

## **Determinants of Consumers' Choice of Milk Brands in Selected Residential Estates Owned By Nairobi City County, Kenya**

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### **Abstract**

*The dairy industry in Kenya has become very competitive in the last two decades following liberalization of the sector. In the light of competition, dairy companies are adopting different marketing practices to attract customers. Purpose of this study is to identify key factors that significantly influence consumers in the choice of milk brands. Descriptive survey was used in sampling 375 housing units within Nairobi City County. Findings revealed 10 factors as important - Store's cleanliness, Quality, Taste, Price, Availability, Family size, Income, Smell, Thickness and Quantity with least important factors being respondents' religion, stores' size, advertisements, company personnel, respondents' associations, color of packaging and location of outlet. Brand specific factors were concluded as playing significant role in determining brand choice while personal factors have least influence. Further research is recommended in other counties, away from the cosmopolitan county of Nairobi, to establish any similarities in findings.*

**Keywords:** Consumer Behaviour, Consumer Decision Making Process, Dairy Industry, Brand Choice, Nairobi City County, Kenya

### **1.0 Introduction**

Consumers in Nairobi City County are exposed to a wide choice of milk brands and have to contend with different companies' marketing activities while seeking to make the best choice on the milk brands to consume (Were, 2009). Usually, the selection process only lasts a few minutes at the point of purchase and may involve a consideration of a variety of factors. The decision to purchase any milk brand is determined by various factors that include the consumers' knowledge and understanding of company offerings, based on the interactions that the consumer has had with the different milk brands and companies offering the same. Many factors can influence consumers' buying behaviour. It becomes very difficult for a marketer to predict the products that consumers may consider to buy as well as the quantities to be purchased at a given time. Moreover, marketers are not able to know with certainty why consumers choose particular brands and disregard others. Consumers seek benefits to meet their needs; marketers therefore have to present benefits in their products in order to appeal to customers more effectively (Schiffman & Kanuk, 2009).

The Dairy industry in Kenya is regulated by the Kenya Dairy Board (KDB) that is mandated by an act of Parliament to oversee all the operations within the sector. The KDB therefore sets grades for all dairy products, determines the minimum standards to which dairy produce should conform, prescribes the manner of handling, transporting and storing of dairy produce, regulates and controls the manufacture of dairy produce, imposes a levy payable to the board by sector stakeholders, controls the sales, purchase and delivery of dairy produce to prescribed areas and regulates the registration and licensing of distributors and retailers of dairy produce (Kenya Dairy Board, 2012).

The dairy industry in Kenya has evolved over the years with Kenya Co-operative Creameries (KCC) losing the monopoly status it enjoyed from 1925 when it was incorporated by the Government of Kenya as a limited liability company to cater for the needs of cooperative societies within the industry (Odondi, 2001). Following the liberalization of the industry in 1992, new institutional arrangements in milk collection, processing and marketing have emerged. At the farm gate level, informal marketing channels that include hawkers, brokers and self-help groups dominate (Were, 2009). The informal market channel is estimated to control 60% of the total marketed milk (Kenya Dairy Board, 2012). Dairy co-operative societies that used to be an integral part of the formal milk collection and marketing have been relegated to buyers of last resort and currently market a big proportion of their milk directly to urban markets (Karanja, 2003; Were, 2009). The 45 licensed milk processors with an estimated daily intake of 600,000 litres handle the rest of the market compared with one million litres KCC used to handle during its hey days (Karanja, 2003; Kenya Dairy Board, 2012). Besides the 45 licensed processors, Kenya Dairy Board (KDB) has also licensed over 400 milk bars that currently actively market their dairy products within the country (Kenya Dairy Board, 2012).

Informal milk outlets absorb most of the milk from smallholder farmers accounting for over 80% of the total milk sold with brokers, traders/hawkers, transporters, co-operatives and farmer groups being the major participants at the rural markets (Karanja, 2003). The farm-gate milk prices in informal markets are 22% higher than in the formal marketing channel (Karanja, 2003) and the cooperatives remain the main channel for collecting milk destined to the formal market. As such, the informal channel out-competes the formal channel by charging prices that are 48% lower per litre of milk (Baltenweck, 2006). Dairy products from all processors are similar, competing for the same types of customers.

Products offered by dairy processors are in two categories that include Milk (homogenized, Ultra Heat Treated (UHT), cultured and Flavoured) and high value milk products that constitute Butter, Ghee, Cheese, Yoghurt, Cream and Powder (Odondi, 2001). All dairy processors choose their packaging from Tetra Classic (TC), Tetra Rex (TR), and Polythene sachets, Bottles, Cups, Jugs or Plastic Bags; depending on the brand and target market. The type of packaging also determines the price charged on the product. The low priced second tier market is also growing and the brands are targeted to the low-income earners. All players including the major dairy companies have second tier brands that are used as fighter brands. All processors also sell loose unpackaged processed milk, especially during glut when the milk supply is higher than consumption. Such milk is unbranded and sold at lower prices compared with the processed packaged and branded milk (Maina, 2003; Were, 2009).

This scenario makes the dairy industry very competitive while according the consumers a wide choice of products at competitive prices. For competitiveness, industry players use various communication strategies in order to appeal to the greatest number of consumers. Price wars have been greatly used and all forms of promotions are engaged into in order to win customers. Due to the tight competition within this industry, every player's market share is being threatened while some have had to close business altogether (Kenya Dairy Board, 2012). In order to succeed, the players need to develop effective strategies that can assure them of survival in this competitive environment. This in turn requires understanding of the factors that influence the Consumers' Choice of Milk Brands.

Research studies have been undertaken on the Dairy Industries in different parts of the world with Fuller (2004) focusing on the demand for dairy products in China; Niezurawski (2006) considered determinants of customer satisfaction on the markets of selected dairy products in Poland; Smith (2009) studied the global influences on milk purchasing in New Zealand while Kumar (2014) focused on factors influencing consumers' buying behaviour with special reference to dairy products in Pondicherry state in India. In Kenya studies by Odondi (2001), Karanja (2003), Baltenweck (2006) and were (2009) focussed on general aspects of marketing and operations of Dairy firms in Kenya. A study focussing on Determinants of Consumers' Choice of Milk Brands in selected Residential Estates owned by Nairobi City County, Kenya, has not been adequately considered. It is therefore necessary to conduct a study to determine the factors that consumers consider as important in the choice of milk brands in Nairobi, Kenya. Understanding of the consumer is important as it determines the strategies that an organization may pursue profitably in a competitive environment. This study therefore seeks to answer the following research question: - What are the determinants of consumers' choice of milk brands in selected Residential Estates owned by Nairobi City County - Kenya?

Based on the above, the objectives of this study are: -

- i. To determine the factors that influence the consumers' choice of milk brands in selected Residential Estates in Nairobi City County, Kenya
- ii. To establish the critical factors that influence brand choice

Although dairy companies are increasingly competing for customers, there are inadequate studies on the factors that influence the choice of milk brands that consumers purchase. The main purpose of this study is therefore to determine the critical factors that influence consumers' choice of milk brands in selected residential estates owned by Nairobi City County - Kenya.

## **2.0 Theoretical Background**

A simplified model of consumer decision making process illustrated by Schiffman and Kanuk (2009) has been used as the theoretical foundation of this study. The model highlights three distinct and interrelated stages that include input, processes and output stages. The input stage comprises the external information sources that influence the consumers' recognition of a product need and include the firms' marketing efforts (the product itself, its price, its promotion and where it is sold) and the sociological influence on the consumer, mainly the family, friends, neighbours, other informal and noncommercial sources, social class and cultural factors. The cumulative impact of these external inputs on the consumer is likely to affect what the consumer purchases and how the consumer uses what is purchased (Bai, 2008; Kotler, 2009).

The process stage of the model focuses on how consumers make decisions. The consumer's psychological factors that include motivation, perception, learning, personality, and attitudes affect how the external inputs from the input stage influence the consumer's recognition of need, pre-purchase search for information and evaluation of alternatives. The experience the consumer gains from the evaluation of the alternative in turn affects the consumer's existing psychological attributes (Kennedy, 2004). The output stage consists of two closely related post decision activities thus purchase behavior and post purchase evaluation. Decision to purchase a low-cost and non-durable product like a new bathing soap may be influenced by the manufacturer's offers (in-put by organization) and may be a trial purchase. Where a consumer is satisfied with the offer, a repeat purchase takes place. The trial in this case is the exploratory phase which offers a chance for evaluation of the product and repeat purchase signals adoption of the product. On the contrary, purchase of a relatively durable product like a Television Set signifies adoption of the product (Schiffman&Kanuk2009).

The model is useful in aiding understanding of process that a consumer goes through before making a purchase decision (Fig 1).

## **2.1 Review of Literature**

The study focuses on factors that influence consumers' choice of milk brands. Theoretical and empirical literatures relevant to the study have been reviewed.

## **2.2 Factors influencing Purchase Decision of Milk Brands**

Several factors influence consumers' choice of milk brands. Available literature (Keneddy, 2004; Niezurawaski, 2006; Fuller 2006; Bai, 2008; Smith, 2009; Kotler, 2009; Schiffman&Kanuk, 2009) identify thirty six factors. These factors are classified into three broad categories namely: organizations' marketing stimuli (the 4 Ps of marketing), Consumer's specific factors (psychological and demographics) and environmental factors (culture, Social class, reference group and family).

Organizations' marketing stimuli factors include product characteristics, pricing strategies employed by the firm, promotional and place factors. Product characteristic factors include quality, quantity, taste, smell, colour, thickness, smoothness and packaging design - all of which influence purchase decisions of different consumers in different ways. Presentation of a product determines whom it appeals to and how much is purchased of the said product (Kennedy, 2004; Kotler, 2009). In the dairy industry, smoothness, thickness and smell of the products also have influence on consumers' purchase decisions besides its colour, quality, quantity and taste. In yoghurt variants, taste and smoothness have greater influence on purchase decisions and those brands that fare well in these factors attract higher preference while on the contrary, size and look of packaging have the least significance (Niezurawaski, 2006). Whereas quality is relative and depends on consumer characteristics, perceived quality of milk brands plays a significant role in determining purchase of different brands (Kumar, 2014).

The price charged on a product determines its purchase in relation to the customers that purchase it, how much is purchased and how it is consumed. In food items, price is considered a major determinant of purchases (Smith, 2009). Pricing also determines market segments targeted by organizations (Schiffman & Kanuk, 2009). Consumers' income levels play alongside pricing and determine consumption of milk with low income families consuming either cheaper packaged processed milk or unprocessed and unpackaged milk while consumers with higher incomes not only purchase innovatively packaged milk brands but also high value dairy products like yogurt, cheese and butter offered by renowned and leading brands in the market (Hartili, 2004; Fuller, 2006; Bai, 2008; Smith, 2009 and Miftari, 2009). Pricing is therefore not only a major determinant of choice of milk brands consumed but also on the type of dairy products consumed (Kumar, 2014).

Place factors, particularly the location of the retail outlet, determine purchase of milk brands and the further the household is from the city or localities with electricity or cooling facilities determines purchase of milk brands that do not require refrigeration like powdered milk and long life milk (Fuller, 2006; Bai, 2008). The size, layout and general ambience of a retail outlet influence kind of consumers visiting the outlet as well as when and what is purchased from the store (Kotler, 2009). Also important are the store's opening and closing hours, the cleanliness of the store and the range of products available at the store. Availability of supermarkets and high end groceries influence the purchase of milk brands sold through such outlets (Niezurawski, 2006; Fuller, 2008; Bai, 2008; Smith 2009). Distribution channels used by milk marketers also influence consumption with home delivery and availability of delivery points influencing purchases (Fuller, 2006; Smith 2009). Brand availability plays a major role in influencing purchase decision while non availability of brands causes dissatisfaction (Niezurawski, 2006; Kumar 2014) as consumers prefer to purchase brands that can be found at preferred retail outlets. Consumers easily switch brands when their preferred brands are not available at the stores of choice while those loyal to certain brands are often willing to delay purchase until they are able to access their brands of choice (Sherratt, 2012).

Promotions are also credited to contributing positively in the choice of milk brands consumed with the advertising intensity impacting milk purchase decisions (Fuller, 2006). In relation to the demographic factors, key factors that influence milk brand choice are the number of children, household size, education level, reference group and family income. Processed and packaged milk brands are purchased more by high income households with relatively high education and small household families whereas the unpacked and unprocessed milk is mainly consumed by consumers with low income, low education and larger families (Hartili, 2004). Fuller (2006) posits that larger families purchase more milk, especially the lowly priced brands. The elderly consume more of liquid milk and mainly those brands that they are familiar with while the younger and affluent consumers are prone to trying innovative milk brands that offer not only processed and packed liquid milk but also high value products like yoghurts, cheese and ice cream (Fuller, 2004). Davis (2010) adds that households headed by women with college education consume brands perceived to be of higher quality, uniquely packaged and highly priced.

### **3.0 Methodology**

#### **3.1 Population and Data Collection**

The study adopted a descriptive research design. This was considered appropriate as it allows for collection of data from given samples and enables drawing of objective conclusions based on the findings (Cooper & Schindler, 2006). The population consisted of household consumers of milk in selected residential estates owned by Nairobi City County, Kenya. The County was chosen because it comprises the largest population of processed milk consumers in the country and furthermore, it is a home to major milk processors (Kenya Dairy Board, 2012). According to Nairobi City County, there are two residential estate categories owned by the County Government thus Eastlands and estates other than Eastlands. There are 14,596 households in residential estates in Eastlands and 3,325 households in residential estates other than Eastlands. This makes a total of 17,921 residential households.

For the study, one housing unit represented one person; therefore the sampling frame consisted of 17,921 people. The residential estates sampled in Eastlands were Jerusalem, Jericho/Lumumba, Uhuru and Outering while in other estates other than Eastlands had Joseph Kangethe, Harambee, Buru Buru and Madaraka sampled (Appendix 2). Convenience sampling was used in selecting sample residential estates. A sample size of 375 households was used as guided by Krejcie & Morgan (1970) in the table that highlights guidelines on appropriate sample sizes from given population (appendix 1). Proportionate samples were taken from the selected residential estates.

Semi-structured Questionnaires were used to collect primary data in a survey from 375 residential households in the selected estates. Research Assistants were used in administering a questionnaire to one decision-maker in the selected residential households. Pre-testing was done in estates other than those selected for the study in order to determine clarity of the questionnaire. The questionnaire was divided into two sections with section 'A' having questions on respondents' personal details while section 'B' had questions on specific factors that influenced consumers' purchase decisions. Factor analysis was used to analyze the collected data and Likert type scale was used to rank the determinants of consumers' choice of milk brands in order to assess the degree of importance with '5' being Very Important and '1' being Not at all Important. The data collected was first checked for completeness, edited and then coded. The data collected in section 'A' was analyzed using percentages while tables were used to present the findings. Section 'B' was analyzed using Mean Scores to determine the weighting of factors and importance of each. Standard Deviation was used to determine the significance of the factors. From the two (Mean Scores and Standard Deviation), the researcher was able to take note of the distribution of the findings. The results were then used to validate the objectives of the study.

#### **4.0 Findings and Discussions**

From the findings, three major brands namely Tuzo, Brookside and KCC had higher preference at 28%, 26% and 11% in that order. The unbranded had 11% preference while the rest of the brands that included Ilara, Fresha, Limuru, and Afro among others had 23% preference (Figure 2). The findings also revealed that product attributes were considered important in determining consumers' brand choices with an overall mean rating of 3.99 from both residential estate categories. Among the product factors considered Very important were quality, quantity, taste and thickness as revealed by combined overall mean rating from both residential estate categories of 4.59, 4.05, 4.50 and 4.14 in that order. Quantity and thickness were specifically considered very important by consumers from residential estates in Eastlands (4.21 and 4.39) while the same were considered important by residents in other estates category at 3.89 rating. Product factors considered by residents from Eastlands as important included Smell (3.73), Colour (3.84) and Smoothness (3.94) while residents from other estate categories considered quantity (3.9), smell (3.94), thickness (3.89) and smoothness (3.11) as important.

Whereas colour was considered important by residents from Eastlands (3.84), the same was considered neither important nor unimportant by residents in other estates (2.65). In comparing the significance of the product attributes, results presented by Standard deviation (SD) revealed the most influential factors in Eastlands were quality and taste (with standard deviation of 0.92) while in other estates category, it was quality with SD of 1.03. On the other hand the least influential factor in Eastlands was smell (0.41) while in other estates smoothness was the least significant with standard deviation of 0.12 (Table 2). These findings were in line with arguments presented by Kotler (2009) who maintained that presentation of a product determines who it may appeal to and that consumers considered appearance of product as vital as this is associated with freshness, healthiness and value for money. The same is supported by Fuller (2006) and Kumar (2014) who posit that perceived quality of dairy products; the taste and smoothness of yoghurt and ice-cream have high influence on purchase decisions.

Pricing factors ranked second and were also considered as very important with a mean average of 4.48 from both residential estate categories. The significance of price in influencing choice of milk brand was also noted by the values of standard deviation of 0.98 and 0.82 from Eastlands and other estates respectively (Table 3). The findings were in line with arguments by Hatirli (2004); Niezurawaski (2006); Smith (2009) and Kumar (2014) who posit that price determines who purchases a product, how much is purchased and where the purchases are undertaken. From the study it was noted that due to price-off promotions by milk marketers, consumer's most often switched brands during the promotion period but revert to their preferred brands at the end of the promotion period.

The third factor rated as very important was brand availability with a mean score of 4.19 from both estate categories. The significance of brand availability is evident from the standard deviation of 0.71 and 0.66 from residential estates in Eastlands and other estates respectively (Table 4). Consumers confirmed that they would move from one outlet to another in search of their preferred brands without which they would purchase brands available at the time of purchase. This is in line with arguments by Kotler (2009) as well as Schiffman and Kanuk (2009) who maintain that whatever is stocked in a retail outlet determines what is purchased with consumers loyal to certain brands opting to search elsewhere for the preferred brands that may be lacking in the stores visited.

Cleanliness of the store and products were also rated as very important with a mean score of 4.47 from both residential estate categories. This is in line with arguments by Hartili (2004) who maintains that consumers of dairy products consider cleanliness as vital and often avoid purchasing products from stores perceived to be untidy. Store's lay out and staff were also considered important with overall mean ratings of 3.06 and 3.5 respectively while displays and location were neither important nor unimportant (2.76 and 2.92). Surprisingly, size of the retail store was rated as less important (1.55) which contradicts findings by Kumar (2014) who posits that supermarkets attract higher purchases of dairy and other food products due to their large sizes and orderly lay out.

The fourth determinant considered important was the consumers' psychological factors that were rated at 3.20 from combined rating from both residential estate categories with the consumers' needs at the time of purchase rated at 3.60. Respondents confirmed that they would purchase certain brands for their own consumption but different ones as gifts, depending on who the recipients of the gifts were. Findings from residential estates in Eastlands showed that respondents' own needs were rated at 3.45 while beliefs were rated at 2.93. These compared closely with responses from residential estates other than Eastland's who confirmed that consumers' own needs scored 3.37 while beliefs scored 2.65 (Table 5). The findings revealed that both residential estate categories regarded consumers' needs at the time of purchase as important while beliefs of the consumers were neither important nor unimportant in determining brand choices. The significance of psychological factors in determining choice of milk brands purchased was minimal as revealed by a standard deviation of 0.22 and 0.36 from residential estates in East lands and those from other estate categories respectively. The findings were however in contrast with arguments by Kumar (2014) that consumer' psychological factors determine their purchase decisions with emotions and feelings playing a major role in the purchase decisions.

In relation to consumers' personal factors, consumers' family size was regarded as very important with an average rating of 4.09 from both residential estate categories. Respondents confirmed that due to their family sizes, they consumed specific brands that they felt were appropriate for their family sizes. Respondents' education level was also rated as important with mean of 3.32 (Table 6). This is in line with arguments by Kotler (2009) that a consumer's education level equips him with good knowledge and understanding about product types, their usage and benefits gained from the same.

Consumers' income was also regarded as important at 3.95. Respondents confirmed that their income levels determined not only the brands but also the amount of milk they consumed. This is in line with arguments put forward by Schiffman and Kanuk (2009) who argued that consumers' economic circumstances explain the specific product features selected, quantities of products purchased and where the purchases are made from.

Regarding environmental factors findings from East lands estate category revealed that religion had a mean score of 1.53, associates had 2.38 and word of mouth 2.68 while family had 2.33. From the results, significance of religion in influencing brand choice is evident from the standard deviation of 1.14. Among the respondents from the other estate category, religion had a mean score of 1.64, associates had 2.49, and word of mouth 3.05 while family had 2.86. Like the East lands estate category, religion was of least importance, word of mouth was regarded as important while associates and family were less important. Like East lands, insignificance of religion is evident with standard deviation of 1.15. Environmental factors were generally insignificant in influencing milk brand choices consumed (Table 7).

The overall findings revealed that except for price reduction on brands, promotional factors were of little importance to consumers with a mean rating of 2.59 (Table 8). Respondents confirmed that although most dairy companies used promotional tactics including Television commercials, Radio advertisements, Posters and billboards, these had minimal influence on their purchasing behaviour but acted as good reminders on the brands available. They added that the shelf displays at the supermarkets also had minimal influence on brand choice and most consumers preferred to purchase milk products from shops within their areas of residence. Television advertisements and events' sponsorships, though acknowledged as noticeable, hardly influenced purchase decisions by consumers. The significance of the promotional variables given by standard deviation also revealed that among the variables considered, use of models was relatively significant from both estate categories with a standard deviation of 0.56 and 0.75 from East lands and other estates respectively. Significance of promotions in general was however minimal. This contrasts findings by Niezurawaski (2006) that rated promotional factors as very important in determining customer satisfaction and choice of dairy products.

Outlet type and size were also of little importance to consumers thereby contrasting study by Niezurawaski (2006) who maintained that outlet size determined purchase decisions with larger supermarkets rarely running out of the preferred brands due to their ability to stock large quantities of different varieties and brands. Location, accessibility and cleanliness of the stores were considered important in line with findings by Smith (2009) and Kumar (2014). The findings therefore revealed that marketing stimuli factors are most important followed closely by consumers' personal factors. Environmental factors are the least influential among the three categories.

### **5.0 Conclusion**

His study has revealed the factors considered by consumers as critical in influencing their milk brand choices. It also reveals factors that consumers consider as less important but in which milk marketers have been investing in heavily with the intent of influencing consumers' purchase decisions. From the findings, the following conclusions have been drawn: brand providers need to put more emphasis on factors that are considered important like product attributes, price and brand availability in order to target customers more effectively. Marketers can continue with promotional factors that enable awareness creation of their brands. They should however not expect the promotions to influence consumer choice of their brands. More resources should be invested in improving product attributes. The product attributes namely quality and taste were considered as very important thereby ranking number one in milk brand choice determination. These were followed by price and place or locational factors, specifically brand availability. On the contrary, it can also be concluded that promotional factors such as advertisement type, models used in advertisements, company personnel and use of posters and or billboards were the least important determinants of milk brand choice among residents living in residential estates owned by Nairobi City County, Kenya.

### **6.0 Recommendations from the Study**

The findings have serious implications on milk marketers in Kenya who seek to attract consumers with their offerings. Marketers need to appreciate that offering their milk brands to potential consumers against a backdrop of environmental factors and promotional activities would not influence consumers' choice of their milk brands. Marketers therefore need to pay closer attention to product attributes and specifically to quality, quantity, taste and thickness of the brands. They should also focus on prices charged on the products as well as availability of the products. In incorporating these factors in milk marketing strategies, dairy companies are able to have an edge over those that ignore the same and concentrate on environmental and promotional factors.

#### **6.1 Recommendations for Future Research**

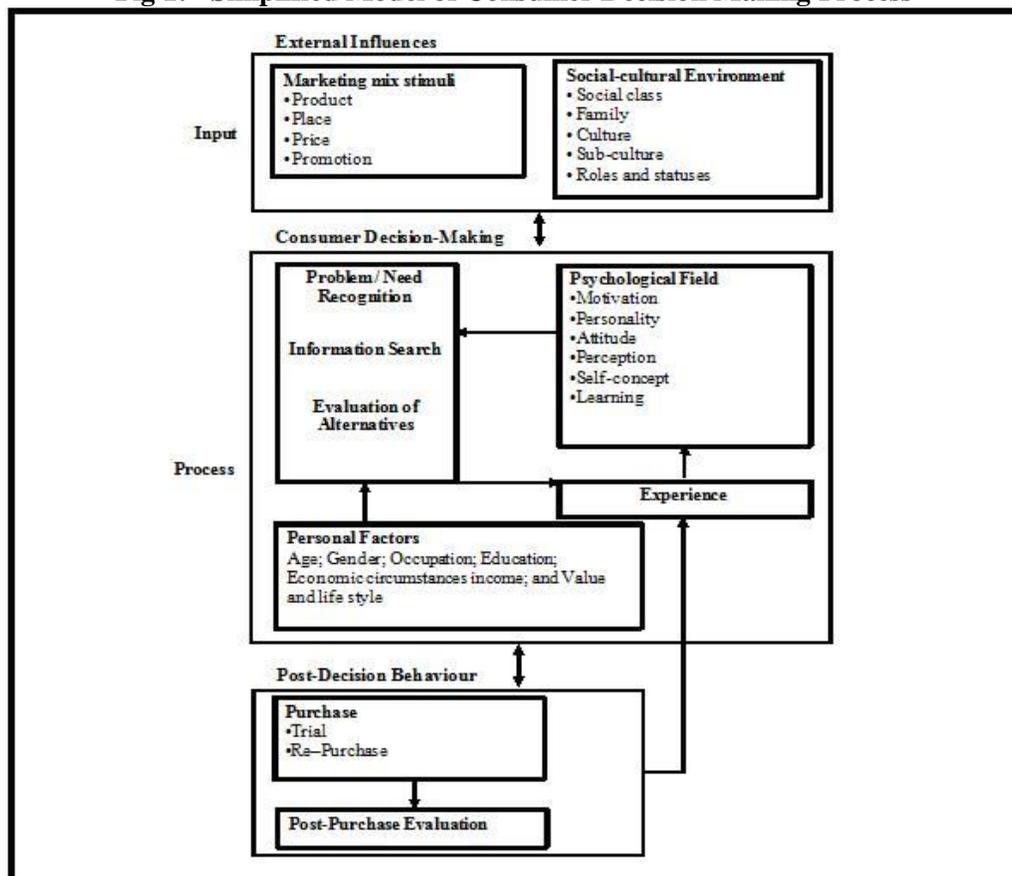
The study shows that promotional factors have least influence on consumers' choice of milk brands, contrary to previous study (Fuller, 2004) that revealed how advertising intensity enhances brand consumption. Further research may be necessary to look deeper into the whole promotional mix elements and determine if there are any factors among the elements that may have influence on milk brand choice among consumers. Future research should also be carried out in other counties other than Nairobi that is highly cosmopolitan with highest concentration of consumers and milk brand marketers. Such findings could be able to guide dairy companies in marketing their brands in counties away from Nairobi without generalizing the findings from this study.

### **References**

- Bai, J., Wahl, T. I., & McCluskey, J. J. (2008). Fluid milk consumption in urban Qingdao, China. *Australian Journal of Agricultural and Resource Economics*, 52(2), 133-147.
- Baltenweck, I., Yamano, T., & Staal, S. J. (2006). Dynamic Changes in Dairy Technologies Uptake in the Kenya Highlands.
- Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods* (9th ed.). USA: McGraw-Hill International.
- Davis, C. G., Dong, D., Blayney, D. P., & Owens, A. (2010). An analysis of U.S Household Dairy Demand. *ERS Report summary: Economic Research Service*.
- Fuller, F., Beghin, J., & Rozelle, S. (2006). Consumption of Dairy Products in Urban China: Results from Beijing, Shanghai, and Guangzhou.
- Hatirli, S. A., Ozkan, B., & Aktas, A. R. (2004). Factors affecting fluid milk purchasing sources in Turkey. *Food Quality and Preference*, 15(6), 509-515.

- Karanja, A. M. (2003). The dairy industry in Kenya: the post-liberalization agenda. *Paper presented at a dairy industry stakeholders workshop held in Nairobi, Kenya (27th August 2002)*, 3.
- Kennedy, O. B., Stewart-Knox, B. J., Mitchell, P. C., & Thurnham, D. I. (2004). Consumer perceptions of poultry meat: a qualitative analysis. *Nutrition & Food Science*, 34(2), 122-224.
- Kenya Dairy Board.(2012, June).Activities within the Kenyan Dairy Industry and List of Processors.
- Kotler, P. (2009). *Marketing Management*. Toronto: Pearson Canada.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kumar, A. A., & Babu, S. (2014). Factors influencing consumer buying behavior with special reference to dairy products in Pondicherry state. *International Monthly Refereed Journal of Research In Management & Technology*, 3, 65-73.
- Maina, D. (2003, June 23). "Dairy dilemma: Too much milk but nowhere to sell it", Countrywide Industry survey. *Daily Nation*.
- Miftari, I. (2009). Kosovo Consumer Buying Behaviour Preferences and Demand for Milk and Dairy Products. *Nowergian University of Life Science*.
- Niezurawski, L. (2006). Determinants of customer satisfaction on the markets of selected dairy products. *Polish journal of food and nutrition sciences*, 15(56), 155-160.
- Odondi, R. K. (2001). Physical distribution and sales performance: A case of dairy processing firms in Nairobi. Unpublished MBA Research Project, University of Nairobi.
- Schiffman, L. G., & Kanuk, L. L. (2009). *Consumer behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Sherratt, A., & Chartered Institute of Marketing.(2012). *Managing marketing*. London: BPP Learning Media Ltd.
- Were, L. (2009). The Extent of adoption of E-marketing by the Large Dairies in Kenya. Un published MBA project. University of Nairobi

**Fig 1: Simplified Model of Consumer Decision Making Process**

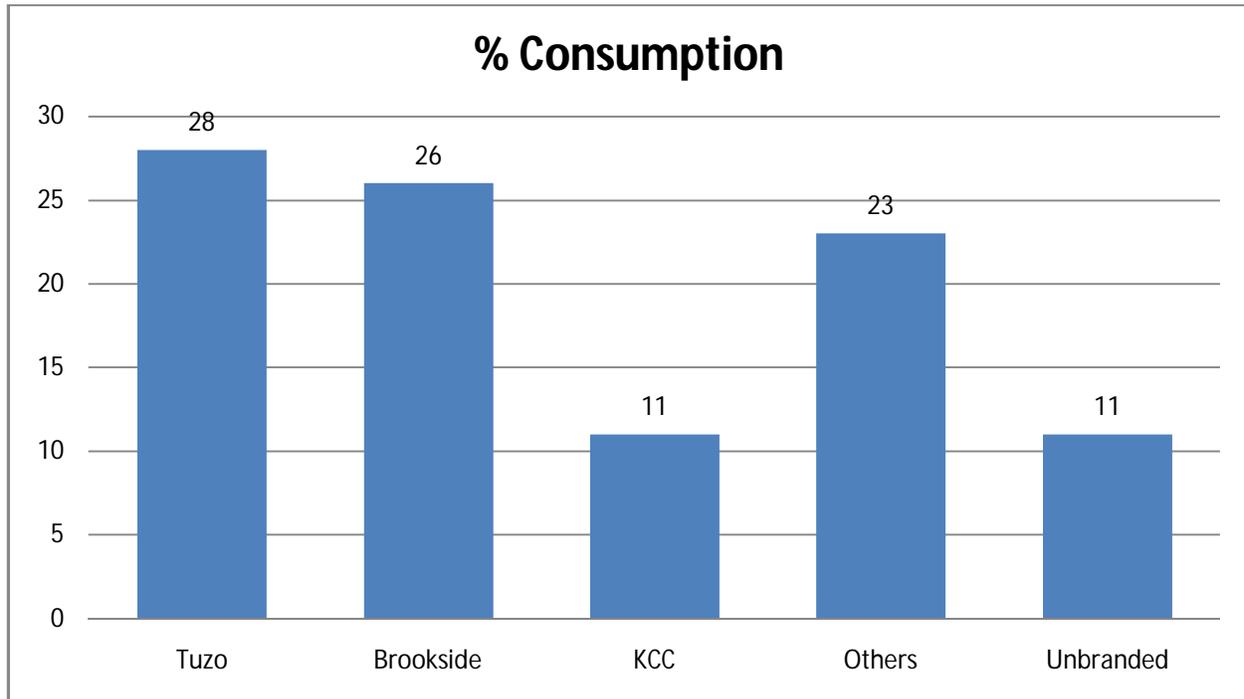


Source: Based on Schiffman, L. G. & Kanuk, L. L. (2009), *Consumer Behaviour*: Pearson Prentice Hall, p 36

**Table 1: Measurement Scale of attributes**

Range	Measurement
4.01-5.00	Very important
3.01-4.00	Important
2.01-3.00	Neither important nor unimportant
1.02-2.00	Less important
1.00 and below	Not at all important

**Figure 2: Milk brands consumed by respondents**



**Table 2: Influence of Product Attributes**

Attributes	Eastlands		Other estates		Mean of Means
	Mean	SD	Mean	SD	
Quality	4.44	0.912	4.73	1.027	4.59
Quantity	4.21	0.756	3.89	0.434	4.05
Smell	3.73	0.413	3.94	0.472	3.84
Colour	3.84	0.491	2.65	0.445	3.25
Taste	4.44	0.917	4.56	0.912	4.5
Thickness	4.39	0.882	3.89	0.434	4.14
Smoothness	3.96	0.578	3.11	0.120	3.54
<b>Mean of Means</b>					<b>3.99</b>

**Table 3: Influence of Price**

Area	Mean	Mean of Means	SD
<b>Eastlands</b>	4.53	4.48	0.98
<b>Others</b>	4.43	4.48	0.82

**Table 4: Influence of Distribution factors**

Attributes	Eastlands		Other		Mean of Means
	Mean	SD	Mean	SD	
Availability	4.15	0.71	4.22	0.66	4.19
Store outlay	2.43	0.51	3.68	0.28	3.06
Displays	2.43	0.51	3.08	0.14	2.76
Location	3.25	0.07	2.59	0.48	2.92
Store size	1.90	1.19	1.68	1.13	1.55
Cleanliness	4.12	0.69	4.84	1.10	4.47
Staff	3.32	0.12	3.70	0.30	3.51
<b>Average of Averages</b>	<b>3.09</b>		<b>3.4</b>		<b>3.21</b>

**Table 5: Influence of psychological factors**

Factors	Eastlands		Other		Mean of Means
	Mean	SD	Mean	SD	
Needs	3.45	0.12	3.75	0.32	3.60
Beliefs	2.93	0.16	2.65	0.06	2.79
<b>Mean of Means</b>					<b>3.20</b>

**Table 6: Consumers' personal characteristics**

Factors	Eastlands		Other		Mean of Means
	Mean	SD	Mean	SD	
Own age	2.28	0.61	2.65	0.44	2.47
Dependant age	2.58	0.40	3.15	0.17	2.67
Family size	4.02	0.62	4.16	0.63	4.09
Education	2.94	0.14	3.70	0.30	3.32
Lifestyle	2.69	0.32	2.73	0.39	2.71
Occupation	2.63	0.37	2.65	0.44	2.64
Income	3.94	0.57	3.97	0.49	3.95
<b>Mean of Means</b>					<b>3.12</b>

**Table 7**

Factors	Eastlands		Other	
	Mean	SD	Mean	SD
Religion	1.53	1.14	1.64	1.15
Associates	2.38	0.54	2.49	0.58
Word of Mouth	2.68	0.33	3.05	0.16
Family	2.33	0.58	2.86	0.29

**Table 8: Influence of Promotional factors**

Factors	Eastlands		Other		Mean of Means
	Mean	SD	Mean	SD	
<b>Advert Type</b>	2.59	0.39	2.86	0.29	2.73
<b>Models</b>	2.35	0.56	2.21	0.75	2.28
<b>Personnel</b>	2.85	0.21	2.27	0.71	2.56
<b>Posters/Billboards</b>	2.75	0.28	2.81	0.33	2.78
<b>Mean of Means</b>					<b>2.59</b>

## Appendix 1

Table for Determining Sample Size from a Given Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size.

*S* is sample size.

**Source:** Based on Krejcie, R.V & Morgan, D. W. (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement, Session 30 p 607-610

**Appendix 2: 2012 List of Residential Estates owned by Nairobi City County**

<b>ESTATE</b>	<b>EASTLANDS NO. OF RESIDENTIAL HOUSES</b>
1. Jericho/Lumumba	3004
2. Jerusalem	500
3. Maringo	1400
4. Ofafa 1	1324
5. Mbotela	904
6. Bahati	1966
7. Kaloleni	603
8. ShauriMoyo	606
9. Landhie Road	56
10. Gorofani/North/South	896
11. Bondeni	110
12. Ziwani	552
13. Embakasi	234
14. Kariobangi North	368
15. Juja Rd.	11
16. Uhuru	882
17. Meru Rd.	6
18. Outering Rd.	360
19. New Pumwani	224
20. Kariobangi South (Timber)	27
21. Old Pumwani	377

**RESIDENTIAL ESTATES OTHER THAN EASTLANDS**

1. Ngong Rd.	30
2. Dagoretti	96
3. Jevanjee	80
4. Old Ngara	78
5. Joseph Kangethe	288
6. Pangani	48
7. Kaledonia	2
8. Harambee	96
9. Buru Buru	344
10. Kariakor	240
11. Huruma	586
12. Jamhuri	72
13. Madaraka	600
14. Kariobangi South	720
15. Makadara	32