

Awareness and Willingness to Use Camel Milk, Meat Among Youth in Sultanate of Oman – Muscat

Dr. Soofi Asra Mubeen¹, Dr. Lina George²

^{1,2}University of Technology and Applied Sciences, Muscat, Sultanate of Oman

Abstract

Camels are often referred to as living assets, because they contribute to the households' ability to meet their livelihood objectives. This study is essential since camel milk and meat have a lot of potential benefits to one's health, yet despite the fact that they are readily available in the Muscat region, they are not generally consumed. This study will contribute to raising awareness about the benefits of consuming camel milk and meat. The research surveyed two hundred young individuals in Muscat, Sultanate of Oman, to determine their level of familiarity with camels and their willingness to consume camel milk and meat. According to the findings of the regression analysis, factors such as monthly income, and family size do not have a significant bearing on the extent to which people are aware of camel milk and meat. There was a considerable gender difference in the dependence on camel meat and No Significant difference on camel milk.

Keywords: Awareness of Camel Milk and Camel Meat, Consumption of Camel Milk and Camel Meat, Health Benefits of Camel Milk and Camel Meat.

Introduction

The camel, often known as the "ship of the deserts," plays a significant part in the culinary customs and way of life in many parts of the Middle East, Asia, and even certain parts of Africa. Camels are able to live in arid and desert environments, which makes their milk a reliable source of nutrition in parts of the world, particularly the Middle East, where other types of dairy animals may have a difficult time surviving. Camel farming is an alternative that can be maintained in areas that have limited water supplies and harsh temperatures. In some areas, the production of camel milk and camel meat is a source of income for camel herders as well as a contributor to the way of life of local communities. Camel Milk is not as often consumed as cow's milk, goat's milk, or other dairy products despite the fact that camel milk possesses a wide variety of beneficial effects on one's health and significant nutritional value. The vital vitamins A, B1, B2, B12, C, D, and E, as well as the minerals calcium, iron, magnesium, phosphorus, potassium, and zinc, are all present in high concentrations in camel milk. Camel milk is also rich in magnesium. The consumption of camel meat is associated with an increase in nutrient intake, particularly that of protein, vitamins, and minerals. In comparison to other kinds of red meat, camel meat is lower in fat and higher in protein, iron, and zinc. It is also a good source of B vitamins.

Literature Review

The following discussion provides an overview of customers' awareness of and readiness to purchase camel products. In order to test consumer knowledge of camel milk, Singh et al. (2021) conducted a study with the objective of assessing consumer knowledge regarding camel milk. The researchers employed an exploratory research strategy and utilized judgmental sampling techniques to obtain data from a sample of 388 respondents in Gujarat. A binary logistic regression analysis was conducted to examine the impact of socio-demographic characteristics on consumer awareness of camel milk. The results revealed that 70% of the respondents demonstrated awareness of camel milk. Furthermore, the analysis indicated that education was the sole component that significantly influenced consumer awareness of camel milk. In their recent study, Profeta et al. (2022) conducted a qualitative analysis to examine the consumer acceptance, preferences, and attitudes towards camel milk. The study employed a cross-country approach, involving participants from five different countries. The researchers organized qualitative focus groups, with each group consisting of four to six participants. The existing literature indicates a requirement for additional study to enhance the quality of camel milk products. Further investigation is warranted to enhance the operational variables and establish uniformity in the manufacturing protocols of camel milk yoghurt in next studies. In a study conducted by Akweya et al. (2012), a total of 138 households residing in major urban centers were interviewed. The findings revealed that 75% of the respondents reported consuming camel milk on a daily basis. The flavor of raw camel milk has been identified as a significant purchasing factor. However, in order to enhance the marketing of camel milk, it is crucial to give serious consideration to the features that buyers require. In order to enhance the adoption of camel milk and its associated products among non-traditional consumers, it is imperative to implement strategies that effectively promote their consumption. It is imperative to undertake the promotion of camel milk and its associated goods.

In their study, Mohan et al. (2018) conducted an analysis on strategies aimed at influencing consumer behavior in the buying and consumption of camel milk. The researchers also examined the consumer's inclination to purchase camel milk subsequent to acquiring knowledge regarding the nutritional and therapeutic advantages associated with its consumption. The demand for camel milk has also increased due to heightened customer awareness. A convenience sampling method was employed to collect data from a sample of 120 respondents for the purpose of conducting quantitative analysis. The findings of this study indicate a statistically significant rise in the proportion of consumers who express a willingness to purchase camel milk upon becoming aware of its benefits. Furthermore, it was observed that individuals tend to exhibit an increased inclination to purchase camel milk after gaining knowledge about its advantages. The implementation of market-oriented awareness campaigns aimed at stimulating consumer demand for high-quality camel milk can be achieved through the dissemination of information and the execution of awareness campaigns. Emukule and colleagues (2011) conducted a study to examine the inclination of potential consumers in Nakuru area, Kenya, to pay for camel milk. Data collection was conducted using a multistage sampling technique, involving a sample size of 108 respondents. The study aimed to examine the influence of socio-economic characteristics on the willingness to pay among potential consumers. To analyze this relationship, a logistic regression model was employed. The findings revealed that consumers who possess knowledge about camel milk exhibit a willingness to pay that is three times higher compared to those who lack awareness of camel milk. With the exception of awareness, the variables of work status, total household income, age, level of education, and family size do not exhibit any substantial impact on individuals' willingness to pay.

In a recent study conducted by Cheikh Ismail et al. (2022), the researchers examined the consumption habits of camel milk and the perceived advantages and dangers associated with its intake among a sample of 852 people residing in the United Arab Emirates. The study examined the socio-demographic features, consumption habits of camel milk, and individuals' perceived knowledge on the advantages and hazards associated with camel milk. The participants exhibited a lack of sufficient understanding of the potential health advantages associated with the consumption of camel milk. There was a notable disparity in the level of information regarding the health advantages of camel milk between males and female participants, as well as between consumers and non-consumers of camel milk. Singh (2023) conducted a study to investigate the determinants influencing the purchasing decisions of Indian consumers regarding AMUL's Camel Milk. The study utilized a structured questionnaire and employed a judgmental sampling technique to gather data from a sample of 388 respondents residing in Gandhinagar, Gujarat. The study employed logit regression analysis in the R software to examine the relationship between brand image, perceived awareness, health advantages, therapeutic use, and purchase intention among the respondents. The results indicated that all of these factors exhibited a substantial positive association with purchase intention.

Objectives of the study

1. To understand the level of awareness regarding the benefits of camel milk and meat among youth in Muscat.
2. To analyze the level of awareness regarding the availability of camel milk and meat among youth in Muscat.
3. To analyze the extent to which youth will be willing to use camel products if available

Scope of the Study

Camels are versatile creatures that are raised in desert and semi-arid environments for the purposes of milk production, meat consumption, and transportation. The study examined the level of awareness and willingness among young individuals in the Muscat region regarding the consumption of camel milk and meat. Singh et al. (2021) conducted a study which revealed that education plays a crucial role in enhancing consumer awareness regarding camel milk. Based on the findings of the study, it is posited that enhancing consumer comprehension regarding the advantages associated with the utilization of camel milk, together with the implementation of advertising campaigns and initiatives aimed at fostering social awareness, can facilitate the transition of consumers from other bovine sources. The significance of this study is in the exploration of the health benefits associated with the consumption of camel milk and meat, despite their limited prevalence in the Muscat region, despite their ready availability. This study aims to raise awareness and promote the consumption of camel milk and meat among individuals.

Research Methodology

This research employed a Descriptive Research Design, specifically utilizing the survey method for data collection. The Mixed Methods Research design is employed when both Qualitative and Quantitative research approaches are utilized in order to achieve a more full and holistic grasp of the study topic. The study employs qualitative research methods, namely group discussions, to investigate the level of awareness, attitudes, and willingness among young individuals towards the consumption of camel milk and meat. The utilization of a Quantitative Research Questionnaire is employed as a means of gathering

data pertaining to the awareness levels and purchasing intentions of young individuals, as well as their demographic characteristics.

Sampling Design

Convenience Sampling method was adopted for this study.

Sample Size

The total sample size in the present study was 200 youth in Muscat - Sultanate of Oman.

Sample Unit

Sample unit consisted of youth in Muscat - Sultanate of Oman.

Data Collection Method(s)

Both primary and secondary data were used.

- **Primary Data:** The data was collected through Questionnaire and Group discussion.
- **Secondary Data:** The data was collected through the following sources:
 - Books and Journal research articles
 - EBSCO research data base & Internet

Data Analysis Method

The data from the study were subjected to analysis using the SPSS software. A regression analysis was conducted in order to ascertain the socio-demographic variables that have an impact on consumer knowledge and willingness towards camel milk and meat. The analysis includes three independent variables, specifically gender, monthly income, and family size, which are sociodemographic parameters. The dependent variable in this study is the level of awareness and willingness exhibited by the respondents.

Results and Discussion

The researchers assessed the internal consistency of the questionnaire by calculating Cronbach's alpha, yielding a value of 0.754. According to Robinson and Shaver (1973), a questionnaire's dependability is deemed adequate if its value exceeds 0.70. Hence, the administered questionnaire demonstrated strong reliability, as indicated by an alpha value over 0.70.

Table 1: Multiple Regression of Gender and Camel Milk

Model	R	R square	Adjusted R Square	Std. Error of the estimate
	.027	.000	.0043	.429

Table 1.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.027	1	0.027	0.147	0.701
Residual	36.452	198	0.184		
Total	36.48	199			

- a. Dependent Variable: Awareness of Camel Milk among Youth
- b. Predictors: (Constant), Gender
- c.

Table 2: Multiple Regression of Monthly Income and Camel Milk

Model	R	R square	Adjusted Square	R	Std. Error of the estimate
	.096	.009	.004		.427

Table 2.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.336	1	.336	1.844	.175
Residual	36.143	198	.182		
Total	36.48	199			

- a. Dependent Variable: Awareness of Camel Milk among Youth
- b. Predictors: (Constant), Monthly Income

Table 3: Multiple Regression of Family Size and Camel Milk

Model	R	R square	Adjusted Square	R	Std. Error of the estimate
	.010	.000	.004		.429

Table 3.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.004	1	.004	.022	.880
Residual	36.475	198	.184		
Total	36.48	199			

- a. Dependent Variable: Awareness of Camel Milk among Youth
- b. Predictors: (Constant), Family Size

The significance level that was reported as $p=.701$ for the association between gender and camel milk, $p=.175$ for the association between income and camel milk, and $p=.880$ for the association between family size and camel milk was greater than 0.05. The significance value allowed for the conclusion to be drawn that the association between camel milk and gender, income, and family size was not significant. This conclusion was reached based on the findings of the study.

Table 4: Multiple Regression of Gender and Camel Meat

Model	R	R square	Adjusted Square	R	Std. Error of the estimate
	.203	.041	.036		.331

Table 4.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.940	1	.940	8.590	.003
Residual	21.679	198	.109		
Total	22.62	199			

- a. Dependent Variable: Awareness of Camel Meat among Youth
- b. Predictors: (Constant), Gender

The p-value of 0.003 given in Table 4 for the relationship between Gender and Camel Meat was found to be statistically significant at a significance level of 0.05. The statistical analysis indicated that there was a significant association between Camel Meat consumption and Gender, as deduced from the obtained significance value.

Table 5: Multiple Regression of Monthly Income and Camel Meat

Model	R	R square	Adjusted R Square	Std. Error of the estimate
	.146	.021	.016	.334

Table 5.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.484	1	.484	4.332	.038
Residual	22.135	198	.111		
Total	22.62	199			

- a. Dependent Variable: Awareness of Camel Meat among Youth
- b. Predictors: (Constant), Monthly Income

Table 6: Multiple Regression of Family Size and Camel Meat

Model	R	R square	Adjusted R Square	Std. Error of the estimate
	.039	.001	.003	.337

Table 6.1 ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	.035	1	.035	.314	.575
Residual	22.584	198	.114		
Total	22.62	199			

- a. Dependent Variable: Awareness of Camel Meat among Youth
- b. Predictors: (Constant), Family Size

The reported significance level of $p=.038$ for the relationship between Income and Camel Meat, as well as the significance level of $p=.575$ for the relationship between Family size and Camel Meat, as presented in Tables 5 and 6, exceeded the threshold of 0.05.

The lack of significance in the link between Camel Meat consumption and variables such as Income and Family Size was deduced from the obtained significance value.

Table 7: Awareness regarding Camel Milk and Meat

	Neighbors		Friends		Family		Advertisements		Social Media	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Camel Milk	42%	158%	85%	115%	150%	50%	71%	129%	103%	97%
Camel Meat	75%	125%	113%	87%	162%	38%	76%	124%	112%	88%

Table 7 displayed the percentage of young people in Muscat, Sultanate of Oman, who were aware of Camel Milk and Meat. It was revealed that the level of awareness among young people with regard to camel milk and meat was quite high within the context of families and social media and Awareness is highest with regards to one’s friends and advertising, whereas it is lowest with regards to neighbors.

Table 8: Willingness to buy Camel Milk and Meat

	Taste		Availability		Choice of the Family		Nutrition		Trend		Supply		Quality	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Camel Milk	83%	117%	76%	124%	111%	89%	99%	101%	79%	121%	71%	129%	117%	83%
Camel Meat	137%	63%	106%	94%	125%	75%	95%	105%	93%	107%	105%	95%	125%	75%

Based on the data in Table 8, the youth are more likely to purchase camel milk than camel meat due to its higher quality, choice of family, and higher nutritional value. Camel meat is popular among young people because of its taste, availability, and high quality.

Conclusion

Camel farmers in Oman confront a number of obstacles in their industry, one of which is the difficulty in marketing their goods, such as camel milk and camel meat. Another obstacle is the lack of public knowledge regarding the health benefits of camel milk and camel meat.

The numerous health benefits and high nutritional content of camel milk and meat have attracted a lot of attention and acknowledgment in recent years. Due to a lack of awareness among people, it is not as readily available and utilized as other dairy products, despite the fact that it possesses these benefits. As a result,

there is a need to raise knowledge regarding the subject, seeing as how awareness plays a significant part in determining the degree to which potential customers are willing to consume camel milk and meat.

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