

## Consumer attitude towards poultry meat and eggs in Muktagacha powroshava of Mymensingh district

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**Abstract:** A study was conducted to determine the choice and use, liking and disliking of different poultry meat and eggs by the family members of Muktagacha Powroshava of Mymensingh district. Data were collected through interview schedule from 120 sample families (70 from urban and 50 from rural area). A 3 point scale such as “most choice (2)”, “medium choice (1)” and “low choice (0)” was used to measure the extent of choice of the consumers towards the poultry meat and eggs. Results indicated that meat and eggs from *desi* chicken were mostly preferred and consumed by majority of the consumers than those of the meat of broiler, quail and eggs of farm chicken due to lack of knowledge. Almost all the respondents showed poor to medium choice towards poultry meat and eggs, the causes of which are variable. Farm size of consumers had a significant effect on favour of the attitude towards poultry meat and eggs whereas; age, annual income, family size and level of education of consumers were not related with their attitude.

**Keywords:** Consumer, Attitude, Poultry meat and eggs and Choice.

### Introduction

Consumers play the key role in guiding an economy to the production of poultry meat and eggs. The basic unit of demand theory is primary consumer who attempts to maximize utility by spending his income. Therefore, market demand for a particular commodity or commodity group necessitates the understanding of the consumption behaviour of the aggregate consumers or households in the market place. Consumption behaviour of poultry consumers depends upon income and prices of the poultry meat and eggs. The products sold depend in turn on interaction of among many other factors; on their socioeconomic, physical environment, its composition, cultural background, preferences, economic needs and orientation to the products of the consumers. The production of poultry meat in Bangladesh is 11500 MT (FAO, 2003). Each man requires to consume 120g meat/day but the availability is only 16.5 g/d with a deficiency of 50.15% (Amin, 2005), whereas world per capita consumption of poultry meat is 30.14 g/d, which is 95.89 g/d for USA (Farrell, 2003). Most of the poultry meat and eggs are consumed by some urban rich people and 50% of the sample families preferred poultry meat for reasons of taste and health (Islam, 1995). In Bangladesh, poultry meat has a great demand as compared to other varieties of meat simply because of the socio-economic limitations and religious taboos on pork and beef (Jabbar, 1983). Consumer behaviour is important to understand the possible future changes in the economic and social structure of the nation. However, the present study was undertaken to ascertain and determine consumer choice towards poultry meat and eggs and to investigate the effect of education, age, family size and farm size on poultry products consumption.

### Materials and Methods

Study area was Muktagacha Powroshava of Mymensingh district. Research location comprises two areas as urban area and rural area. The areas were selected purposefully and farmers were randomly. In

this study, a total of 120 cross sectional families sampling units; 70 from urban and 50 from rural, were selected by stratified random sampling method. The sample size represented approximately 3% of the total families of the Muktagacha Powroshava. The interview schedule was carefully designed keeping the objectives of the study in view. The schedule contained both open and closed form questions. Most easy, simple and direct questions were used to obtain information. The interview schedule was pre-tested for judging suitability of the schedules to the respondents. After necessary modifications, the schedule was finalized for collecting information relating to such characteristics of the consumers as age, sex, education, family size, occupation, income, consumption pattern and attitude towards poultry meat and eggs. The attitude of the consumers towards poultry meat and eggs was the dependent variable and age, level of education, family size, farm size and annual income of the respondents were considered as independent variable of the study. Collected data were compiled, tabulated and analyzed. Qualitative data were converted into quantitative forms by means of suitable score whenever needed, local units were converted into standard unit scales. Various statistical measures such as number, percentage, distribution range, mean and standard deviation were used in analysis of data. To find out the relationship between the independent and dependent variables coefficient of correlation ( $r$ ) was computed and significant level was assigned at 5% level.

### Results and Discussion

#### Characteristics of the consumers

Data presented in Table 1 reveals that 23.33% of the respondents were young, 49.17% middle aged and the rest 27.50% old. Age of the consumers ranged from 18 to 70 years with a mean and standard deviation of 44.62 and 12.29 respectively. The level of education of the consumers ranged from 0 to 16 with a mean and standard deviation of 6.67 and 5.30 respectively. The respondents were 31.67% illiterate, 13.33% primary education, 15% secondary education and 40% had higher secondary level of education. The family size of

the consumers ranged from 2 to 10 with a mean and standard deviation of 4.0 and 1.51 respectively. Majority (67.50%) of the consumers belongs to small sized family, 25% medium sized family and the rest (7.50%) had big sized family. The annual income of the consumers ranged from Tk 6000/- to Tk. 600000/- with a mean of Tk. 75714.167/-. The standard deviation being 86322.24. The respondents were low

(27.67 %), medium (28.33%) and high (45%) income group. Analysis of data indicates that the average annual income of the respondents (75714.167) seems to be higher compare to national average of 36135.46 (BBS, 1995). This may be due to the reason that majority of the respondents are engaged in various types of business activities.

**Table 1 Consumers characteristics profile**

Character	Category	No. of Respondents		Mean	SD
		No.	%		
Age	Young (up to 25 years)	28	23.33	44.62	12.29
	Medium (36-50 years)	59	49.17		
	Old (51 years and above)	33	27.50		
	Total	120	100		
Education	Illiterate (0)	38	31.67	6.77	5.30
	Primary (1-7) class	16	13.33		
	Secondary (II-X) class	18	15.00		
	Higher Secondary	48	40.00		
	Total	120	100		
Family Size	Small (up to 4)	81	67.50	4.00	1.51
	Medium (5-6)	30	25.00		
	Large (17 and above)	9	7.50		
	Total	120	100		
Annual income	Low income (up to 14000)	32	26.67	75714.17	86322.24
	Medium income (24001-48000)	34	28.33		
	High income (48001 above)	54	45.00		
	Total	120	100		

### Extent of consumption of poultry meat and egg

Attempt was made to find out the consumption of poultry meat and eggs by the respondents and presented in Table 2. It was revealed from the Table 2 that majority (36.88%) of the respondents ate meat once in a year, 24.38% once in a week, 21.88% once in a month, very few consumed every alternate day, twice a week and once in every fortnight and there was none to consume meat every day. Among the types, *desi* chicken consumed by majority (36.88%) of the respondents followed by pigeon (28.13 %), duck (26.56%), broiler (7.19%) and quail (1.25%).

Regarding the consumption of eggs by the family member of the respondents, it was found that majority (31.52%) of the respondents, consumed eggs once in a month followed by once in a year (30.74%), once in a week (14.79%), every alternate day (8.95%), once in every fortnight (6.61%), daily (3.89%) and twice in a week (3.50% ). Table 2 also revealed that *desi* chicken eggs were eaten by majority (45.91%) of the family members followed by duck eggs (39.30%), farm chicken egg (14.40%) and quail egg (0.39%). It was found that the consumption of eggs depends on availability and choice. These findings were supported by Khan (1975) who found that *desi* chicken and duck meat and eggs were preferable to both the urban and rural people of Bangladesh than the other ones. Raha (1995) also observed that people consumed meat and eggs of *desi* chicken more preferably than that of the improved ones, although the criteria of their preference

for *desi* chicken and eggs were not based on scientific agreements.

### Consumers' choice on poultry meat and egg

The poultry meat choice score of the respondents ranged from 0 to 8 against the possible range of 0 to 10. The mean and standard derivation was 3.26 and 1.78 respectively (Table 3). Almost all the consumers showed low to medium choice on poultry meat as food and a negligible number (3.33%) showed high choice. The poultry egg choice score of the respondents ranged from 0 to 8 against the possible range of 0 to 8. The mean and standard deviation were 2.68 and 1.32 respectively (Table 3). Almost all the consumers had low to medium choice on poultry egg may be due to lack of knowledge about nutritive value of poultry eggs along with their economic hardship acted as barrier to favourable attitude towards poultry and poultry products.

### Combined choice of consumers on poultry meat and egg

The combined choice of consumers towards poultry meat and eggs ranged from 9 to 13 against the possible range of 0 to 18. The mean and standard deviation was 5.94 and 2.67 respectively (Table 4). Majority of the consumers had poor choice towards poultry meat and eggs and 33.33% had medium choice, while a negligible number of consumers had high choice. The reason for choosing *desi* poultry meat by the consumers indicate that majority of the consumers choose poultry meat because of its better taste

followed by better nutrition, availability, low cost, prolong habit etc. Similarly, poultry eggs were chosen by majority of the consumers because of its better taste, low cost, better nutrition, availability etc. Moen, (1989) reported that chicken was not only the most frequently purchased fresh meat product, but also

compared favourable to all meat items (beef, steak beef, roast, ground beef, pig meat, turkey and lamb) for taste and quality. Islam (1995) observed that 14.28% did not eat poultry meat mainly because they did not like the tastes and 50% of the respondents preferred poultry meat for reasons of taste and health.

**Table 2 Distribution of number of respondents according to their consumption of poultry meat and eggs**

Products	Every day	Every alternate day	Twice in a week	Once in a week	Once in every fortnight	Once in a month	Once in a year	Total
<b>Meat</b>								
Desi chicken	-	10	5	35	10	24	34	118 (36.88)
Broiler	-	-	-	-	-	7	16	23 (7.19)
Duck	-	-	5	15	4	19	42	85 (26.56)
Pigeon	-	-	11	28	9	20	22	90 (28.13)
Quail	-	-	-	-	-	-	4	4 (1.25)
Total	- 0	10 (3.13)	21 (6.56)	78 (24.38)	23 (7.19)	70 (21.88)	118 (36.88)	320
<b>Egg</b>								
Desi chicken	8	10	3	22	9	35	31	118 (45.91)
Fram chicken	1	4	2	3	2	12	13	37 (14.40)
Duck	1	9	4	13	6	34	34	101 (39.30)
Quail	-	-	-	-	-	-	1	1 (0.34)
Total	10 (3.89)	23 (8.95)	9 (3.50)	38 (14.79)	17 (6.61)	81 (31.52)	19 (30.74)	257

Figures in the parentheses indicate percentages.

**Table 3 Distribution of consumers according to their choice of poultry meat and egg**

Categories	Consumers				Mean		SD	
	No.		%		Meat	Egg	Meat	Egg
	Meat	Egg	Meat	Egg				
Low choice (0-3)	73	88	60.83	73.33	3.26	2.68	1.78	1.32
Medium choice (4-6)	43	31	35.84	25.84				
High choice (7 and above)	4	1	3.33	0.83				
Total	120	120	100.0	100.0				

**Table 4 Distribution of consumers according to their combined choice on poultry meat and eggs**

Categories	Consumers		Mean	SD
	No.	%		
Low choice (0-6)	79	65.84	5.94	2.67
Medium choice (7-13)	40	33.33		
High choice (13-18)	1	0.83		
Total	120	100.00		

The consumer's choice indices (CCI) of poultry meat indicate that 29% showed medium choice, 26.33% most choice and the rest 44.67% of the consumers opined in favour of no choice of unknown about some of the poultry meat (Table 5). Among the meat of different poultry birds, the CCI indicate that *desi* chicken meat were chosen by highest number

(18.77%) of the consumers, followed by duck (16%), pigeon (14.16%) and quail (2.5%). The CCI also indicate that 6.66% and 10% of the consumers were unknown about the meat of broiler and quail as food. Regarding the consumers choice indices (CCI) on poultry egg, it was found that 28.76% showed medium choice, 24.58% most choice and the rest

46.66) of the consumers showed no choice and ignorance about the egg of farm chickens and quail as table egg.

The information presented in Table 5 revealed that amongst the egg, *desi* chicken, duck, farm chicken and quail were chosen by 22.91%, 16.16%, 10.83% and 3.43% of the consumers respectively. The CCI also indicate that eggs of farm chicken and quail

were unknown to 2.08% and 12.5% of the consumers respectively. The above findings indicate that the meat and eggs of *desi* chicken has been favored by many of the consumers than those of duck, pigeon and quail meat. This may be due to lack of knowledge of the consumers about the meat and eggs of other poultry birds.

**Table 5 Distribution of the consumers according to their consumers Choice Indices of poultry meat and eggs**

Poultry and poultry product	Extent of choice			Unknown	Total
	Most	Medium	No		
<b>a) Meat</b>					
<i>Desi</i> Chicken	75 (12.6%)	37 (6.17%)	8 (1.33%)	-	120
Broiler	9 (1.5%)	21 (3.5%)	50 (8.33%)	40 (6.66%)	120
Duck	34 (5.67%)	56 (9.33%)	30 (5%)	-	120
Pigeon	36 (6%)	49 (8.16%)	35 (5.83%)	-	120
Quail	4 (0.67%)	11 (1.83%)	45 (7.5%)	60 (10%)	120
Total	158 (26.33%)	174 (29%)	168 (28%)	100 (6.67%)	600 (100)
<b>b) Egg</b>					
<i>Desi</i> chicken	79 (16.45%)	31 (6.46%)	10 (2.08%)	-	120
Farm chicken	12 (2.5%)	40 (8.33%)	58 (12.08%)	10 (2.08)	120
Duck	23 (4.79)	55 (11.37)	42 (8.75)	-	120
Quail	4 (0.83)	12 (2.6)	44 (9.16)	60 (12.5)	120
Total	118 (24.58%)	138 (8.76%)	154 (2.08%)	70 (14.58%)	480 (100)

Parentheses indicate percentage.

As regards consumers family members of choice indices (CFMCI) on poultry meat, it was found that slightly less than one-half of the consumers had varying choice of poultry meat, while the rest (50.9%) of the respondents provided their opinion ranging from no choice to unknown about one-fourth (25.74%) of the respondents had most choice and 23.31% showed medium choice on poultry meat. Surprisingly, 22.86% of the respondents showed no choice, while 28.04% were unknown about some of the poultry meat as food (Table 6).

The CFMCI also indicated that *desi* chicken meat were chosen by highest number (18.02%) of the respondents followed by pigeon (15.74%), duck (10.5%) broiler (4.66%) and quail (0.23%). A good number (18.83%) and 9.26% of the respondents were not known about quail and broiler meat as human food.

As regards choice of eggs by the family members of the respondents, it was found that 29.61% of the family members had most choice on poultry eggs and 17.5% had medium choice, while about one-fifth (19.21%) of the family members showed no choice of eggs as table egg. Surprisingly, one-third (33.58%) of the family members opined to be unknown about some of eggs as table egg. Amongst the eggs, 18.12% of the family members preferred *desi* chicken egg as their table egg, followed by duck (17.2%) farm chicken (6.54%) and quail (0.41%) egg. The eggs of quail and farm chicken were unknown to 24.12% and 9.47% of the family members respectively as table egg.

The above findings indicate that meat and egg of *desi* chicken were chosen by many of the respondents in comparison with other poultry meat and eggs. This may be due to cause of lack of knowledge about the poultry meat and egg.

**Table 6 Distribution of the consumers according to their Consumers Family Members Choice Indices of poultry meat and egg**

Poultry and poultry product	Most choice	Medium choice	No choice	Unknown	Total
<b>a) Meat</b>					
<i>Desi</i> Chicken	223 (10.42)	162 (7.60)	43 (2.00)	-	428
Broiler	5 (0.23)	95 (4.43)	130 (6.02)	198 (9.26)	428
Duck	103 (4.90)	120 (5.60)	205 (9.58)	-	428
Pigeon	217 (10.14)	120 (5.60)	91 (4.26)	-	428
Quail	3 (0.14)	2 (0.09)	20 (0.93)	403 (18.83)	428
Total	551 (25.75)	499 (23.33)	489 (22.86)	601 (28.04)	2140
<b>b) Egg</b>					
<i>Desi</i> chicken	293 (17.11)	103 (6.01)	32 (1.87)	-	428
Farm chicken	62 (3.62)	50 (2.92)	153 (8.99)	162 (9.47)	428
Duck	149 (8.80)	144 (8.4)	135 (7.89)	-	428
Quail	3 (0.18)	4 (0.23)	8 (6.47)	413 (24.12)	428
Total	507 (29.61)	301 (17.59)	329 (19.21)	575 (33.58)	1712

Parenthesis indicates percentage.

#### Relationship between the variables

Coefficient of correlation test was conducted to explore relationship between the selected characteristic of consumers and their attitude forwards poultry meat and eggs. The relationship existed between variable are presented in table 7. The information presented of Table 7 showed that farm size of the consumers was significantly related with their attitude towards the consumption poultry meat and eggs. This means that the more the farm size of consumers more favourable was the attitude of the consumers towards poultry meat and eggs. The other characteristics such as age annual income, family size and level of education of consumers were not related with their attitude

towards the consumption of poultry meat and eggs. This means that these variables were independent to the attitude of the consumers. However, the value of “r” regarding level of education of consumers though not significant but approaching towards a positive trend. The consumers were asked to mention the satisfaction regarding their yearly consumption of poultry meat and eggs. The majority (80%) of the consumers expressed their dissatisfaction over the existing rate of consumption of poultry meat and eggs, while the rest (20%) indicated their satisfaction. The respondents also mentioned that they can not increase the consumption of meat and eggs due to higher cost, non availability, and religious reason (mentioned by

**Table 7 Relationship between the dependent and independent variables**

Dependent variable	Independent variable	r of meat	r of Egg	r of meat + egg
Attitude towards poultry and poultry product	Age	-0.01 NS	0.01 NS	0.01 NS
	Farm size	0.14 NS	0.22*	0.20*
	Income	-0.04 NS	-0.03 NS	-0.03 NS
	Family size	0.02 NS	-0.06 NS	-0.02 NS
	Education	0.02 NS	0.14 NS	0.09 NS

r= correlation coefficient, value of r = 0.180 at 5% level of significance with df =118, value of r = 0.235 at 1% level of significance with df =118 ; NS, p>0.05; \*, p<0.05.

Hindus), along with lack of knowledge on poultry meat and eggs. It was found that 40% of the consumers rear poultry birds while the rest (60%) did not rear. The reasons they mentioned for not to rear poultry birds are insufficient place of rearing, lack of available capital, outbreak of diseases, higher mortality and lack of knowledge on poultry rearing.

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