Original Research Article

Exploring Consumer Perceptions and Value Addition in Street Cuisine: A Case of Kalai Ruti

ABSTRACT

Aims: The study focuses on Kalai Ruti, a popular street food made from black gram in Chapai Nawabganj, Bangladesh. It aims to examine the potential for enhancing the dish's value and to assess consumer attitudes towards street food in the region.
Study design: The research involved surveys with 100 Kalai Ruti customers and interviews with 30 local vendors.
Methodology: We employed multiple linear regression and descriptive statistics to analyze data. This included examining the value addition from incorporating various meats and vegetables typical in Bangladeshi cuisine into Kalai Ruti, as well as analyzing the cost and selling price of these ingredients.
Results: Findings show significant value addition from different meats: BDT 370.07 per kg for chicken, BDT 988.3 per kg for beef, BDT 386.03 per kg for duck, and BDT 38.8 per kg for eggplant. Consumer feedback was overwhelmingly positive, with over 76% of participants expressing favorable opinions. The analysis also revealed that the street food culture around Kalai Ruti is shaped by a blend of value addition, consumer preferences, and socio-demographic factors. While education, family size, and income had minor effects, age, gender, occupation, and marital status significantly influenced consumer choices.
Conclusion: The study offers valuable insights that can help enhance marketing strategies and support the sustainable development of the street food sector in the area.

Keywords: Bangladesh; Fast-food; Kalai-Ruit; Preference; Street-food.

1. INTRODUCTION

Street foods play an important socioeconomic role by meeting the food and nutritional needs of city dwellers at an affordable price, particularly for lower and middle-income groups. They are widely appreciated for their unique flavors and convenience [1]. Thus, street foods not only fulfill the dietary needs of communities with lower incomes but also save time for people who are in a rush and have less time to prepare meals or dine at expensive restaurants [8]. The trend of street foods is most common in low and middle-income countries, with the types of food varying according to the socioeconomic status of the buyer and the local food culture [6]. They are typically sold in busy public areas such as pavements, school premises, beaches, and railway and bus stations [5]. In developing countries like Bangladesh, the street food industry serves as a significant source of income for millions of men and women with limited education or skills, hence its popularity. It is notable that “Behula,” a district in Chapai Nawabganj, is renowned for its distinctive ethnicity, accent, and organic cuisine. This area faces intense seasonal temperatures and frequent floods from the Ganges, yet is home to the famous “Kalai Ruti” [15], a thick flatbread made from black gram flour that is ideal for any meal on busy days. Besides, street vendors are common in developing countries and provide fast food items and services that foster job creation, entrepreneurship, and poverty reduction [16]. They have a significant economic influence, but are facing many challenges and issues that are frequently ignored. Recognizing the socioeconomic importance of street food, especially in countries like Bangladesh where it is a major economic driver and a lifeline for millions of low-income people, is crucial.

Numerous studies have examined fast food globally. However, only a few have focused on consumer preferences and influencing factors for fast food consumption in Bangladesh. According to Amanor-Boadu, activities that add value must

either introduce completely new activities or displace traditional activities that are done downstream in the value chain [3]. Muzaffar et al. identified that formal education has no discernible effect on business success, but initial capital and business experience had a positive impact on sales revenue [13]. The report also highlighted the availability of raw materials and vendors' concerns about security as significant obstacles to their business operations. Islam et al. investigated street food consumption patterns in Dhaka based on interviews with 340 street food consumers and determined six factors that affect people's motivation, such as pleasure, convenience, cost, beauty, food value, and taste [7]. The results underscored the significance of taste, variety, accessibility, affordability, and attractiveness in attracting customers to Dhaka's street food offerings. Mamun et al. conducted a cross-sectional study to examine the food safety knowledge, attitudes, and actions of street food sellers and customers in Dhaka city. The results showed that sellers in less educated areas had poorer awareness of food safety, whereas younger customers had more positive sentiments. The study emphasized the need for improved infrastructure and vendor hygiene standards to increase street food safety in Bangladesh [12]. Kuddus described consumer behavior, emphasizing factors such as age, income, education, occupation, family life cycle stage, social class, and cultural influences that impact purchasing decisions for consumer goods [10]. Admassu found that factors related to quality and safety such as price, fat content, freshness, butchery conditions, staff hygiene, and butchery circumstances, as well as socioeconomic factors, affected decisions about beef consumption [2]. Kumar et al. identified age, gender, income, country of origin, and brand as factors influencing food purchasing decisions, with brand image often outweighing other considerations [11]. Sanjaya et al. noted that wives primarily influenced branded fine rice purchasing decisions, with retailers serving as the main source of information, while factors such as age and brand image also influenced consumer behavior [18]. Shivkumar found that family members' opinions and dealer recommendations heavily influenced food purchases, regardless of income level, with advertisements also playing a role [19]. Ramasamy et al. revealed that product awareness and attitudes significantly influenced consumer buying decisions, with preferences for product quality, price, and manufacturer image varying among consumers [17]. Understanding the discussion, the present study wanted to evaluate the value addition of Kalai Ruti, and find out the customer attitude towards it because through this manner proper initiatives can be taken for improving the marketing system and making Kalai Ruti more popular.

2. MATERIAL AND METHODS

2.1 Selection of study area

Chapai Nawabganj was carefully chosen as the focal point for our data collection efforts. Within this district, specific areas such as Bottola Hat, Malopara, Shantimor, Nimtola, Medical Mor, Puraton Bazar, Noyagola Mor, Baroghoria Bazar, Bisshoroad Mor, and Shibtola Mor were identified as key locals for gathering essential insights into the value addition process of Kalai Ruti. The presence of an adequate number of street food vendors specializing in Kalai Ruti and a significant consumer base in these areas was a primary consideration. This ensured that the study would have access to a diverse range of vendors and consumers, providing comprehensive insights into the production, marketing, and consumption dynamics of Kalai Ruti.

2.2 Selection of Sample

Purposive sampling was employed to select 100 fast food customers and 30 vendors for the study. Primary data was gathered from 100 individuals who were housewives, students, service holders, businessmen etc. and 30 individuals who were involved in processing Kalai Ruti and others side dishes associated with it. Prior to data collection, participants were informed about the purpose of the research, and their voluntary participation was ensured. It was confirmed that all individuals had no objections and was prepared to share information willingly. Face-to-face interviews with a structured questionnaire were used by the researcher personally to collect data.

2.3 Analytical technique

2.3.1 Measurement of value addition

The concept of value addition in business, as outlined by Nichols and Goodwin [23], refers to the enhancement of raw materials through various processes. It is calculated as the value of outputs minus input value [24]. In the context of this study, the value addition of Kalai Ruti and additional food items was estimated based on the sales value minus the cost of ingredients. Processors or sellers play a crucial role in value addition, with their activities not being calculated separately. The cost of processed food is essential for estimating value addition, with ingredients such as rice flour and black gram flour identified for Kalai Ruti. Street vendors, who primarily sell their products in public places, rely on eye estimation rather than precise measurement scales. To assess value addition accurately, the prices per unit need to be determined.

2.3.2 Measurement of consumer attitudes

The study utilized a Likert Scale to gauge consumer attitudes toward Kalai Ruti, employing a five-point scale ranging from extremely positive to extremely negative. Respondents indicated their agreement or disagreement with a series of statements using expressions such as “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree,” which were assigned numerical values. These values were then sum up for each respondent to calculate their overall score. Item analysis was conducted to select the most discriminating items for the final scale, assessing each item’s ability to differentiate between high and low scorers. This is called the discriminative power (DP) of the item.

DP = Q1 – Q2

Where, Q1 = range above the upper quartile, Q2= Range below the lower quartile

For each scale item, the DP value was calculated and the largest DP value shows the best expression of consumer attitude on Kalai Ruti. In calculating the DP, a summation of the scored items for each respondent was made, and placed the scores in an array, from lowest to highest. Then, the range was compared above the upper quartile (Q1) with that below the lower quartile (Q2), and the DP value is calculated as the difference between the weighted means of the scores above Q1 and of those that fall below Q2.

2.3.3 Estimation of factors influencing consumer attitudes toward Kalai Ruti

The present study has been conducted on consumer attitudes amongst Kalai Ruti, utilizing multiple regression analysis to identify influencing factors. Five characteristics were chosen as independent variables, with consumer attitude scores towards Kalai Ruti serving as the dependent variable. The analysis aimed to determine the impact of these factors on consumer attitudes. Multicollinearity, where independent variables are highly correlated, was assessed using variance inflating factors (VIF). Multiple regression analysis is presented below:

$$Yi = \alpha + \beta 1\, X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \beta 7X7 + Ui$$

Where, Yi= The score of consumer attitudes towards Kalai Ruti, X1 = Age of the respondent (years), X2= Sex of the respondent (1= male, 0= female), X3= Level of education of the respondent (years of schooling), X4= Profession of the respondent (1= student, 0= others), X5=Marital status of the respondent (1= married, 0= unmarried), X6= Family size of the respondent, X7 = Annual income (used as a dummy variable), D1 = 1, if income level <BDT 1,50,000; D1 = 0, otherwise, D2 = 1, if income level BDT (1,50,000 – 2,00,000); D2 = 0, otherwise, D3 = 1, if income level BDT (2,00,000 – 2,50,000); D3 = 0, otherwise, D4 = 1, if income level BDT (2,50,000 – 3,00,000); D4 = 0, otherwise; D5 = 1, if income level >BDT 3,00,000; D5 = 0, otherwise, β1, β2, β3, β4, β5, β6, β7 = Regression coefficients, α = intercept, Ui= regression error

3. RESULTS AND DISCUSSION

3.1 Socio demographic status of the respondents

The study observed that a majority (66%) of consumers were young, with an average portion (29%) being middle-aged, and the lowest portion (5%) being old. The majority (70%) of consumers were male. In terms of family size, 56% of consumers had medium-sized families, while 35% had small families. None of the consumers were illiterate. A significant portion (31%) of consumers had a graduation level of education, followed by 24% with a Master’s degree, 19% with secondary education, and 15% with primary education. Among the consumers, the majority (46%) were student, 18% were government employee, and 17% were working class people (such as worker, auto driver, rickshaw puller etc.), which is shown in table 1.

Table 1: Distribution of the respondents according to their selected characteristics

Characteristics	Scoring method	Observed Score	Categories	Respondents No=100
				Percentage
Age	Number of years	19-55	Young aged (up to 33)	66

			Middle-aged (34-47)	29
			Aged (>47)	5
Sex	Gender (Male)			70
	Gender (Female)			30
Family Size	Number of Members	3-8	Small (up to 4)	35
			Medium (5-6)	56
			Large (> 6)	9
Level of annual income			Less than BDT 1,50,000	3
			BDT1,50,000-2,00,000	20
			BDT2,00,000-2,50,000	19
			BDT2,50,000-3,00,000	40
			More than BDT 3,00,000	18
Level of Education (Years of schooling)		0-17	Primary (0-5)	15
			Secondary (6-10)	19
			Higher Secondary (11-12)	11
			Graduate (13-16)	31
			MS (17)	24
Profession		Housewife		8
		Student		46
		Working people		17
		Govt. employee		18
		Private employee		11

3.2 Value addition of Kalai Ruti

According to respondents (vendors), rice flour and black gram flour are the main ingredients of Kalai Ruti. Additionally, for each meat type (chicken, beef, duck, etc.), raw meat, soybean oil, onion, ginger, garlic, chili, and spices are required (table 2). The respondents provided costs for ingredients such as 1 kg of rice flour and approximately 0.2 kg to 0.25 kg of black gram flour, typically used to prepare a Kalai Ruti. However, they did not specify the quantities of oil, onion, ginger, garlic, chili, and spices, but they provided their respective values. To obtain a clearer picture of the ingredients used, the study approximated the quantities of these items based on respondents' input. The average values of these ingredients were then considered for calculating the processing costs.

Table 2: Processing costs of Kalai Ruti and additional items with Kalai Ruti

S.L. No	Main Product	Ingredients	Amount (kg)	Price (BDT/kg)	Cost (BDT)	% of the total cost	Total cost
1.	Kalai Ruti	Black gram flour	0.225	150	33.75	42.86	78.75
		Rice flour	1	45	45	57.14	
2(i)	Chicken meat	Chicken	1	185	185	64.25	287.93
		Oil	-	175	29.47	10.24	
		Onion		40	10.93	3.8	
		Ginger		140	7.43	2.58	
		Garlic		220	14.53	5.05	

		Chili		200	9.23	3.21	
		Spices		-	31.33	10.88	
2(ii)	Beef meat	Beef	1	700	700	82.45	
		Oil	-	175	38.5	4.53	849.03
		Onion		40	16.57	1.95	
		Ginger		140	12.03	1.42	
		Garlic		220	17.2	2.03	
		Chili		200	11.4	1.34	
		Spices		-	53.33	6.28	
2(iii)	Duck meat	Duck	1	420	420	76.51	
		Oil	-	175	38.5	7.01	548.97
		Onion		40	16.57	3.02	
		Ginger		140	8.03	1.46	
		Garlic		220	12.87	2.34	
		Chili		200	10.37	1.89	
		Spices		-	42.63	7.77	
2(iv)	Mashed eggplant	Brinjal	1	30	30	58.97	
		Mustard oil	-	220	13.77	27.07	50.87
		Onion		40	4.35	8.55	
		Chili		200	2.75	5.41	

Value addition is calculated as the difference between the total expenses incurred in processing a product and the total revenue acquired from its sale. Various items had been purchased from five vendors to estimate the weight of Kalai Ruti. Kalai Ruti was found to be sold at BDT 20 per piece by vendors. Along with it, chicken meat, beef meat, duck meat, and mashed eggplant were sold at average prices of BDT 94, BDT 193.33, BDT 153.67, and BDT 10 per plate respectively (table 3).

During the processing of Kalai Ruti, 1 kg of rice flour and 0.225 kg of black gram flour were utilized, resulting in a total of 1.225 kg. This created a value addition of BDT 90.58, which equates to BDT 73.94 per kg of Kalai Ruti. Furthermore, the value addition for 1 kg of raw chicken, beef, duck, and mashed eggplant was estimated to be BDT 370.07, BDT 988.3, BDT 368.03, and BDT 38.8, respectively.

Table 3: Value Addition of Kalai Ruti and additional items when it is processed

S.L No	Items	Total Ingredients (Kg)	Total Cost (BDT)	Selling Unit(piece, plate)	Price (BDT/piece,plate)	Selling Amount (BDT)	Value Addition (BDT)	Value addition (BDT/kg)
1.	Kalai Ruti	1.225	78.75	8.47 pieces	20	169.33	90.58	73.94
2(i)	Chicken meat	1	287.93	7 plates	94	658	370.07	370.07
2(ii)	Beef meat	1	849.03	9.5 plates	193.33	1837.33	988.3	988.3
2(iii)	Duck meat	1	548.97	5.97 plates	153.67	917	368.03	368.03
2(iv)	Mashed eggplant	1	50.87	8.97 plates	10	89.67	38.8	38.8

The estimation of value addition for Kalai Ruti and additional items revealed significant variation. Beef meat had the highest value addition at BDT 988.3 per kg, while mashed eggplant had the lowest at BDT 38.8 per kg (figure 1 and table 3). This discrepancy in value addition was observed even when considering the proportional weight of ingredients used.

Specifically, the value addition for processed items were ranked as follows: beef meat (BDT 988.3), chicken meat (BDT 370.07), duck meat (BDT 368.03), Kalai Ruti (BDT 73.94), and mashed eggplant (BDT 38.8).

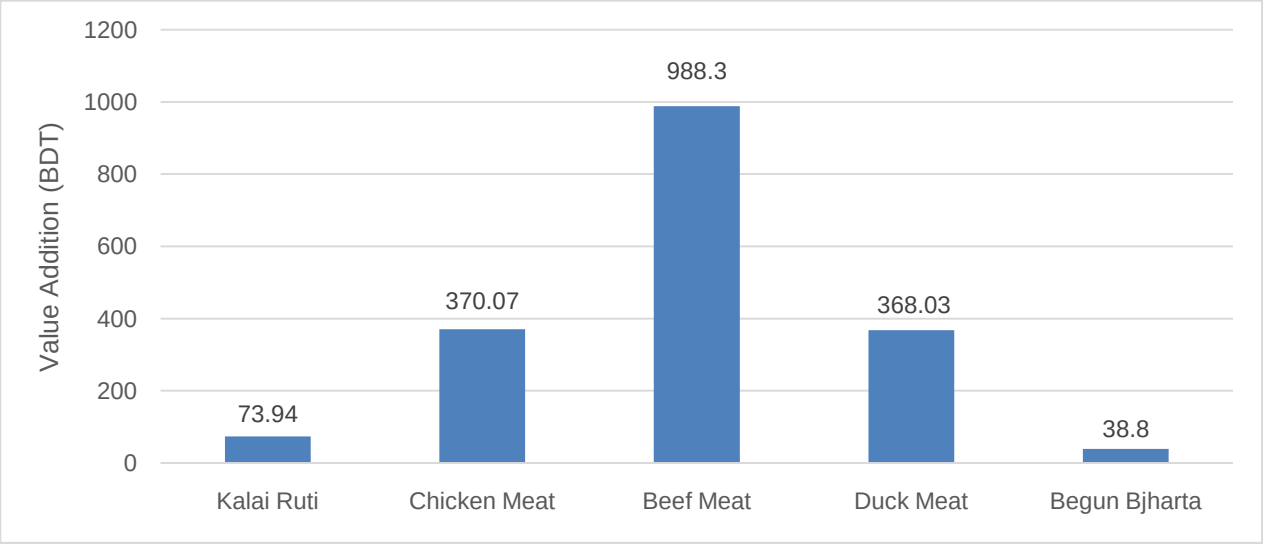

Fig 1: Value addition (BDT) of 1 kg of Kalai Ruti, Chicken meat, Beef meat, Duck meat, and Mashed eggplant (ignoring the value addition of other ingredients)

3.3 Consumer attitudes towards Kalai Ruti

The Likert scale was employed to gather data on consumers' attitude toward Kalai Ruti, utilizing 22 statements. A five-point scale ranging from strongly agree to strongly disagree was used for respondents to express their agreement with each statement. Positive statements were scored as follows: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1), while negative statements were scored inversely. Among the 22 statements, 17 were positive and 5 were negative regarding Kalai Ruti.

To identify the most significant statements, Discriminant Power (DP) values were calculated for each statement. The statements with the highest DP values were selected. These DP values were presented in Table 4, arranged in ascending order. Statements with the lowest DP values (statements 1, 3, 6, 8, 20, and 22) were excluded from further analysis.

A list of 16 statements about Kalai Ruti, ordered according to their Discrimination Power (DP) values, which range from 0.52 to 1.6. These DP values serve as indicators of how effectively each statement distinguishes between different consumer attitudes towards Kalai Ruti. A higher DP value means the statement is more potent in differentiating between favorable and unfavorable views among consumers. The statements at the lower end of the DP scale, with values of 0.52, address basic perceptions and could be related to logistical aspects (like the parcel system) or general impressions (such as being homemade or locally made). These show that while important, these factors may not strongly influence consumer attitudes. Moving up the scale, statements with medium DP values, such as those concerning health implications (both positive and negative) and the demeanor of street food vendors, start to show more significant differentiation in consumer attitudes. This indicates that health and social interactions play a moderate role in shaping perceptions of Kalai Ruti. At the higher end of the DP scale, statements with values above 1 highlight critical factors that significantly impact consumer attitudes. These include the absence of preservatives, employment creation, taste variation, and the special regional status of Kalai Ruti. Notably, the highest DP values are assigned to statements emphasizing the social and health-conscious aspects of Kalai Ruti, suggesting these are pivotal in defining consumer preferences. Such statements not only reflect the product's intrinsic qualities but also its broader implications for health, community, and environment.

Overall, the DP values provide a nuanced understanding of consumer attitudes towards Kalai Ruti, highlighting the importance of both product-related factors and wider social and health implications in shaping consumer preferences. This insight can be invaluable for targeting improvements and marketing strategies to enhance consumer perception and acceptance of Kalai Ruti.

Table 4: Selected 16 statements according to higher DP values for measuring consumer attitude towards Kalai Ruti.

Sl. No.	Statements	Ascending order of DP value
1	Its parcel system is good, so I like it	0.52
2	I don't like because it is locally made	0.52
3	It seems like home-made	0.52
4	It is healthy	0.6
5	It can create health problem	0.6
6	Street food vendors are friendly and they have potential growth in future	0.64
7	I don't like because it is not managed in a good environment	0.76
8	Appearance, surrounding and environment is satisfactory	0.92
9	This is a special food in this region, so I like it	1
10	This food is made by the poor people, I want to help them	1.12
11	Food serving is good	1.12
12	I found flies in the kitchen where it is made, so I don't like it	1.16
13	The staffs are welcoming and friendly	1.2
14	I like because of its taste has variation	1.26
15	It creates employment for poor people or for unemployed person	1.44
16	Preservative is not used to produce this Ruti, so I like this	1.6

3.4 Favorableness and un-favorableness of consumers towards Kalai Ruti

Consumers' attitudes towards Kalai Ruti were evaluated based on their responses to 16 selected statements, with total score values ranging from 16 to 80. These scores categorized consumers into four groups: highly favored towards Kalai Ruti (61-80), favored towards Kalai Ruti (48-60), neutral towards Kalai Ruti (47), and un-favored towards Kalai Ruti (16-46).

Table 5: Favorableness and un-favorableness towards Kalai Ruti on the basis of the consumer score value

Score value	Particulars	Percentage
61-80	Highly favored on Kalai Ruti	10
48-60	Favored on Kalai Ruti	66
47	Neutral	4
16-46	Not favored on Kalai Ruti	20

The distribution reveals that a substantial majority (66%) of respondent's favor Kalai Ruti to some extent, indicating general satisfaction with the product among consumers. A small but notable portion (10%) expresses strong favorability, highlighting a group of enthusiasts who might particularly enjoy Kalai Ruti's taste, cultural significance, or other attributes. Meanwhile, 20% of the participants do not favor Kalai Ruti, which suggests areas for potential improvement in the product or its perception among this subgroup. The presence of a neutral category (4%) points to a minority of consumers with either balanced views or a lack of strong opinions about Kalai Ruti. This diverse range of responses underscores the

complexity of consumer preferences and the importance of addressing various aspects of the product to cater to different segments of the market, from enhancing quality to effectively communicating Kalai Ruti's cultural and social value.

3.5 Average score value on individual statements towards Kalai Ruti

In Table 6, the average score value for every 16 statements were calculated using a weighted average method to assess attitude towards individual statements and facilitate comparisons. Score range from a minimum of 1.00 to a maximum of 5.00, where higher value indicating greater favorableness towards Kalai Ruti. The ascending order of average score value provides insight into the extent of attitude towards each statement, aiding in understanding consumer perception of Kalai Ruti.The results highlight a diverse range of consumer perceptions, from concerns about health and environmental management to appreciation for the food's cultural significance and positive social impacts, such as employment creation. Notably, aspects like the absence of preservatives, quality of service, and support for local communities receive higher favorability, reflecting a consumer preference for products that are not only safe and high-quality but also socially and environmentally responsible. This table encapsulates a nuanced consumer perspective that values both the intrinsic qualities of the food and its broader impacts on society and the environment.

Table 6: Consumer attitude towards Kalai Ruti on individual scale item

Sl. No.	Statements	Ascending order of average score value
1	It seems like home-made	2.48
2	Its parcel system is good, so I like it	2.97
3	I like it because its taste has a variation	3.05
4	It can create a health problem	3.14
5	The staff are welcoming and friendly	3.17
6	I don't like it because it is locally made	3.27
7	It is healthy	3.33
8	I don't like it because it is not managed in a good environment	3.33
9	Appearance, surroundings, and environment are satisfactory	3.43
10	Food serving is good	3.44
11	Street food vendors are friendly and they have potential growth in the future	3.46
12	Preservative is not used to produce this Ruti, so I like this	3.5
13	I found flies in the kitchen where it is made, so I don't like it	3.51
14	This food is made by poor people, and I want to help them by purchasing this food	3.53
15	This is a special food in this region, so I like it	3.54
16	It creates employment for poor people or for the unemployed person	3.66

3.6 Factors influencing the attitudes of consumers toward Kalai Ruti

From Table 7, it was evident that the coefficient for the age of the respondent was negative, with a value of -0.393. This suggested that older individuals tend to hold less favorable attitudes towards Kalai Ruti. The significance level, which was below 5% (0.05), indicated statistical significance, implying that the age of respondents does indeed influence their attitudes towards Kalai Ruti.

The analysis revealed several significant findings regarding the influence of demographic variables on consumers' attitudes towards Kalai Ruti. Firstly, the coefficient for the sex of respondents is positive (1.487), indicating that male respondents tend to hold more favorable attitude towards Kalai Ruti compared to female respondents. This result was statistically significant, suggesting that gender does influence attitudes towards Kalai Ruti. Similarly, respondents with a main profession related to being a student exhibit greater favorableness towards Kalai Ruti compared to other professions, as indicated by a significant coefficient of 5.076.

Moreover, marital status also played a significant role, with married respondents showing more favorableness towards Kalai Ruti than unmarried respondents (coefficient: 2.560). Additionally, the income group of BDTS (1,50,000 – 2,00,000) has a significant influence on attitudes towards Kalai Ruti compared to other income groups.

However, education level and family size did not demonstrate significant influence, as their coefficients did not reach statistical significance (education: 0.123, family size: -0.064). Overall, these findings underscore the importance of demographic factors in shaping consumers' attitudes towards Kalai Ruti, with variables such as age, gender, profession, marital status, and income group playing significant roles.

Table 7: Estimation of multiple regression of factors affecting consumers' attitude towards Kalai Ruti

Variables	Coefficients	t-value	Significance	VIF
(Constant)	78.432	26.804	.000	
Age (years)	-.393	-6.243	.000	2.791
Sex (1 for male, 0 for female)	1.487	1.914	.059	1.223
Level of education (years of schooling)	.123	1.335	.185	1.861
Profession (1 for student, 0 otherwise)	5.076	3.627	.000	4.696
Marital status (1 for married, 0 otherwise)	2.560	3.627	.034	3.355
Family size	-.064	-.219	.827	1.181
Annual income < BDT 1,50,000	-.981	-.470	.640	1.224
BDT (1,50,000 –2,00,000)	5.366	2.450	.016	7.412
BDT (2,00,000 – 2,50,000)	1.089	.507	.614	6.867
BDT (2,50,000 – 3,00,000)	.765	.363	.718	10.307
>BDT 3,00,000	.115	.053	.958	6.764
R^2	77.8%			

4. CONCLUSION

The study emphasized economic importance of Kalai Ruti as a value-added product in the local market in addition to its popularity as a street food. The value addition per kilogram estimate showed how much street food production especially Kalai Ruti contributes economically to the area. The majority of consumers have favorable opinions upon Kalai Ruti, and a significant number of respondents said they would recommend this street food. However, concerns over hygiene and packaging appear as areas for development, suggesting the need for higher quality standards to meet customer expectations and ensure market competitiveness. Consumer perceptions of Kalai Ruti are greatly influenced by demographic characteristics, including age, gender, occupation, marital status, and income level.

Understanding these elements were essential for formulating focused promotional strategies and catering particular customer preferences to improve market outcomes. For those who involved in the creation, promotion, and consumption of Kalai Ruti and other street delicacies, the study's conclusion offers valuable insights. Stakeholders may ensure sustainable growth in the street food business by optimizing market performance and promoting strategies that match with changing demographics, while also addressing concerns related to hygiene and packaging. The study emphasizes how crucial consumer-centric strategies are in determining the structure of the street food industry. Through the use of techniques that align with consumer preferences and socio-demographic patterns, interested parties can open up new potential for expansion and improvement, ultimately boosting the socioeconomic progress of the area and people.

ETHICAL APPROVAL

Not applicable.

REFERENCES

1. Ackah, M., Gyamfi, E. T., Anim, A. K., Osei, J., Hasnsen K. J. and Agyemang, O. (2011). Socioeconomic profile, knowledge of hygiene and food safety practices among street-food vendors in some parts of Accra-Ghana. Journal of Food Safety. 13: 191–197.
2. Admassu, S. A. (2007). An analysis of demand for beef with a focus on quality and safety in Addis Ababa city, Ethiopia. MSc. Thesis., University of Addis Ababa, Ethiopia.
3. Amanor-Boadu, V. (2003). A conversation about value-added agriculture. Value-Added Business Development Program. Department of Agricultural Economics. Kansas State University.
4. Banga, R. (2013). Measure value in the global value chain, regional value chains, Unit for economic cooperation and integration among developing countries (ECIDC).
5. CI. (2011). Food ready to eat. Consumers International. Available at: http://www.streetfood.org. Accessed at: February 8, 2016.
6. Freese, E., Romero-Abal, M.E., and Solomons, N.W. (1998). The street food culture of Guatemala City: a case study from a downtown, urban park. Arch LatinoamNutr. 48(2):95– 103.
7. Islam, N., Arefin, M. S., Nigar, T., Haque, S. N., Haq, K. I., Emranand M. T. A. and Nazrul T. (2017). Street food eating habits in Bangladesh: a study on Dhaka city. International Journal of Management and Development Studies. 6(9):49-57.
8. Kuddus, A. M. (1995). Voktaachoron (consumer behavior). Bangla Academy. Dhaka, Bangladesh.
9. Kumar, K., Ambarish, Jordan B.B. and Tansu, A.B. (1987). Made in India, what it means to Indian consumers? Ind. J. Mktg, 17(9):26-34.
10. Mamun, S., Alam, S., Zaher, M. A. and Huq, A. K. O. (2020). Food safety knowledge, attitudes and behavior of street food vendors and consumers in Dhaka City. Bangladesh Journal of Microbiology. 37(2):48-51.
11. Muzaffar, A. T., Huq, I. and Mallik, B. A. (2009). Entrepreneurs of the streets: an analytical work on the street food vendors of Dhaka city. International Journal of Business and Management. 4(2):80–88.
12. Nachmias, C.F. and Nachmias, D. (1992): Research methods in the social sciences. 4th Edition. Edward Arnold, London.
13. Nichols, J. and Goodwin, H.L. (1993). Value- Added: What is it? Speech at the 30th annual meeting of the Texas Section of the American Society of Agricultural Engineers. College Station, Texas, October, 2020.
14. Okello, J.J., Narrod C. and Roy, D. (2009). Why market institutions disfavour smallholder farmers'' compliance with international food safety standards: evidence from Kenya, Zambia and Ethiopia. Contributed paper prepared for presentation at the International Association of Agricultural Economists Conference. Beijing, China. August, pp:16-22.
15. Haider, M.H. (2024). A guide to kalairuti of Chapai Nawabganj: Recipe, accompaniments, and where to eat. The daily star; Available from: https://www.thedailystar.net/life-living/food-recipes/news/guide-kalai-ruti-chapai-nawabganj-recipe-accompaniments-and-where-eat-3079126
16. Sarker, M. N. I., Rahman, M. Z., Cao, Q., and Xu, Z. (2019). Impact of small entrepreneurship on poverty alleviation and sustainable livelihood of street vendors. International Journal of Innovation and Applied Studies, 25(4), 1241-1254.
17. Sanjaya, S. G. and Abdul, K. W. (2002). Study of buying behaviour of branded fine rice. Ind. J. Mktg. 32(7):3-8.
18. Shivkumar, J. (2004). Buying behaviour of consumers towards the products produced by SSI units. Ind. J. Marketing. 34(3):19-25.
19. Stanton, J. V. (2000). The role of agribusiness in development: replacing the diminished role of the government in raising rural incomes. Journal of Agribusiness. 18(2):173-187.