**Table 10: Income Statement of the Average Medium Scale Food Wholesale Marketing Firm**

Items	Value N	Value N
Revenue		
Beans flour	1,117,200	
Maize flour	1,306,800	
Rice flour	1,101,600	
Cassava flour	1,764,000	
Wheat flour	13,600,000	
<b>Total revenue</b>		<b>8,889,600</b>
<b>VARIABLE COST</b>		
Advertisement	300,000	
Delivery cost	288,000	
Salary and labor cost	336,000	
Packaging	240,000	
Material cost	384,000	
Miscellaneous	180,000	
<b>Total variable cost</b>		<b>(3,348,000)</b>
<b>Gross profit</b>		<b>5,541,600</b>
Fixed cost	170,000	
Rent	277,080	
Tax	888,960	
Interest rate		
<b>Total fixed cost</b>	<b>4,684,840</b>	
<b>Total cost</b>		<b>(1,336,040)</b>
<b>Net profit</b>		<b>4,205,560</b>

Source: field data 2012

The result put the average gross profit and net income of medium scale food wholesale marketing firms as N5,541,600 and N4,205,560 respectively. The total cost of production spend by the firm was N4,684,840 comprising of the variable and fixed cost incurred by the firm within 2012. This can be reported that the firm is profitable. The assertion is real because it should be noted that increase in the present profit status of the enterprise will as well affect the future profitability of the firms.

### **Return on Sales, Investment and Gross Profit Indicator of Medium scale food Wholesale Marketing Firms.**

Analyses of return on sales, investment and gross profit indicator of selected medium scale food wholesale marketing firm is presented in table 11

**Table 11: Analyses of return on sales, investments and gross profit indicator of an average medium scale food wholesale marketing firm in Aba and Umuahia.**

Items	Medium scale firms
Returns on Sales(ROS)	0.76
Gross profit indicator(GP)	0.62
Return on investment(ROI)	0.80

Source: field data 2012

Considering the income statement analyses of the selected medium scale food wholesale marketing firm which presented a net income position of N4205560, it is inferred that medium scale food wholesale firms are profitable in Aba and Umuahia, Abia State. The result depict a return on sale of 0.76 and 0.74 implying 76% returns by medium scale food marketing firm. The result of the food wholesale marketing firms gave a signal of efficiency in the firms' management. The analysis project that for every one naira worth of sales by the firm returns 76kobo. The analysis revealed that, medium scale food firms do make better returns on sales in the study areas. The gross profit to sales ratios of 0.62 implying 62% of the total gross profit were observed. According to Olukos (1988), gross profit of less than (100%) is most desirable in any agribusiness investment. The gross profit of the food wholesale marketing firms dealing on different kinds of flour was positive, indicating profitability and better performance. The return on investment presented on the table above show a ratio of 0.80 indicates that medium scale food firms do make up to 80% return on investment in the study area. This attests to a better performance of medium scale food wholesale marketing firms in Aba and Umuahia, Abia State. Hence, medium scale food wholesale marketing firms dealing on different kinds of flour are profitable.

### Analysis of the Determinants of Organization's Innovation

The analyses of factors affecting organizational innovation are presented in Table 12.

**Table 12: Factors Affecting Organizational Innovation (Medium Scale Food Firm)**

Parameters	Estimate	Std Error	z-value
Work arrangement	0.19	0.04	4.476***
Employee participation with manager	0.20	0.04	5.258***
Quality management	0.23	0.04	5.515***
Work force training	0.26	0.04	6.222***
Motivation	0.14	0.04	3.405***
Use of promotion	0.35	0.04	8.254***
Group participation	0.01	0.04	0.175
Product modification	0.13	0.04	2.999***
Employee work schedule	0.10	0.05	2.184**
Intercept	-2.310	0.05	-447.617***
Pearson	Chi-square	Df	
Goodness of fit test	50523.596***	40	

**Source: Field survey, 2012**

\*\*\* = significant at 1%, \*\*=significant at 5%, \*=significant at 10%

Work arrangement was significant at 1% risk level and positively related to organizational innovation. This result shows that proper work arrangement improve firm's organizational innovation. This might be as a result of firm efficient knowledge utilization. Employee participation with manager was significant at 1% risk level and positively related to organizational innovation. Meanwhile, as employee participation with the manager improved, organizational innovation also improved. That is to say, any firm who appreciate manager-employee relationship enhances its organizational innovation. Quality management was significant at 1% risk level and positively related to organizational innovation. As firm's quality management improved, organization innovation improved as well. This might be as a

result of effective knowledge strategy adopted by the firm, which on the other hand influence the firm's organizational innovation level in respect to its performance. Work force training was significant at 1% risk level and positively related to organizational innovation which indicates that training enhances organizational innovation. This means the higher the level positioning of workers to efficient delivery of the service paid, the higher the organizational innovation. Motivation was significant at 1% risk level and positively related to organizational innovation. This means that an increase in motivation leads to an increase in organizational innovation. Motivation here which could be described as stimulation and encouraging of workers to exploit their capabilities to a task that must be performed has a significant effect on organizational innovation. Meanwhile, the greater the stimulation and encouraging of workers to exploit their capabilities to a task that must be performed, the greater the organizational innovation. Promotion was significant at 1% risk level and positively related to organizational innovation. This result indicated that as promotion improved, organizational innovation also improved. Promotion here could be seen as the impressive effort by management to reward or upgrade members or staff, has a positive effect on staff morale. This consequently led to staff efficient response to its responsibility. That is to say when staff moral advanced, organizational innovational also improved. Product modification was significant at 1% risk level and positively related to organizational innovation. This shows that as product modification improved, organizational innovational improved. This could be due to the need to control large market share by the firm. Meanwhile, the greater the bid to control large market shares, the greater the organizational innovation. Employee work schedule was significant at 5% risk level and positively related to organizational innovation. This indicated that an improvement in employee work schedule will lead to an improvement organizational innovation, which means an efficient work schedule boosts organizational innovation. The value of chi-square significant indicated that the model is statistically significant at 1%

### Estimation of factors affecting marketing innovation

The analyses of factors affecting marketing innovation are presented in Table 13.

**Table 13: Variables of marketing innovation (medium scale food firm)**

Parameter	Estimate	std Error	Z value
Price strategy	0.03	0.05	0.644
Promotion strategy	0.16	0.04	4.000***
Distribution method	0.04	0.04	0.986
Sales method	0.11	0.04	2.439**
Packaging	0.21	0.010	2.100**
Product design	0.10	0.05	2.100**
Intercept	-3.140	0.06	-518.871***
Pearson	Chi-square	Df	
Goodness of fit test	27837.527***	43	

**Source: Field survey, 2012**

\*\*\*=significant at 1%, \*\*=significant at 5%, \*=significant at 10%

Promotion strategy was significant at 1% risk level and positively related to marketing innovation which shows that as promotional strategy improved, marketing innovation also improved. This may be due to the ability of the firm to compete favourably with other competitors in the market. Sales method was significant at 5% and positively related to marketing innovation which indicates that, as sales method enhanced, marketing also enhanced. Meanwhile, as the need to improve on the firm's sales method comes, the more the need for enhanced marketing innovation. Packaging was significant at 5% risk level and positively related to marketing innovation which shows that, the more improvement in the firm's packaging, the more the marketing innovation. Product design was significant at 1% risk level and positively related to marketing innovation which shows that as product design improved, marketing innovation improved as well. This might be due to the need by the firm to modernize its product. The more need to modernize the firm's product, the more the marketing innovativeness of the firm. The value of chi-square significance indicates that the model was significant at 1%.

### Analyses of factors affecting technological innovation

The analyses of factors affecting technological innovation are presented in Table 14

**Table 14: Factor Influencing Technological Innovation (medium scale food firm)**

Parameter	Estimate	Std error	z value
Management commitment	0.08	0.02	4.000***
Proper idea generation	0.05	0.04	1.250
Long term perspectives	0.07	0.03	2.333**
Responsive to change	0.21	0.20	1.050
Effective research	0.91	0.27	3.370***
Intercept	-4.342	0.08	-542.750***
Pearson	Chi-square	Df	
Goodness of fit test	5672.9205***	46	

**Source: Field survey, 2012**

\*\*\*=significant at 1%, \*\*= significant at 5%, \*=significant at 10%

Management commitment was significant at 1% risk level and positively related to firm's innovative performance which indicates that as the rate to which firm's management commitment increased, also their technological innovativeness increased also. This may be due to the need to meet up with a good product standard. Hence, the more the need to meet up with a good product standard, the more advanced the firm's innovative performance. Long term perspective was significant at 5% risk level and positively related to firm's innovative performance which shows that, planning ahead of time enhances efficiency. This may be due to the need to meet up the future constraints that might come up which altogether enhances the firm's technological innovation. Effective research was significant at 1% risk level and positively related to the firm's innovative performance which indicates that as the firm's need to discover new ideas enhanced, their technological innovation enhanced as well. This could be due to the need to serve the customers better. Meanwhile, the increase in the need to serve

the customer better, technological innovation increased as well. The significance of the chi-square indicates that the model is significant at 1%.

### Analysis of the Effect of Organizational and Marketing Innovation on Food Wholesale Marketing Firms

Analysis of the effect of organizational and marketing innovation are presented in table 15

**Table 15: Effect of Organizational and Marketing Innovation on Food Wholesale Marketing Innovation (medium scale food firm)**

Variable	Coefficient	std Error	t-value
Constant	0.612	0.074	8.270***
Marketing innovation	0.036	0.012	3.003***
Organizational innovation	0.074	0.064	4.445***
R <sup>2</sup>	0.647		
R <sup>2</sup>	0.436		
F-ratio	3.264***		

*Source: Field survey, 2012*

\*\*\*=significant at 1% \*\*=significant at 5%

Marketing innovation was significant at (1%) risk level and positively related to firm's performance. This shows that as the firm's marketing innovation increase, its performance improve also. This might be due to the need to obtain greater market share. Meanwhile, the greater the need to increase firm's market share, the more advanced the firm's performance. The table indicates that there is positive and significant (5%) risk level relationship between organizational innovation and firm's performance. This means that as organizational innovation improve, firms' performance also improve. The improvement in organizational innovation could be as a result of the pursuance and the realization of firms' goals. The higher the pursuance of the firm, the greater the firms performance. The value of R<sup>2</sup> (coefficient of multiple determination), 0.647 indicated that 64.7% of the total variance observed in the dependent variable (firm's performance is accounted for by the independent variables included in the model). The F-value of 3.264 indicated that the model is statistically significant..

### CONCLUSION

The of effect organizational and marketing innovations on food wholesale marketing firms with respect to flour wholesale marketing was analysed by this study. Based on the findings of the study, organizational and marketing innovations have significant effects on firms' performance and efficiency. Hence, the result indicated that any food wholesale marketing firm that adopted proper marketing and organizational innovations survived successfully the changing market intrigues. In general, the observations indicated that organizational and marketing innovations have a positive effect on flour food wholesale marketing firms in the study area given the fact that it enhanced the overall innovative performance.

Therefore, it is expected the flour food wholesale marketing firms to improve more in their marketing innovations in order to tickle their organizational innovations toward the attainment of better opportunities. Flour food wholesale marketing firms should properly engage in work arrangement in order to be conversant with their function. The need for effective employee work schedule will as well make an important contribution to firm better performance. Any food wholesale marketing firm who tends to responds to changing market needs operate favorably in a competitive market situation. Finally, for any food wholesale marketing firm to survive in any market situation, they must see organizational and marketing innovation as been complementary to each other because joint strategy boosts efficiency.

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