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CONSUMER DYNAMICS FOR POULTRY PURCHASING BEHAVIOUR IN TURKEY

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Abstract

The recent increases in red meat prices have caused poultry consumption to come to the fore. This research aimed to determine factors affecting consumers' poultry consumption, their preferences for poultry outlets by their income, and their consumption and purchasing frequencies. A diagnostic questionnaire was completed with 345 households. All data were analyzed using SPSS 23.0 program. Crosstables were used to verify possible associations among the study variables. Consumers mostly purchased chicken once a week (36.5%) and turkey on special occasions (17.7%) and 1-3 times a year (12.2%). Consumers primarily consume chicken several times a week (48.1%) and turkey once a month (42.6%). Production date was most important (66.4%) in poultry preference factors, followed by taste (64.6%) and freshness (60.9%). Advertising (19.4%) and product region/origin (9%) were the least important factors in poultry preference. The consumers participating in the survey mostly purchased chicken from discount markets (31.9%). Less turkey was consumed than chicken. The consumers' lack of turkey consumption habits affected the consumption frequency. Consumers should be informed of the nutritional value of turkey to increase the frequency of turkey consumption in Bursa. Turkey producers should be given more support, and its sales channels should be increased.

Key words*: chicken meat, consumption behaviour, poultry consumption, purchase outlets, turkey meat*

INTRODUCTION

Adequate and balanced nutrition is vital for a healthy life. Animal-derived food is essential in a balanced diet because meat provides a significant part of daily protein. Health experts recommend that at least 33% of daily protein needs be of animal origin. Poultry is the wealthiest animal food in digestible protein. Its nutritional value is very high. It is easier to digest than red meat due to its low fibre, connective tissue and fat ratio. It is rich in B group vitamins and has essential amino acids and unsaturated fatty acids supporting the nervous system. It helps keep the cholesterol level balanced [29]. Doctors and dietitians recommend poultry for weight problems like obesity and other health problems. Additionally, studies show that excessive red meat consumption increases the risk of cardiovascular problems. Experts recommend limiting red meat consumption to 500 g per week and consuming poultry instead [13]. Consumers are turning to poultry due to the rise in red meat prices. Poultry being relatively cheaper [1, 5] makes it one of the most preferred animal protein sources [1].

Chicken is the first thing that comes to mind when poultry is the highest production and consumption rate in rural areas. Besides the chicken, turkey, duck, goose, quail and ostrich are also included in poultry. Poultry farming has increased significantly in the last 15-20 years. The increase in modern hen yards and poultry slaughterhouses and technological developments has made Turkey an essential country in poultry production. Meat consumption per capita was 36.1 kgs. This amount consisted of 21.0 kg of poultry, 13.6 kg of bovine, and 1.5 kg of ovine [9]. Poultry consumption per capita in 2019 consisted of 20.47 kilograms of chicken and 0.56 kg of turkey.

Goose and duck breeding are substantial economic activities in many countries globally. However, goose and duck breeding in Turkey is generally carried out as a family business in rural areas on a small scale, with traditional methods and their share in total poultry production is less than 1%. Therefore,

only chicken and turkey were included in the study under poultry consumption.

Numerous factors such as income, quality, brand, advertisement, place of purchase, packaging, flavour, region/origin and date of manufacture affect poultry consumption [20]. The primary purpose of this research is to investigate the poultry consumption preferences of consumers in Turkey with the example of Bursa. In this context, the household's poultry purchasing frequency, the factors determining the consumption frequency and the common purchasing places will be examined.

Factors affecting poultry preferences

Socioeconomic changes, religious beliefs, and cultural factors affect poultry consumption preferences [29]. It is possible to group these factors under three headings: consumers' personal preferences, product features and environmental factors [25].

Brand in food products is amongst the leading factors affecting consumer preferences. Possible microbiological deterioration in any part of the supply chain or infectious diseases that may transmit can create severe problems for consumer health. Brands that have been on the market for a long time obtain mandatory food certifications and are subject to audits. Brands expand their product range in line with consumer demands and respond more constructively to possible consumer complaints. Therefore, consumers also see the brand as an element of trust [14, 24, 28, 38].

However, advertisements, price, previous consumer experiences, and satisfaction affect brand preferences [32, 37]. These advertisements attract consumers' attention and show the unique features of a brand and product. Another way to distinguish similar products from others is the packaging. Meat can be exposed to bacterial spoilage more quickly than other foods. These deteriorations are prevented by packaging, and it maintains their durability until consumption [11]. Packaging helps meat products preserve their freshness for a longer time. The study examining the factors affecting chicken consumption in Ankara stated that consumers care most about the freshness factor [7]. The date of manufacture, colour, smell and appearance of the package is often an indicator of its freshness. The use of environmentally friendly materials, the ability to protect the food against external factors, its appearance and labelling information are among the features consumers pay attention to in packaging [17].

Consumers particularly pay attention to the production date on their packaging when purchasing food products. Aytop [5] research underlined that consumers paid particular attention to the production date when purchasing chicken. Production date is as important as the ingredients in assessing food quality [26]. Quality is the degree to which a product or service can meet the wants and needs of consumers. High-quality products meet the consumers' expectations, and as a result, consumer satisfaction increases. The quality of meat is determined by flavours, freshness, smell and appearance [23]. In poultry farming, the state of the poultry houses and the quality of feed given to the chicken and turkey affect the quality of meat [19]. Consumers' awareness of animal welfare has increased [10]. Animal welfare is defined as "the physical and psychological well-being of animals. According to a study conducted in the USA, 73% of consumers prefer products that consider animal welfare [12].

Poultry purchase places

Consumers have more options for poultry purchase outlets than in the past. Consumers who primarily shopped from butchers until 20 years ago have wider purchasing options with the spread of supermarkets and local and discount markets. With the onset of the Covid-19 epidemic, it has become common for consumers to use online channels for meat orders, and those who eat healthier are turning to farmers and organic markets.

Butchers mainly sell red meat; they also sell poultry. Butcher is a local artisan. Some butchers sell the meat from their farms or know the source of the meat; there are fewer intermediaries involved in the meat sold by butchers. Butchers generally know their customers personally, understand their preferences and advise them on meat selection. Consequently, consumers trust local butchers more than chain markets. Most local

butchers also sell on account, which is very convenient for consumers who as short on cash at certain times [33]. Especially in recent years, consumers have become increasingly conscious of supporting local merchants, and they divert their purchases to local merchants as much as possible.

Rapidly increasing urbanization, prolongation of business hours, and intense and stressful daily life have caused food shopping to be done less frequently. Still, in larger quantities, and as a result, markets and supermarkets have become increasingly widespread. However, due to the economic fluctuations experienced in the country's economy in recent years, discount markets have begun to take their place in the market in response to local and national supermarkets.

Discount markets sell less variety of products, more local, less-known brands, and lower prices than supermarkets [8]. These markets employ fewer people and provide more limited shelf arrangements and services [2]. Despite their increasing appearance and popularity since they sell lesser-known brands and shops have more straightforward layouts than supermarkets, some consumers believe that such markets sell lower quality products. On the other hand, supermarkets appeal to consumers of wider income groups. They sell better-known and national brands. They also appeal to more price-sensitive audiences with their labelled products. More choice on offer because shops are bigger. Ease of payment, transportation and parking are also among the advantages of supermarkets [2]. More staff are employed in the market, they can control the shelves more frequently, and meal cards and gift cards are also effective in their preference. Having butcher aisles in supermarkets has provided consumers with all-in-one shopping convenience.

Turkey has developed a poultry industry, and poultry is fundamental in Turkish cuisine still; research on poultry consumption is scarce [3, 7, 35]. Existing research primarily focused on the types and amounts of chicken consumed. Factors affecting chicken and poultry consumption, poultry shopping outlets and reasons for choosing those outlets were not examined in detail. Additionally, the existing research was generally focused on poultry production rather than on chicken consumption. Poultry consumption, particularly turkey consumption preferences of consumers living in metropolitan areas, have not been examined explicitly. This research aimed to explore consumers' preferences in Bursa, an economically developed industrial city where more individuals are in business life.

This research seeks answers to the following questions:

1)What factors affect consumers' preferences for poultry?

2)Where do consumers buy poultry?

3)How often do consumers buy and consume poultry?

MATERIALS AND METHODS

Study area

Bursa province is the 4th most populous city in Turkey. The city has a surface area of 10,886.38 square meters and is located in the South Marmara Region, between 40˚ West longitude and 29˚ North latitude circles. The province has a population of 3,147,818 million (1,573,362 males and 1,574,456 females). 35% of its population is young, 51% is middle-aged, and 14% is elderly. It is one of the most economically developed cities in Turkey, and a significant part of the country's major industrial facilities are located in this province. The average household size in Turkey was 3.3 people, and in Bursa was 3.24 people. The total number of households in Turkey in 2020 was 25,329,833. There was a total of 966,765 households in Bursa. Food and non-alcoholic beverages constituted 20.8% of household consumption expenditures in Turkey [34].

The survey was conducted with the person responsible for main shopping in the family. If the person who does the shopping in the family does not consume poultry himself, the questionnaire was asked to be answered by considering the people who consume poultry from the family members.

Sampling

A simple random sampling method was used to determine the number of households to be

surveyed. This method ensures that participants can participate in the sample with the same probability. Below formula was used to determine the sample size [31]:

$$n = \frac{t^2 2[1+(0,02)(b-1)]pq}{E^2} \quad (1)$$

Here; n: sample size, t: significance level (assumed 95%), p: the probability of consuming poultry, q: the probability of not consuming poultry, E: accepted error (assumed to be 5%). The sample size was calculated as 340. Taken the Considering the possibility of missing and missing data, the survey study was carried out with 350 participants and 345 questionnaires were used.

Data collection and analysis

This study was conducted in September-December 2021 with a family member responsible for the main food shopping in the family. A structured questionnaire was used in the study. Participants were interviewed face-to-face, but they were asked to fill out the questionnaire in person. Before applying the questionnaire, the participants' consent was obtained. Participants were ensured that their personal information would be carefully stored and information they provided would be used for academic purposes only. The questions were obtained and adapted from the relevant research [1, 15, 22, 36].

To ensure the clarity of the questions, the questions were shown to an expert academician. Before the survey was applied, a pilot study was conducted with 20 graduate students in the Department of Agricultural Economics at Bursa Uludag University. Data from the pilot study were not included in the primary sample.

The questionnaire consisted of 26 questions. The first 10 questions in the survey aimed at determining the demographic characteristics of the participants. 14 questions were about determining the poultry consumption. The remaining 2 questions are related to the factors affecting chicken and turkey preferences and purchasing place preferences and were prepared on a 4-point Likert Scale (1=Strongly Agree; 2=Disagree, 3=Agree; Prepared as 4=Strongly Agree).

The data were analysed using the SPSS 23.0 Package Program. Cronbach's alpha coefficient was found as α=0.901. The analysis results being 0.8<α<1.00 means "the scale is highly reliable." Frequency tables were prepared to test the research hypotheses.

RESULTS AND DISCUSSIONS

Sociodemographic characteristics of the participants

Table 1. Demographic characteristics of the participants

		N	%
Gender	Male	209	60.6
	Female	136	39.4
Marital status	Married	253	73.3
	Single	92	26.7
Education	Literate	14	4.1
	Primary school	58	16.8
	Secondary school	53	15.4
	High school	89	25.8
	Graduate	115	33.3
	Postgraduate	16	4.6
Age	23-30	74	21.4
	31-40	68	19.7
	41-50	70	20.3
	51-60	67	19.4
	61 ≥	66	19.1
Profession	Retired	78	22.6
	Officer	69	20.0
	Worker	65	18.8
	Self-employment	48	13.9
	Housewife	27	7.8
	Unemployed	22	6.4
	Executive	14	4.1
	Other	13	3.8
	Student	9	2.6
Household size	1	42	12.2
	2	74	21.4
	3	68	19.7
	4	97	28.1
	5 ≥	64	18.06
Executive household monthly income (TL)	≥ 2,825	47	13.6
	2,826-4,000	82	23.8
	4,001-6,000	100	29.0
	6,001-8,000	77	22.3
	8,001 TL ≥	39	11.3
Share of food expenditures in total expenditure (%)	≥ 25	48	13.9
	26-35	114	33.0
	36-50	121	35.1
	51-75	55	15.9
	76 ≥	7	2.0
	≥ 25	149	43.2
	26-35	112	32.5
	36-50	57	16.5
	51-75	23	6.7
	76 ≥	4	1.2

Source: Field Survey Data Analysis, 2021.

Details of demographic information, including gender, age, education level, marital status, number of individuals in the family and occupation, are given in Table 1. More than half of the surveyed participants were male (60.6%), and 39.4% were female. Participants' ages were proportionally distributed. 22.6% of the respondents were retired, and 20% were civil servants. A third (33.3%) of the participants were graduates, and 25.8% attended high school. The average in the household was 3.27. Accordingly, one-fifth of the participants consisted of only a husband and wife or a single parent or child, and approximately one-third consisted of nuclear families with two children. Half of the participating families consisted of families called nuclear families. Bursa is a metropolitan city; families are more diminutive in urban areas than rural areas. About a third (29%) of the participants had an income between 4,001- 6,000 Turkish Lira (TL), and a quarter had an income between 2,826 -4,000 TL (23.8%). About a third (35.1%) of participants' food expenditures were between 36-50% of their total household expenditures. Nearly half of the 345 participants (43.2%) spent a quarter or less of their household expenditure on poultry (Table 1). Food and non-alcoholic beverages accounted for 20.8% of household consumption expenditures in Turkey in 2019. Food expenditures in Bursa were above the country data.

Poultry purchasing and consumption frequency

Poultry purchase and consumption have increased rapidly in Turkey. Experts often recommend poultry due to its health benefits. At the same time, the high price of red meat leads consumers to switch o poultry. Poultry being a cheaper alternative increases purchase and consumption frequency. Less than a third (36.5%) of the participants bought chicken only once a week, while the other third (33%) purchased chicken several times a week. On the other hand, 49.6% of the participants did not buy a turkey. 17.7% of the participants bought on special occasions and 12.2% one to three times a year'. When asked about the chicken consumption frequency, participants stated that they primarily consumed 'several times a week' (48.1%). A third (32.2%) of the participants consumed chicken 'once a week'. Turkey was not consumed by 46.1%, while 42.6% consumed turkey 'once a month' (Table 2).

Table 2. Frequency of purchasing/ consumption of chicken and turkey

		N	%
Frequency of chicken purchase	Once a week	126	36.5
	Several times a week	114	33.0
	Once a month	32	9.3
	Several times a month	61	17.7
	Several times a year	5	1.4
	On special occasions	2	0.6
	Never	5	1.4
Frequency of turkey purchase	Everyday	1	0.3
	Once a week	17	4.9
	Several times a week	3	0.9
	Once a month	27	7.8
	Several times a month	23	6.7
	Several times a year	42	12.2
	On special occasions	61	17.7
	Never	171	49.6
Frequency of chicken consumption	Everyday	5	1.4
	Once a week	111	32.2
	Several times a week	166	48.1
	Once a month	59	17.1
	Never	4	1.2
Frequency of turkey consumption	Everyday	1	0.3
	Once a week	16	4.6
	Several times a week	15	4.3
	Once a month	147	42.6
	Several times a year	5	1.4
	On special occasions	2	0.6
	Never	159	46.1

Source: Field Survey Data Analysis, 2021.

Factors affecting poultry preferences

Many factors affect consumers' poultry preferences. Demographic factors such as age, income, and gender affect consumer preferences. Consumers attach more importance to factors arising from the product's characteristics. In this context, the factors affecting consumers' poultry preferences were examined in the study. 66.4% of the consumers who participated in the survey thought the production date critical. Taste (64.6%), freshness (60.9%) and quality (52.5%) followed respectively. Participants did not care much about an advertisement (19.4%) and the region/origin of the product (9%) while buying poultry (Table 3).

Table 3. Factors affecting the chicken/ turkey preferences

	1		2		3		4	
	N	%	N	%	N	%	N	%
Organic certificate	15	4.3	48	13.9	174	50.4	106	30.7
Having good agricultural practice /Animal welfare	9	2.6	51	14.8	177	51.3	107	31.0
Place of purchase	5	1.4	25	7.2	188	54.5	125	36.2
Freshness	3	0.9	7	2.0	123	35.7	210	60.9
Price	10	2.9	40	11.6	154	44.6	138	40.0
Packaging	17	4.9	59	17.1	162	47.0	106	30.7
Quality	3	0.9	9	2.6	151	43.8	181	52.5
Brand	12	3.5	65	18.8	161	46.7	106	30.7
Advertisement	67	19.4	158	45.8	77	22.3	42	12.2
Flavour	3	0.9	7	2.0	111	32.2	223	64.6
Place of origin	31	9.0	97	28.1	136	39.4	78	22.6
Manufacturing history	9	2.6	8	2.3	97	28.1	229	66.4

1=Highly unimportant 2=Unimportant 3=Important 4=Highly important

Source: Field Survey Data Analysis, 2021

Poultry purchase outlet preferences

The rapid migration from rural to urban areas has led to communities from a wide array of economic and social backgrounds. Thus, as in other food needs, meat purchasing places have been diversified. Thus, national markets that most of which are supermarkets, local and regional markets, and discount markets, have appeared rapidly as competitors to butchers. Consumers' choice of these purchasing places depends on their income and the conveniences those places offer. Today, very few people buy live chickens or turkeys from farms. A sizeable 31.9% of surveyed consumers purchased chicken from discount markets. 23.5% of them purchased chicken from butchers and 15.4% from local markets. A quarter of the respondents who buy turkey (16.5%) purchased live from animal markets for the New Year's Eve and killed themselves. 13% were purchased from discount markets and 12.5% from supermarkets (Table 4).

Table 4. Chicken and turkey purchase preferences

		N	%*
Chicken	Supermarket /National markets	48	13.9
	Discount market	110	31.9
	Local market	53	15.4
	Butcher	81	23.5
	I buy it alive and kill myself	12	3.5
	Other	37	10.7
	Do not consume chicken	2	0.6
	Personally grown	2	0.6
Turkey	Supermarket /National markets	43	12.5
	Discount market	45	13.0
	Local market	25	7.2
	Butcher	32	9.3
	I buy it alive and kill myself	57	16.5
	Other	16	4.6
	Do not consume turkey	124	35.9
	Personally grown	3	0.9

*Percentage of those who consume chicken and turkey

Source: Field Survey Data Analysis, 2021

Table 5. Poultry Purchasing Places by Income

		≤2825	2,826-4,000	4,001-6,000	6,001-8,000	8,001≥	Total
Chicken	Supermarket/National market	4	11	9	19	5	48
	Discount market	20	36	35	12	7	110
	Local/Regional market	8	9	16	11	9	53
	Butcher	8	13	24	24	12	81
	I buy it alive and kill myself	2	4	5	1	0	12
	Other	4	9	9	10	5	37
	Do not consume chicken	0	0	1	0	1	2
	Personally grown	1	0	1	0	0	2
Turkey	Supermarket/National market	1	9	12	17	4	43
	Discount market	8	15	11	9	2	45
	Local/Regional market	4	6	5	4	6	25
	Butcher	5	2	14	6	5	32
	I buy it alive and kill myself	7	19	17	12	2	57
	Other	0	3	8	5	0	16
	Do not consume turkey	20	28	32	24	20	124
	Personally grown	2	0	1	0	0	3

Source: Field Survey Data Analysis, 2021.

Table 5 shows the distribution of the chicken and poultry purchases outlets by household income. 110 participants (31.9%) purchased chicken from discount markets for income

groups. While 56 of 110 participants had an income of 4,000 TL or less, 54 had an income of 4,001 TL or more. Of the 81 people (23.5%) who bought chicken from the butcher, 60 (74.07%) earned more than 4,000 TL. Consumers in the highest income group prefer butchers for chicken too. Chicken preference from supermarkets (13.9%) lagged behind local markets (15.4%). While 32 of the 221 consumers who consumed turkey purchased it from butchers, 45 from discount markets, 43 from supermarkets, and 57 of them brought a live turkey. As the household income increased, the rate of buying turkey alive decreased, and these consumers turned to supermarkets (Table 5).

Discussions

Poultry consumption

Individuals can lead a healthy life through adequate and balanced nutrition. The first step toward a proper and balanced diet is to take the daily required protein. However, consumers have a certain income, and meat prices are constantly on the rise may restrict the protein intake from meat products. Consumers' income is one factor that most affects the frequency of purchasing white meat. Consumers determine their purchasing frequency according to their income and the price of white meat.

In the Blacksea region, 37.61% of the participants purchased chicken once every fortnight' and 30.64% once a week [21]. In another similar study in Central Anatolia, consumers mostly purchased chicken 'every week' (59%) [4]. Participants (36.5%) bought chicken once a week and 33% several times a week in the current study (Table 2). Households buy chicken more frequently in Bursa. The higher household income affects high purchase frequency. The easy access to chicken in metropolitan cities, its nutritional value, and it can be quickly cooked with other dishes or alone explain the high purchase frequency in these studies.

Turkey's meat production is high. However, the amount of consumption is not at the desired level compared to production levels (Table 2). Produced turkey is generally exported [30]. Research findings confirmed that consumers mostly bought a turkey several times a year on special occasions, and it is most preferred on New Year's. Turkey is generally sold in selected supermarkets/ national markets. Discount markets also sell it before New Year. Depending on the local demand, selected grocery stores and butchers can also sell turkey. Along with the intense work tempo, the time spent in the kitchen has also decreased. Resulting, consumers prefer to cook dishes that are easier and quicker. Poultry cooks quicker.

Ayvazoglu Demir and Aydin's [6] research showed that consumers primarily consumed chicken 2 to 3 times a week (41.9%) and at least 4-5 times a week (21.1%). Similarly, Aldemir et al. [3] revealed that most households (73.6%) consumed chicken 2 to 3 times a week. Half of the participants consumed chicken 'several times a week' (48.1%) in the current study. Meat has an important place in Turkish cuisine. A recipe without meat is almost non-existent. However, consumers who do not consume red meat or do not prefer other types of meat for health or economic reasons are turning to chicken. In Ayvazoglu Demir and Aydin's [6] research, consumers with an income of 1500 TL and below consumed chicken more frequently. Aldemir et al. [3] emphasised that students' income was meagre, so they preferred chicken, which is relatively cheaper to meet their protein needs. Existing research that the changes in household incomes are reflected in the consumption of chicken [7].

Turkey is a larger animal, primarily consumed in crowded families. Chicken is often the choice of smaller families. The current study determined that half of the participants were from small families. This limits turkey consumption. In a study examining turkey consumption habits, participants mostly consumed turkey 'once a month' and 'once a year, respectively [35]. Similarly, nearly half of (42.6%) households in Bursa consumed turkey once a month. The findings obtained from the present study coincide with the other research results. The fact that turkey is more expensive than chicken, consumers are not accustomed to its taste, and it takes time to cook explains the frequent consumption of turkey.

Factors affecting poultry consumption preferences

In addition to their sociodemographic characteristics, the product characteristics and the places where the products are offered for sale may affect the intake and consumption of poultry. The place where the product is sold, the ease of access, its price, packaging, brand, advertisement and region/origin directly affect the product and purchasing preferences. Freshness, quality, taste and date of manufacture are factors arising from the product's characteristics. Freshness, taste and quality factors are constant factors for consumers. The price may vary according to the consumers' income.

Aytop [5], in his research in South-eastern Turkey, determined that the factors that most affect the consumers' chicken preferences were expiration date, freshness and quality. Similarly, Kara et al. [18] found that while the expiry date was the most critical for consumers, the packaging was the element they cared least about. In the current research, the price was expected to be the most critical element; it turned out that the production date was much more vital for consumers. In addition, existing research underlined that production date was the most factor affecting chicken preferences. Consumers in these studies attached importance to the production date due to their increased concern for food safety. The number of microorganisms and bacteria increases in poultry whose production date has expired. Consumption of these products poses a risk to human health. Today, consumers from all walks of life have become increasingly conscientious about the production history of food products, particularly easily perishable poultry.

According to Sengul and Zeybek [27], consumers in another southern Anatolian province preferred chicken because it was economical. Consumers found the price factor (40%) less important than other factors in the current research. The findings in this study differed from the mentioned research. The income disparity of households caused this difference. The consumers' income in Sengul and Zeybek's [27] analysis was lower than the consumers' income in the current research. Generally, the eastern and south-eastern parts of the country are economically less developed. Households are more crowded, and fewer people are in the active workforce. For this reason, families pay attention to the cheapness of meat in their meat purchases.

Poultry purchase point preferences

Purchasing locations differ when purchasing chicken and turkey. Chicken is widely available in many outlets, while turkey can be found in selected places. Low turkey consumption is key to these restricted sale points. Consumers also account for hygiene conditions and ease of access when choosing the purchase outlet.

Numerous studies have revealed that consumers mostly buy chicken from markets and butchers [5, 16, 18]. In the current study, consumers mostly bought chicken from discount markets (31.9%) and butchers (23.5%). When consumers purchased chicken, they preferred markets in the first place. Discounts and various promotions in the markets reduce the price of chicken. The cheapness of chicken has made these places attractive to consumers. The fact that consumers can find all the products they want together in the markets is one of the reasons why the markets are preferred. Following markets, consumers mostly shop from butchers. Consumers tend to buy from reliable places when purchasing poultry. The fact that butchers are local tradesmen and have been serving in the same area for many years creates trust. Most consumers buy poultry while buying red meat not to waste time. Consumers generally (16.5%) purchased a turkey for New Year's Eve and live. The remaining consumers preferred discount markets and supermarkets. Turkey is a more expensive product than chicken. Instead of buying a turkey, consumers prefer chicken that is more suitable for their income. The high price significantly prevents consumers from purchasing turkey frequently so that they can only make an effort on special days such as New Year's Eve.

Sales place preferences by income group

Besides demographic and product-related characteristics, purchase outlets affect households' poultry purchase behaviour.

Consumers attach importance to proximity to their home, hygiene, location, layout, services, promotions, reputation, shopping convenience, etc. Meat purchasing points are not independent of household income levels. As the income increases, the features expected from the place of purchase increase at the same rate. The research results revealed that consumers with an income of less than 6000 TL predominantly bought chicken from discount markets. As the household income increased, the percentage of consumers shopping from butchers increased, and the number of consumers shopping from discount markets decreased (Table 5). In their research, Inci et al. [16], as the consumers' income increased, their tendency to buy from the butchers also increased. Butchers generally sell meat and meat products. They also sell small amounts of chicken. They do this for the convenience of their consumers so that consumers can complete all of their household's meat purchases in one spot. Chicken sold in butchers is usually organic or free-range. Although chicken sold in butchers is more expensive than in markets, it is of higher quality, similar to red meat, and with the increase in income, consumers turn to butchers for poultry.

As the income group increases, purchases from discount markets decrease in turkey as in chicken. Consumers with higher incomes prefer supermarkets more. High-income consumers pay more attention to the quality of the product than the price. Consumers who cannot find the quality they desire in discount markets turn to supermarkets. Turkey purchases for New Year's Eve tend to decrease as income increases. Because high-income earners generally celebrate New Year's Eve outside. Lower-income consumers buy turkey because the animal is bigger and suitable for larger family gatherings.

CONCLUSIONS

Meat prices are a major cause of the animal-derived protein deficit in Turkey is high meat prices. Poultry is the most cost-effective way to make up the animal protein deficit. The current research aims to reveal consumers' poultry consumption behaviour. The study investigated factors affecting poultry consumption preferences and purchasing patterns. The results showed that purchase amount and places have in tight correlation with consumers' income. As income increased, consumers were more inclined to shop from organic markets and butchers.

It is frequently emphasised that turkey consumption is low in Turkey. The current research has once again highlighted this low consumption with the example of the Bursa. Chicken consumption was higher as expected. Household income is a significant factor in the choice of chicken. However, the news about feeding chicken with genetically modified (GM) feeds adversely affects its consumption. The Ministry of Agriculture and Forestry, the poultry and food processing industry should regularly ensure the final buyers that GM feed is not used, and chicken consumption is healthy. If all the stakeholders in the system lose consumers' trust in production methods, they will move away from chicken.

Following the emergence of the Covid-19 epidemic, consumers have begun to attach more importance to hygiene. Consumers tend to be more meticulous when purchasing meat and avoid seemingly unhygienic environments. Slaughterhouses and sales outlets must obtain a hygiene certificate and are regularly disinfected.

In conventional production, broilers reach slaughter weight in 42 days. Frequent and grim news in the media that antibiotics and hormones are used for chickens that reach live slaughter weight quickly concerns consumers. Additionally, animal-borne diseases such as bird flu have reduced chicken consumption. The university, non-governmental organisations, and the public should inform the public that using hormones and antibiotics is costly and only used if there is a disease. Further, relevant officers must regularly inspect poultry farms and ensure that no chemical supplements were used in poultry farming.

Consumers are not sufficiently knowledgeable about the health benefits of turkey. Consumers' awareness should be increased on

turkey via public spots. The number of turkey sales channels should be increased. Policymakers should give more incentives to turkey producers and revitalise the sector. In-service training should be given to the Provincial Directorates of Agriculture and Forestry employees so that local producers can do proper breeding.

This study has several limitations. First of all, the research was carried out only in Bursa. Expanding the analysis to include other provinces of the Marmara Region will help confirm the current research findings. The study examined household preferences and the factors affecting household preferences. Considering that consumers live more on their own in metropolitan cities, the analysis can be repeated, concentrating on individual preferences. Additionally, processed white meat consumption and other types of white meat options (goose, Guinea fowl, fish) were not included. We recommend addressing these issues in future studies.

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