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Farmers Willingness for Adopting Turkey Farming: A study on Some Selected Areas of Joypurhat District in Bangladesh

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Abstract

To meet the increasing domestic demand of meat, the productivity of poultry sector needs to increase significantly where turkey farming can be a good option due to its higher potentials. In this regard, the present study aimed at determining the willingness of the farmers for adopting turkey farming. Willingness of the farmers was measured by developing willingness index. Data were collected through face-to-face interviews from six villages of Joypurhat district in Bangladesh. Total number of 2928 farmers of the selected villages constituted the population and out of them 293 farmers (10 percent) were selected by proportionate random sampling technique as sample of the study. Period of data collection was from October, 2019 to February, 2020. The selected twelve characteristics of the respondents were considered as independent variables while willingness of the farmers for adopting turkey farming was the dependent variable. More than half (58 percent) of the respondents had no willingness while about one-third (31.1 percent) of them had medium willingness for adopting

turkey farming. On the other hand, very few (6.8 percent) of the farmers had low willingness and only 4.1 percent had high willingness for adopting turkey farming. The majority of the farmers (64.8%) had no to low willingness while only 35.2% of them had medium to high willingness for adopting turkey farming. Therefore, it can be observed that the willingness for adopting turkey farming by the farmers is not satisfactory level while still there is a huge scope to improve the scenario. Risk orientation, training exposure, attitude towards turkey farming, social mobility, annual income, innovativeness and knowledge on turkey farming significantly influenced the willingness of the farmers for adopting turkey farming. DLS and other concerned GOs and NGO along with private entrepreneurs need to take necessary steps to increase the willingness of the farmers for adopting turkey farming and undertake special program on various risk averting strategies for the development of turkey farming that might contribute in adding a momentum in the poultry sector of Bangladesh.

Keywords: Turkey farming, Adoption, Willingness

Introduction

Turkey production and consumption is increasing globally and similar trend exist in developing countries (Sultana, 2021) ^[14]. Karki (2005) ^[7] stated that consumption of turkeys and broilers as white meat was rising worldwide. It can be raised anywhere as scavengers or in modern intensive systems (Okoroafor *et al.*, 2020) ^[9]. According to Terry (2003) ^[16] turkey production was growing globally with average annual growth rate of 3%. In addition, turkey production is possible under wide range of climatic conditions and are relatively more resistant to some of the common diseases (Jahan *et al.*, 2018) ^[6].

Turkey raising is profitable as long as the poults are properly fed and taken care of. Cost of production is cheap as almost 50% of the feed they eat is green vegetables, field grasses and commercial feeds as a supplement (Yasmin *et al.*, 2021) ^[17]. Schultz (1981) ^[12] stated that turkey merits include- utilization of turkey as foraging animals similar to ruminants. Unlike, Chickens, turkeys can be herded much the same as sheep. Turkeys have tremendous versatility in local marketing and can be sold or traded in small units at any age when large enough to be butchered.

Turkey is very popular in many parts of the world especially Europe and America where they play an important role in the supply of meat and eggs. The meat is especially considered by many as a luxury meat (Asaduzzaman *et al.*, 2017) ^[2]. Apart from their role in protein supply, they have an aesthetic value due to their beauty (Akter *et al.*, 2020) ^[11]. Turkeys are adaptable to wide range of climatic conditions and can be raised successfully almost anywhere in the world if they are well fed and protected against diseases, predators and adverse weather conditions (Sultana, 2021) ^[14].

In spite of all these attributes turkey production and consumption in Bangladesh remained very low compared to consumption of other poultry species specially chickens and duck which are both raised either for home consumption or trading (Hasan, 2018) [5]. Although special types of fowl such as quail, guinea fowl and turkey birds are started to contribute in the poultry sector slowly. Turkeys, quails and guinea fowl are highly promising poultry species. Turkey production has not been fully exploited in the developing countries and the same trend exist in Bangladesh despite its greater potential than the chicken (Sowrove, 2020) [13].

Willingness is very important characteristics of an individual for adopting any new innovation. It is the inner force to take final decision to adopt a specific innovation in his or her farm production. Turkey farming is not well popular at farmers level and seems new in Bangladesh also its market is not well organized yet. Therefore, farmers' willingness is very important for adopting turkey farming. In order to increase turkey production, researchers and policy makers have to take motivational work and develop low cost and effective technologies which will improve turkey production (Rashid, 2020) [10].

Information on turkey production is currently lacking in Bangladesh as there is very few research work conducted yet on turkey production (Sowrove, 2020) [13]. Study on turkey farming will assists turkey producers to get appropriate information on how to allocate and utilized resources for their production and will encourage turkey production to meet domestic demand and if possible, have surplus for export to earn foreign exchange. But limited effort has been made to undertake systematic investigation in this respect. It is therefore, important and essential to have clear and good understanding on willingness of the farmers on adopting turkey farming. The study has been undertaken to ascertain the following specific objectives:

1. To determine the willingness of the farmers for adopting turkey farming;
2. To determine and describe some selected characteristics of the farmers; and
3. To determine the contribution of the selected characteristics of the farmers on their willingness for adopting turkey farming.

Selection of the Study Area

One of the NGO named JAKAS foundation is working in Joypurhat district and trying to make turkey farming popular among the farmer in their working area. Therefore, turkey farming is growing up in that area. Hence, better reactions toward turkey farming were expected from Joypurhat district. Therefore, Joypurhat district was selected for this study purposively. Considering availability of turkey farmer two upazila namely Joypurhat *Sadar* and Panchbibi were selected purposively for this study.

Population and Sampling

Three villages namely Dholahar, Uttar Jagadishpur, Bishnupur villages under Joypurhat *Sadar* upazila and Dohotpur, Karia, Atapur villages under Panchbibi upazila were selected purposively. A list of total farmers of those selected villages were collected with the help of Sub-Assistant Agriculture Officer. Thus, a total number of 2928 farmers of the selected villages constituted the population of this study. Then a total of 293 farmers (10 percent) were selected by proportionate random sampling technique which

constitutes the sample of the study. Thirty farmers (10 percent of sample) were kept in the reserve list to meet the absence of any respondent during interviewing. The detailed selection and distribution of population and sample have been shown in Table 1.

Table 1: Distribution of population and sample size of the respondents

| Upazila | Name of the villages | Population | Sample size | Reserve list |
|-----------------|----------------------|------------|-------------|--------------|
| Joypurhat Sadar | Dholahar | 465 | 47 | 5 |
| | Uttar Jagadishpur | 379 | 38 | 4 |
| | Bishnupur | 568 | 57 | 6 |
| Panchbibi | Dohotpur | 483 | 48 | 5 |
| | Karia | 592 | 59 | 6 |
| | Atapur | 441 | 44 | 4 |
| Total | | 2928 | 293 | 30 |

Selection and measurement of variables

In a descriptive social research, selection and measurement of the variable is a momentous task. Organized research usually contains at least two identical elements viz. independent variable and dependent variable. Considering study nature, location of study, time and other logistic support, we selected farmers' twelve characteristics/independent variables for analysis of the study. These are age, level of education, land possess, annual family income, attitude towards turkey farming, training exposure, organizational participation, innovativeness, extension media contact, social mobility, risk orientation and knowledge on turkey farming. On the other hand, willingness of the farmers for adopting turkey farming was the dependent variable of the study. The measurement techniques of both independent and dependent variables are discussed as follows.

Measurement of Independent Variables

Age of the farmers was measured in terms of actual years from his birth to the time of interview. Level of education was measured as the ability of an individual respondent to read and write or the formal education received up to a certain standard. It was expressed in terms of year of schooling. Land possess of the respondents was measured as the size of his land on which he continued his farm practices during the period of the study. Annual family income indicates total earning of a farmer and the members of his family. Attitude towards turkey farming of the respondent was measured by asking several statements to the respondents related to turkey farming that express his/her attitude toward turkey farming. The statements were furnished with five alternative response such as strongly agree, agree, no opinion, disagree and strongly disagree respectively. Training exposure of a farmers was determined by the total number of days training received a respondent in his/her life regarding turkey farming activities. Organizational participation of a respondent was measured by computing an organizational participation score according to his/her nature and duration of participation in different organizations up to the time of interview. Innovativeness of a respondent was measured on the basis of period of adoption of 10 improved turkey farming practices. Extension media contact score was computed for each of the respondent on the basis of their extent of contact with sixteen (16) selected extension communication media.

Social mobility of a respondent was measured by computing a social mobility score. The social mobility score was measured on the basis of place and frequency of his/her visit external to his/her own social system. Risk orientation scale was developed to measure the risk orientation of farmers following a scale developed earlier by Supe (1969) [15]. Ten statements which reflects the risk orientation of the respondent. The respondents had to choose each statement with response as strongly agree, agree, undecided, disagree, or strongly disagree with corresponding scores of 5,4,3,2 and 1 for the positive statements. Scoring was reverse for the negative statements. Finally, risk orientation score of a respondent was determined by adding the scores for his/her responses to all the ten statements. And knowledge was measured by asking 18 questions on six levels of cognition i.e., remembering, understanding, applying, analyzing, evaluating and creating capacities of the respondents about turkey farming.

Willingness for adopting turkey farming

Willingness of farmers for adopting turkey farming was the dependent variable of the study which was measured by calculating willingness index. Willingness index for each respondent was interpreted by calculating the proportion of enthusiastic number of turkey production in next year with the potential number can be produced with their available resources. The explicit form of the concept can be expressed as follows:

$$WI = \frac{I}{P} \times 100$$

Where,

WI = Willingness Index

I = Intended number of turkey production in next year

P = Potential number of turkey can be produced with available resources.

Thus, willingness score of a respondent could range from 0 to 100, where 0 indicating no willingness and 100 indicating the highest willingness of turkey farming. Based on willingness score the respondents were classified into four groups: such as no willingness, low willingness, medium willingness and high willingness.

Collection and processing of data

Individual interviews were used in the survey and were conducted in a face-to- face (Bryman, 2001) [4] situation by the researcher. A well-structured interview schedule (questionnaire) was developed based on the objectives of the study. The schedule contained both open form and closed form questions. The interview schedule was pre-tested with 30 farmers by the researcher. Necessary additions,

corrections and modifications were made in the schedule on the basis of the pre-test results. Then final data were collected from the selected 293 farmers with using the final questionnaire. Questions were asked systematically and explanation was made whenever necessary. The respondents were interviewed at their leisure time so that they can give accurate information in a cool mind. To build rapport and motivation in the interview situations, the researcher endeavored to provide conditions that maximum trust maintained each respondent’s interest and minimized status difference. The final data were collected during October, 2019 to February, 2020. After completion of data collection, data were coded, compiled, tabulated and categorized according to the objectives of the study. The entire individual respondent’s data were transferred into a master sheet for facilitating the required analysis. Local units were converted into standard units. In case of qualitative data, appropriate scoring technique was followed to convert the data into quantitative form.

Analysis of data

Bogdan and Biklen (2006) [3] insist that data analysis is an on-going part of data collection. Descriptive statistical measures, including number, percentage distribution, range, average, and standard deviation were used. To find out the contribution of identified characteristics on willingness of the farmers regarding turkey farming, multiple regression models was used.

The model used for this analysis can be explained as follows:

$$Y_i = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + b_{10}x_{10} + b_{11}x_{11} + b_{12}x_{12} + e$$

Where Y_i is the willingness of the farmers regarding turkey farming; x_1 is their age, x_2 is level of education, x_3 is land possess, x_4 is annual family income, x_5 is attitude towards turkey farming, x_6 is training exposure, x_7 organizational participation, x_8 is innovativeness, x_9 is extension media contact, x_{10} is social mobility, x_{11} is risk orientation and x_{12} is knowledge on turkey farming. $b_1, b_2, b_3, b_4, b_5, b_6, b_7, b_8, b_9, b_{10}, b_{11}$ and b_{12} are regression coefficients of the corresponding independent variables, and “e” is random error, which is normally and independently distributed with zero (0) mean and constant Variance.

Results and discussion

Selected Characteristics of the Farmers

The salient features of the selected characteristics of the farmers like possible and observed range, number and percent distribution, mean, standard deviation and categorization are presented in Table 2.

Table 2: Distribution of the respondents according to their characteristics

| Characteristics | Scoring methods | Range | Categories | Percent | Mean | SD |
|--------------------|-------------------|---------|------------------------------|---------|-------|-------|
| Age | Years | 20 – 68 | Young (18- 35) | 33.8 | 42.19 | 10.26 |
| | | | Middle (36 - 55) | 54.6 | | |
| | | | Old (> 55) | 11.6 | | |
| Level of education | Year of schooling | 0 – 18 | Illiterate (0) | 20.1 | 5.97 | 4.18 |
| | | | Primary (1-5) | 34.8 | | |
| | | | Secondary (6-10) | 33.8 | | |
| | | | Higher secondary (11-12) | 7.5 | | |
| | | | Above higher secondary (>12) | 3.8 | | |

| | | | | | | |
|---------------------------------|----------------|-----------|--------------------------------|------|--------|-------|
| Land possesses | Hector | .04 -3.67 | Landless (< 0.02 ha) | 14.7 | 0.51 | 0.40 |
| | | | Marginal (0.021- 0.2 ha) | 60.8 | | |
| | | | Small (0.21 - 0.99 ha) | 18.4 | | |
| | | | Medium (1.0 - 3.0ha) | 5.5 | | |
| | | | Large (> 3.0 ha) | 0.7 | | |
| Annual family income | '000' taka | 35- 537 | Low income (up to 100) | 34.8 | 134.66 | 85.76 |
| | | | Medium income (101.01- 200) | 45.4 | | |
| | | | High income (> 200) | 19.8 | | |
| Attitude towards turkey farming | Score | 12 – 46 | Slightly favorable (up to 23) | 5.1 | 30.69 | 8.04 |
| | | | Moderately favorable (24 - 37) | 54.9 | | |
| | | | Highly favorable (>38) | 39.9 | | |
| Training exposure | Number of days | 0 – 10 | No training (0) | 56.0 | 0.95 | 1.50 |
| | | | Short duration (1-3) | 30.7 | | |
| | | | Medium training (4 - 7) | 8.9 | | |
| | | | Long duration training (>7) | 4.4 | | |
| Organizational participation | Score | 0 – 42 | No participation (0) | 55.6 | 2.27 | 4.53 |
| | | | low participation (>5) | 10.6 | | |
| | | | Medium participation (6-10) | 23.9 | | |
| | | | High participation (> 10) | 9.9 | | |
| Innovativeness | Score | 05 – 28 | Low (up to 13) | 51.2 | 13.91 | 4.55 |
| | | | Medium (14-26) | 46.8 | | |
| | | | High (> 26) | 2.0 | | |
| Extension media contact | Score | 05 – 42 | Low contact (up to 16) | 38.6 | 19.34 | 8.01 |
| | | | Medium contact (17 - 32) | 53.2 | | |
| | | | High contact (> 32) | 8.2 | | |
| Social mobility | Score | 04 – 21 | Low mobility (up to 7) | 20.8 | 11.74 | 4.47 |
| | | | Medium mobility (8-14) | 50.5 | | |
| | | | High mobility (>14) | 28.7 | | |
| Risk orientation | Score | 15 – 48 | Low risk (up to 23) | 8.2 | 30.96 | 7.93 |
| | | | Medium risk (24-36) | 58.4 | | |
| | | | High risk (> 36) | 33.4 | | |
| Knowledge on turkey farming | Score | 10 – 48 | Poor knowledge (up to 20) | 22.9 | 25.80 | 7.57 |
| | | | Fair knowledge (21-40) | 75.1 | | |
| | | | Good knowledge (> 40) | 2.0 | | |

Age of the respondents ranged from 20 to 68 years with an average of 42.19 years. More than half (54.6 percent) of the farmers were middle aged followed by one-third (33.8 percent) of them were young and 11.6 percent old aged. Level of education score ranged from 0-18. Top one-third of the farmers had primary level education (34.8 percent) and other one-third (33.8 percent) had secondary level of education. While, one-fifth (20.1 percent) of them were illiterate. However, only 7.5 percent of the respondents had higher secondary level of education and 3.8 percent had above higher secondary education. Average education level of the respondents was just above (5.97) the primary level of education.

More than half (60.8 percent) of the respondents had marginal land possession, followed by 18.4 percent small land possession and 14.7 percent of the respondents were landless. Only 5.5 percent of the farmers belong to medium land possess category and the lowest proportion (0.7 percent) of the respondents belonged to large land possess category. However, the average land possess by the farmers were 0.51 hector. It was revealed that less than half (45.4 percent) of the respondents had medium annual family income, while one-third (34.8 percent) of them had low family income and only 19.8 percent had high annual family income with an average of 134.66 thousand taka. The findings of the study indicate that the majority of the respondents (80.2 percent) had low to medium annual family income.

Their attitude towards turkey farming score ranged from 12-46 with an average of 30.69. Attitude towards turkey farming score ranged from 12-46 with an average of 30.69.

A bit higher than half (54.9 percent) of the respondents had moderately favourable attitude while more than one-third (39.9 percent) of them had highly favourable attitude and only 5.1 percent had slightly favourable attitude towards turkey farming. Computed data indicate that the more than half (56.0 percent) of the farmers had no training exposure, while 30.7 percent had short duration training exposure and 8.9 percent had medium training exposure. Only 4.4 percent of them had long duration training exposure while the range of training exposure was 0-10 days with an average of 0.95 days. More than half (55.6 percent) of the respondents had no organizational participation. Around one-fourth (23.9) of the respondent had medium organizational participation while 10.6 percent had low organizational participation. Only 9.9 percent respondents had high organizational participation. More than three-fourths (79.5 percent) of the respondents had no or low organizational participation with an average score of 2.27.

Half (51.2 percent) of the respondents had low innovativeness while a little smaller than half (46.8 percent) of them had medium innovativeness and only 2.0 percent had high innovativeness with an average score of 13.91. more than half (53.2 percent) of the respondents had medium extension media contact, while 38.6 percent of them had low extension media contact and only 8.2 percent of the respondents had high extension media contact. Findings of the study revealed that supreme majority (91.8 percent) of the respondent had low to medium extension media contact with an average score of 19.34. Half (50.5 percent) of the farmers had medium social mobility while 20.8 percent of the respondents had low social mobility and

28.7 percent had high social mobility. Data also revealed that more than three fourth (79.2 percent) of the farmers belong to medium to high level social mobility categories with an average score of 11.74. More than half (58.4 percent) of the respondents had medium risk orientation while about one-third (33.4 percent) had high risk orientation and only 8.2 percent had low risk orientation. It is evident from the study that the majority (91.8 percent) of the farmers in the study area had medium to high-risk orientation with an average score of 30.96. The highest proportion (75.1 percent) of the respondents had average knowledge on turkey farming, while less than a quarter (22.9 percent) had poor knowledge and only 2.0 percent had good knowledge on turkey farming with an average score of 25.8.

Willingness of the farmers for adopting turkey farming

Willingness of an individual to adopt an innovation is his or her inner force to take final decision for adopting that specific innovation in his or her farm production. It is the psychological state of an individual to make any adoption decision. It may be influenced by his/her various personal social or economic properties. For adoption of turkey farming farmers should make positive mind about turkey farming which influences his/her willingness. Such positive mind is expected to enable farmers to play effective role for adopting turkey production. Farmers having high willingness for adopting turkey farming are likely to perceive high prospects of turkey farming. So, possessing higher willingness of an individual is a crucial factor for adoption of turkey farming.

An index was made to measure the willingness of the farmers for adopting turkey farming. The willingness index score of a respondent for adopting turkey farming could range from 0-100. The computed score ranged from 0-83. Based on willingness index, the respondents were classified into four categories as no willingness (0), low willingness (up to 33), medium willingness (34 – 67) and high willingness (> 67) as shown in Table 3.

Table 3: Distribution of the farmers according to their willingness for adopting turkey farming

| Categories | Numbers | Percentage | Mean | SD |
|--------------------|---------|------------|-------|-------|
| No willingness (0) | 170 | 58.0 | 21.93 | 27.64 |
| Low (up to 33) | 20 | 06.8 | | |
| Medium (34 to 66) | 91 | 31.1 | | |
| High (> 66) | 12 | 04.1 | | |

Table 3 reveals that more than half (58 percent) of the respondents had no willingness while about one-third (31.1 percent) of them had medium willingness for adopting

turkey farming. On the other hand, very few (6.8 percent) of the farmers had low willingness and only 4.1 percent had high willingness for adopting turkey farming. It could be expected that the higher the willingness of the farmer for adopting turkey farming, the higher the prospects of turkey farming. Rahman (2014)^[11] and Laizoo (2011)^[8] also found positive relationship between willingness and adoption in their respective study.

The contribution of the selected characteristics of the respondents to their willingness for adopting turkey farming

The contribution of the selected characteristics of the respondents to their willingness for adopting turkey farming has been shown in Table 4. Success of a research to a considerable extent depends on the successful selection of the variables. The researcher took adequate care in selecting the variables of the study. Moreover, the researchers visited the study area several times and talked to the respondents intimately. To identify the significant factors, stepwise multiple regression analysis was done. The output of the analysis reveals that out of 12 variables seven variables namely risk orientation, training exposure, attitude towards turkey farming, social mobility, annual income, innovativeness and knowledge on turkey farming were significant. Among these seven variables, risk orientation, training exposure, social mobility, annual income and innovativeness were significant at 1% level of confidence and the rest two variables were significant at 5% confidence level (Table 4).

Table 4: Stepwise multiple regression coefficients of the contributing variables related to their use of communication media by the bean farmers

| Variables | Unstandardized coefficients | | Standardized Coefficients | t | Sig |
|---------------------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. error | | | |
| Risk Orientation | 1.047 | .181 | .313 | 5.776 | .000 |
| Training Exposure | 4.856 | .781 | .275 | 6.219 | .000 |
| Attitude towards Turkey Farming | .358 | .185 | .109 | 1.940 | .053 |
| Social Mobility | 1.397 | .280 | .236 | 4.997 | .000 |
| Annual Income | .084 | .017 | .273 | 5.003 | .000 |
| Innovativeness | .960 | .265 | .165 | 3.623 | .000 |
| Knowledge on Turkey Farming | .406 | .206 | .116 | 1.977 | .049 |

Moreover, the stepwise regression model showed that seven significant variables explained about 49.3% variation of the model (Table 5). Therefore, from the result it can be said that the data as well as the selection of analysis was appropriate.

Table 5: Change in multiple R² for enter a variable into the step-wise multiple regression model for willingness for adopting turkey farming

| Model | R | R Square | Adjusted R ² | Change in R ² | Variance explaining (%) | Std. Error of the Estimate |
|----------------------------------------------------------------|--------------------|----------|-------------------------|--------------------------|-------------------------|----------------------------|
| 1 | 0.480 ^a | 0.231 | 0.228 | 0.228 | 22.8 | 23.31316 |
| 2 | 0.609 ^b | 0.371 | 0.367 | 0.139 | 13.9 | 21.11672 |
| 3 | 0.647 ^c | 0.419 | 0.413 | 0.046 | 4.6 | 20.33462 |
| 4 | 0.667 ^d | 0.444 | 0.437 | 0.024 | 2.4 | 19.91507 |
| 5 | 0.689 ^e | 0.475 | 0.466 | 0.029 | 2.9 | 19.39166 |
| 6 | 0.706 ^f | 0.499 | 0.488 | 0.022 | 2.2 | 18.98412 |
| 7 | 0.711 ^g | 0.505 | 0.493 | 0.005 | 0.5 | 18.88835 |
| a. Predictors: (Constant), Risk Orientation | | | | | | |
| b. Predictors: (Constant), Risk Orientation, Training Exposure | | | | | | |

| |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c. Predictors: (Constant), Risk Orientation, Training Exposure, Attitude towards Turkey Farming |
| d. Predictors: (Constant), Risk Orientation, Training Exposure, Attitude towards Turkey Farming, Social Mobility |
| e. Predictors: (Constant), Risk Orientation, Training Exposure, Attitude towards Turkey Farming, Social Mobility, Annual Income |
| f. Predictors: (Constant), Risk Orientation, Training Exposure, Attitude towards Turkey Farming, Social Mobility, Annual Income, Innovativeness |
| g. Predictors: (Constant), Risk Orientation, Training Exposure, Attitude towards Turkey Farming, Social Mobility, Annual Income, Innovativeness, Knowledge on Turkey Farming |

The majority of the farmers (64.8%) had no to low willingness while only 35.2% of them had medium to high willingness for adopting turkey farming. Therefore, it can be observed that the willingness for adopting turkey farming by the farmers is not satisfactory level while still there is a huge scope to improve the scenario. Risk orientation, training exposure, attitude towards turkey farming, social mobility, annual income, innovativeness and knowledge on turkey farming significantly influenced the willingness of the farmers for adopting turkey farming. It was also revealed from the analysis that risk orientation of the farmers was positive and significantly contributed (significant at 1% level, $p < 0.010$) in the willingness of the farmers for adopting turkey farming. It contributed the highest (22.8 %) in the total variance causes by the independent variables followed by Training Exposure (13.9%), Attitude towards Turkey Farming (4.6%), Social Mobility (2.4%), Annual Income (2.9%), Innovativeness (2.2%) and Knowledge on Turkey Farming (0.5%). This finding means that increase of risk orientation, Training Exposure, Attitude towards Turkey Farming, Social Mobility, Annual Income, Innovativeness, and Knowledge on Turkey Farming of the farmers will increase their willingness for adopting turkey farming.

Conclusion and recommendations

Turkey production and consumption in Bangladesh remained very low compared to consumption of other poultry species specially chickens and duck which are both raised either for home consumption or trading (Hasan, 2018)^[5]. The study revealed that less than half (42 %) of the respondents had willingness for adopting turkey farming where 31.1 percent had medium willingness, 6.8 percent had low willingness and only 4.1 percent had high willingness. Majority (58%) of the farmers had no willingness for adopting turkey farming. The findings lead to conclude that there is huge scope of increasing willingness of the farmers for adopting turkey farming. Among the independent variables risk orientation, training exposure, attitude towards turkey farming, social mobility, annual income, innovativeness and knowledge on turkey farming significantly influenced the willingness of the farmers for adopting turkey farming. Among them risk orientation of the farmers contributed highest (22.8) which leads to conclude that farmers having more risk-taking behavior have more willingness for adopting turkey farming. Similarly, farmer having more positive attitude towards turkey farming had more willingness for adopting turkey farming. Findings also evident to conclude that farmers having more social mobility, annual income, innovativeness and knowledge on turkey farming had more willingness for adopting turkey farming. To improve the willingness of the farmers for adopting turkey farming these individual characteristics of the farmers needs to be improved. Therefore, it may be recommended that necessary steps need to be taken by the concerned authorities to improve these individual

characteristics of the farmers. Department of Agriculture Extension (DAE), Directorate of Livestock (DLS), NGOs and private sectors poultry organizations need to formulate their policies to improve and utilize these personal characteristics of the farmers to increase their willingness for adoption turkey farming.

References

1. Akter S, Das SC, Apu AS, Ahmed T, Lahiry A, Afrin A, Nishat NJ. Early sex determination of Turkey by observation of differences in body weight between male and female. *Progressive Agriculture*. 2020; 31(3):218-226.
2. Asaduzzaman M, Salma U, Ali HS, Hamid MA and Miah AG. Problems and prospects of turkey (*Meleagris gallpavo*) production in Bangladesh. *Research in Agriculture, Livestock and Fisheries*. 2017; 4(2):77-90.
3. Bogdan RC, Biklen SK. *Qualitative Research for Education: An Introduction to Theory and Methods* (5th ed.). Boston: Allyn & Bacon, 2006.
4. Bryman A. *Quantity and Quality in Social Research*: Unwin Hyman, 2001.
5. Hasan MS. Production Performance and Egg Quality Characteristics of Heritage Turkey in Bangladesh. MS thesis, Department of Poultry Science, Bangladesh Agricultural University, Mymensingh, 2018.
6. Jahan B, Ashraf A, Rahman MA, Molla MHR, Chowdhury SH, Megwalu FO. Rearing of High Yielding Turkey Poults: Problems and Future Prospects in Bangladesh: A Review. *SF J Biotechnol Biomed Eng*. 2018; 1(2):1008.
7. Karki M. Growth, efficiency of feed utilization and economics different rearing periods of turkeys. *Nepal Agriculture Research Journal*. 2005; 6:84-87.
8. Laizoo S. Farmers' Perception of Integrated Pest Management towards Sustainable Vegetable Production. PhD Dissertation, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, 2011.
9. Okoroafor ON, Ezema WS, Animoke PC, Okosi RI, Nwanta JA, Anene BM, *et al.* Constraints and prospects of turkey production in Enugu state south-eastern Nigeria. *Nigerian Journal of Animal Production*. 2020; 47(5):142-155.
10. Rashid MA, Rasheduzzaman M, Sarker MSK, Faruque S, Palash MS, Sarker NR. Small scale turkey farming in Bangladesh: farming practices, profitability and supply chain mapping. *Agricultural Science*. 2020; 2(2):28-41.
11. Rahman L. Prospects of Late Jute Seed Production at Farmers' Level, PhD Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, 2014.
12. Schultz FT. Potential of Turkey in developing countries. *Poul. Int.: zo*. 1981; (8)74.
13. Sowrove NEA, Hossain MI, Yasmin S. Consumer preference towards turkey meat in Mymensingh city.

- International Journal of Natural and Social Sciences. 2020; 7(1):32-39.
14. Sultana M, Islam S, Chanda T. Present Status of Turkey Rearing in Selected Areas of Patuakhali District. IAR J Agri Res Life Sci. 2021; 2(1):104-111.
 15. Supe SV. Factors related to Different Degrees of Rationality in Decision-making among Farmers. Ph.D. dissertation, Division of Agricultural Extension, IARI, New Delhi, 1969.
 16. Terry E. Ducks set the pace in expansion race. Poultry International. 2003; 42(12):20.
 17. Yasmin S, Sowrove NEA, Haque T, Hossain MI. Contributing Factors for Turkey Consumption: An Empirical Analysis from Mymensingh City in Bangladesh, Agricultural Science. 2021; 3(1):p15.