

Perceived Influences of Consumers' Choice of Substitute Products in Nigeria: A Study of Dangote Flour-Mills and Maiduguri Flour-Mills Ltd

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Abstract

This study reviewed the impact of the perceived influences of consumers' choice of substitute products in Nigeria, with particular emphases on consumers of flour mills products of 'Dangote Flour-Mills Ltd' and 'Maiduguri Flour-Mills Ltd'. A questionnaire structured in 5 points Likert scale test was used to examine the impact of eleven (11) predictors on consumers' buying decisions, such as quality, availability, product weight, packaging, price, transportation facilities, promotional activities, credit facilities, after sales services, user's guides and delivery time. A total of ninety (90) respondents were sampled and resultant data were analysed with descriptive statistics and Linear Regression Model. It reveals that the major predictors of customers' choice of substitute products in Nigeria, as arranged in the order priority are: Product price, Availability, Quality, Delivery Time, Packaging, Promotion, Easy of Transportation and Product Weight. It also reveals that the general market performance for substitute products in Nigeria is high. The study further uncovers the fact that 'Maiduguri Flour-mills ltd' is experience a decline sales whilst 'Dangote Flour-mills ltd' is experiencing an increasing sales in the general market. The study recommends that companies trading on substitute product must examine consumers' price consciousness, product quality and availability among others, as the necessity to underscore consumer evaluation and purchase decision processes. It also recommends further research to include other substitute products to better the generalisation scope on the subject matter.

Keywords: substitute-products, consumers, choice, market, performance

1. Introduction

One major characteristic of a developing economy like Nigeria is the high rate of total consumption of consumables such as foodstuff, soft drinks, cosmetics and other such materials. This propels competitive drive among companies supplying the consumables. The annual total consumption of flour-mills products such as semolina (semovita), macaroni, kuskus, spaghetti and host of others in Nigeria is on the increase.

Indeed, marketing practice is said to be justified with the belief that customers use product and/or service because they have a need for it or it has a perceived benefits. "In the theory of market orientation two concepts are mainly discussed one is *responsive market orientation*, which addresses the expressed needs of customers, and second is *proactive market orientation*, which addresses the hidden needs of customers" (Abideen and Saleem, 2011).

Customer perception of substitute products depends on a number of factors and levels of market development in a country. Studies on varied marketing mix analysis have been widely documented in the available literature such as demand analysis, competitor analysis, market situation analysis, products and pricing analysis, just to mention few. The analyses of the customers' choice of substitute products also abound in the available literature. However, Maiduguri Flour-Mills Ltd and Dangote Flour-Mills Ltd were among the leading flour-mills companies in Nigeria whose activities or struggles for dominance of market share worth research attention. On one hand, the former is a long standing flour-mills company whose products is known for outstanding quality and hitherto a price leader across lengths and breadths of Nigerian markets. On the other hand, the later is a young company with rapid growth rate and fascinating market penetration strengths across the country's mainstream and suburb markets.

The causes of gradual shift in market positions of the two companies have so far not been analysed adequately. This study is provoked by this research problem (gap) to investigate the marketing mix efforts of these companies and thus, contribute the findings to the body of marketing literature.

Therefore, the main objective of this study is to evaluate the perceived factors influencing customers' choice of flour-mills products of the Maiduguri Flour-Mills Ltd and Dangote Flour-Mills Ltd in Nigerian market.

2. Literature Review

Market practice or orientation is influenced by a number of factors as retrieved from available literature. Harris and Ogbonna (1998) identify prevalence of many potential barriers to developing market orientation such as strategy, structures and culture, leadership style, management's behaviour and quick decisions. Ashok and Sriwastwa (2012) examine the influence of factors such as availability, shelf life, advertisement, Freshness, Taste, brand, family income, product quality on consumer purchasing pattern. Pulendran *et al* (2000) in Abideen

and Saleem (2011) identify four issues that have an impact on market practice such as management style, organisational culture, interdepartmental dynamics and reward system. Of the truth, culture is difficult to express as an influencing factor due to the fact that every organisation has a distinct cultural practice that help positioned it in the market place.

Abdullah (2011) sees dynamism of income oriented market segments, pricing strategies, delivery infrastructure for handling transactions, promotion strategies, consumer education and consumers' needs as among the sensitive factors that structurally influence consumers' perception of companies' products. According to Van Zyl and Mathur-Helm (2007), the combined effect of entrepreneurial leadership, market orientation and relationship marketing orientation help company perform well in term of market share, profitability and goodwill. Cameron and Quinn's (2006) explain that leadership style have a basic responsibility to play in the organisation through their actions and employees' contribution in developing the organisational culture. Chiquan (2002) adds that customer expectations, perceived service quality, market shares, and sales growth correlate positively with market performance. Abideen and Saleem (2011) argue that businesses, whose products and services address basic customers' needs, can enter low-income market segments more effectively and that, a combined effect of customer's need and technical capabilities make product marketing more successful. Indeed, market research help presents customer voice in the organisation and when this is taken into consideration it leads to good marketing decisions.

According to Agarwal, Erramilli and Dev (2003), companies' performance is directly related to market orientation and innovation. Abdullah (2011) and Hamann, Robert, Williams and Omar (2007) isolate the relationships between the success of market practices and influencing variables such as price, usage, quality and culture. Narver, Slater and Mac Lachlan (2004) empirically identify the relationship between new product success and market orientation with variables such as innovative orientation, proactive and responsive market orientation, market turbulence and technological turbulence. They argue that proactive market orientation's impact on new-product success is larger than that of responsive market orientation. This is so, because market orientation is tied to the umbilical cord of production/service orientations.

Simpeh, Simpeh, Abdul-Nasiru and Amponsah-Tawiah (2011) observe that in services, customers participate in the production process and therefore also influence the flow and outcome of the process. They argue further that service setting plays a critical role in shaping customer expectations, differentiating service firms and influencing the nature of customer experiences. Adding to this truism, Anand (2008) explains that service-packs is the outward appearance of the organisation and thus can be critical in forming initial impression or setting up customer expectations on companies' products. Indeed, service-pack is very vital because it influences consumers' cognitive, emotional and physiological states that propel their behaviours (Nguyen, 2006 and Namasivayam and Lin, 2008). The impact of service-packs in the context of corporate image and product marketing cannot be overemphasised; since services are characterised by intangibility and inseparability of production from consumption.

Furthermore, Abideen and Saleem (2011) while aptly engrossing Narver and Slater (1990) argue that market orientation trust is on culture in which organisations understudy their customer needs and then create a value in product in order to create long-term relationships with their customers whilst maximise their profitability. Similarly, Abideen and Saleem (2011) add that market-oriented culture help improves organisational innovativeness, new product success, and organisational performance. This is particularly true in today's business environment where companies strive to determine their present and potential customer's desire and thus, creates products/services accordingly thereby creating profit maximisation and strategic networks.

Businesses can improve the overall performance of marketing practices by constantly improving their proficiency in learning more about its target customers' needs and perceptions (Abideen and Saleem, 2011). Of course, learning helps organisation to achieve bottom-line results by developing information and knowledge to fine tune customers' behaviours. Similarly, Mavondo, Chimhanzi and Stewart (2005) add that learning orientation is very vital for determining market opportunity gaps. Abdullah (2011) adds that consumers are better served if an increasing number of new companies compete and collaborate to deploy solutions that maximise value addition to product marketing. Cameron and Quinn's (2006) also argue that effective output and competition are basis for successful market practice.

3. Research Methodology

The study evaluates the impact of perceived factors on consumers' choice of substitute products in Nigeria. The study population consists of retailers and final consumers alike in Nigerian market. A total of ninety (90) respondents were sampled with the aid of survey design consisted of 5 likert scale point; 1 for strongly disagree, 2 for disagree, 3 for moderately agree, 4 for agree and 5 for strongly agree. The respondents were requested to respond to all manner of questions contained therein, to the best of their knowledge. Thus, out of 120 questionnaires administered, only 90 questionnaires comprising an overall response rate of 75 % was

retrieved valid for this analysis. Out of the 90 valid reporters screened for this analysis, 45 each were loyalist of 'Dangote Flour-Mills Ltd' and 'Maiduguri Flour-Mills Ltd'.

The questionnaire was structured to elicit data from respondents relative to eleven (11) perceived predictors on consumers' buying decisions, such as quality, availability, product weight, packaging, price, transportation facilities, promotional activities, credit facilities, after sales services, user's guides and delivery time. These factors were filtered from multitudes of factors and items loading to each factor as retrieved from available literature. The resultant factors were aligned and labeled 'Perceived Predictors' and are collectively hypothesised. The hypothesised measurement model was then tested for model fit and the result show that the respective items indeed, belong to the construct as hypothesised in this study.

The study period covers eight (8) months from October 2012 to June 2013. The questionnaire administration was careful applied to ensure inclusion of all manners of market segment and target group. The data collected was subjected to consistency test and the resultant data was coded and analysed with 'SPSS version 16' package delimited by the use of descriptive statistics and Linear Regression Model.

4. Data Presentation

Respondents comprising retailers and final consumers of the duo companies' flour-mills products in the market were asked to willingly respond to a range of questions relative to the subject matter. Table 1 presents the frequency distribution of the 120 copies of questionnaire distributed, of which 90 (75%) returns valid for this analysis. A cross-tabulation was used to present and analyse the responses emanating from dependent variable tagged 'Market Performance' as presented in Table 2. Again, the dependent variable was computed into categorical variable to enable us describe market performance as either low and/or high. This representation is presented in Table 3 and the pictorial representation in figure 1 and 2 to buttress the analysis.

A descriptive statistics and Linear Regression model was used to analyse the impact of independent variable tagged 'Predictors' of consumers' buying decision of substitute products shown in Table 4 through Table 8 and figure 3 and 4 as presented. The results and discussions are explained in the subsequent section.

Table 1: Questionnaire Distribution/Valid Data

Questionnaire Distribution	No	Maiduguri Flour-mills ltd	Dangote Flour-mills ltd	Total
Valid	90	45	45	90
Invalidated	30	19	11	30
Total	120	64	56	120

Source: Field data, 2013

Table 2: Cross-tabulation showing Company Type and Market Performance Reported

Company Type	Market Performance					Total
	Very Poor	Poor	Fair	Good	Very Good	
Maiduguri Flour-Mills Ltd	4	14	13	12	2	45
Dangote Flour-Mills Ltd	0	0	5	33	7	45
Total	4	14	18	45	9	90

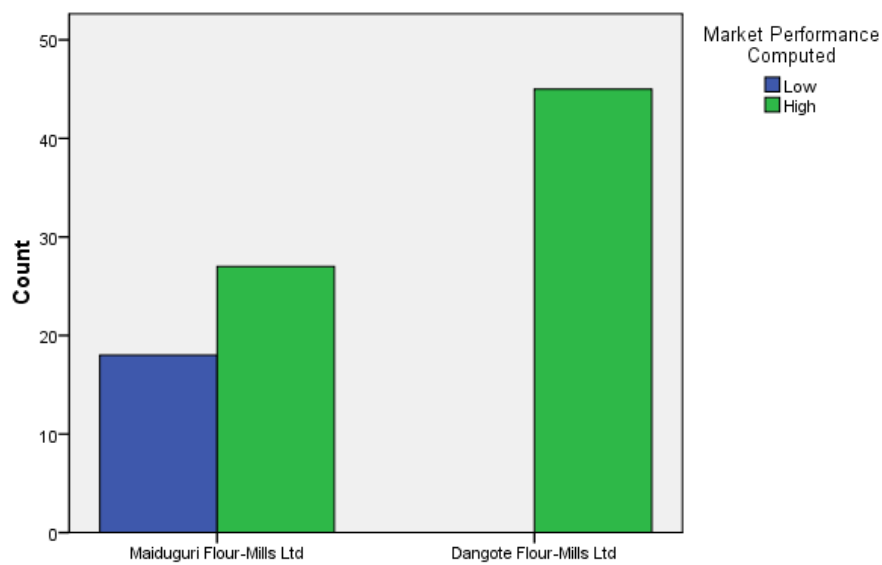
Source: Field data, 2013

Table 3: Cross-tabulation showing Company Type and Market Performance Computed

Company Type	Market Performance (Categorical Variable)		Total
	0	1	
Maiduguri Flour-Mills Ltd	18	27	45
Dangote Flour-Mills Ltd	0	45	45
Total	18	72	90

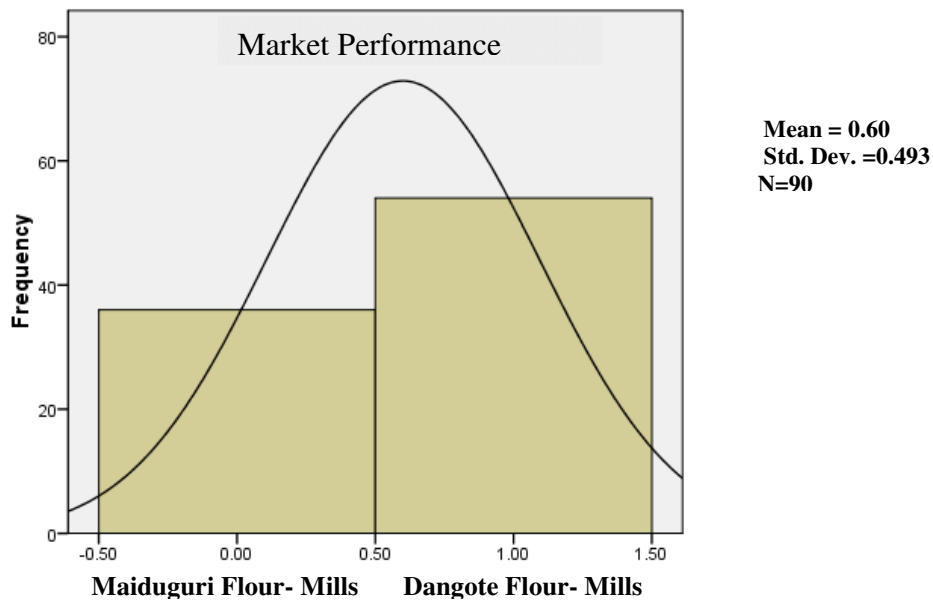
Source: Computed from Field data, 2013

Figure1: Bar Chart Showing Market Performance



Source: Computed from Field data, 2013

Figure2: Histogram with Normal Curve Showing Market Performance



Source: Computed from Field data, 2013

Table 4: Descriptive Statistics of Independent variables

Independent Variable	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Product Price	90	3.00	5.00	408.00	4.5333	.54464	.297
Product Availability	90	2.0	5.0	348.00	3.8670	.6902	.476
Product Quality	90	2.00	5.00	330.00	3.6667	.71893	.517
Delivery Time	90	1.00	5.00	253.00	2.8111	1.21687	1.481
Product Packaging	90	1.00	5.00	253.00	2.8111	1.21687	1.481
Product Promotion	90	2.00	5.00	247.00	2.7444	.97797	.956
Product Transportation	90	1.00	4.00	237.00	2.6333	.92954	.864
Product Weight	90	1.00	4.00	237.00	2.6333	1.04344	1.089
User Guide	90	1.00	3.00	155.00	1.7222	.47470	.225
After Sale Services	90	1.00	3.00	155.00	1.7222	.47470	.225
Credit Facilities	90	1.00	3.00	155.00	1.7222	.47470	.225
Valid N (listwise)	90				2.8061		

Source: Computed from Field data, 2013

Table 5: Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Delivery Time, Product Availability, Product Transportation, Product Price, Product Quality, User Guide, Product Weight, Product Promotion ^a		. Enter

a. Tolerance = .000 limits reached.

b. Dependent Variable: Market Performance

Source: Computed from Field data, 2013

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.526 ^a	.277	.205	.90788

a. Predictors: (Constant), Delivery Time, Product Availability, Product Transportation, Product Price, Product Quality, Product Packaging, Product Weight, Product Promotion

b. Dependent Variable: Market Performance

Source: Computed from Field data, 2013

Table 7: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.559	8	3.195	3.876	.001 ^a
	Residual	66.763	81	.824		
	Total	92.322	89			

Source: Computed from Field data, 2013

Table 8: Excluded Variables^b

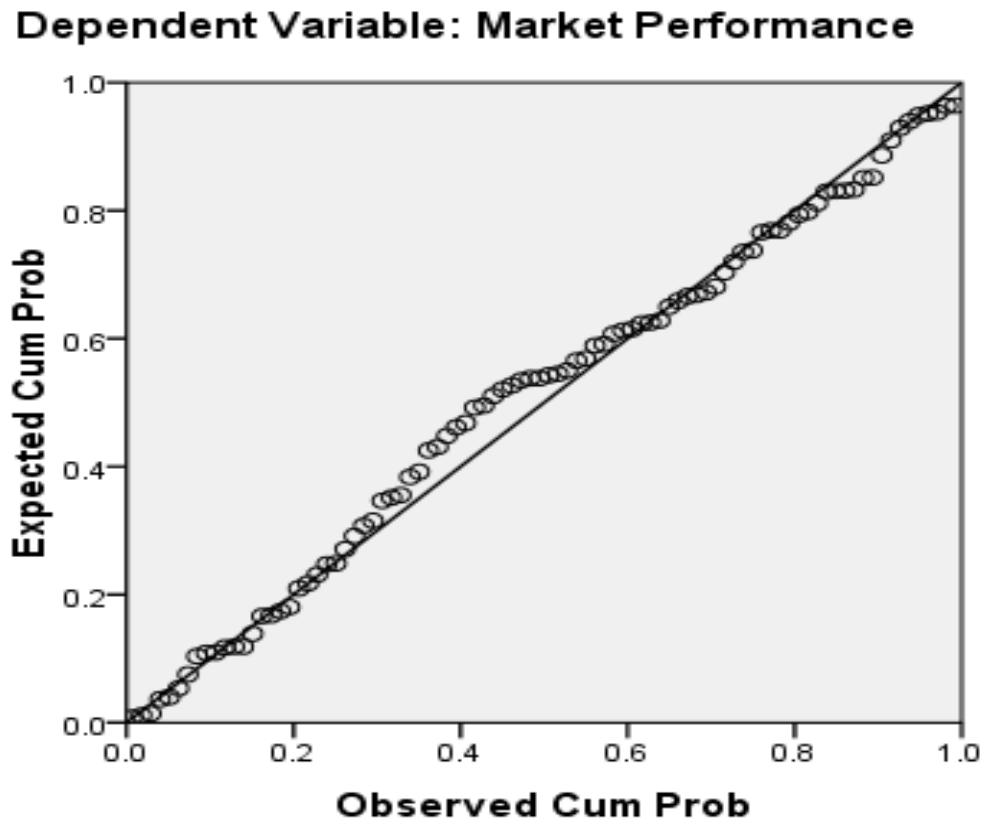
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance
1	User Guide	.a	.	.	.000
	Credit Facilities	.a	.	.	.000
	After Sale Services	.a	.	.	.000

a. Predictors in the Model: (Constant), Delivery Time, Product Availability, Product Transportation, Product Price, Product Quality, Product Packaging , Product Weight, Product Promotion

b. Dependent Variable: Market Performance

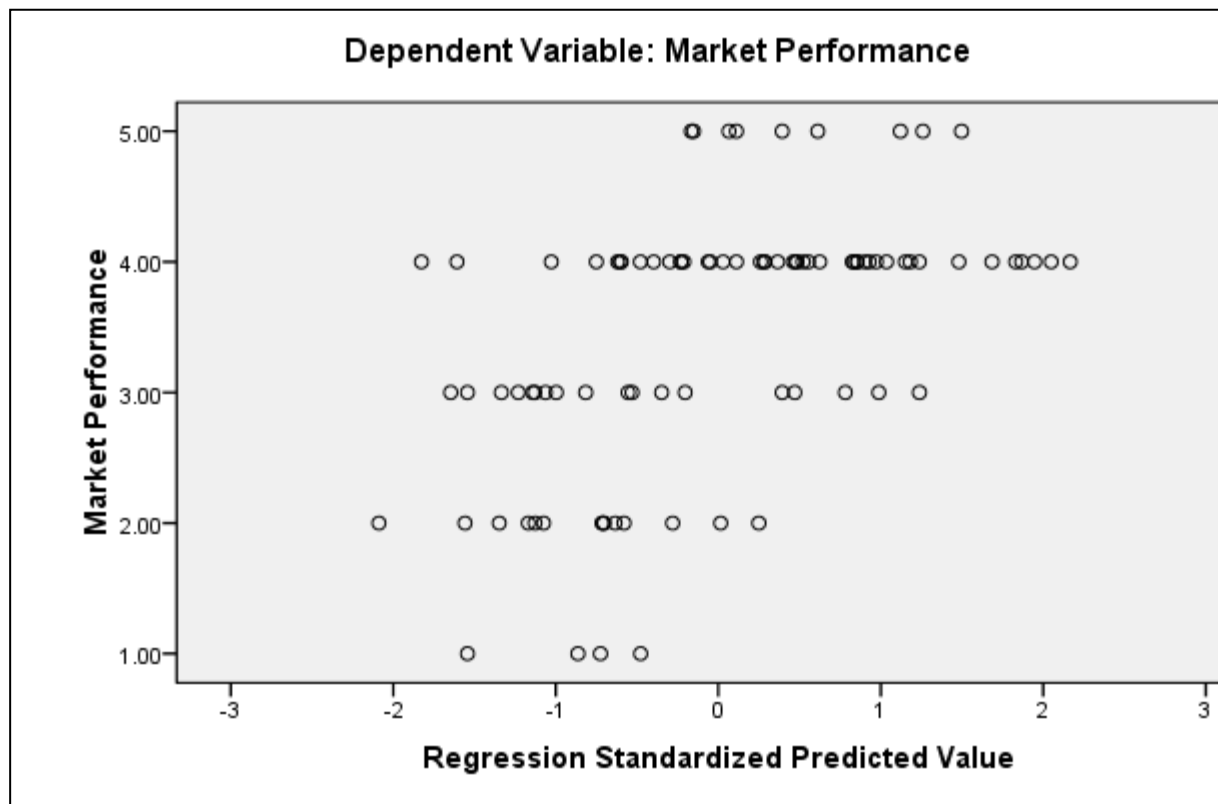
Source: Computed from Field data, 2013

Figure 3: Normal P-P Plot of Regression Standardised Residual



Source: Computed from Field data, 2013

Figure 4: Scatter plot



Source: Computed from Field data, 2013

5. Results and Discussions

Presented in table 1 is the frequency distribution of 120 respondents of which 90 reporters (about 75% response rate of the sampled population) were screened for this analysis. Of this number (see Table 2), 4 reported ‘Very Poor’, 14 reported ‘Poor’, 18 reported ‘Fair’, 45 reported ‘Good’ whilst 9 reported ‘Very Good’ for perceived market performance of the two companies. Table 3 presents a cross-tabulation of these results, by computing market performance into categorised variable as either ‘low’ or ‘high’, using population mean as benchmark. A total of 18 reporters who are loyalist of Maiduguri Flour-Mills Ltd perceived low market performance whilst 72 respondents (i.e. 27 Maiduguri Flour-Mills Ltd and 45 Dangote Flour-Mills Ltd) reported high market performance. This result shows that market performance is high generally but, Dangote is experiencing increasing market share whilst Maiduguri is experiencing a decline. Figure 1 gives a pictorial representation of this result. To buttress this result, a histogram in figure 2 with a normal curve further shows increasing market share in favour of Dangote Flour-mills ltd than her counterpart.

The descriptive statistics in Table 4 shows that the population mean = **2.8061** and the individual means, standard deviations and variances give a convincing revelation. A total of 8 out of the 11 predictors have their means clustered around the population mean. Specifically, predictors like product price, availability, quality, delivery time and packaging have a mean = 4.53, 3.87, 3.67, 2.81 and 2.81 respectively. Predictors like user guide, after sale services and credit facility show a weaker impact with a mean = 1.72 each.

Furtherance to the above, the rigorous statistical test conducted shows that 11 predictors were fit into the linear regression model (Table 5). The regression value = 0.526 with 8 predictors (*Delivery Time, Product Availability, Product Transportation, Product Price, Product Quality, Packaging, Product Weight, Product Promotion*) having significant impact on market performance (see Table 6). Since the regression mean = 3.195 and F-value = 3.876 and P = 0.001 (see Table 7), it shows that the test is statistically significant. Table 8 presents the 3 remnant predictors (user guide, credit facilities and after sale services) whose impacts on market performance are not statistically significant and were thus excluded from variables in the equation.

Figure 3 and 4 is post-hoc test conducted to tell apart the correctness of the regression statistics. The graph shown in figure 3 shows a linear regression model that the larger population cluster around the regression

line. Similarly, figure 4 presents a scatter plot showing the fact that the larger population cluster around the regression mean.

Since, the regression tests are statistically significant at $P < 0.05$ (95% confidence level), we reject the null Hypothesis (H_0) which stated that: “*The perceived predictors has no significant impact on consumers’ choice of substitute products in Nigerian Market*”. This finding is relatively consistent with previous studies of Hamann *et al* (2007), Abideen and Saleem (2011), Abdullah (2011) and Ashok and Sriwastwa (2012).

6. Conclusions and Recommendations

Given the relationships between market performances and the predictors of customers’ choice of substitute products in Nigeria, the study concludes as follow: The major predictors of customers’ choice of substitute products in Nigeria, as arranged in the order priority are: Product price, Availability, Quality, Delivery Time, Packaging, Promotion, Easy of Transportation and Product Weight. The general market performance for the products under review is high. However, Maiduguri Flour-mills ltd is experience a decline sales in the general market whilst Dangote Flour-mills is experiencing an increasing sales in the market. This scenario may in no distant time reverse the current market leadership positions. Product pricing, availability and quality, particularly show greater impacts on products positioning and companies’ struggle for increase market share.

Therefore, this study discovered and revealed the reasons behind customers buying decisions of substitute products in Nigeria.

The study recommends that companies trading on substitute products must examine consumers’ price consciousness, product quality and availability among others, as the necessity to underscore consumer evaluation and purchase decision processes. It also recommends further research to include other substitute products to better the generalisation scope on the subject matter.

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