

Milk Preferences Of Consumers And Effect Of The Marketing Mix On Consumers' Purchase Decision Of Dairy Products

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ABSTRACT

Milk and dairy products experience high consumption rates in Sudan; consumers show wide variations in their preferences for different milk types and dairy products available in the local market. Consumers' purchase decisions are influenced by various factors. Study of such factors assists processors and producers of dairy products in implementing marketing strategies that are consumer oriented and can ultimately lead to higher selling rates. This study aimed at studying the preferences of consumption pattern of milk and factors affecting consumers' purchase decision of dairy products in Khartoum, state capital of Sudan. Quality was found to be the main factor affecting the purchase decision, followed by price of the products. Fresh milk was the highly preferred milk type among the citizens. The study concluded with a number of recommendations, some of which are : Processors and producers of dairy products should implement modern marketing concepts that focus on the consumers' needs and wants. Also, producers and processors should use marketing mix in ways that increases their sales and creates satisfied customers.

Keywords: Milk, Consumer, Purchase Decision, Marketing Mix, Khartoum, Dairy Products

INTRODUCTION

Dairy marketing today is fiercely competitive - moving from a product and sales philosophy to a consumer-oriented market. The consumer is the overall ruler and coordinator of marketing activities in the marketing economy, where consumer tastes and preferences shape the market system in various ways. These preferences are complex attitudes related to the physiological, socio - psychological and economic values of consumers. Marketers, processors and producers in the dairy field must fully orient their strategies and goals towards understanding aspects leading to consumer satisfaction in an attempt to fulfill their needs and demands in a continuously changing world.

In India, dairying has become an important secondary source of income for millions of rural families and for millions more; it has played the most important role in providing employment and income, and the per-capita availability of milk has also increased to a level of about 245 gms per day. With the increasing purchasing power of the urban middle class, value-added products occupy a key position in dairy products range, and not only increasing urbanization means greater consumerism, but with the rapid spread of the modern communication systems such as television in the rural areas and ever increasing emphasis on advertisements, the consumption pattern for dairy products is rapidly changing all over the country (Ingavale & Thakar, 2012).

Understanding consumer buying behavior in a cross- cultural environment is an essential part of marketing activities in a world that is becoming more consumer - centric (Kumar & Gogoi, 2011). Consumers of dairy products worldwide exhibit varying preferences for taste, nutrition, wholesomeness and packaging, and variations in consumer preferences reflect economic status, culinary practices and eating habits of households (USDA, 2006). To maintain or to increase market share, the processors' goal should be to meet or create consumers' quality expectations (Boor, 2001). Traditionally, researchers have approached the consumer decision- making purchase process from a rational perspective, where people carefully integrate as much information as possible with what they know about the product to arrive at a satisfactory decision - this process implies that steps in decision making should be carefully studied by marketing managers in order to understand how beliefs are formed and what product choice criteria are specified by consumers (Mowen, 1988).

Trying to understand the customer's behavior in connection with a product has been called mapping the customer's consumption system (Harper & Levy, 1963). The marketer's task is to devise marketing activities and assemble fully

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integrated marketing programs to create, communicate, and deliver value for consumers (Kotler & Killer, 2006). Marketers are carefully defining customer segments and are listening to people, as never before, many of them have realized that the key to success is building lifetime relationships between brands and customers, and marketers who believe in this philosophy are making an effort to keep in touch with their customers on a regular basis (Solomon, 2006). One traditional depiction of marketing activities is in terms of the marketing mix, which has been defined as the set of marketing tools the firm uses to pursue its marketing objectives (Day, 1994). The sellers' four Ps correspond to the customer's four Cs; Customer solution, Customer cost, Convenience and Communication (Lauterborn, 1990). It teaches marketers that there is no one best strategy for reaching consumers and multiple strategies are often preferred to a single approach (Kohls and Uhl, 2002).

The objective of the present research is to study consumer milk preferences and factors affecting consumers' purchase decision of dairy products in Khartoum, state capital of Sudan, to convey the importance of implementing modern marketing aspects that focus on the consumers' needs and wants in the dairy marketing sector.

MATERIALS AND METHODS

The study was carried out during the period from 2009 - 2010 in Khartoum State, Sudan, which is the largest residential area in the country, with a total population exceeding five million residents, and is considered to be a major consumption centre of milk and dairy products.

❖ **Population of the Study and Sample Selection :** Household consumers in Khartoum State were the target of the study. There are several variations in socio- economic characteristics, which may affect the consumption patterns of consumers in Khartoum State. Due to the heterogeneity among consumers in different areas of Khartoum state, a stratified quota sampling procedure was adopted to select 450 household consumers as a sample of this study. In the first stage, Khartoum was divided into three major consumption areas; Khartoum, Khartoum- North and Omdurman, and further, each was divided into three sub - areas according to their socio-economic standards, implementing an intentionally chosen random sample which were: high standard sub-areas, medium standard sub-areas, below medium sub-areas, reaching a total of 9 sub-areas in the three main consumption areas, to ensure the inclusion of a wide spectrum of consumer characteristics. Secondly, population frame of consumers in Khartoum State (a quota sample of 150 consumers in each area) were selected to obtain a total sample size of 450 consumers.

❖ **Data Collection :** The study was mainly based on primary data collected from the selected sample through a structured questionnaire. Firstly, a pre-survey test was conducted by using a tentative questionnaire designed and distributed to a limited number of consumers to get some useful data that would aid in designing the final intended questionnaire in the most possible optimum pattern. Then, a structured questionnaire was designed and distributed to the selected consumers, and after they filled in their responses, the distributed questionnaires were collected from the respondents. The response rate was 100 % as shown in the Table 1.

| Table 1: Consumer's location | | | |
|-----------------------------------|------------|--------------------------------------|------------------------------------|
| Item | Percentage | Number of Questionnaires Distributed | Number of Questionnaires Collected |
| High standard sub - areas | 150 | 150 | 33.3 |
| Medium standard sub- areas | 150 | 150 | 33.3 |
| Below- medium standard sub- areas | 150 | 150 | 33.3 |
| Total | 450 | 450 | 100.0 |
| Source: Primary Data | | | |

❖ **Statistical Analysis :** The collected data was analyzed with the computerized Statistical Package for Social Sciences (SPSS) to obtain the frequency distributions and the weighted measures central tendency of the variables of the study. Mathematical loads were assigned to the answers of the questionnaire as follows: Very effective = 5; Effective = 4; No opinion = 3; Not effective = 2; Extremely not effective = 1. The averages of the loads assigned for each answer was 3.

| Table 2: Consumers' Preferences For Milk Types | | | | | | |
|--|------------|--------------|----------------|--------------|------------|--------------|
| Item | Fresh milk | | Processed milk | | Dried milk | |
| | No. | % | No. | % | No. | % |
| Yes | 339 | 88.7 | 189 | 42.0 | 328 | 72.9 |
| No. | 51 | 11.3 | 261 | 58.0 | 122 | 27.1 |
| Total | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 |
| Source: Primary Data | | | | | | |

RESULTS AND DISCUSSION

❖ **Part One - Data Analysis :** The Table 2 shows that the majority of the consumers preferred fresh milk (88.7%) followed by the consumers who preferred dried milk (72.9%) and then processed milk (42.0%). Results show that fresh milk had a high consumption rate in comparison to other milk types. Most of the consumers preferred fresh milk for its quality (68.9%), while a considerable number of consumers (21.6%) preferred dried milk for its price (Table 3). On the other hand, consumers of processed milk preferred this type of milk for both its quality and price, therefore, this indicates that fresh milk was preferred by the consumers under study.

| Table 3: Effect Of Price And Quality On Consumers' Preference For Different Milk Types | | | | |
|--|------------|--------------|------------|--------------|
| Quality | Price | | Item | |
| | No. | % | No. | % |
| Fresh milk | 285 | 63.3 | 310 | 68.9 |
| Processed milk | 34 | 7.6 | 34 | 7.6 |
| Dried milk | 97 | 21.6 | 70 | 15.6 |
| Total | 416 | 92.4 | 414 | 92.0 |
| No answer | 34 | 7.6 | 36 | 8.0 |
| Total | 450 | 100.0 | 450 | 100.0 |
| Source: Primary Data | | | | |

The Table 4 shows the effect of each item of the marketing mix on the consumers' purchase decision of fresh milk, where the highest percentage of consumers (68.2%) showed that quality of the product had a major effect on their purchase decision, revealing the consumers' awareness of the importance of good-quality milk, while the second effect on the consumers' purchase decision was the price (60.2%). This revealed that price is an important element for the consumers' affordability of purchasing the product, meaning that it can shift consumers' decision to other options

| Table 4: Effect of The Marketing Mix On Consumers' Purchase Decision Of Fresh Milk | | | | | | | | |
|--|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| Item | Price | | Quality | | Promotion | | Packaging | |
| | No. | % | No. | % | No. | % | No. | % |
| Effective | 89 | 19.8 | 186 | 41.3 | 57 | 12.7 | 96 | 21.3 |
| Extremely effective | 182 | 40.4 | 121 | 26.9 | 109 | 24.2 | 129 | 28.7 |
| No opinion | 44 | 9.8 | 53 | 11.8 | 76 | 16.9 | 74 | 16.4 |
| Not effective | 69 | 15.3 | 26 | 5.8 | 103 | 22.9 | 69 | 15.3 |
| Extremely not effective | 14 | 3.1 | 12 | 2.7 | 54 | 12.0 | 31 | 6.9 |
| Total | 398 | 88.4 | 398 | 88.4 | 399 | 88.7 | 399 | 88.7 |
| No answer | 52 | 11.6 | 52 | 11.6 | 51 | 11.3 | 51 | 11.3 |
| Total | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 |
| Source: Primary Data | | | | | | | | |

available in the market, which explains why consumers purchased dried milk - it being more affordable cost-wise. The effect of packaging on the consumers' decision was the third most important factor (50.0%), and the last important factor was the promotion (36.9%), which can be explained by the fact that fresh milk is mostly sold in Khartoum directly in farms or through roaming retailers, who are not interested in participating in promotion activities that can increase their marketing expenses.

| Table 5: Effect of The Marketing Mix On Consumers' Purchase Decision Of Processed Milk | | | | | | | | |
|---|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| Item | Price | | Quality | | Promotion | | Packaging | |
| | No. | % | No. | % | No. | % | No. | % |
| Effective | 70 | 15.6 | 103 | 22.9 | 38 | 8.4 | 61 | 13.6 |
| Extremely effective | 102 | 22.7 | 95 | 21.1 | 94 | 20.9 | 101 | 22.4 |
| No opinion | 27 | 6.0 | 23 | 5.1 | 41 | 9.1 | 38 | 8.4 |
| Not effective | 42 | 9.3 | 20 | 4.4 | 41 | 9.1 | 31 | 6.9 |
| Extremely not effective | 4 | 0.9 | 3 | 0.7 | 31 | 6.9 | 14 | 3.1 |
| Total | 245 | 54.4 | 244 | 54.2 | 245 | 54.4 | 245 | 54.4 |
| No answer | 2.5 | 45.6 | 205 | 45.6 | 205 | 45.8 | 206 | 45.6 |
| Total | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 |
| Source: Primary Data | | | | | | | | |

The Table 5 shows the effect of marketing mix elements on the consumers' purchase decision of processed milk. Quality was the main factor affecting the consumers' decision (44.0%), followed by price (38.3%), packaging (36.0%) and promotion (29.3%). These results clearly show the strong effect of quality, revealing that the consumers, before purchasing foods items of daily consumption, lay great emphasis on the quality and freshness of the food items, especially with reference to products like milk, known to be highly nutritious and highly perishable. However, the price factor was also an important factor, as the consumer made his/her purchase keeping his/her budget in mind. Packaging is vital for the consumer to reflect on the source of milk, which can indicate to the consumer the reliability of the production source, thus again strengthening the importance of the quality factor of that source. On the other hand, promotion had a weak effect, and this could be attributed to the weak promotional activities of the dairy plants, in addition to weak awareness on the consumers' part regarding the availability of different types of processed milk and their nutritional value.

| Table 6: Effect of The Marketing Mix On Consumers' Purchase Decision Of Dried Milk | | | | | | | | |
|---|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| Item | Price | | Quality | | Promotion | | Packaging | |
| | No. | % | No. | % | No. | % | No. | % |
| Effective | 107 | 23.8 | 169 | 37.6 | 68 | 15.1 | 98 | 21.8 |
| Extremely effective | 164 | 36.4 | 126 | 28.0 | 103 | 22.9 | 125 | 27.8 |
| No opinion | 33 | 7.3 | 35 | 7.8 | 50 | 11.1 | 46 | 10.2 |
| Not effective | 60 | 13.3 | 33 | 7.3 | 106 | 23.6 | 75 | 16.7 |
| Extremely not effective | 4 | 0.9 | 6 | 1.3 | 42 | 9.3 | 25 | 5.6 |
| Total | 368 | 81.8 | 369 | 82.0 | 369 | 82.0 | 369 | 82.0 |
| No answer | 82 | 18.2 | 81 | 18.0 | 81 | 18.0 | 81 | 18.0 |
| Total | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 | 450 | 100.0 |
| Source: Primary Data | | | | | | | | |

The Table 6 shows that most of the consumers of dried milk were highly affected by the quality of the product (65.6%), followed by price (60.2%), and this shows that the two major marketing elements affecting the purchase decision were quality and price. On the other hand, the third factor in succession was packaging of the product (49.6%), indicating the

| Table 7: Average Marketing Mix Of Different Milk Types | | | | | |
|--|----------------------|--------------------|------------------|----------------------|--------------------------|
| Milk type | Average of packaging | Average of quality | Average of price | Average of promotion | Average of marketing mix |
| Fresh milk | 3.476 | 4.113 | 3.661 | 3.030 | 3.57 |
| Processed milk | 3.669 | 4.127 | 3.783 | 3.273 | 3.71 |
| Dry milk | 3.531 | 4.135 | 3.842 | 3.132 | 3.66 |
| Source: Primary Data | | | | | |

customers' preference for the brand, and the nutritional information stated on the product's packaging presented the brand as a trustworthy product in terms of quality. Promotion had the weakest effect on the consumers regarding dried milk purchase (38.0%), and this could well be understood, as majority of the brands in the market were imported, and promotion of such products was not intentionally directed towards the residents of Sudan.

❖ Part Two: Analysis of the Study Hypotheses

❖ H1- First Hypothesis: Marketing Mix Element's Succession Affect the Marketing of the Product.

Table 7 shows the total average of each marketing mix element in relation to the three types of milk under study. Quality had the highest average load for all of the milk types, where fresh milk = 4.113, processed milk = 4.127, dried milk = 4.135; followed by price, where fresh milk = 3.661, processed milk = 3.783, dried milk = 3.842; followed by packaging, where fresh milk = 3.476, processed milk = 3.669, dried milk = 3.531; and promotion where fresh milk = 3.030, processed milk = 3.273, dried milk = 3.132.

Hence, the H1 - which states that marketing mix element's succession affects the marketing of the product - is accepted.

❖ H2- Second Hypothesis: Product Quality Has The Greatest Effect On Consumers' Product Purchase Decision.

The Table 7 reveals that quality had the highest total average for the three milk types as compared to other marketing mix elements, and hence, the H2, which states that product quality had the greatest effect on consumers' product purchase decision, is accepted.

CONCLUSION

The study is concluded with a number of recommendations:

- 1) Processors and producers of dairy products should implement modern marketing concepts that focus on the consumers' needs and wants.
- 2) Dairy marketing should understand (and implement accordingly) how changing (with reference to food products) consumer preferences and promotional programs have altered the demand for various dairy products.
- 3) Processors and producers of dairy products should pay more attention to promotional activities that creates awareness about the nutritional value of different milk types, thus increasing the demand for new innovative products.
- 4) Dairy processors and companies should focus on strong implementation of the marketing mix in ways that serve both the customers and the company.
- 5) More interest should be laid upon implementing market research directed towards studying various aspects affecting consumer preferences and consumption.
- 6) Companies should well understand the effect of competition to produce new, innovative competitive products, and marketing strategies for dairy products should emphasize upon the functionality of certain products to attract the customers.
- 7) Marketers should devise marketing activities and assemble fully integrated marketing programs to create, communicate, and deliver value for the consumers.

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