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MODELING THE INDICES OF ORGANIZATIONAL AND MARKETING INNOVATIONS ADOPTED BY SMALL SCALE FLOUR AGRO- MARKETING FIRMS ABIA STATE, NIGERIA

[1]Onwumere .J. and [2]Onyebu C.M
[1]Department of Agribusiness and Management
[2]Department of Entreprenuership
Michael Okpara University of Agriculture, Umudike, Abia State,
Nigeria.

ABSTRACT: ***A*** *detailed analysis of the indices of organizational and marketing innovations has been examined in this study. The specific objectives duly analyzed were identification of the features of small scale flour marketing firms; analysis of the profitability and efficiency of the firms using income statement; ascertaining the determinants and indices of organizational, marketing and technological innovations. The technique of data collection was firstly a purposive sampling method to choose Aba and Umuahia Metropolis and small scale flour marketing firms and; secondly a random sampling selection technique was employed in selecting fifty specific firms for the study. The data elicited from sampling of fifty small scale flour marketing firms were analysed via descriptive statistics, income statement, probit and Ordinary Least Square Multiple regression analyses. The report from the results analyses showed that the significant indices of marketing innovation were price strategy, promotion strategy, distribution method, sales method, packaging and production strategies. On the other hand, significant indices of organizational innovation included work arrangement, quality management, motivation, use of promotion, product modification and employee schedule. The organizational innovation was highly significant than marketing innovation of small scale flour marketing firms in contributing towards enhancing the performance of small scale flour marketing firms. Thus, the organizational and marketing innovation indices analyzed in this work remained very significant and highly important tools for profitable marketing activity and in unlocking the marketing potentials of the firms and in encouraging competitive advantage over other firms that were indifferent about the strength of these organizational and marketing innovations. The study indicated that any small scale flour marketing firm that adopted for proper marketing and organizational innovations adapted successfully to emerging marketing challenges. Thus, it is recommended that small scale flour marketing firms should properly engage in organizational innovation involving work arrangement and effective employee work schedule which will contributing efficiently to better firm performance. Further, it is recommended that small scale flour marketing firms should include in their innovation portfolios price strategy, promotion strategy, distribution method, sales method, packaging, motivation, work arrangement, and product modification respectively which have the potentials to sustain the performance of the firms extensively.*

KEYWORDS: Modeling, Determinants, Organizational, Marketing, Innovations, Flour, Firm

INTRODUCTION

Modeling the indices of innovation is all about considering innovation indicators or determinants the leads to changes, new ideas and looking outside oneself or firm to understand one's environment as required in venturing activities, Damanpour (1992). The survival of any

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firm is dependent on its innovativeness. Innovation is one of the key means by which small scale firms can overcome harsh business conditions to survive and grow into large corporate entities (Subrahmanya *et al*, 2010). The idea of innovation divides it into organizational and marketing types. Black (2005), view organizational innovation as including components such as; work force training, work design etc which according to Murphy (2002) and Uhhlener (2007), they 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; product strategy, price or sales strategy and promotion strategy as it is been noted by Rust (2004) which led 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. Following these backdrops, the study examined the effect of organizational and marketing innovations on small scale flour marketing firms dealing on several kinds of flour.

Academics have studied the various innovations (Sundbo, 2003; Van der Aa and Elfring, 2002) that can be adopted by both small scale and medium scale enterprises. Studies on innovation have focused on process and technological innovation (Hoffman *et al*, 1998; Julien *et al*, 2004; Kalantaridis, 2010). Few studies have looked at organisational innovation among small scale firms with the exception of Salavou *et al* (2004) who looked at organisational innovation in SMEs from the context of strategic orientation and competitive structure in Greek SMEs. Innovations provide firms a strategic orientation to overcome the problems they encounter while striving to achieve sustainable competitive advantage. Organization's innovations are focused on two types of activities "organization and marketing innovations" which are seen as complementary to technological Innovation, Stieglitz (2007). Suresh, *et.al* (2009) from a study on innovation on small scale enterprises opined that more than one quarter of enterprises are found engaging in innovation, with marketing innovations the most common. As predicted by their model, firm size was found to have a stronger positive effect, and competition a stronger negative effect, on process and organizational innovations than on product innovations. Owner ability, personality traits, and ethnicity are found to have a significant and substantial impact on the likelihood of a firm innovating, confirming the importance of the entrepreneur in the innovation process.

Lau (2008) noted that the over increasing attentions of small scale firms to innovation originated from the crucial role this factor plays in acquiring a suitable competitive advantage. Perhaps, innovation is said to be essential to success and survival of manufacturing and marketing firm, because of its crucial role towards the growth of the firm. Meanwhile, Innovation adds to small scale firm capacity, thus enabling them to correspond to environmental changes. The major setback in modeling the effect of organizational and marketing innovation by most marketing firms is associated to the firm's inability to properly highlight the impact of these 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

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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.

Furthermore, Onwumere *et.al* (2014) opined that the increasing wave of negligence of innovations has brought to limelight the other problems associated with enhancing most food manufacturing and marketing performance which includes poor examination of the socio-economic factor affecting food marketing firms, inability to properly identify the organizational innovations adopted by the firms, not effectively ascertaining the firms' profitability and efficiency which leads inefficiency. Also, poor analysis of the determinants of organizational and marketing innovations and inability to determine the effect on organization's innovations also contributes to inefficiency. These problems spans into the areas of strategies, structural and behavioral dimensions, Gera (2004). This notion is subject to various definitions and interpretations as noted by Lam, (2004). It is on this background that this study seeks to examine and model the indices of organizational behavior. The specific objectives examined included to analyze the features of the small scale flour marketing firms; analysis of the profitability and efficiency of the firms using income statement; ascertaining the determinants of organization, marketing and technological innovations

METHODOLOGY

The study area was Abia State Nigeria. The data set required for this analysis were primary data. The instrument of data elicitation was questionnaire. Data were collected from the small scale flour marketing firms. The number of small scale flour marketing firms studied was 50. The method of data collection was purposive sampling in selecting Aba and Umuahia metropolis being the major cities and commercial nerve centers of Abia State. Further, the study adopted a random sampling of small scale flour marketing firms dealing on flours of wheat, barley, maize, cassava etc. The analytical techniques involved the use of descriptive statistics (tables, frequency and percentage), income statement, probit and multiple regression models.

In ascertaining the firm's profitability and efficiency, the income statement model was stated as follows

(a) Income statement = TC=TR

Where; TC=total cost, TR=total revenue

(b) Modeling the indices of organizational, marketing and technological innovations was achieved with a multivariate probit econometric model as follows

$Z_i = 1$ if $\beta i q_i + \Sigma i > 0$,

$Z_i = 0$ if $\beta i q_i + \sum i \leq 0$, I =1,2,_____,n,

Where:

βi =coefficients corresponding to 1,2,3……n

q_i = vector of explanatory variables corresponding q_1, q_2, q_3……qn

Z_i = dependent variables

ie: Z_i= The dependent variable vector representing of small scale flour marketing firms as the case may respectively

Z_i= Small scale flour marketing firms' innovation type for firm i (organizational (Z_1), marketing (Z_2) and technological innovations (Z_3) = 1, and 0 for otherwise respectively)

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Modeling the determinants of organizational innovation:

$Z_1 = \beta_0 + \beta_i q_i$----------ui

q_1 =work arrangement (work arrangement 1 and otherwise 0)
q_2=employee participation in decision making (employee participation 1, otherwise 0)
q_3=quality management (quality management 1, otherwise 0)
q_4 =work force training (work force 1, otherwise 0)
q_5 =motivational packages/incentives (motivational packages/incentives 1, otherwise 0)
q_6 =use of promotions (yes 1, no 0)
q_7=group participation (group participation1, otherwise 0)
q_8=product modification (product modification 1, otherwise 0)
q_9 =employee work schedule (work schedule 1, otherwise 0)
ui = error term

Modeling the determinants of marketing innovation:

$Z_2 = \beta_0 + \beta_i q_i$ ----------ui

q_{10}=different price strategy (different price strategy 1, otherwise 0)
q_{11} =promotion strategy (promotion strategy 1, otherwise 0)
q_{12} =distribution methods (direct 1, indirect 0)
q_{13} =sales method (sales method 1, otherwise 0)
q_{14} =packaging (packaging 1, otherwise 0)
q_{15} =product design (product design 1, otherwise 0)

Modeling the determinants of technological innovation:

$Z_3 = \beta_0 + \beta_i q_i$ ----------ui

q_{16} = management commitment (management commitment 1, otherwise 0)
q_{17} = positive strategic thinking/proper idea generation (yes 1, no 0)
q_{18} = long term perspectives (long term perspectives 1, otherwise 0)
q_{19} = responsiveness to change (yes 1, no 0)
q_{20} = effective research (yes 1, no 0)

Model specification for the analysis of the effect of organizational and marketing innovations on small scale flour marketing firms' performance using Ordinary Least square Multiple Regression (OLS) analysis as follows:

$K_i = f(g_1 + g_2$ --------,+ui)

Where:
K_i =food wholesale marketing firms' performance measured as net profit in naira
g_1=organizational innovation (organizational innovation 1, otherwise 0)
g_2=marketing innovation (marketing innovation 1, otherwise 0)
ui=error term.

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RESULTS AND DISCUSSION

Examining the features of the selected small scale flour marketing firms

The firms' features were examined in terms of firms' size, employee skills and sources of capital.

Examining small scale flour marketing firms according to the firm size

The results on firm sizes of small scale flour marketing firms is presented in the Table 1

Table 1: Distribution of small scale flour marketing firms according to firm size (number of employees)

Firms size	Frequency	%
1-10	10	20
11-20	11	22
21-30	15	30
31-40	12	24
40% above	2	4
Total	**50**	**100**

Source: field Data 2012

Table 1 showed that small scale flour marketing firms having firm size of 1-10 employees constituted 20% of the total firms. About 22% of flour firms had 11-20 employees. The result showed that small scale flour marketing firms with employees of 21-30 persons occupied the highest number of small scale flour marketing firms in the study area followed by those having 31-40 employees while the least were those having 40 and above number of employees.

Analysis of small scale flour marketing firms according to employee skills

The distributions of the firms by employee skills are shown in Table 4.

Table 2: Distribution of small scale flour marketing firms according to levels of employee skills

Employee skills	Frequency	%
Skilled	_	_
Semi-skilled	22	44
Unskilled	28	66
Total	**50**	**100**

Source: field data 2012

Table 2 showed that 44% of small scale flour marketing firms employed semi-skilled labour. Majority (66%) of the labourers of small scale flour marketing firms were unskilled. This implied that the highest number of the small scale flour marketing firms employed more of unskilled workers for their activities. None of the firms had high level skill employees and majority of the firms played the issues of

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skillfulness in managerial ability in record keeping, rational decision thinking, cost reduction and maximization of opportunities that requires high skill.

Analyses of small scale flour marketing firms according to sources of capital

The results on sources of capital by small scale flour marketing are presented in the Table 3

Table 3: Distribution of small scale flour marketing firms according to sources capital source of capital

	Frequency	%
Equity	50	100
Bank loan	20	40
Cooperatives	25	50
Informal institutions	10	20
Quassi-self	_	_

Source: field data 2012

Allowing multiple decisions among entrepreneurs of small scale flour marketing firms, the results showed that, small scale flour marketing firms have their major fund source as equity or personal capital of (100%). This underlined the over ruling importance of personal capital sources over other sources of capital. 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. Also it showed that the percentage at which small scale flour marketing firms financed their businesses through debt financing or bank loan. Also, cooperative contributed 20% of the capital needs of the firms. This shows that the firms obtained their funds from various institutions including cooperatives being informal institutions. Meanwhile, quassi-self implying any self financing practice of borrowing or emergence fund raising by managers of a firm to meet up with any unbudgeted occurrences in business (Onwumere 2010) was patronized at all by the small scale flour marketing firms.

Examination of the innovation types adopted by small scale flour marketing firms

The innovation types adopted by small scale flour marketing firms were examined with respect to; marketing, organizational and technological innovation.

Analysis of marketing innovation adopted by the firms

The results on marketing innovation adopted by small scale flour marketing firms were presented in the table 4

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Table 4 Distributions of small scale flour marketing firms according to the type of marketing innovation adopted

Marketing innovation	Frequency	%
Price strategy	22	44
Product strategy	17	34
Sales and distribution method	6	12
promotion strategy	5	10
Total	**50**	**100**

Source: field data 2012

The dominant (44%) marketing innovation type adopted by small scale flour marketing firms was pricing strategy (i.e. discount). This showed the overruling importance of pricing strategy to food small scale flour marketing firms. The Table 4 also indicated that about 34% of the small scale flour marketing firms adopted product strategies. About 12% of the firms adopted sales and distribution methods. Meanwhile, the above results as seen in Table 4 showed that marketing innovation is an imperative for unlocking the potentials of small scale flour marketing firms.

Analysis organizational innovation adopted by the firms

The results on organizational innovation adopted by small scale marketing firms in the study area was presented in the table 5

Table 5: Distribution of small scale flour marketing firms according to organizational innovation

Organizational innovation	Frequency	%
Production approaches	30	60
Management practices	12	24
Relationship management	8	16
Total	**50**	**100**

Source: field data 2012

The data showed that, about 60% of organizational innovation adopted by small scale flour marketing firm focus on production approaches (quality management) as their best organizational innovation practices. The result attests to the fact that majority of the small scale flour marketing firms favourably adopted this organizational innovation. Furthermore, it also indicates that, about 24% of the total small scale marketing firms adopted management practices whereas, 16% adopted relationship management.

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The result shows that there is need to pay attention to more relationship among these flour marketing firms.

Analysis of technological innovation adopted by the firms

The technological innovations of small scale firms are divided into marketing and product perspectives. The result on Marketing Perspectives of technological innovations adopted by the small scale marketing firms in the study area is presented in the table 6.

Table 6: Distribution of small scale flour marketing firms under marketing perspectives

Marketing perspectives	Frequency	%
Continuous	30	60
Dynamically	20	40
Discontinuous	_	_
Total	**50**	**100**

Source: field data 2012

Allowing multiple decisions among small scale flour marketing firms, the report in the table indicates that, 60% of the firms adopted continuous aspect of marketing innovation perspectives under technological innovation. Also, 40% of the firms adopted dynamically innovation type of marketing innovations. Table 8 also shows that, none of the small scale flour marketing firms adopted discontinuous innovation aspect of marketing innovation perspectives of technological innovation. The results here indicated that, discontinuous innovation was not favourable to the firms in the study area.

The results on product Perspectives of organizational innovation adopted by small scale flour marketing firms is presented in the Table 6

Table 7: Distribution of small scale flour marketing firms under product perspectives

Product perspectives	Frequency	%
Improvement	30	60
Proliferation	20	40
Advancement	_	_
Total	**50**	**100**

Source: field data 2012

Also, Table 7 indicated that the rate at which small scale flour marketing firms adopted product improvement and product proliferation aspect of product perspectives of technological innovation was 60% and 40% respectively. The firms engage more on product improvement than product proliferation

Analysis of small scale flour marketing firms' profitability and efficiency using Income Statement

The small scale firms were analysed according to their profitability and efficiency level using income statement elements such as costs, operating returns and other performance as presented following return on sales, return on investment and gross profit indicators.

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Return on Sales, Investment and Gross Profit Indicator of small scale flour Marketing Firms.
Analyses of return on sales, return on investment and gross profit indicators of small scale flour marketing firms is presented in table 8

Table 8 Analyses of return on sales, investment and gross profit indicator of small scale flour marketing firms

Items	Ratios
Returns on Sales(ROS)	0.80
Gross profit indicator(GP)	0.67
Return on investment(ROI)	0.63

Source: field data 2012

From the income statement of the small scale flour marketing firms presented above, the net income position of N1, 934,300. It is inferred that the selected food firms in Aba and Umuahia, Abia State are profitable. The result depicts a return on sale of 0.80 ratios implying, 70%, and returns for the food marketing firms. The result of the wholesale marketing firms gave a signal of efficiency in the firms' management. The ROS analysis showed that for every one naira worth of sales by the firms' returns 80kobo. The analysis revealed that, the firms have higher return on sales in the study areas. The gross profit to sales ratios of 0.67 implying 67% were observed for the small scale flour marketing firms. According to Olukos (1988), gross profit of less than (100%) is most desirable in any agribusiness investment. The gross profit of the small scale flour marketing firms dealing on different kinds of flour was positive, indicating profitability and better performance. The return on investment ratio was 0.63. This attests to a better performance of the small scale flour marketing firms in Aba and Umuahia, Abia State. Hence, the four marketing firms dealing on different kinds of flour are profitable.

Income Statement of small scale flour marketing firm

The result of income statement of the small scale firm is presented in table 9

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Table 9 Income Statement of small scale flour marketing firm

Items	value (N)	Value (N)
Revenue		
Beans flour	489,600	
Maize flour	918,000	
Rice flour	480,000	
Cassava flour	720,000	
Wheat flour	1,020,000	
Total revenue		**3,627,600**
Variable Cost		
Advertisement	_	
Delivery cost	204,000	
Salary and labor cost	288,000	
Packaging	180,000	
Material cost	384,000	
Miscellaneous	156,000	
Total variable cost		**(1,212,000)**
Gross profit		**2,415,600**
Fixed Cost		
Rent	150,000	
Tax	181,000	**(481,300)**
Interest rate	150,000	
Total fixed cost		
Total cost		**1,934,300**
Net profit	**1,693,300**	

Source: field data 2012

It could be seen that average gross profit and average net income of **N2, 415,600** and **N1, 934,300** respectively were realized within the operating period 2012. The average total cost incurred by small scale flour marketing firm was **N1,693,300**. The net income position of firm revealed that it was profitable. This may also account for the high rate of quality management ensured upon by the competent dealers. This confirmed a positive relationship between profitability and firm growth.

Analysis of the Determinants of Organization's Innovation of small scale flour marketing firms

The analyses of factors affecting organizational innovations of small scale flour marketing firms are presented in Table 10

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Table 10: Factors affecting organizational innovation of small scale flour marketing firms

Parameters	Estimate	Std Error	z-value
Work arrangement	0.43	0.07	5.857***
Employee participation with manager	0.01	0.06	1.18
Quality management	0.32	0.06	5.174***
Work force training	0.01	0.07	0.88
Motivation	0.24	0.07	3.607***
Use of promotion	0.66	0.07	10.067***
Group participation	0.05	0.07	0.723
Product modification	0.65	0.06	10.623***
Employee work schedule	-0.92	0.07	-13.220***
Intercept	-2.417	0.09	-298.069***
Pearson	Chi-square	Df	
Goodness of fit test	15665.272***	40	

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

Work arrangement was significant at 1% risk level and positively related to organizational innovation, which showed that work arrangement enhanced organization innovation. This could be as a result of knowledge utilization by the firm which influenced its innovation level that consequently promotes firm's efficiency. This indicated that the higher the need for knowledge utilization the more advanced the firm's organizational innovation. Quality management was significant at 1% risk level and as well positively related to organizational innovation. Quality management enhanced and improved organizational innovation. This might be as a result of proper adoption of strategic knowledge sharing and utilization. Motivation was significant at 1% risk level and positively related to promotional innovation. This indicated that motivation increased as organizational innovation increased respectively. Innovation here has to do with offering incentive to workers, which stimulated them to exploit their capabilities and competencies to a task that must be performed. As incentives to workers increase, they are stimulated to exploit their capabilities and competencies in performing more tasks, thus, the greater the organizational innovation. Promotion was significant at 1% risk level and positively related to organization innovation. These indicate that as promotion improved, organization innovation also improves. Product modification was significant at 1% risk level and positively related to organizational innovation which indicates that, product modification enhances organizational innovation. Meanwhile, an improvement in a product also affects the improvement of organizational innovation. When a firm modifies its product, organizational innovation advances. Employee work schedule was significant at 1% risk level and positively related to organizational innovation. This indicates the fact that as work schedule enhanced, organization innovation. This enables the workers to know its responsibilities. The value of the chi-square significance indicates that the model is statistically significant at 1%.

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Analysis of marketing innovation of small scale flour marketing firms

The analyses of the determinants of marketing innovation are presented in Table 11

Table 11: Determinants of marketing innovations of small scale flour marketing firms

Parameter	Estimate	Std Error	value
Price strategy	0.01	0.04	.250
Promotion strategy	0.011	0.04	.750***
Distribution method	0.08	0.03	.666**
Sales method	0.04	0.04	.100
Packaging	0.07	0.04	.750*
Product design	0.01	0.04	.52
Intercept	-3.130	.05	626.000***
Pearson Goodness of fit test	Chi-square 8602.118***	df 3	

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

Promotional strategy was significant at 1% risk level and positively related to marketing innovation. This indicates that as promotion increased, marketing innovation also increased. Meanwhile, promotional strategy stimulates customer's responds on the firm's product. That is to say, the more the stimulation of a customer on a firm's products, the more the market innovation. Distribution strategy was significant at 5% risk level and positively related to marketing innovation which indicates that as distribution strategy adopted improve, marketing innovation improve as well. This improvement could be due to the need to reach greater number of customers. Meanwhile, the more the need to reach out a greater number of customers, the more the marketing innovation Packaging was significant at 10% risk level and relatively related to marketing innovation. This indicates the fact that as packaging advanced, marketing innovation also advanced. This may be due to the need to properly identify and safeguard the firm's product. Hence, as the need to properly identify and safeguard the firm's product increased, the more increase in marketing innovation. Product design was significant at 1% risk level and positively related to marketing innovation. This shows that as product design improved, marketing innovation improved as well. This may be due to the need to meet the market demand. Meanwhile, the more the need to meet market demand, the more the marketing innovation. The chi-square significance indicates that the model is significant at 1%.

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Technological Innovation/Innovative Performance

The analyses of factors affecting technological innovation are presented in Table 12

Table 12: Factor Influencing Technological Innovation of small scale flour marketing firms

Parameter	Estimate	Std error	z value
Management commitment	0.06	0.01	6.000**
Proper idea generation	0.07	0.06	1.024
Long term perspectives	0.06	0.08	0.720
Responsive to change	0.12	0.04	3.000***
Effective research	0.18	0.037	2.189**
Intercept	-3.359	0.07	-477.206***
Pearson	Chi-square	Df	
Goodness of fit test	11167.060***	54	

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

The chi-square indicates that, the model is significant at 1% risk level. Management commitment was significant at 1% risk level and positively related to firm's innovative performance. This was as a result of maintaining and attaining new height in the market. Also, the higher the passion to attain new height in the market, then, also the higher the creation of new product that will meet the peoples' needs. Responsiveness to change was significant at 1% risk level and positively related to firm's innovative performance. Indicating the fact that, as market needs change, there will in turn be a change in technological innovation. This is due to the need to satisfy customer's basic needs. Meanwhile, the need to satisfy the customer's basic needs, the more the advancement in the firm's innovative performance. Effective research was significant at 5% risk level and positively related to technological innovation. This indicated that, as effective research advanced, technological innovation advanced respectively. This could be due to the need to find out area of its strength, weakness, opportunity and threat (SWOT). Hence the more effective a firm is in examining its SWOT, the more capable and competent the firm in analyzing its innovative performance.

Analysis of the Effect of Organizational and Marketing Innovation on small scale flour Marketing Firms

Analyses of the effect of organizational and marketing innovation are presented in table 13

Table 13: Effect of Organizational and Marketing Innovation on small scale flour Marketing performance

Variable	Coefficient	std Error	t-value
Constant	0.635	0.078	8.176***
Marketing innovation	0.022	0.109	0.202
Organizational innovation	0.060	0.029	2.066**
R^2	0.539		
R^2	0.315		
F-ratio	2.153**		

Source: Field survey, 2012
***=significant at 1% **=significant at 5%

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The value of R^2 (coefficient of multiple determination), 0.539 indicated that 53.9% of the total variance observed in the dependent variable (firm's performance was accounted for by the independent variables included in the model). The F-value of 2.153 indicated that the model was statistically significant. From Table 13 there was a positive and significant (at 5% risk level) relationship between organizational innovation and firms performance. This means that as organizational innovation increased, firms' performance also increased. The increase in organizational innovation could be as a result of the pursuance and the realization of firms' goals. It was observed that the higher the pursuance of the firms organization innovation, the greater the firm's performance. It could be inferred that organizational and marketing innovations variables have positive effect on firms' innovative performance.

CONCLUSION

This study has analysed the indices of organization and marketing innovation among small scale flour marketing firms in Umuahia and Aba Metropolis Abia State, Nigeria. The significant indices of marketing innovation were price strategy, promotion strategy, distribution method, sales method, packaging and production. On the other hand, significant indices of organizational innovation included work arrangement, quality management, motivation, use of promotion, product modification and employee schedule. The organizational innovation was highly significant than marketing innovation of small scale flour marketing firms in contributing towards enhancing the performance of small scale flour marketing firms. Thus, the organizational and marketing innovation indices analyzed in this work remained very significant and highly important tools for profitable activity and in unlocking the potentials of the firms and in encouraging competitive advantage over other firms that indifferent about the potentials of organizational and marketing innovations. The study indicated that any small scale flour marketing firm that adopted proper marketing and organizational innovations adapted successfully to emerging marketing challenges.

From the fore going, it is expected that small scale flour marketing firms should improve more in their marketing strategies in order to assist their organizational innovation toward the attainment of better market opportunities with respect to customers' satisfaction. Small scale flour marketing firms should properly engage in work arrangement in order to be conversant with their function. The need for effective employee work schedule is very important in contributing efficient firm better performance.

REFERENCES

Black S. and Lynch (2005) "Measuring organizational capital in the NewEconomy, D., editors, University of Chicago Press.

Damanpour F. (1992) "Organizational Size and Innovation", Organizational Studies, vol. 13, No. 3, pp. 375-402.

Gera and Gu (2004) "The effect of Organizational Innovation and Informationand Communication Technology on Firm's Performance", International Productivity Monitor, vol.9 pp.37-51.

Lam A. (2004) "Organizational Innovation", Brunel Research in Enterprises,Innovation sustainability and Ethics Working Paper, No. 10237.

Lau, (2001) "Website Marketing for the Travel and Tourism Industry",Cornell Hotel and Restaurant Administration Quaterly, vol.42, pp.55-62.

Murphy M. (2002) "organizational Change and Firm Performance", OECDWorking Paper.

ISSN 2053-4019(Print), ISSN 2053-4027(Oonline)

Olukos (1988) "Gross profit margin and Profitability index: Signal of Efficiency inthe Firm's Management, Journal of Accounting Principles, Vol. 11. No 8. pp.124-127.

Onwumere. J (2010) Capital mobilization and investment behavior of selected agribusiness firms in South Eastern Nigeria. An unpublish dissertation presented in the Department of Agricultural Economics, 2010. Pp97-100

Onwumere J., C.M. Onyebu and M.A. Orji (2014) Assessing the effect of organizational and marketing innovations on medium scale food wholesale marketing

firm Abia State, Nigeria. International Journal Small business and entrepreneurship Research. Vol2. No2 pp28-43, June, 2014

Rust R.T et al (2004) "measuring Marketing Productivity: Current knowledgeand Future Decisions", Journal of Marketing, vol. 68, October, pp. 76-89.

Stieglitz N. et al. (2007) "Innovation and the role of Complementarities instrategic theory of the firm", Strategic management Journal, vol.28, pp.1-15.

Uhlanner et al. (2007) "The Relationship between Knowledge Management, Innovation and Firm Performance: Evidence from Dutch SMEs", Scientific Analysis of Entrepreneurship and SMEs, www.eim.n1/smcs-and-entrepreneurship.

Hoffman, K., M. Parejo, J. Bessant, and L. Perren (1998), "Small firms, R&D, technology andinnovation in the UK: a literature review." *Technovation*, Vol. 18, No. 1, pp.39-55

Julien P.A., Andriambeloson, E. and Ramangalahy, C. (2004), Networks, weak signals and technological innovations among SMEs in the land-based transportation equipment sector, *Entrepreneurship and Regional Development*, Vol. 16, No. 2, pp. 251–269.

Kalantaridis C, (2010), ``In-migration, entrepreneurship and rural- urban interdependencies: the case of East Cleveland, North East England", Journal *of Rural Studies*, Vol. 26, pp. 418 - 427

Salavou, H., Baltas, G., Lioukas, S. (2004), "Organisational innovation in SMEs: the importance of strategic orientation and competitive structure", *European Journal of Marketing*, Vol. 38 No.9, pp.1091-112.

Subrahmanya, M.H.B, Mathirajan,M. and Krishnaswamy, K.N. (2010). *Importance of Technological Innovation for SME Growth*. Working Paper No. 2010/03. [Online]. January2010. Available from: http://www.wider.unu.edu/publications/working-papers. [Accessed: 2 January 2011]

Sundbo, J. (2003), "Innovation and strategic reflexivity: an evolutionary approach applied toservices", in Shavinina, L.V. (Ed.), *The International Handbook onInnovation*,Elsevier, Oxford, pp. 97-114.

Van der Aa, W., and T. Elfring (2002), 'Realizing innovation in services', *Scandinavian Journal of Management*, Vol. 18, No. 2, pp. 155-171.

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