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Preferences for Fish in Rajshahi City Corporation, Bangladesh: An Analysis of Socioeconomic Influence on Consumption Patterns

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ABSTRACT

The current study finding out how much fish customers eat Rajshahi City Corporation and assess the connections between consumer preferences and socioeconomic factors. A structured questionnaire was used to randomly choose 100 research participants, and data were gathered using the survey technique. Labeo rohita (2.77 kg/month) was the most consumed fish species followed by Labeo catla, Oreochromis mossambicus, Pangasius pangasius, and Labeo calbasu. About 30% of the customers favored L. rohita; similarly, 10%, 8%, and 6% of customers favored L. catla, Macrobrachium rosenbergii, and Cirrhinus cirrhosis. Between income levels, there were notable variations in consumption levels (p>0.0036). Respondents with higher income levels consumed more than those with lower income levels. It is noteworthy that older adults eat fish at higher rates than middle-aged and younger adults. Throughout the year, the majority of individuals ate fish more than once a week, and there was no seasonal variation in their fish intake. In addition, most consumers in the research area choose freshwater fish because marine fish is more expensive and scarcer than freshwater fish. Furthermore, the flavor of the fish has little impact on consumption, but rising fish costs can have a significant impact on consumers' purchasing capacity. The results of this study will thus provide a baseline for future research and assist policymakers and suppliers in producing the most popular fish in the study region.

Introduction

The specific preferences and priorities that people in a given market have when it comes to purchasing and consuming fish are referred to as consumer preferences for fish. It is basically the reason they choose a particular species over others. Because it is a great source of important fatty acids, vitamins, minerals, and high-quality protein, fish is an essential part of the diets of many people worldwide (Vilain and Baran 2016). Additionally, it supports the upkeep of a balanced diet. Furthermore, the Bangladeshi people view fish as the centerpiece of their meals. Fish has long been a staple of Bangladeshi cuisine and a significant source of animal protein. Fish that are readily accessible locally come in a broad range from the river system and coastal areas.

Despite limited availability due to overfishing and the reduction in biodiversity, consumer demand for caught fish

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is rising in developing countries (Ernst 2008). Many characteristics of the fish, whether they be tangible (freshness, species, fishbone, presence of scale, eye, belly, and color) or intangible (mindsets and opinions about the product) influence the decision to accept or reject the purchase (Pearson 2002; Costell et al. 2010). Geographical and socio-demographic characteristics of consumers, such as age, gender, educational attainment, income, place of residence, family structure, primary wage earners, and occupation, in addition to their cultural traits, have a significant influence on people's preferences and willingness to pay for cultural and captured fish (Verbeke and Vackier 2004; Pieniak et al. 2010; and Hicks et al. 2008).

Fish is one of the most significant animal proteins in Bangladesh, where it makes up 63% of the total protein consumed through food. It has a lot of vitamins, trace minerals, amino acids, and unsaturated fats. Furthermore, as fish lacks conjunctive tissue, it is easily digested (Haque et al. 2019). Bangladesh is third in the world for inland fisheries output and is wellknown around the world for having abundant fisheries resources. Bangladesh's food and nutritional security are enhanced by fish. In Bangladesh, the GDP is made up of 3.57% from agriculture and 25.30% from fisheries, whereas the contribution of fisheries to foreign currency earnings is 1.5% (DoF 2023). In Bangladesh, annual fish production is 47.59 lakh metric tons. Now per capita fish consumption attains 68.58 g/day against the set target of 60 g/day, per capita annual fish intake is 21.90 kg, whereas annual demand for fish is 42.38 lakh metric tons (DoF 2023). Fish harvesting in Bangladesh is primarily seasonal, with each catch peaking in late spring or early summer. Millions of fish are wasted annually as a result of inadequate facilities for transportation, storage, and preservation. Fish's chemical makeup makes it extremely perishable. Omega-3 long-chain polyunsaturated fatty acids originating from marine sources are abundant in fish, which has traditionally been considered a significant source of protein. One of the most popular and affordable sources of protein in the nation is freshwater fish. Geographical, social, and cultural traits of consumers influence their preferences, frequency, and intake of fish (Pieniak et al. 2011).

Numerous academic researchers have examined the nutritional value of fish and its critical role in human nutrition from various angles. Numerous recent studies

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have shown that eating fish can help prevent a number of illnesses, such as bacterial infections, Alzheimer's disease, metabolic problems, malnutrition rich in protein and calories, high blood pressure, and heart and circulatory ailments. Because fish has many health advantages for humans, it's important to evaluate how much fish customers eat in order to have a healthy life (Balami et al. 2020).

The fact that the Rajshahi City Corporation (RCC) is situated in Bangladesh's northwest makes the eating of fish there an intriguing topic with regard to the dietary practices and behavioral characteristics of the local populace. The study's added context, which takes into account people's preferences for freshwater or marine fish species and their availability, is further enhanced by RCC's close proximity to the Ganges River. A thorough understanding of customer choices and consumption patterns is crucial for the dysfunctional fisheries industry.

In 2015, the seventeenth Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations as a worldwide call to action to eradicate poverty, protect the environment, and ensure that by 2030, everyone lives in peace and prosperity (United Nations 2015). In order to achieve agenda of SDGs, Bangladesh has implemented several measures, such as integrating the Sustainable Development Goals (SDGs) into the 7FYP (2016–2020), 8FYP (2021–2025), and the 2PP (2021–2041); designing action plans for all relevant ministries and agencies; and putting in place the required framework for monitoring and evaluation (Ministry of Planning 2020).

Some available studies (Table 1) have been conducted consumer preference for fish. on including investigation on benefit and marketing (Haque et al. 2019), freshness, taste, and color (Uddin et al. 2019), fish consumption and preference (Rahman et al. 2020). Unfortunately, there is no evidence in the literature focused on consumer preference for fish consumption in the RCC, Bangladesh. The existing literature on the socioeconomic factors influencing fish intake in RCC, Bangladesh, is deficient in thorough empirical investigation. Important gaps in the research on fish eating in this area are filled by this study. Additionally, data on fish consumption in urban areas of Bangladesh, particularly RCC, is scarce. The most popular fish species and the factors that led to these

Table 1. Available studies on fish consumer preference from worldwide literature

Researcher	Country/region	Key findings
Hoque and Myrland (2022)	Bangladesh	Consumers value fish safety inspection but prioritize wild and farmed fish, rejecting frozen fish and willing to pay less. Wild-caught fish offers utility without inspection.
Mitra et al. (2021)	Bangladesh	Consumer preference for captured fish increases with average price, body firmness, and household size, while market price decreases with increased belly swollenness. Government policymakers may introduce net and cage farming.
Rahman et al. (2020)	Rangpur, Bangladesh	The study revealed that quarterly fish consumption ranges from 1.45 kg per person, with <i>L. rohita</i> , P. <i>pangasius</i> , <i>T. ilisha</i> , and <i>O. mossambicus</i> being the most commonly consumed species.
Boer et al. (2020)	Netherlands	The study indicates that fish consumption is linked to a preference for spicy meals with authentic plant protein sources, partially influenced by food involvement, aligning with Dutch recommendations.
Alam and Alfnes (2019)	Bangladesh	Consumers in Bangladesh are willing to pay more for indigenous fish species and prefer domestic production over imported ones, but not for wild-caught fish, suggesting potential for aquaculture and reducing pressure on wild fisheries.
Haque et al. (2019)	Dhaka, Bangladesh	Monthly household sea fish consumption, influenced by age, education, gender, income, and religious views, is 5.49 kg, but irregular supply and higher prices pose constraints.
Uddin et al. (2019)	Bangladesh	The study found that consumers' expenditure on pangas and tilapia increased by 6.7%, resulting in a 10% increase in income. Reasons for preference included cheaper prices, year-round availability, and reasonable market prices.
Tomić et al. (2017)	Croatia	The study reveals that coastal Croatian consumers, particularly females, older adults, and higher-income individuals, prefer wild fish and fresh fish, aiding in the planning of marketing strategies for farmed fish promotion.

decisions are described in this study, which closes the knowledge gap on the preferences of RCC inhabitants for particular fish species. Although several studies discuss how fish consumption has changed over time, little is known about how prices at the fish market affect consumer choices. The literature lacks clarity on whether RCC residents adjust their fish consumption according to seasonal price variations. This study provides data identifying the factors that are significant determinants of fish choice, fish market pricing in RCC, and their impact on consumer choices. the people's information on degree of fish consumption and will also provide a guide to future researchers, hence serving as a proper ground for comparison, to determine the level of fish consumption among RCC residents and to identify the relationship between consumers' preferences and their characteristics, addressing socioeconomic this overlooked area. The findings of this study will be expected to help decision-makers decide on production

levels, product variety, and sales strategies, and it may advocate regional and national nutrition policy as well as on a national level. Moreover, this study will partially close the gap by providing data to guide and advise investments, policies, and research to maximize the potential of fish consumption in promoting sustainable, healthy diets and aiding in the accomplishment of the Sustainable Development Goals (SDGs).

Materials and methods

Study area and duration

The research was carried out within the borders of the RCC located in the northwestern part of Bangladesh from August 2023 to January 2024. Rajshahi is one of the most critical urban centers in the country, rich in material and cultural values and dense in population. The geographical coordinates of this city are approximately 24.3745° N latitude and 88.6042° E longitude (Fig. 1). Overall, the area of RCC is widespread regarding the urban population distribution

and high fish consumption as a common and desirable phenomenon due to different climate seasons, such as hot summer, mild winter, and monsoon. Thus, Rajshahi is one of the most suitable cities in the country in terms of demographic representation and multiple factors affecting fish consumption.

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the most favorable fish type, the rate of different fish consumed weekly, and other factors contributing to fish consumption. Furthermore, we explored preferences and attitudes toward the topic, such as the perceived benefits of consuming more expensive or protein-rich fish and the problems participants face



Fig. 1. Map showing the study area

Sampling and respondent selection

The data was collected using a sample survey of 100 case study participants. This involved running a questionnaire schedule to collect comprehensive information ranging from the type of fish consumed, frequency of consumption, general behavior, age, income, education, and profession of participants. This research applied a comprehensive technique, utilizing a combination of survey methods, interviews, questionnaires, direct observation, and diagramming techniques. The information obtained through the survey allowed us to collect detailed data on various aspects, including demographic information, such as age, education level, occupation, and monthly income.

Data collection tools and techniques

Additionally, we gathered information on fish consumption, including the frequency of consumption,

when buying fish. To ensure the information was properly understood and accurately recorded, face-toface interviews were conducted. A random sampling method was used to ensure high representativeness of the RCC urban population.

Statistical analysis

The statistical software including Past 4.03, Microsoft Excel 2021, as well as GraphPad Prism 8 were applied to analyze the data. Descriptive analysis was done using means, percentages, and frequency distribution. The data were analyzed using several statistical tests to ensure robustness and accuracy. The Kruskal-Walli's test was applied to compare the medians of multiple groups. ANOVA test was carried out to compare the means of multiple groups, next to Tukey's multiple comparisons test for post-hoc analysis to explore

specific group differences. The homogeneity of variances was evaluated using Bartlett's test and the equality of variances was checked using the Brown-Forsythe test. These tests were chosen to provide a comprehensive analysis of the dataset. At a 95% confidence interval with a 5% error margin, all of the examined data was deemed significant.

Ethical considerations

The study was carried out in compliance with the ethical guidelines needed for research involving human subjects. Therefore, the respondents were told about the study properly, and the data was gathered after receiving consent from the participants. The responses were also anonymized to make sure that

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the data of any individual could not be recognized. And the research protocol was approved by the competent body.

Results

Available freshwater and marine water fish in RCC

The variety of available freshwater and marine fish in RCC, Bangladesh, are shown in Table 2 along with their local and scientific names, conditions, and price ranges in BDT. Twenty-eight species of freshwater fish and five species of marine fish were observed during the visit to the various marketplaces. This table highlights the diversity and economic value of fish in the local markets.

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	Churi	Trichiurus lepturus	Chilled/dried	300-350

The participants in this study consumed average 1.40 ± 0.55 kg of fish monthly in the study area. With an average of 2.77 ± 0.838 kg/month, *L. rohita* was the most consumed fish species based on numbers and quantities. We observed that 30% of consumers preferred *L. rohita* after *Labeo catla*, *Macrobrachium rosenbergii*, *C. cirrhosus* and *T. ilisha* were stated as the four favorite fish species, respectively (Fig. 2). Fifty-five percent of total fish consumption is accounted for by the four most commonly consumed fish species. The fish consumption rates of consumers are demonstrated in (Table 3).



Fig. 2. Commonly consumed fish species in the Rajshahi City Corporation, Bangladesh

Consumer preference of fish

It was discovered that health concerns are a major factor in deciding how much fish is consumed. Among the respondent about 55% of people preferred fish because it is healthy whereas 18% and 27% of people preferred fish for economic reasons and for taste, respectively, consider taste as the most crucial factor when consuming fish. The majority of the consumers preferred mainly wild-caught live fish which constitute 75%. Farmed fish are relatively less preferred; 20% of people preferred cultured fish, and frozen fish is generally not preferred in the study area; only 5% of people preferred frozen fish. The majority of consumers purchased fish at the local fish market, which was chosen by 72% of respondents. However, 26% of people preferred the commission agent market to buy fish, and only 2% of people preferred the super shop to buy fish. Fish preparation according to tradition was found to be popular, with 62% of respondents favoring this method, 34% preferred and 4% preferred grilling. Maximum frying, consumers ate fish higher than once a week in the year with 60% of preferring it at that frequency, while 23% preferred fish once a week, and 8% preferred fish once a week, and 8% preferred fish once a month. No

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seasonal influence on consumers' fish consumption in the study area were found.

Table 3. The commonly	consumed fish species in
Rajshahi city corporation,	Bangladesh

	Consump	otion level			
Species	(Kg/month)				
	Mean±SD	Percentage			
Labeo rohita	2.77 ± 0.84	30			
Labeo catla	2.55 ± 0.88	10			
Cirrhinus cirrhosus	1.60 ± 0.59	7			
Tenualosa ilisha	0.74 ± 0.23	6			
Macrobrachium rosenbergii	0.53 ± 0.24	8			
Pangasius pangasius	2.00 ± 0.41	3			
Mystus tengra	1.08 ± 0.53	6			
Ompok pabda	0.83 ± 0.24	3			
Heteropneustes fossilis	1.00 ± 0.50	2			
Wallago attu	0.75 ± 0.25	2			
Anabas testudineus	1.50 ± 0.00	2			
Oreochromis mossambicus	2.17 ± 0.62	3			
Puntius sophore	1.33 ± 0.62	3			
Clarias batrachus	1.83 ± 1.14	4			
Mastacambelus armatus	1.00 ± 0.50	2			
Sperata aor	0.88 ± 0.38	2			
Amblypharyngodon mola	1.50 ± 0.41	3			
Labeo calbasu	1.87 ± 0.61	2			

SD, Standard deviation

In the study area mostly preferred freshwater fish with 85% preferring it at that frequency, while only 15% preferred marine water fish. Generally, marine fish is much less preferred by consumers because it is very expensive and not available on the market. Increasing fish prices can largely affect the buying of fish by consumers. Due to the flavor of fish, most consumers do not have a problem eating fish. The consumption habits and preferences of customers for fish are displayed in Table 4.

Consumer preference based on socio-economic characteristics

The study assessed the quarterly levels of fish consumption (kg/quarterly) among the participants by examining multiple socioeconomic factors such as gender, age, income, education, and profession (Table 5). Significant differences were observed in fish consumption rates based on gender, age, income, and education. Young participants had a mean consumption of 4.682 ± 2.702 kg/month, while middle-aged participants had 4.611 ± 3.004 kg/month, and elderly participants had 5.722 ± 3.511 kg/month,

with no significant difference between middle-aged and elderly (p = 0.7488). Higher-income individuals Fisheries Studies 02 (2024) 10-20

preferences for all other income

Questions	Preferences	%	Preferences	%	Preferences	%
Primary reason for fish	Economic	18	Healthy	55	Tasty	27
consumption						
Preferred Fish type	Caught	75	Cultured	20	Frozen	5
Preferred Fish Market	Local Fish	72	Commission agent	26	Super shop	2
	Market		Market			
Preparation Method of Fish	Grilling	4	Frying	34	Traditional cooking	62
Preferred Season for Fish	Summer	14	Winter	6	Season has no impact on	80
Consumption					consumption	
Consumption Frequency	Once a week	23	More than once a week	60	once a month	8
Preferred Fish	Fresh water	85	Marine	15		
Reason not to buying Marine Fish	Not available	60	High price	25	Bad smell	15
Increase price can affect buying of fish	Yes	87	No	13		
Flavor of fish can create problem	Yes	35	No	65		

Table 4. Preferences and habits of consumers fish consumption in the	he Rajshahi Cit	y Corporation,	Bangladesh
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consumption

comparisons.

(>50,000 BDT/month) had the highest mean fish consumption at 6.22 ± 2.252 kg/month, significantly more than lower-income individuals (<10,000 BDT/month) with a mean of 3.429 ± 1.852 kg/month (p = 0.0036). Education levels showed primary schooleducated participants with the lowest mean consumption at 3.767 ± 1.879 kg/month, and high school-educated participants with the highest at 6.875 ± 6.144 kg/month, though the variations were not statistically significant (p = 0.428). Among the several professional sub-categories (students, private branch, and public branch), no discernible differences in fish consumption levels were found (p = 0.4415).

Fish Consumption Preferences and Income Levels

This study investigated the relationship between income levels and fish consumption preferences in RCC (Table 6). The analysis focused on five income categories: less than 10,000 BDT, 10,000-19,999 BDT, 20,000-29,999 BDT, 30,000-39,999 BDT, 40000-49999 BDT and more than 50,000 BDT. Individuals earning more than 50,000 BDT have significantly different fish consumption preferences compared to those earning less than 10,000 BDT (95% CI: -5.237 to -0.3501, p = 0.0036) and those earning 10,000-19,999 BDT (95% CI: -5.434 to -0.3229, p = 0.0036). No significant differences were noticed in fish

Table 5. Fish consumption rates based onsocioeconomic characteristics in the Rajshahi citycorporation, Bangladesh

Socioeconomic	0/	Fish consumption	n voluo	
characteristics	70	(Kg/Month)	<i>p</i> value	
Age				
Young	55	4.68 ± 2.70		
Middle-aged	27	4.61 ± 3.00	0.7488	
Elderly	18	5.72 ± 3.51		
Profession				
Student	37	5.45 ± 5.55	0.4415	
Private Branch	43	5.29 ± 3.46		
Public Branch	20	4.73 ± 2.17		
Education				
Primary School	15	3.77 ± 1.88		
High School	16	6.88 ± 6.14	0.4280	
Undergraduate	43	5.54 ± 4.44		
degree				
Graduate degree	26	4.96 ± 2.45		
Income (BDT/mo	nthly)			
< 10000	21	3.43 ± 1.86		
11000-19999	16	3.34 ± 1.50	0.0036	
20000-29999	24	5.68 ± 1.88		
30000-39999	18	4.75 ± 2.65		
40000-49999	12	5.25 ± 2.598		
>50000	9	6.22 ± 2.25		

Discussion

The aim of the current study was to evaluate the amount of fish consumed by RCC residents and investigate the relationship between consumer preferences and socioeconomic variables. We found that L. rohita and L. catla were the most consumed fish species in the research region, accounting for 30% and 10% of the total fish consumed, respectively, with an average monthly intake of 2.77 kg and 2.55 kg. Congruent with our investigation, Rahman et al. 2020 discovered that L. rohita was the most frequently eaten fish species in Rangpur City Corporation, with an average consumption of 1.852 ± 0.978 kg per quarter. Following L. rohita. L. catla. Oreochromis mossambicus, Pangasius pangasius, and Clarias batrachus were the top four fish species in terms of consumption and preference. The primary factors influencing customer choice for L. rohita and L. catla fish are their lower prices relative to other fish species, their annual availability, and their reasonable lower prices (Uddin et al. 2019; Alam and Alfnes 2019). Because of its flavor and aroma, T. ilisha is the most preferred fish in Bangladesh (Haque et al. 2019; Khan et al. 2020).

Wealthy people tend to consume more fish than anyone else. The amount of fish consumed in the research region was indicated by the participants' average daily consumption of 50.34 g of fish. Even though this amount of fish intake was high, it was more than the 8.12 g/day in Antakya, Turkey, reported by Can et al. (2015). Furthermore, it is much greater than the nation's national average, which is around 13 g/day (DoF 2023). According to much research conducted in different Bangladeshi towns, fish intake was 12 g daily in Rangpur and 27 g daily in Khulna (Bogard et al. 2017a, b). According to a survey done in Dinajpur city by Sarker et al. (2017), 73% of participants said they preferred fish.

Although the survey found that 80% of participants believed that the season had little impact on fish eating, seasonal variations are important for fish consumption. The majority of participants eat fish year-round, which is beneficial for a diet that is both balanced and healthy. Fish is a low-fat, high-protein food that has several health advantages. Fish play a major role in the diet since the human body is unable to produce large quantities of certain vital elements. Wintertime is when fish intake levels increase, according to Erdal and Esengün (2008). In our survey, 60% and 23% of respondents said they ate fish more than once a week.

Table 6. Relationship between income levels and fish consumption preferences in Rajshahi city corporation, Bangladesh (p = 0.0036; *, significant)

Relationship	95% CI
<10000 vs. 10000-19999	-1.950 to 2.120
<10000 vs. 20000-29999	-3.321 to 0.345
<10000 vs. 30000-39999	-3.292 to 0.649
<10000 vs. 40000-49999	-4.041 to 0.398
<10000 vs. >50000	-5.237 to -0.350*
10000-19999 vs. 20000-29999	-3.552 to 0.407
10000-19999 vs. 30000-39999	-3.514 to 0.7011
10000-19999 vs. 40000-49999	-4.248 to 0.436
10000-19999 vs. >50000	-5.434 to -0.323*
20000-29999 vs. 30000-39999	-1.746 to 2.079
20000-29999 vs. 40000-49999	-2.502 to 1.835
20000-29999 vs. >50000	-3.703 to 1.092
30000-39999 vs. 40000-49999	-2.786 to 1.786
30000-39999 vs. >50000	-3.976 to 1.032
40000-49999 vs. >50000	-3.677 to 1.732

According to the current study, there were significant positive correlations found between consumption and occupation, income, and education. A few recently referenced studies (Uddin et al. 2019) have reported connections between fish intake and education level. We discovered a stronger correlation than usual between the consumption levels of young adults and private sector customers, who make up the bulk of respondents.

This research investigated the association between RCC inhabitants' preferences for fish intake and their income levels. The results reveal notable distinctions in the amount of fish consumed by people of varying income brackets, emphasizing the inclinations of those making above 50,000 BDT in contrast to those in lower income categories. First, the data shows that those who make more than 50,000 BDT have substantially different preferences for consuming fish than people who make less than 10,000 BDT (95% CI: -5.237 to -0.3501, p = 0.0036). This implies that those with higher incomes could have access to a wider variety of fish species, possibly as a result of having more purchasing power and being more likely to look for imported or premium fish kinds. Conversely, those with lesser incomes could only be able to buy more

readily accessible, reasonably priced fish selections, which could affect their eating habits. According to research by Hansen and Grung (2016), consumption of fish rises as income levels rise. In contrast to highincome consumers, who have numerous options and the ability to make decisions, low-income customers may be affected by financial constraints that restrict their options.

Customers might perceive fish as more costly than other food categories (Pieniak et al. 2008). For instance, Uddin et al. (2018) study found that different fish species are pricey in Bangladesh. In a similar vein, 25% of respondents said that the cost of fish in the research region is much higher. Haque et al. (2016) discovered that seafood costs were higher in Bangladesh. In contrast, Chowdhury et al. (2016) noted that seafood is accessible in Bangladesh at a reasonable price. Price increases alone cannot increase fish consumption. The primary explanation for this is the tight relationship between fish consumption practices and patterns of regional and cultural dispersion. Furthermore, the majority of respondents think that reduced costs could.

Fish intake levels are significantly influenced by freshness. Roughly 90% of customers reported that they liked live, fresh fish more than canned or packaged fish. According to Ali et al. (2015), when it came to buying items, customers favored freshness over all other factors, including price, quality, packaging, and availability outside of peak seasons. According to Uddin et al. (2019), the majority of respondents assessed fish quality primarily on the basis of freshness, whereas the majority of customers stated that they assess fish quality by observing behavior (Altintzoglou and Heide 2016). Fishbone, flavor, and nutrition are also important factors that affect how much fish is consumed (Pieniak et al. 2008). Fish intake differs depending on flavor (38.4%), fishbone (16.7%), and nutrition (23.5%), according to Uzundumlu (2017) but Birch et al. (2018) found scent, taste, texture.

Field-level training and other public internet activities should be used to raise awareness in order to promote the eating of healthy fish. A pregnant lady, for instance, is better able to consume fish during her pregnancy (Spiller et al. 2019). Malvandi and Alahabadi (2019) discovered no evidence linking eating fish to health risks. Conclusion: Fish consumption is negatively impacted by significant structural challenges in the fishing sector, such as those related to packing, supplying, and transport (Can et al. 2012). Higher levels of fish eating may be directly related to one's understanding of fish as a food item. Furthermore, it can be asserted that customer purchases of fish are significantly influenced by food safety, environmental friendliness, and cleanliness.

Conclusion

The study of fish consumption in RCC, Bangladesh, highlights the diversity of available fish species and the preferences of local consumers. L. rohita and L. catla are the most consumed fish, accounting for significant portions of total consumption. Socioeconomic factors such as income, age, and education significantly influence fish consumption patterns, with higher-income individuals consuming more fish and having access to a wider variety of species. Increasing fish prices could negatively impact consumption rates, particularly among lower-income groups. By understanding consumer preferences and the socioeconomic factors influencing fish consumption, policymakers can develop targeted strategies to promote sustainable aquaculture practices, enhance food security, and support the livelihoods of fishers and traders. The study highlights the critical role of fish in the diet of RCC residents and the need for policies that ensure the availability of affordable, nutritious fish to support public health and economic development. Fish should be less expensive in order to boost consumption. The market in the research area should always have a variety of fish accessible. Changing the purchase patterns and preferences of customers may be greatly aided by the government, non-governmental sector, and relevant authorities.

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Conflict of Interest

The authors declare no conflict of interest.

Data availability statement

Obtainable upon a justified request.

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