The Mediation Effect of Customer Perception on the Relationship Between Quality Drivers and Customer Satisfaction in Large Maize Flour Mills in Nairobi, Kenya

Ngungu kabare, PhD.¹, Francis N Kibera, PhD.² and Justus M Munyoki, PhD.³

This study sought to establish the influence of quality drivers on the satisfaction of direct business customers within large Maize Flour Mills in Nairobi and assess the mediation effect of customer perception on this relationship. The quality drivers studied were product quality, service quality, complaints handling, ease of doing business and product price. Customer perception constructs studied were customer's desire for features critical to quality, brand imagery, firm imagery and reference to competitive substitutes. Primary data were collected in February 2013 by use of questionnaires from 81 direct Business Customer firms randomly selected from 13 Maize Flour Mills in the study area grinding at least 15 MT of maize per day. Results showed that the influence of quality drivers on customer satisfaction is both direct and partially mediated by customer perception, both influences being positive and statistically significant (p< 0.01). Quality of service significantly influenced customer satisfaction (β = 0.441, p< 0.01) and most of the other quality drivers and intention to recommend. Brand imagery significantly influenced satisfaction (β = 0.531, p< 0.01) followed by desire for features critical to quality (β = 0.259, p< 0.01). These results have implications for marketing theory. The finding that customer perception partially mediated the process of customer satisfaction agrees with the consumer attitude theories which postulate that attitude and subjective norms in conjunction with cognitive and emotional considerations influence intentions which in turn give impetus for action. The study contributes to the evolution and adaptation of customer satisfaction models by adding customer perception as mediator variables. Further, the results have implications useful at national policy level. Kenya's strategy for revitalizing agriculture and vision 2030 both aspire to increase the country's regional and global trade through improved efficiency and competitiveness at firm level, agro-processing and the marketing system including the wholesale and retail sectors. The volume of trade within the East African Community is expected to increase as member states reduce trade barriers. This will open new trade opportunities but could increase competition. Training local firms on the issues of quality drivers and customer perception can help to improve their regional and global competitiveness. For managerial practice, the results demonstrate that frequent feedback on customer perception is necessary and that improvements in the quality of service go a long way in improving customer perception concerning other quality drivers and satisfaction. It is concluded that customer satisfaction enhancement programs and evaluation models need to integrate primary drivers of quality with key drivers of customer perception. The study was limited in a number of ways. Due to time, cost and other constraints a cross-sectional research design was used and focused on firms in Nairobi. Data were collected from respondents once to get their views and perceptions concerning a limited number of variables and constructs. However, perceptions vary over time and across markets or regions as influenced by changes in consumer preferences or economic changes that influence purchase and consumption patterns. Opportunities therefore exist for longitudinal and wider studies in the same area of research.

Key Words: Quality drivers, customer perception, customer satisfaction (CS), Nairobi, Kenya

¹ Lecturer in Marketing, School of Business, Kenyatta University

² Professor in Marketing, School of Business, University of Nairobi

³ Senior Lecturer in Marketing, School of Business, University of Nairobi

Introduction

Customer satisfaction refers to the overall evaluation of how pleasurable one's interaction with an organization is including the buying and use experience, relative to what is anticipated (Anderson et al, 1997; Kotler and Keller, 2006; Ronald, 2010). At higher levels satisfaction can lead to loyalty which is a deeply held commitment to repurchase or re-patronize a preferred product consistently over time even with stiff competition (Oliver, 1999). Satisfaction is a moving target that is often shaped by various attributes upon which customers form perception. The attributes could be related to the product such as quality, value-price relationship, benefits and features, design, reliability and consistency and product/ service range. They can be related to service such as delivery, complaint handling and problem resolution. Other attributes are related to the buying process such as convenience, communication. courtesy, staff competence and firm reputation (Crawford, 2007; Dutka, 1993).

Kenya's manufacturing sector contributes 10% of the country's GDP. Food processing contributes about two thirds of the manufacturing GDP and about a fifth of the country's export earnings (Osano *et al*, 2008). Trade in maize flour plays a key role in this sector, especially because maize meal is the staple food in the country (Wangia *et al*, 2002). On average households in Nairobi spend 27% of their food budget on staples with maize meal taking the lead (Kamau *et al*, 2011).

However, other carbohydrate sources such as wheat, rise, potatoes, sorghum and cassava are gaining popularity (Kamau *et al*, 2011; Muyanga *et al*, 2005). New

challenges have come by way legislation such as the VAT Act 2013 that has moved cereal milling byproducts and several other commodities from zero rating to the standard VAT rating of 16%. This will increase the cost of these supplies and is likely to affect demand thereby increasing competition (Deloitte, 2011). In view of this, research on the dynamics of quality drivers of the maize flour would be useful in policy issues related to the country's strategy of promoting agroprocessing and food security. In a study on Kenyan urban consumption of maize meal, Mukumbu and Jayne (1994) found that the key quality drivers on purchase decisions were price and convenience followed by taste and nutritive value. The current study sought to establish the effects of customer perception on the relationship between quality drivers and customer satisfaction within large maize flour mills in Nairobi.

Literature Review

Perception relates to how individuals see the world around them. It is a process by which people select. organise, interpret stimuli into meaningful and unified pictures or images of situations (Schiffman and Kanuk, 2007). Through a positive image a consumer perceives a brand or a firm to be stable, dependable and suitable for satisfying the needs of the consumer. Such an image can strengthen a firm's credibility, lead to more sales and help to fight competition. Consequently many companies strive to develop, project and maintain positive images of their brands and the firm. Both the brand and corporate image reinforce one another in that if the brand image is positive, it reflects favourably on the corporate image and vice versa (Haedrich, 1993).

Satisfaction shifts as customer perception of quality changes, evolves, and grows to encompass more expectations (French et al, 2005). Issues can arise concerning established brands, product features, procedures including processes or complaints. Competitors can offer better alternatives or changes in other fields such as technology or culture can shift customer perception (Armitage and Conner, 2001; Ferrell and Hartline, 2005). Customers develop expectations depending on how they perceive attributes and base decisions on perceptions rather than on the basis of objective reality (Schiffman and Kanuk 2007). The relative importance played by respective quality drivers and other enabler variables in fostering customer satisfaction varies over time as marketing conditions and other aspects of life change. This dynamism needs to be reflected in tools satisfaction assessment and associated frameworks if they are to remain robust in capturing the voice of the customer. The scope and nature of drivers used in satisfaction models therefore needs to be reviewed from time to time so as to keep abreast of changes in consumer behaviour and related fields (Johnson et al, 2001).

Satisfaction is closely linked to future purchase behaviour and willingness to recommend and is thus a strong predictor of loyalty and customer retention (Ferrell and Hartline, 2005; Turkyilmaz and Ozkan, 2007). Satisfaction therefore helps to reduce customer turnover and lower transaction costs related to contract negotiations, order processing, and bargaining (Fornell, 1992). customers are most likely to share their experiences with about five or six people while a dissatisfied customer is more likely share their unfortunate experience with up to ten people (Ronald, 2010). Loyal customers tend to buy more, are less price sensitive, speak well of the firm and are harder for competitors to win (Schiffman and Kanuk, 2007).

Many firms in Kenya are increasingly focussing on enhancement of customer satisfaction due to increasing competition. An increasing number are registering with industry and global quality standards such as ISO 9001:2008 Quality Management System and, for food related operations, FAO/WHO Codex Alimentarius HACCP Food Safety System. Assessment of CS is a key feature of these standards (Hashim, 2007; Kimbrell, 2000). This way firms hope to compete more effectively locally and against imports as well as in the export markets. Anyango and Wanjau (2011) observed improved company performance in Nairobi with respect to perceived quality, competitive advantage, and market corporate image share associated with adoption of ISO 9001 certification. Furthermore the certification impacted positively on financial resource management (p=0.001) and customer satisfaction (p=0.03).

Methodology

This study used a descriptive crosssectional design to check for significant associations between the study variables and make generalisations concerning the target population. The population of study comprised all direct Business Customers in the sifted maize flour sector within the administrative boundaries of Nairobi City. These included distributors, wholesalers, supermarkets, and other institutions that bought maize flour directly from the maize mills. With the help of the Maize Flour Mills' marketing and sales managers, a random sample of 10 direct Business Customers was selected from the customer data bases of each of thirteen maize mills in the study area grinding at least 15 MT of maize per day. Primary data were collected by use of a semi-structured questionnaire. Respondents were purchasing managers because they interact with the mills and are responsible for the flour sourcing function.

A total of 81 questionnaires were received back out of the 130 questionnaires sent out. Rating was done on a ten point scale (ranging from 1 to 10) to increase the level of scale details. Pearse (2011) and Preston and Colman (2000) report that rating scales with less than seven points tend to inadequate granularity. They obtained the most reliable scores from scales with seven to ten response categories. Likewise Reichheld (2003) observes that scales with more points offer wider options especially because cstomers tend to refrain from top scores.

Data were cleaned, edited and coded followed by analysis and reporting. The statistical programme Software Package for the Social Sciences (SPSS) version 12.0 was used to analyse the data using both descriptive and inferential statistics. Normality of distribution was checked through skewness and kurtosis tests. Correlations were used to examine variable relationships. Simple and multiple linear regressions were used to test for the study hypotheses. The coefficient of determination (R²) indicated the amount of variation explained by the model. Mediation was tested in accordance with steps regression procedure described by Baron and Kenny (1986) and Fairchild and MacKinnon (2009). Figure 1 shows the mediation path diagrams next to the conceptual model in which X is the independent variable (quality drivers), M variable the mediating (customer perception) and Y the dependent variable (customer satisfaction).

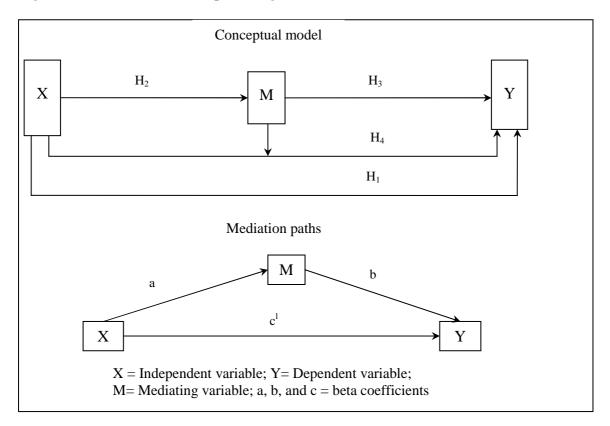


Figure 1: Mediation model path diagram

Reference for mediation paths: Fairchild and MacKinnon (2009), A General Model for *Testing Mediation and Moderation Effects. Prevention Science*, 10:87-99.

In step one of mediation testing, the dependent variable Y was regressed on the variable independent X and standardized regression coefficient (beta for path c) examined to determine the size and direction of the relationship and checked for significance. This beta for path c was significantly different from zero and therefore in step two, the mediator M was regressed on independent variable X to estimate the standardized beta regression coefficient for path a, which was examined to determine the size and direction of the relationship and was significantly different from zero. In step three, Y was regressed on M to determine the beta coefficient for path b, which was significant. In step four, the dependent variable Y was regressed on X 21 |

while controlling the effect of M on Y, by performing a hierarchical regression analysis that placed M and X in successive independent variable boxes in the SPSS program. If both coefficients for paths a, and b are significant, then M mediates the relationship between X and Y and c^1 is assessed to check the link strength (Fairchild and MacKinnon, 2009; Bennett, 2000; Shaver, 2005; Sharma et al, 1981).

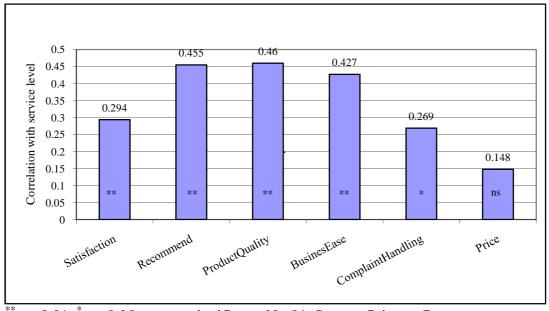
Findings

Correlations

Service quality emerged as the feature with the most profound positive influence on other quality drivers and on satisfaction and intention to recommend. Service quality had influence on product quality (r = 0.46, p< 0.05) and moderate correlations

with complaints handling and ease of doing business as well. It had a positive non-significant correlation with product price. The implication of this is that Business customers are likely to associate good service with superior quality of product and associated processes. Figure 2 highlights the correlations between the level of service performance and the other attributes.

Figure 2: Correlation Coefficients- service quality and other parameters



p< 0.01, *p< 0.05, ns: not significant, N= 81, Source: Primary Data

statistically The highly significant correlation between service performance and intention to recommend (r= 0.46, p< 0.01) implies that the higher the level of service performance experienced by a business customer. the higher the likelihood that the customer will recommend the brand or firm to a colleague or friend. The highly statistically significant correlation coefficient relating to ease of doing business (r= 0.427, p< 0.01) suggests that a high level of service performance experienced by a business customer reassures the client that any problem arising from the purchase will be attended to expeditiously.

Correlation coefficients between customer perception and quality drivers (Figure 3) were positive and statistically significant for all quality drivers except for price whose coefficient fell slightly outside the threshold of p< 0.05. The correlation coefficients were also positive and statistically significant for both overall satisfaction and intention to recommend.

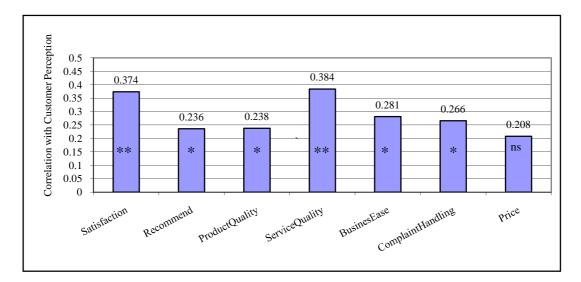


Figure 3: Correlations Between Quality Drivers and Customer Perception

** p< 0.01, * p< 0.05. Source: Primary Data

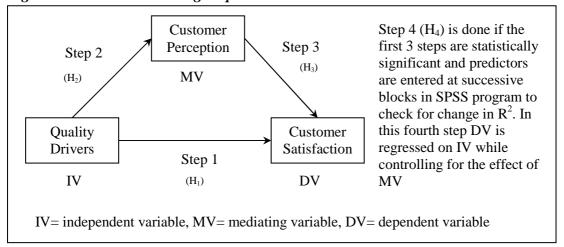
The correlation coefficients were highly statistically significant (p< 0.01) for service quality and overall satisfaction. The managerial implication is that any improvements on attribute performance (quality drivers) translates to improved positive customer perception about the Flour Brand or Mill and that good quality service has a particularly profound effect on enhancing customer perception.

The results further indicated that customer perceptions had a positive and statistically significant influence on customer satisfaction (r= 0.374, p< 0.05) and intention to recommend (r= 0.236, p< 0.05). This implies that sellers stand to gain more on customer satisfaction by focusing on both product attributes and customer perception as opposed to working on the attributes alone.

Mediation (Intervening) Effects of Customer Perception

The study had hypothesized that customer perception mediates the relationship between quality drivers and customer satisfaction as shown in Figure 4.

Figure 4: Mediation Testing Steps



In step 1 (hypothesis H_1) customer satisfaction was regressed on quality drivers and the relationship was positive and statistically significant ($\beta = 0.391$, B = 0.406, p< 0.01) and the model accounted for 15.3% of the variation. This supported the first condition for testing the effect of

mediation. This hypothesis tested the direct relationship between quality drivers and customer satisfaction and was stated as shown below. Aggregate mean scores of CS were regressed against those of the quality drivers. The output is shown in Table 1 a to c.

 $H_{1:}$ There is a statistically significant relationship between quality drivers and customer satisfaction.

Table 1: Customer Satisfaction regressed on aggregate mean scores of Quality Drivers

a) Model Summary

Model	R	\mathbb{R}^2	Adjusted R ²	Std. Error of the Estimate
1	.391(a)	.153	.142	1.08776

a Predictors: (Constant), Quality Drivers

b) ANOVA(b)

Mode				Mean		
1		Sum of Squares	Df	Square	F	Sig.
1	Regression	16.827	1	16.827	14.222	.000(a)
	Residual	93.475	79	1.183		
	Total	110.302	80			

a Predictors: (Constant), Quality Drivers, b Dependent Variable: C. Satisfaction

Model				Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
1	Constant	4.831	.836		5.778	.000
	QualityDrivers	.406	.108	.391	3.771	.000

As shown in Table 1 there was a statistically significant linear relationship between quality drivers and customer satisfaction ($\beta = 0.391$, B = 0.406, p< 0.05) and hence the study failed to reject hypothesis H_1 . The influence of quality drivers on customer satisfaction was moderate as the model accounted for 15.3% variability ($R^2 = 0.153$). The resulting simple linear regression model that can be used to predict the level of satisfaction for a one standard deviation improvement in the performance level of quality drivers can be expressed as:

$$CS = 4.831 + 0.391QD + e$$
(1)

Where CS = level of customer satisfaction and QD = level of quality drivers performance. The standardized beta coefficient 0.391 implies that, other factors constant, a one standard deviation improvement in the performance of quality drivers would raise the level of customer satisfaction by a factor of about 0.4 of a standard deviation.

Step 2 (hypothesis H_2) involved assessing whether quality drivers predicted customer perception and whether the relationship was statistically significant. The hypothesis was stated as follows:

H_{2:} There is a statistically significant relationship between quality drivers and customer Perception.

In this second step aggregate mean scores of customer perception were regressed on those of quality drivers and the relationship was positive and statistically significant ($\beta = 0.418$, B = 0.590, p<0.01) and the model explained 17.4% of the variation, supporting the second condition for mediation testing as presented in Table 2 a to c. The study failed to reject hypothesis H_2 .

Table 2: Customer Perception regressed on Quality Drivers

a) Model Summary

Model			Adjusted	R	Std.	Error	of	the
	R	R Square	Square		Estim	ate		
1	.418(a)	.174	.164		1.4573	32		

a Predictors: (Constant), Quality Drivers

b) ANOVA(b)

		Sum c	of		Mean		
Model		Squares		Df	Square	F	Sig.
1	Regression	35.426		1	35.426	16.681	.000(a)
	Residual	167.779		79	2.124		
	Total	203.205		80			

a Predictors: (Constant), Quality Drivers, b Dependent Variable: Customer Perception

c) Coefficients(a)

		Unstandardized		Standardized		
Model		Coefficients		Coefficients	T	Sig.
		B Std. Error		Beta		
1	Constant	2.146	1.120		1.916	.059
	QualityDrivers	.590	.144	.418	4.084	.000

a Dependent Variable: Customer Perception. Source: Primary Data

The resultant regression model that predicts the level of customer perception for a given level of quality drivers' performance can be expressed as:

$$CP = 2.146 + 0.418QD + e,$$
.....(2)

where CP = customer perception and QD = quality drivers.

The model shows that for one standard deviation improvement in the performance of quality drivers, customer perception would improve by 0.418 of a standard deviation.

Step 3 (hypothesis H₃) involved checking whether customer perception predicted customer satisfaction and whether the

relationship was statistically significant. The hypothesis was stated as follows:

H_{3:} There is a statistically significant relationship between customer perception and customer satisfaction (CS)

In this third step of mediation testing, aggregate mean scores of customer satisfaction were regressed against those of customer perception and the relationship was positive and statistically significant (β = 0.349, B = 0.257, p<0.01) and the model 12.2% explained of the variation. third condition supporting the mediation testing as shown in Table 3 a to c. The study failed to reject hypothesis H₃.

Table 3: Customer Perception Predicting CS

a) Model Summary

Model	R	R^2	Adjusted R ²	Std. Error of the Estimate
1	.349(a)	.122	.111	1.10713

a Predictors: (Constant), Customer Perception

b) ANOVA(b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.469	1	13.469	10.989	.001(a)
	Residual	96.833	79	1.226		
	Total	110.302	80			

a Predictors: (Constant), Customer Perception, b Dependent Variable: Customer Satisfaction

c) Coefficients(a)

Mode 1		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
1	Constant	6.233	.533		11.701	.000
	Customer Perception	.257	.078	.349	3.315	.001

a Dependent Variable: Customer Satisfaction. Source: Primary Data

The resulting regression model that predicts the level of customer satisfaction (CS) for a given level of customer perception (CP) is:

$$CS = 6.233 + 0.349CP + e$$
(3)

The model indicates that for a unit standard deviation improvement in the level of customer perception about a brand or firm, customer satisfaction level would improve by a factor of about 0.349 of a standard deviation.

The success of the first three conditions for mediation testing lead to the conduct of the final test in line with hypothesis H₄ which was stated as follows:

 H_4 : Customer perception has a mediating effect on the relationship

between quality drivers and customer satisfaction.

Customer satisfaction was regressed on quality drivers while controlling for the effect of customer perception to check for the significance of the resultant R^2 change and coefficients for quality drivers. Statistical insignificance would imply full mediation otherwise it would be partial (Baron and Kenny, 1986; Shaver, 2005). Customer perception was loaded into block two in SPSS program to control for its effect. Both the R^2 change (R^2 = 0.073) and the coefficient (β = 0.296) were

statistically significant (p<0.05) indicating partial mediation. Results are shown in

Table 4.

Table 4: Satisfaction regressed on Quality Drivers while controlling for Customer Perception

Model Summary

			Adj	Std. Error						
Model	R	\mathbb{R}^2	\mathbb{R}^2	of Estimate	Change S	Statistics				
					\mathbb{R}^2	F	df	df	Sig.	F
					Change	Change	1	2	Chang	ge
1	.349-a	.122	.111	1.10713	.122	10.989	1	79	.001	
2	.441-b	.195	.174	1.06720	.073	7.022	1	78	.010	

a Predictors: (Constant), Customer Perception, b Predictors: (Constant), Customer Perception, Quality Drivers

a) ANOVA(c)

		<u> </u>		• •		
		Sum of		Mean		
Model		Squares	Df	Square	F	Sig.
1	Regression	13.469	1	13.469	10.989	.001(a)
	Residual	96.833	79	1.226		
	Total	110.302	80			
2	Regression	21.467	2	10.734	9.424	.000(b)
	Residual	88.835	78	1.139		
	Total	110.302	80			

a Predictors: (Constant), Customer Perception, b Predictors: (Constant), Customer Perception, Quality Drivers, c Dependent Variable: Satisfaction

b) Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
Ĭ		В	Std. Error	Beta		
1	Constant	6.233	.533		11.701	.000
	Customer Perception	.257	.078	.349	3.315	.001
2	Constant	4.474	.839		5.332	.000
	Customer Perception	.166	.082	.226	2.018	.047
	Quality Drivers	.308	.116	.296	2.650	.010

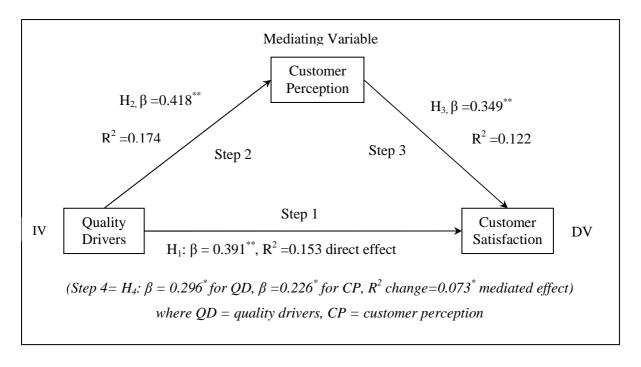
a Dependent Variable: Satisfaction. Source: Primary Data

The study failed to reject H₄. The resulting regression model from the fourth step of mediation testing, expressed on the beta coefficients can be expressed as:

$$CS = 6.233 + 0.296QD + 0.226CP + e$$
(4)

Figure 5 shows a diagrammatic summary of the results for mediation testing.

Figure 5: Summary Results of Mediation Effect Testing



**P< 0.01, * p < 0.05, β = beta coefficient, IV = Independent Variable, DV = Dependent Variable. Source: Primary Data

The four regression equations relating to the tests for mediation effect, expressed in beta coefficients are:

Step 1:
$$CS = 4.831 + 0.391QD + e$$

Step 2: $CP = 2.146 + 0.418QD + e$
Step 3: $CS = 6.233 + 0.349CP + e$
Step 4: $CS = 6.233 + 0.296QD + 0.226CP + e$

where CS= customer satisfaction, QD= quality drivers, CP= customer perception

The bigger beta coefficient relating to quality drivers (β = 0.296) compared to that of customer perception (β = 0.226) in step

4 implies that, other factors constant, business clients probably place slightly more emphasis on quality drivers. However, sellers need to foster improvements in both quality drivers and customer perception as both influence customer satisfaction.

Discussion

This study sought to establish the influence of quality drivers on the satisfaction of business customers within large Maize Flour Mills in Nairobi and assess the mediation effect of customer perception on this relationship. Quality of service emerged as a key precondition for

customer satisfaction. This agrees with the indications of satisfaction index models and the Service Profit Chain that service quality is a key motivator in customer satisfaction (Heskett et al, 1994; Anderson et al, 1997; Fornell et al, 1996). It also agrees with the findings of Silvestro and Cross (2000) who observed a strong positive correlation between service quality and customer satisfaction at the 95% level and concluded that a key aim of management should be to improve perceptions of service quality for their customers. Ramaseshan and Vinden (2009) reported that quality drivers accounted for up to 54% of satisfaction with retail stores. Simmerman (1995) reported that 70% of customer desertions were due to poor service compare to 20% combined for price and product quality. Adams (2006) found that employee attitude was often a leading cause of customer defections (68%) followed by other dissatisfactions (14%) and desertions (9%).

The results showed that the influence of quality drivers on customer satisfaction is positive and statistically significant (p< 0.05) and is partially mediated by customer perception. Flour Mills therefore need to routinely survey on customer attitudes. Brand image had positive and statistically significant effect on customer satisfaction (β = 0.513, p< 0.05). This agrees with the attitude theories which postulate that attitude and subjective norms in conjunction with cognitive and emotional considerations influence intentions which in turn give impetus for action (Bagozzi, 1992; Batra et al, 1996). Macinnis and Price (1987) reported that influences imagery cognitive, physiological, and behavioural responses. They further observed that imagery has a positive influence on incidental learning and given that much of consumer learning is incidental, then it is likely that imagery influences likelihood and timing of purchasing.

Conclusion

The objectives of this study were to evaluate the influence of quality drivers on the satisfaction of business customers in the sifted maize flour sub sector in Nairobi and to assess the mediation effect of customer perception on this relationship. direct and the mediated Both relationships were positive and statistically significant (p < 0.05).The findings therefore supported the two main hypotheses of the study. In addition, quality of service had stronger positive correlations with customer satisfaction and intention to recommend compared to other quality drivers. Customer imagery of the brand and the firm emerged as a key driver of customer perception.

It is concluded that the influence of quality drivers on customer satisfaction is both direct and partially mediated through customer perception. This implies that Flour Mills need to actively pay attention to the direct quality drivers such as product quality and price as well as customers perception variables such as user imagery of the brand and firm. Improvements in the quality of service go a long way in enhancing customer satisfaction. The study calls for the incorporation of dimensions of customer perception in customer satisfaction evaluation index models and satisfaction surveys.

Implications

The findings from this study have implications for the theory of marketing, policy and managerial practice. The finding that customer perception partially mediated the process of customer satisfaction agrees with the consumer attitude theories which postulate that attitude and subjective norms in conjunction with cognitive and emotional considerations influence intentions which in turn give impetus for action. The study contributes to the evolution and adaptation of customer satisfaction models by adding customer perception as a mediator customer variable. Most models of satisfaction focus mainly on primary quality drivers (Johnson et al, 2001).

The results have policy implications that could be harnessed to promote competitiveness. The volume of trade within the East African Community is expected to increase as member states reduce trade barriers (KPMG, 2013). This will open new trade opportunities but could increase competition. Kenya's strategy for revitalizing agriculture and vision 2030 both aspire to increase the country's regional and global through improved efficiency competitiveness at firm level, including agro-processing and across the marketing system (Ministry of Agriculture, 2004; Ministry of Planning, 2007). Training, research and development are ingredients of the strategy and this can include the need to consider quality drivers and perception in satisfaction variables.

For managerial practice, the results demonstrate that business customers within the Maize Flour subsector are more willing to do business with Flour Mills that offer superior service quality, are efficient in resolving complaints and have positive brand imagery. Improvements on the quality of service influence customer satisfaction both directly and through positive influences on other drivers of quality. They further suggest satisfaction surveys need to collect feedback on both the quality drivers and customer perception including ratings relative to competitors.

Areas for Further Research

As this was a cross-sectional research that studied customer satisfaction dynamics in a sector at a particular point in time, other research could use longitudinal research design to track changes over time. Rust et al., (1999) reported that besides mere quality limits, perceived variability and/ or consistency in quality over time is important to capture as well. Such deeper insights on dynamics of quality drivers would help marketers and brand managers in a competitive market such as the local maize flour subsector to refine their market offerings and customer satisfaction programmes for a better competitive advantage.

Secondly more variables can be studied and wider geographical coverage. Extra variables can include the increasing availability of alternative carbohydrate sources in Kenya, the growing use of fortified flour blends and increasing dietary consciousness ((Mukumbu and Jayne, 1994; Muyanga *et al.*, 2005). These trends are likely to lead to changes in the consumption of maize flour which would limit generalization of study findings for forecasting and estimation. Furthermore one can disaggregate quality attributes along the Kano model's 'critical to

quality' dimensions with a view to identifying the key performance factors that often form the common basis for competition (Anderson and Mittal, 2000; Oliver 1999).

References

- Adams C.W. (2006). Customer satisfaction and customer loyalty are the best predictors of customer retention. www.adamssixsigma.com.
- Anderson E.W., and Mittal V. (2000). Strengthening the Satisfaction- Profit Chain. *Journal of Service Research*, 3 (2), 107-120
- Anderson E.W., Fornell C., and Rust R.T. (1997). Customer satisfaction and profitability: Differences between goods and services. *Marketing Science*, 16 (2), 129-145.
- Anyango D. M., O., and Wanjau K. (2011).

 Assessment of the Relationship between ISO 9001 Certification and Performance of Manufacturing Firms in Nairobi. Paper presented at the 2nd African International Business and Management (AIBUMA) conference at KICC, Nairobi, 24th to 26th August, 2011.
- Armitage J. C., and Conner M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*. 40, 471-499.
- Bagozzi R.P., (1992). Self-Regulation of Attitudes, Intentions, and Behaviour. *Social Psychology Quarterly*, 55 (2), 178-204.
- Baron R. M., and Kenny D. A. (1986). The Moderator- Mediator Variable Distinction in Social Psychological Research: Conceptual, and Statistical

- Considerations. *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.
- Batra R., Myers J.G., and Aaker D.A. (1996).

 **Advertising Management 5th Ed.

 Prentice Hall, India, page 210.
- Bennett J.A. (2000). Mediator and Moderator Variables in Nursing Research: Conceptual and Statistical Differences. Research in Nursing & Health, 23, 415-420.
- Crawford R. (2007). Customer Priorities: what customers really want. www.instituteofcustomerservice.com
- Deloitte (2011). *The Value Added Tax Bill* 2011. Page 13. Deloitte and Touche. www.deloitte.com
- Dutka A. (1993). The AMA Handbook for Customer Satisfaction. www.esurveyPro.com
- Fairchild A. J., and MacKinnon D. P. (2009).

 A General Model for Testing Mediation and Moderation Effects.

 Prevention Science, 10, 87-99.
- Ferrell O.C., and Hartline M.D. (2005). *Marketing Strategy*, 3rd Ed. Thompson South-Western, pages 10, 94-95.
- Fornell C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *The Journal of Marketing*, 56, (1), 6-21.
- Fornell C., Johnson M.D., Anderson E.W., Cha J., and Bryant B.E. (1996). The American Customer Satisfaction Index: Nature, Purpose and Findings. *Journal* of Marketing, 60, (4), 7-18.
- French P. D., Sutton S., Hennings J. S., Mitchell J., Wareham J. N., Griffin S.,

- Hardeman W., and Kinmonth L. A. (2005). The Importance of affective beliefs and attitudes in the theory of Planned Behaviour: Predicting intention to increase physical activity. *Journal of Applied Social Psychology*. 35, (9), 1824-1848.
- Haedrich G. (1993). Images and strategic corporate and marketing planning. *Journal of Public Relations Research*. 5(2), 83-89.
- Hashim M. (2007). Quality Management System ISO 9001:2000. www.ukm.my
- Heskett J.L., Jones T.O., Loveman G.W., Sasser E.W., and Schlesinger L.A. (1994). Putting the Service-Profit Chain to Work. *Harvard Business Review* March-April, 164-174.
- Johnson M.D., Gustafsson A., Andreassen T.W., Lervik L., and Cha J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22, 217-245.
- Kamau M., Olwande J., and Githuku J., (2011). Consumption and Expenditure on Key Food Commodities in Urban Households: The Case of Nairobi. Tegemeo Institute of Agricultural Policy and Development. Working paper No. 41.
- Kimbrell E. (2000). What is Codex Alimentarius?. AgBioForum – Volume 3, Number 4 – 2000 – Pages 197-202. www.agbioforum.org.
- Kotler P., and Keller K.L. (2006). *Marketing Management*. 12th Ed. Pages 25-26, 194.
- KPMG (2013). *Kenya 2013 Budget Brief*. Page 6. KPMG Kenya. www.kpmg.com

- Macinnis D.J., and Price L.L. (1987). The Role of Imagery in Information Processing: Review and Extensions. *Journal of Consumer Research*, 13, 473-491.
- Ministry of Agriculture (2004). Strategy for Revitalizing Agriculture 2004 2014 Government Printers, Kenya.
- Ministry of Planning (2007). *Kenya Vision* 2030. Pages 13-14. Government Printers, Kenya
- Mukumbu M., and Jayne T.S. (1994). Urban
 Maize Consumption Pattern:
 Strategies for Improving Food Access
 for Vulnerable Urban Households in
 Kenya, in Proceedings of the
 Symposium on Agricultural Policies
 and Food Security in East Africa, East
 Africa Association of Agricultural
 Economists, May 19-20, 1994.
- Muyanga M., Jayne T.S., Kodhek A., and Ariga J., (2005). Staple Food Consumption Patterns in Urban Kenya: Trends and Policy Implications.

 Tegemeo Institute of Agricultural Policy and Development. Working paper No. 19.
- Oliver R.L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, 63, 33-44.
- Osano E., Kiuluku P., Njuguna H., and Tutuka L. (2008). Round table presentation on the manufacturing industry in Kenya. www.roundtableafrica.net.
- Pearse N. (2011). Deciding on the Scale Granularity of Response Categories of Likert type scales: The Case of 21-Point Scale. *The Electronic Journal of Business Research Methods*, (9), (2), 159-171.

- Preston C., and Colman A. M. (2000). Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preference. *Acta Psychologica*, 104, 1-15.
- Ramaseshan B. and Vinden A. (2009). Drivers of Retail Store Loyalty. *Australian and New Zealand Marketing Academy*, www.duplication.net.au
- Reichheld, R.F. (2003). The One Number You Need to Grow. *Harvard Business Review*, December, pages 46-56.
- Ronald G. (2010). The American Customer Satisfaction Index (ACSI), The European Performance Satisfaction Index, The NCSB, www.van-haaften.nl
- Rust R.T., Inman J.J., Jia J., and Zahorik A. (1999). What you don't know about customer perceived quality: The role of customer expectation distributions. *Marketing Science*, 18 (1), 77-92.
- Schiffman L.G., and Kanuk L.L. (2007). *Consumer Behaviour* 9th Ed. Prentice Hall India. Pages 9, 35, 241-247.
- Sharma S., Durand R.M., and Gur-Arie O. (1981). Identification and Analysis of Moderator Variables. *Journal of Marketing Research*, 18, 291-300.

- Shaver J.M. (2005). Testing for Mediating Variables in Management Research: Concerns, Implications, and Alternative Strategies. *Journal of Management*, 31 (3), 330-353.
- Silvestro R. And Cross S. (2000). Applying the service profit chain in a retail environment-challenging the 'satisfaction mirror.' International Journal of Service Industry Management, 11, (3), 244-268.
- Simmerman S. (1995). Using Dis-Un-Empowerment to Build Customer and Employee Loyalty. www.squarewheel.com
- Turkyilmaz A., and Ozkan C. (2007). Development of a customer satisfaction index model. An application to the Turkish mobile phone sector. *Industrial Management and Data Systems*. 107 (5), 672-687.
- Wangia C., Wangia S., and Groote H. (2002).

 Review of maize marketing in Kenya:

 Implementation and impact of liberalization, 1989-1999.

 Proceedings of the 7th E & S. Africa Regional Maize Conference, Nairobi, Kenya 11-15 Feb 2002.