



## ESTIMATING THE EFFECT OF BUYERS' BARGAINING POWER ON KENYAN SMALL FOOD MANUFACTURERS' INCOME

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### ABSTRACT

The purpose of this study is to predict the effect of buyers' bargaining power (customers' price sensitivity, knowledge level, union, ability to integrate backward, switching costs and resale buying) on incomes of small food manufacturers. A survey of perceptions of 132 sampled small food processors in Nairobi and Busia Counties was done. From the gradation of the perceptions on seven-point likert scale, inferences were made on buyers bargaining power influence on the larger population of small food manufacturers in Kenya. On one hand, the study revealed that every unit of buyer's sensitivity to prices, not unionized, integrated backwards and bought for goods for resale accounted for a positive change small food processors' income by 0.011, 0.013, 0.005 and 0.010, respectively. On the other hand, the study showed a negative change of 0.006 and 0.008 in incomes of small agro-food processors with every unit change in the level of buyer's knowledge and shifted to alternative product, respectively. Using Ordinary Least Square (OLS) linear regression statistical inference, there was no single standalone buyers'-bargaining-power-factor that significant influenced incomes of small food manufacturers in Kenya. However, the amalgam of the buyers bargaining power cues actually did influence the incomes ( $t=8.294$ ,  $p= 0.00$ ,  $sig <0.05$ , 2 tailed). Given the findings, the study recommends that marketers of food products should treat buyers bargaining powers factors as a whole and not as individual components.



Further studies should consider structural equation modeling to determine a model with critical buyers-bargaining-powers factors.

**Keywords:** Buyers' bargaining power; Small agro-food processors; Income

## 1. INTRODUCTION

Buyers bargaining power means the pressure and advantage customers have to lower price, improve quality, increase competition and better terms of purchase of food products. The term was first coined by Michael Porter in 1979 as one of the five forces model to analyze any industry's competitiveness. Since then it has been a key research element that would help enterprises satisfy potential customers by developing products that are competitive and advantageous in the market (YANG; TREWN, 2003).

Buyers have the potential for future profits and growth of small food manufacturing enterprises. The extent of their bargaining power would either reduce or increase the incomes of an enterprise, especially in a hyper-competitive market landscape. The buyers bargaining power is a result of multiple factors. They include: customers' price sensitivity, knowledge level, union, ability to integrate backward, switching costs and resale buying.

To enable marketers come up with effective model to affect consumers' pressure in food industry, they need to understand the correlation behind the factors. It is an agenda of every competitive enterprise, whether small or large, to create collaborative relationship with customers who are likely to cause increase in income and growth (LEE; CARTER, 2009).

This relationship forms a great competitive advantage for enterprises in a globally hyper-competitive market. Kenyan micro and small enterprises (MSE) are not exceptional either. Because of their role to economic development especially through agriculture that is: high contribution to Gross Domestic Product (GDP), employment creation and rural development; it is paramount that their customers' buying behavior in relation to the revenue performance parameters be studied.

United Nations Food and Agriculture Organization (FAO) observed persistent poor food productivity and insecurity in sub-Saharan Africa, subjecting estimated 1.5 million Kenyans to relief food. This crisis has caused serious focus for the



government, policy makers and actors in food value chain to up their game to save the human population from hunger and starvation. Micro and small entrepreneurs involved in food manufacturing play a pivotal role in the value chain.

They create value by improving on nutrition content, variety and place utility for the buyer. Micro and small enterprises (MSE) in Kenyan context, is defined as businesses with annual sales of under Kshs. 1 million and 50 or fewer workers. The MSE's contribution to a country's GDP cannot be underestimated. In India, they remarkably contributed to employment, production of new products, export and wealth creation (MOHANTY; GAHAN, 2012).

According to the Capital Market Authority of Kenya (CMA), MSE sector has delivered over 7.5 million jobs to Kenyans, accounting for 80% of employment and 45% of the GDP. This makes Kenya the largest economy in East Africa and fifth in sub-Saharan Africa with GDP of about US\$ 61 billion. Though, the country has a growing entrepreneurial middle class, its Human Development Indicators (HDI) rank extraordinarily low at 147 out of 187. The population below poverty line is 43% and unemployment standing at 40% (KENYA NATIONAL BUREAU OF STATISTICS, 2016).

These conditions make Kenya a low middle income country. Its economic mainstay is agriculture and micro and small enterprises sectors. However, the Economic Survey 2015 found out that there was a decelerated increase rate of 3.5% in agricultural value added product prices due to climate change and overreliance on primary goods.

This has made both national and county governments focus on catalyzing and accelerating growth of micro, small and medium manufacturers in agriculture sector, agriculture being its economic mainstay. The two levels of government acknowledge the fact that raising the performance of micro and small scale agro-food processors is one of the strategies to bring down poverty and pangs of hunger among the poor in Kenya contemplated in the sustainable development goals.

The government of Kenya has put in place structural frameworks for the promotion of manufacturing activities by MSEs in agricultural sector through *Micro and Small Enterprises Act of 2012* (The Republic of Kenya, 2012), *Agricultural*



*Sector Development Strategy 2010-2020* (THE REPUBLIC OF KENYA, 2010) and the *Kenya Vision 2030* (THE REPUBLIC OF KENYA, 2007).

### **1.1. Research Objectives**

The main research objective is to determine the influence of buyers bargaining power influenced income of small food manufacturers. Specific objectives entail:

- a) To determine the influence of buyers' price sensitivity on incomes of small food manufacturers
- b) To measure the influence of buyers' knowledge level on incomes of small food manufacturers
- c) To find out how buyers' union influenced incomes of small food manufacturers
- d) To investigate the buyers' ability to integrate backward influenced small food manufacturers income
- e) To measure the influence of buyers switching costs on small food manufacturers income
- f) To find out the effect of buyers' resale buying on incomes of small food manufacturers

### **1.2. Study Hypotheses**

In 2010, Farrugia, Petrisor and Bhandari advised that hypothesis should follow the primary objective in an evidence-based study. In this respect, the study hypotheses are:

- H<sub>01</sub>: Buyers' price sensitivity has no significant effect on incomes of small food manufacturers
- H<sub>02</sub>: Buyers' knowledge level has no significant effect on incomes of small food manufacturers
- H<sub>03</sub>: Buyers' union has no significant effect on incomes of small food manufacturers
- H<sub>04</sub>: Buyers' ability to integrate backwards has no significant effect on incomes of small food manufacturers

- H<sub>05</sub>: Buyers' switching costs has no significant effect on incomes of small food manufacturers
- H<sub>06</sub>: Buyers' resale buying has no significant effect on incomes of small food manufacturers

## 2. LITERATURE REVIEW

Punch (2014) defined literature review as a synthesis of empirical evidence and theoretical contexts relevant to the topic. This section, therefore, shall endeavor to search and review what is known and not known about the research questions above. Secondly it shall identify gaps and inconsistencies in the evidence that this study seeks to address. Finally it will dig into relevant theories that have relevant ideas and information that would answer the research questions.

### 2.1. Theoretical Literature

Theoretical literature is about searching and reviewing relevant concepts and theories to the topic. In this context the study found five contemporary theoretical models that relevantly explained the buyers buying behavior bargaining power. They include Howard–Sheth Model, Engel-Kollat-Blackwell Model, Nicosia Model, Stimulus-response model (JISANA, 2014), and Michael Porter's Five Force Model (PORTER, 1980).

Howard–Sheth Model (1969) explained buyers' behavior in the market as a stimulus-response phenomenon. Information about the products attributes such as quality, price, distinctiveness, services and availability stimulated the buyer. The buyer reacted by paying attention and comprehending the product. He consequently developed attitude, intention and actually purchased the product. This process of course depended on the way the buyer perceived and responded to information and also his motives.

Engel-Kollat-Blackwell Model (1978) explained the buyers' behaviors as a conscious learning and decision-making process that entailed active information seeking and price evaluation. It is a process of recognizing need, searching information, evaluating alternatives and making a choice.

Nicosia Model explained buyer's behavior as a link between the firm and the consumer that was determined by compatibility of consumers' and firms attributes,

consumer's evaluative understanding, actual buying and use of the product. Stimulus-Response Model explained the buyer behavior as a response to the marketing stimuli and other environmental factors.

Whereas the marketing stimuli entailed product, price, place and promotion; environmental factors entailed economic technological, political and cultural factors. Further, this model stressed that buyer's character determined his perception and ultimately his buying decision.

Porter (1980) propagated a Five Force Model that explained any industry competitiveness. Buyers' bargaining power was one of the forces that determined an enterprise's success. According to him the buyer's behavior entailed ability to switching to other products, ability to integrate backwards and availability of substitutes.

These cues of buyer's behavior advantaged the buyer to bring down prices at the market. Of the five models, it is only Porter's five force model that described buyer's power. The rest looked at the buyer as a consumer and what prompted him to pick or not pick a product from the shelves. However, porter's model has been observed for failing to address contemporary issues of information age, globalization and technology.

Faced with this deficiency in the contemporary theoretical literature, the study finds it worth to combine Porters cues of buyer's bargaining power with other cues that have repeatedly been conceived to predict incomes of small agro-food manufacturers in Kenya. They are price sensitivity, knowledge level, unions, backward integration, switching costs and resale market as end use of the processed products. These cues from the conceptual model to shape the relationship of the bargaining power of buyers and the small manufacturers' income.

## **2.2. Empirical Review**

Empirical review entails finding out what empirical evidence there is in answering the research questions (PUNCH, 2014). Based on the previous research, empirical review will unravel what is known-and not known- about relationship between buyers bargaining power and income of food manufacturers.

Income is a quality of product or enterprise performance. It is about yielding favorable financial returns or profits. Customer behavior that cause increase income





make the enterprises earn positive economic profits. Enterprises in agro-food manufacturing industry, equally, struggle to up their income by way of managing buying behaviors of customers as a competitive strategy. In this context buyer bargaining power is tested on how it influences micro and small agro-food manufacturers' income.

In studying supermarkets and supplier, supermarkets being buyers for resale influenced incomes of suppliers depending on customers' level of knowledge of products (NICHOLSON, 2012). In addition, Porter (1980) observed buyers' sensitivity to prices, knowledge ability, unions/alliances, ability to integrate backwards, switching costs, buyer group concentration and resale market as defining factors of buyers bargaining power.

However the Michael Porter model was generic; applicable to all firms and industries. In 2014, Al-Mamun, Rahman and Robel critically reviewed the concept of buyers price sensitivity and observed a 21<sup>st</sup> century buyer as rational whose decision to pick or drop a product is informed by driving maximum value for money and time. In other words, they are price sensitive and prices must reflect value propositions of a product (SHRIVASTAVA; PARE; SINGH, 2015).

In the manufacturer's eye it influences profitability (AL-MAMUN; RAHMAN; ROBEL, 2014). Demand is elastic when changes in price cause great effect on the buyer's purchasing behavior and inelastic when the changes caused are insignificant.

On one hand, buyer's level of knowledge refers to his degree of awareness of product attributes. The attributes include the quality, price, availability, efficiency among others. It is believed that buyers without knowledge of the product attributes will have no intension of purchase (YASEEN et al. 2011).

Greater product awareness can influence not only the consumers but also the retailers or resellers purchase decision. In entrepreneurial global perspectives, it was found that the level of information a buyer had on a product price, cost of making, comparative attributes and seller's negotiation strategies leveraged his power (NTEERE, 2012).

On the other hand, buyers union and alliances refers to when customers are organized and coordinated in large numbers. Under such circumstances they are

advantages of joint efficiency, distribution payoffs and enforcement of their demand at the market place. The more buyers are unionized the greater the pressure they command. In addition unions create peer pressure on members not to lower demands on the price, quality, competition and terms of purchase of the products.

Backward integration is a vertical supply chain strategy that makes an enterprise either own or increase control over its former suppliers. When suppliers are unreliable, costly and unable to supply inputs in required quantity and quality; backward integration is recommended (SHARMA; KHATRI; MATHUR, 2014).

A good example of backward integration is contract farming. Under contract farming, the entrepreneur engages the farmer to produce a product and the entrepreneur buys the product under agreed conditions. The integration gives yield to two foreclosures: downstream and upstream. In 1970s Coke and Pepsi embraced a downstream foreclosure strategy by acquiring independent bottlers which neither allowed bottling nor marketing the competitors' beverages.

Equally independent bottlers that were acquired conditioned Coke and Pepsi not to sell their carbonated soft drinks to rivals-upstream foreclosure (SPIEGEL, 2011). This strategy frustrated Dr. Pepper, Crush and Schweppes performance at the marketplace and increase Coke and Pepsi income through sales.

Switching costs refers to relationship, time, effort and knowledge buyers invest in product that inhibits customers to change to competitor's product. When the switching costs are cheap the customer is more ready to walk away from a deal and go elsewhere.

According to Klemperer (1995), switching costs mean brand loyalty. Empirical evidence have shown that in a framework of a networked environment, switching cost was a critical underlying factor of buyer's bargaining power and offers competitive advantage to enterprises (HESS; RICART, 2002).

Enterprises compete to capture buyers and lock-in the buyers ex post. Enterprises retain ex post market power by hindering buyers from changing in response in efficiency (FARRELL; KLEMPERER, 2007). When the switching cost is high entrepreneurs enjoy a lot of ex post market power and brand loyalty from the buyers.



Switching costs does not only help entrepreneurs compete aggressively for new customers, but also softens entrepreneurs on already captured customers hence becoming less price elastic (SOMAINI; EINAV, 2013). It predicts the enterprise's future profitability (KLEMPERER, 1995).

Last cue of buyers bargaining power is customer buying goods for resale. Products are either bought for consumption or resale. Resale market refers to large scale buyers for either sale or value addition before sale. As observed by Mohanty and Gahan (2012), they play a crucial role in circumstances where the seller is a Micro, Small and Medium Enterprise. Resale market increased allocative efficiency by allowing products reach high-value from lower value-buyers (LESLIE; SORENSEN, 2014). It is a welfare-stimulating that brokers underpriced products to the advantage of both the seller and the buyer.

### **2.3. Gaps and Inconsistencies Identified in the Empirical Review**

Despite varied studies done on the cues of buyers bargaining power, the empirical evidence doesn't specifically address the issues of such customer pressure and advantage in the context of food manufacturing among small firms in Kenya. Porter 1980, for example, postulates buyers bargaining power in the generic sense.

Buyers' level of knowledge was done in the context of supermarkets, switching costs in context of industrial organization and framework of networked environment and backward integration in the context of beverages – Pepsi and Coke. Resale market studies were done in Indian manufacturing sector and ticket markets. Finally, price sensitivity was done as critical review (AL-MAMUN; RAHMAN; ROBEL, 2014; SHRIVASTAVA; PARE; SINGH, 2015).

This leaves unanswered questions on how the buyers bargaining power would influence the income of the small food manufacturers in Kenya. Secondly, the previous studies reviewed don't demonstrate the extent the cues of buyers bargaining power (customers' price sensitivity, knowledge level, union, ability to integrate backward, switching costs and resale buying) contribute to the competitiveness, price reduction or quality of products. Hence leaving research gap for this study to address.

### **2.4. Conceptual Framework**



Conceptual framework is a logical configuration showing the interactions of major variables under manipulatable conditions. In this respect, Figure 1 is a visual depiction of the interaction of predictor variable buyers bargaining power (price sensitivity, knowledge level, unions, backward integration, switching costs and resale market) and how they correlate and cause change in the dependent or criterion variable (income of small food manufacturers).

Mugenda (2008) recommends conceptual framework for social science research for its importance to both the researcher and the reader. To the former it is a vintage point through which he sees the problem clearly and improves the understanding about the study. To the later it enhances the understanding of what the researcher is up to (MUGENDA, 2008).

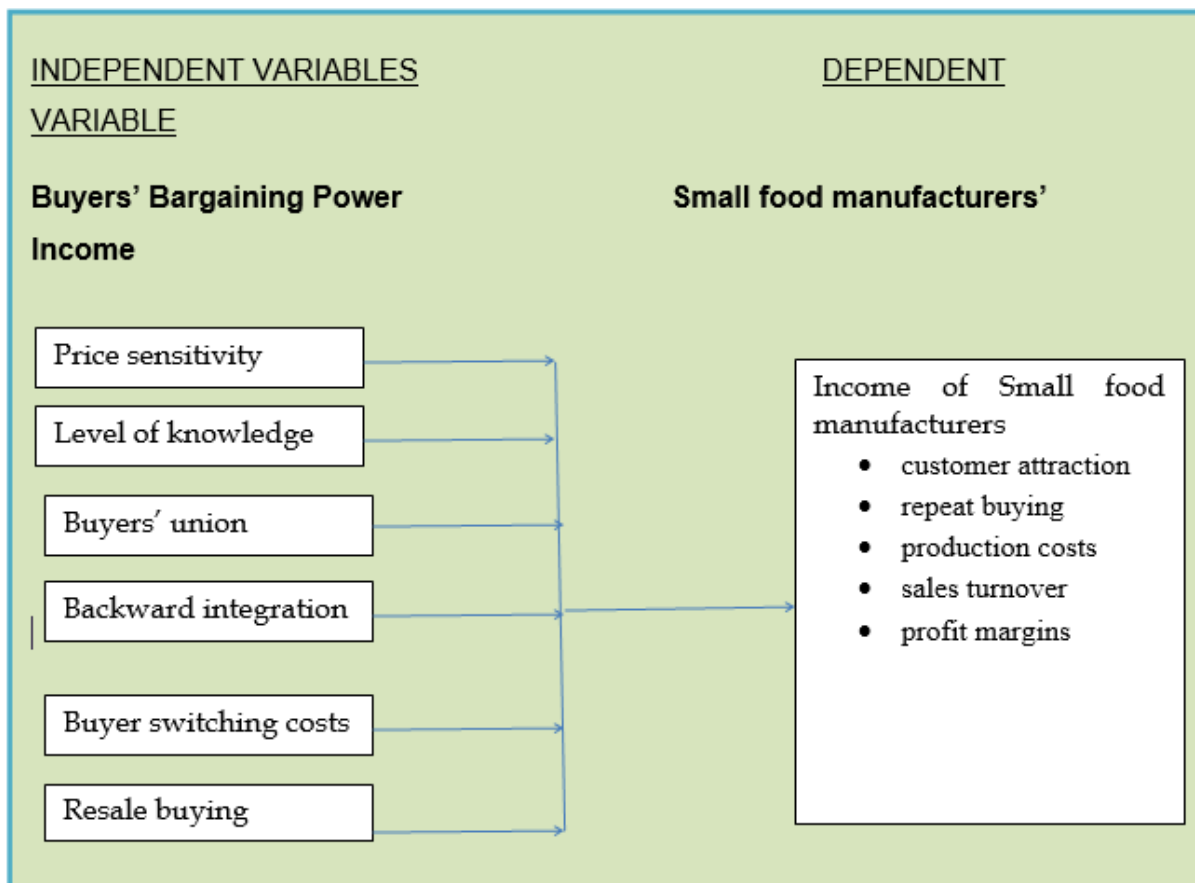


Figure 1: Buyers Bargaining Power Influence on Small Food Manufacturers' Income

Figure 1 shows the six cues of buyers bargaining power as whole and as individual different components of a system of independent variable that is likely to cause change in incomes of MSEs in agro-food industry in Kenya. According to the visual depiction, advantage of buyers would be if they suffered no penalty for switching to substitutes, if they had ability to integrate backwards.

In addition, the buyers' pressure would cause change in incomes of food manufacturers if they were sensitive to profits if they were fully aware of the products, had collective power in form of union or alliances and if they bought the products not for consumption but for resale. The amount of variation that each of the six cues and as a whole park would cause in the income of MSEs in agro-food processing is main the concern of the study.

### 3. RESEARCH DESIGN AND METHODS

This study adopted a nomothetic causal design that structured an inquiry to determine the amount of variations caused by independent variable (buyer bargaining power) on the criterion variable (income). The design also helped answer questions validly, objectively, accurately and economically by minimizing variance and laying logistical details of the journey of research (KUMAR, 2011).

The design allowed the researcher use open and closed-ended questionnaires and to scientifically measure perceptions of sampled small agro-food manufacturers with statistical precision. The temporal considerations for the survey were between August 2015 and May 2016.

The targeted populations were all possible members of agro-food manufacturing MSEs, as defined by Micro and Small Enterprises Act 2012. The Act defined MSE in manufacturing sector as enterprises that employed between ten and fifty people and with total assets and financial investment of between 10 and 50 million shillings (REPUBLIC OF KENYA, 2012).

To avoid biases, the survey picked a rural county with sparsely populated and a city county with densely populated such enterprises which were Busia and Nairobi, respectively. The population of such characteristics was gotten from the sampling frames which were the business permit registers of the two county governments. The two sampling frames gave 2096 manufacturing MSEs (Busia, 26 MSEs and Nairobi, 2070 MSEs). A sample size was determined so as to reduce the cost and test hypothesis effectively (KIM; SEO, 2013).

Though there were numerous formulas for calculating the sample size, this study preferred fisher formula ( $n = Z^2 pqD/d^2$ ) for Nairobi County because of the large population and the formula's strength exhibited in exact tests. The formula generated 146 MSEs out of the 2070 from the Nairobi sampling frame. Busia being a rural

county with sparsely populated firms its sampling frame gave 26 agro-food manufacturing MSEs. Therefore the study resorted to non-probabilistic techniques of sampling called snowballing that yielded 42 enterprises that met the criteria for study. In total the sample size was 188 MSEs.

The study adopted ordinal scale to measure the feelings of small food manufacturers on buyers bargaining power and their income. Specifically, Likert type scale was used to rate a series of items which were responded to. Though 0-10 or 1-9 scales are recommended, the difficulty encountered by most respondents in discriminating among the many points caused the study resort to the scale of 1-7 (FISCHER; CORCORAN, 2007).

A semi-structured questionnaire was used. The questionnaire was piloted in Kisumu County and its reliability tested. An excellent reliability was found at Cronbach alpha 0.97. During the main study, 132 out of 188 small manufacturers sampled were successfully interviewed, making a 70% response rate. According to Babbie (2010), 70 percent response rate was very good for analysis.

Strategy to analyze data after collection was an amalgam of both qualitative and quantitative approaches. The two approaches traded off the weakness and strengthen of each other's approach in answering the research questions. On one hand, a qualitative approach employed descriptive statistics technique to test central tendencies, frequency distributions and the mean.

The means of two different groups of respondents which were close to each other in opinion (near to the median of 4) were compared using two sample t-tests. On the other hand, quantitative approach used inferential statistics techniques by means of multiple linear regression analysis that predicted models and determined the relationship between the small agro-food manufacturers' income and the buyers bargaining power six cues. These methods were done on collected data using Statistical Package for the Social Sciences (SPSS) computer program at confidence level of 95% or P-value of 0.05 significance levels.

## **4. FINDINGS AND DISCUSSIONS**

### **4.1. Determining small Manufacturers' Income**

Small manufacturers income in Kenya is the estimated income a firm makes depending on the extent of pressure buyers exert on the market to bring down prices



of foods. The study examined this variable by measuring the perceptions of the small food manufacturers about the products contribution to the firm's revenue, customer satisfaction, customer attraction, repeat buying, production costs, sales turnover and profit margins as indicators income.

By asking how they would rate the product's contribution in terms of revenue, they responded (mean=5.90) on 1 to 7 individual rating scale, majority of respondents n=122(92.4%) agreed that the products' contribution to their MSEs' revenues were very high. The study also measured the dispersion of probability distribution and found a coefficient variation of 0.179 meaning that the standard deviation was about 18% of the mean, meaning that they were homogeneous.

#### **4.2. Buyers' Bargaining Power Effect on Small Food Manufacturers' Income**

Buyers bargaining power refers to the ability of customers to obtain favorable terms from the MSEs engaged in agro-food processing than those offered now. The ability is characterized by customers being more powerful than suppliers, sensitive to product prices, informed of the product, unionized, end users, and able to integrate backwards.

Other characteristics of buyer bargaining power include customers' ability to reduce selling price of goods and switching costs. If an agro-food manufacturing SME would be powerful at the market place, it has to have an ability to profitably maintain prices above competitive levels. This ability is often threatened by the buyers' concerted agitation for lower prices.

The study wanted to know if the customers had ability to reduce prices of products of SME manufacturers in Kenya. Respondents were asked if the buyers could reduce prices below the selling price. It was revealed by most of small agro-food processor mean = 4.4961 and n=68(51.1%) indicate that buyers had ability to reduce price below the profitable selling price.

The means were compared using the independent sample t-test. On average, the mean of buyers who reduced price below selling price ( $4.496 \pm 1.55$ ) were not statistically significantly different from the buyers who did not ( $4.50 \pm .71$ ),  $t(125) = -0.004$ ,  $p = 0.997$ ,  $sig > 0.05$ , 2 tailed. It is worth concluding that the difference of means in write between buyers who reduce price profitably below selling price and those that don't reduce price profitably below selling price was 0.

The implications were that the buyers had a stronger bargain at the market than the food manufacturers. The cumulative consideration of the buyers bargaining power cues above showed that n=117(88.6%) respondents agreed that buyers bargaining power was strong.

After descriptive analysis, the study used Ordinary Least Square (OLS) to establish if correlation existed between the variables, if the independent variables predicted well the variables and the extent of the effect of the buyer bargaining power variables on the incomes of small food manufacturers. In OLS econometrics, the SPSS model summary output always has the R that shows the correlation between the predictor and criterion variables and R squared is used to estimate discrepancy between the model and sample data. R squared measures the model's goodness of fit too.

They are always presented as coefficients that must fall between 0 and 1. This study had an R and R squared values of 0.393 and 0.155 respectively. It means that a relationship between buyers bargaining power and income of small food manufacturers do exist. It exists at 0.393. The R squared establishes that 15.5% of the variability in buyers bargaining power cues accounted for change in incomes of small food manufacturers. In other words buyers' sensitivity to prices, unions, level of awareness, ability to integrate backwards and end resale buying predicted well the incomes of small food manufacturers in Kenya. Therefore the model is good.

The study therefore goes ahead to measure if the means of all the six variables were relatively the same or if they were significantly different from one another. This is done 1 Way Between Subjects using ANOVA technique as shown in Table 1.

Table 1: ANOVA for All Variables

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.218	8	.027	2.377	.022 <sup>b</sup>
	Residual	1.192	104	.011		
	Total	1.410	112			

a. Dependent Variable: Y1

This test shows a ( $F=2.377$   $p= 0.022$ ,  $sig <0.05$ , 1 way). This values help the study determine if condition means were relatively the same or if they were significantly different from one another. Put differently, this value will help you determine if buyers' bargaining power had an effect. In this example, the Sig. value is 0.022.



The p value is lower the set level of significance of 0.005. If the Sig value is less than 0.05, it is concluded that there is statistically significant difference between the six conditions of buyers' bargaining power. It is a clear indication that the differences between condition Means are likely due to manipulation of buyers' bargaining power and not due to chance.

The study further tested the hypothesis linear regression as shown in Table 2.

**Table 2: Linear Regression Table**

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.724	.087		8.294	.000
	The customers are very sensitive on product prices	.011	.013	.092	.871	.386
	The customers are informed on what they need	-.006	.009	-.073	-.702	.484
	The buyers have a customer union and alliances	.013	.008	.189	1.657	.101
	Buyers ability to process their own foods (backward integration)	.005	.007	.093	.804	.423
	It is likely to cost customers to switch suppliers	-.008	.006	-.126	-1.290	.200
	Buyers end use of the product	.010	.008	.171	1.295	.198

a. Dependent Variable: Y

This test shows a ( $t=8.294, p= 0.00, sig <0.05, 2 \text{ tailed}$ ). The p value is lower the set level of significance. According to Gall, Gall, and Borg (2007) lower p values should be interpreted as higher level of significance. This means that the null hypothesis is rejected and the alternative accepted. At confidence level of 95% or P-value of 0.05 significance levels, the findings shows that buyers' bargaining power has a statistically significant effect on the incomes of small food manufacturers in Kenya.

After testing the hypothesis the study estimated the incomes by regressing the buyer bargaining power cues as follow:

Small agro-food manufacturers incomes(Y) = 0.724 + 0.011\*buyer' price sensitivity -0.006\*buyers level of knowledge + 0.013\*buyers union + 0.005\*buyers ability to integrate backwards - 0.008\*buyers switching costs + 0.010\*buyers end use of the product + 0 .087.

Using the information in variables in the equation and table 4.2, the study shows that if all buyers bargaining power predictor variables were rated 0, income of small food manufacturers in Kenya would increase by Kshs. 0.724.

#### **4.3. Buyers' Price Sensitivity Effect on Incomes of Small Food Manufacturers**

This section focuses on the consciousness customers have on the prices of agro-processed products. Respondents were asked whether their customers were very sensitive on product prices. Almost unanimously,  $n=124(93.9\%)$  at a mean of 6.36, the respondents agreed customers were sensitive on product prices.

It implies that consumers are vigilant and want to see value for their money at every product purchase. The study further sought to determine the effect of the price sensitivity on the income of the small food manufacturers. Using Ordinary Least Square linear regression, the study found that small food manufacturers received an increase in income of Kshs. 0.011 for every one-unit increase in price sensitivity by the buyers, all other factors held constant.

The study went further to test the hypothesis:  $H_{01}$ : *Buyers' price sensitivity has no significant effect on incomes of small food manufacturers.* It was revealed that at confidence level of 95% or P-value of 0.05 significance levels, the findings shows  $p = 0.386$ , sig  $<0.05$ , 2 tailed. The null hypothesis upheld. It means that at lower prices the buyers bought more and the profit margins went up.

Though price sensitivity had a positive, effect on the incomes of small food manufacturers, ***there was no enough evidence to warrant significant change on incomes of small food manufacturers.*** However, Al-Mamun, Rahman and Robel (2014) found otherwise. The difference could be that small manufacturers in Kenya hardly produce products whose prices don't reflect the value proposition at the market (SHRIVASTAVA; PARE; SINGH, 2015).

#### **4.4. Buyers' Knowledge Level Effect on Incomes of Small Food Manufacturers**

In a market-oriented economy, it does not matter how an agro-food processor thinks of his innovation, it is the customers' opinion of on the product that matter. The study therefore asked the respondents whether their current and potential customers knew of their product. The finding were  $n=110$ , (83.4%) and (mean=6.10) of the

respondents showing that it is true that the customers are informed on what they need from the processors of agro-products.

On the cause-effect relationship of buyers' knowledge level and small food manufacturers' income, the study found that for every unit increase in the knowledge of the buyers, the small food manufacturers in Kenya suffered a decline in income of 0.006. This again is quite insignificant and so the null hypothesis was upheld. ***Buyers' knowledge level has no significant effect on incomes of small food manufacturers.***

Despite the fact that enough evidence was not found to support buyers' knowledge having significant influence on the incomes, contemporary theoretical models strongly finds a buyer bargaining strength grounded on information (NICHOLSON, 2012; JISANA, 2014) observed in that contemporary buyer.

Recent trends have shown an increase in availability of sophisticated customers and according to the findings, the customers of the MSEs in agro-food industry are highly informed. This calls for more tactful and strategic skills for the MSEs to understand the customers' point of pain, frustrations and unmet needs and eventually offer customers more efficient and effective products that they currently sell. It means that the agro-food processors must have the capacity to handle vast amount of customers' input and use it build products that would attract greater income.

#### **4.5. Buyers' Union Effect on Incomes of Small Food Manufacturers**

When customers are unionized, they yield social benefits which are often used to counter the market power of agro-food manufacturers. The exercise of this power prevents agro-food manufacturers from exploiting their market status as fully as they could if they were faced with un-unionized buyers.

This prompted an enquiry into experiences of micro and small agro-food processors with customers' alliances in Busia and Nairobi. Respondents were asked if their buyers had customer union and alliances. According to the results most of the respondents at a mean=3.57, n=60(44.6%) perceived no customer union and alliances.

Because the mean is close to 4, an independent sample t-test was done to compare means of the customers that were in union and those that were not in



union. On average, the mean of customers that are unionized ( $3.5952 \pm 1.66$ ) are not different than those who are not in union ( $2.50 \pm 0.71$ ),  $t(126) = 0.926$ ,  $p = .356$ ,  $sig > .05$ , 2 tailed.

The difference between means of the customers who were unionized and not unionized was 0. It implies that most customers, having no union, had weaker ability to obtain from the agro-food processors more favorable terms than those available under normal expected terms. In other word the small agro-food manufacturers were little threatened by customer unions and had the ability, therefore to profitably maintain prices above competitive levels.

Other factors held at constant, the study sought to infer the effect of the unions on the incomes. It was revealed that for every unionizable buyer who was not unionized, the small food manufacturer gained by 0.013 units. This mark-up again is quite insignificant as shown in Table 4.2 as  $p = .101$ ,  $sig > 0.05$ , 2 tailed. The null hypothesis was upheld, therefore. **Buyers' union has no significant effect on incomes of small food manufacturers.** Faced with these facts, it means that buyers of food products in Kenya are uncoordinated, don't enjoy joint efficiency and can hardly enforce their rights.

#### **4.6. Buyers' Ability to Integrate Backwards Effect on Small Food Manufacturers' Incomes**

Backward integration is a form of strategy through which MSE customers gained ownerships and increased control over the agro-food processors. This buyer's capability would reduce MSEs in agro-food processing income and make them less competitive. The respondents were asked if most customers had the ability to process their own foods (backward integration).

The findings revealed that most customers mean  $> 4.2$  and  $n = 66(50\%)$  had ability to process their products hence able to integrate backwards as shown in Plate 1. The findings further revealed a coefficient of variation of 0.45. This indicates a slightly above average congruence and below average dispersion in the sample data.

### Busia Nakumatt Supermarket: Customer Backward Integration



Nakumatt is a big buyer of MSEs agro-food products. It took complete control of value chain stages in the production value chain of bakery products in Busia as shown in the picture.

Plate 1: Backward Integration: A case of Busia Nakumatt Supermarket Bakery Products

The above picture shows Nakumatt Supermarket one of the biggest buyers of SMEs in bakery is integrating backwards buy buying raw materials, baking, packing and putting the bread and cakes on the shelves for sell. This implied that most buyers sought to save costs and wanted efficient products. Backward integration is sought by Nakumatt to reduce cost, and improve efficiency for the buyers. Consequently, the MSEs processing food were likely to suffer thinner profit margin and stiffer competition.

Other factors held constant, how much extra income do small food manufacturers receive if they had one more buyer integrate backwards? Small food manufacturers made 0.005 units for every buyer who integrated backwards. This meant that it was cheaper to for small food manufacturers who sold semi-finished products than finished products in Kenya.

Sharma, Khatri and Mathur (2014) in their study of supply chain management found the same to be true that buyers integrating backward yield a cheaper process. On testing the null hypothesis, the study revealed as  $p = 0.423$ ,  $sig > 0.05$ , 2 tailed meaning that no enough evidence was gotten by the study to negate the null hypothesis. It follows therefore; **buyers' ability to integrate backwards has no significant effect on incomes of small food manufacturers in Kenya.**



Spiegel (2011) confirmed this insignificance in the ultimate income when he observed when Coke and Pepsi resolved to integrate backwards. Two opposite foreclosures were realized: downstream and upstream which brought setoffs on both the supplier and buyer's bargaining powers.

#### **4.7. Buyers' Switching Costs Effect on Incomes of Small Food Manufacturers**

Customer switching costs are negative psychological, physical and economic experiences buyers face for changing from one business relationship with an agro-processor to another. It is a critical determinant in an MSE's ability to acquire, keep customers and realize competitive advantage.

The study sought to understand if the customers of micro and small agro-food manufacturers in Kenya incurred such costs. After asking how unlikely it was for customers to switch suppliers, majority of respondents (mean=5.15, n=94(71.2%) agreed that it was unlikely. This implied that the MSEs in agro-food manufacturing enjoyed customers' brand loyalty and repeat-buying which are renowned contributors to increased revenue and survival.

Results given by Table 2 show that every one buyer who switched to alternative product, the small food manufacturer in Kenya lost an income of 0.008 units, all other buyers bargaining power factors held at constant. According to the  $p = 0.200$ ,  $sig > 0.05$ , 2 tailed the evidence is below the bar to reject the null hypothesis. Therefore **buyers' switching costs has no significant effect on incomes of small food manufacturers.**

In contrast, studies by Hess and Ricart (2002) as well as Farrell Klempere (2007) observed that switching costs under normal circumstances significantly influence income of a firm. Now that it does not under small food manufacturers in Kenya, it means that the food entrepreneurs have not build brand loyalty among the buyers and therefore they are not bothered to resist buyers from leaving. These possess a high risk of danger in a competitive market (Somani & Einav, 2013).

#### **4.8. Buyers' End Use of the Product Effect on Incomes of Small Food Manufacturers**

The study also sought to understand whether the customers of the micro and small agro-food manufacturers bought the products for resale or for home use. The



respondents were asked if their customers buy the products for resale. With a mean  $>4.4$  and  $n=69(52\%)$  most of respondents revealed that customers bought products for resale. The coefficient of variance was 0.41.

It means that the variable was less dispersed and the strength of congruence was slightly above average. It shows that most of the customers for the micro and small agro-food manufacturers were brokers who increase welfare by enhancing locative efficiencies. The firms ought to be ready to produce in large quantities to address stock needs of the retailers and wholesalers (brokers).

Inferential statistics were used to measure the causal relationship between the end purpose of the product by the buyers and the small manufacturers' income. The findings in table 4.2 indicate that for every one buyer who bought the products for resale, the small manufacturers made an extra income of 0.010 units. This implies that the resale buying was more profitable than consumption buying in Kenya.

This is because resale buying bought in large quantities and reduced distribution costs for the manufacturers. On testing the hypothesis, the  $p = 0.198$ ,  $sig >0.05$ , 2 tailed was evident. The null hypothesis was consequently retained because of greater  $p$  value. **Buyers' resale buying has no significant effect on incomes of small food manufacturers.**

The findings in this study disagree with other studies that observed higher significance (MOHANTY; GAHAN, 2012; LESLIE; SORENSEN, 2014). Perhaps it is because the small manufacturers have not produce in large quantities to address stock needs of the retailers and wholesalers. Hence not enjoying allocative efficiency at the market place.

## 5. CONCLUSION

The study sought to fill the gap in knowledge about customers' behaviors that could bring down incomes in small entrepreneurial food industries. Using predictive design the researchers surveyed 132 small industries in agro-food processing and found that buyers bargaining power had a nomothetic causal effect to the incomes of small food manufacturers in Kenya ( $t=8.294$ ,  $p= 0.00$ ,  $sig <0.05$ , 2 tailed).

The amalgam of the six cues measured (price sensitivity, buyers union, backwards integration, resale buying, buyers' knowledge level and switching costs

caused significant variance in the incomes of the small entrepreneurs in Kenya. Specifically the study found out the following:

- a) Buyers' price sensitivity has no significant effect on incomes of small food manufacturers. As a standalone factor, no enough evidence could be found to support that customer's reactions to prices caused low sales and profit for small food industrialists. However the little evidence showed that the more the more the buyers were conscious about the prices the greater the profits for the small industrialists. This implies that consumers were ready to buy foods at any price.
- b) Buyers' knowledge level has no significant effect on incomes of small food manufacturers. Though awareness of customers on did not significantly influence the industrialist customers, the study found that the more they became aware of the product the lower the profits. Customers' knowledge of the foods influenced them not to buy. It implied that either the Jua kali food products in Kenya did not meet the demand of the customer or the customers preferred the imported foods stuffs. Whichever way, the industrialists should improve their products to match the competitors and delight the customers at the market.
- c) Buyers' union has no significant effect on incomes of small food manufacturers. Based on this finding, customers in food industry are both disintegrated and have high appetite for food. This explains the intermittent supply of food and comparative high demand in the market that cause shooting of food prices in Kenya.
- d) Buyers' ability to integrate backwards has no significant effect on incomes of small food manufacturers in Kenya. However, the more customers bought into the supply chain they increased the more they increased the income of the industrialists. It means the small food industrialists in Kenya made more income in less processed goods than the more finished goods. It also meant that the customers preferred preparing final products to their unique tastes.
- e) Buyers' switching costs has no significant effect on incomes of small food manufacturers. The little evidence available showed that the more buyers changed to another food supplier the lesser incomes realized among the

small food industrialists. It implies that the buyers did not likely switch from one small to another small entrepreneur, rather they moved to bigger multinational or imported products. Large multinationals and imports are likely to smoothen the small food industries in Kenya. The government needs to intervene, therefore, to protect small food firms.

- f) Buyers' resale buying has no significant effect on incomes of small food manufacturers. Many of the customers of small food industrialists bought goods for consumption. They bought them neither for industrial nor resale purposes. The industrialists need to market themselves to large multinationals to sale their semi-processed food stuffs which they are competent in for survivability and escaping competitive incompetence.

## 6. SUGGESTION FOR FURTHER RESEARCH

A structural equation modeling to find the right mix of factors that would require critical attention by marketers need to be studied. Secondly, Kenyan food market suffers acute food shortage and increased demand for food, a better perspective of buyers bargaining power would be gotten where the study covers a market that has enough supply of food. Finally medium and large food manufacturers equally play a big role in economic development to warrant better understanding on how their customer's pressures influence their performance in Kenyan context.

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