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# Factors affecting home-made food product marketing willingness of women: a case of Gokceada district

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## **Abstract**

In this study, it is aimed to determine the factors affecting home-made food products marketing willingness of women who produce home-made food products in Gokceada district of Canakkale province. The number of farm was determined using a simple random sampling method. The data were collected from women in 155 agricultural farms. The survey was conducted from December 2018 to June 2019. The data were analyzed by descriptive statistics and logit model. This study results showed that the average age of women was 50.9, the education level of 51.3% them was a secondary school and higher and 80.9% of them were married. The logit model results revealed that own agricultural land assets, the status of animal husbandry, continuing home-made food production and home-made food production as the main source of income had a positive effect on home-made food products marketing willingness of women; whereas age, education level, household size, and income level had a negative impact. As a result, the finding of the study is expected to make significant contributions to the production of home-made food products, district economy and rural development.

Keywords: Gokceada, Home-made food, Logit model, Women

# Introduction

Turkey has a vital position in terms of food production potential because the cultural richness of Turkey is quite effective in home-made food production. Turkey has developed culinary culture, home-made production styles and a rich local production style in addition to its agricultural product variety (Demirbaş et al., 2006; Kantaroğlu and Demirbaş, 2018). Women living in a rural areas in Turkey have some social roles such as preparation daily and seasonal foods that are necessary for the nutrition of their family as well as housework and child care. These women also contribute to the national economy as well as the family economy by producing dried and processed food for winter. Depending on the culinary culture richness

of Turkey, many home-made food products are produced and consumed within this scope. Therefore, the production of homemade food products is important as it is an alternative income generation tool that will be developed for evaluating the labour force potential of women (Kaya, 2011; Korkmaz and Tüfekçi, 2007; Özdemir et al., 2016).

Gokceada, a district of Canakkale, is located northwest of the Aegean Sea and it is the largest island of Turkey. The economy of Gokceada is based on agricultural production and tourism. However, due to the short tourism season in Gokceada district, it can be stated that agricultural production activities constitute the majority of the district's economy. In this district, women in the farms which are mostly constituted by the farmer families

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prefer to produce some home-made food products such as butter, cheese, tarhana, tomato paste whether to consume throughout the year or to contribute the family economy by selling them. Therefore, determining whether rural women gain income from these food products they produce is expected to have an impact on the income of small family farms.

There are many studies on the status of women in rural areas both in national and international literature. The majority of these studies address women's participation in labour force in the rural areas (Bayraktar and Gaytancıoğlu, 2000; Kutlar et al., 2013; Özdemir et al., 2017b), the production of home-made food products (Demirbaş et al., 2006; Pieniak et al., 2009; Köksal, 2014; Özdemir et al., 2017a) and women's entrepreneurship (Anthopoulou, 2010; Sosyal, 2013). When previous studies are examined regarding these issues, it has not been coming across any studies which comprehensively examined the approaches to home-made food production of women living in Gokceada. Therefore, this study is important in terms of determining the profile of women who produce home-made food products in the district and the approaches of them to home-made food production.

In this study, it is aimed to investigate the socio-economic structures of women in the district and to reveal the factors affecting their willingness to market their home-made food products. The findings to be obtained from this study are expected to contribute to the district's economy, rural development, and future studies on this issue.

## **Material and Methods**

## The Study Area and Sample Size

To determine the number of agricultural farms in Gokceada, 2017 Farmers Registration System (FRS) database of Gokceada District Directorate of Agriculture and Forestry was used. Within this context, it was determined that the total number of agricultural farms in the district was 567 (Anonymous, 2017). The land size of agricultural farms (own and rent land) registered in the FRS was taken into consideration in the selection of the farms to be surveyed from the sample population. The data were collected from surveys conducted through face-to-face interview technique with women who produce home-made food products in the study area. The surveys were conducted between December 2018 and June 2019 in Gokceada district of Canakkale province. Simple random sampling method was used in the selection of farms (Cochran, 1977).

$$n {=} \frac{\left(\sum N_h \ S_h\right)^2}{N^2 D^2 {+} \sum N_h S_h^2} \quad \text{,} \qquad D^2 = d^2/z^2 \qquad \ [1]$$

where, n=number of the farms representing the population, N= total number of the farms in the population (567),  $\sigma=$ standard deviation of the population, d= acceptable error limit in population mean (\*0.05), = average land asset (10.2 hectares), t= desired confidence level (1.96 for 95%). Thus, the number of farms to be surveyed was determined as 115.

## **Econometric Model**

Descriptive statistics were used to determine the socioeconomic characteristics of women. The logit model was used to determine the factors affecting women's willingness to market their home-made food products. Logistic regression is a non-linear model which can be linearization with designed transformations for the binary dependent variable, and dependent variable represents the occurrence or non-occurrence of an event (coded as 1 or 0). The logit model is one of the methods used to estimate the binary dependent variable models (Greene, 2002). In this study, the dependent variable that indicated the marketing situation of women's home-made food products was divided into two response categories. These categories are women who market home-made food products (coded 1= event) and who do not market home-made food products (coded 0=no event) according to the logit model. The STATA statistical analysis program was utilized in the analysis of the data (STATA, 2005). This model is defined as follows:

$$P_{i} = \frac{1}{1 + e^{-(\beta_{0} + \beta_{i}X_{i})}} = \frac{1}{1 + e^{-(Z_{i})}}$$
 [2]

where, is dependent variable, Pi is the probability of use AI for the i<sup>th</sup> farmers and it ranges from 0-1, is constant term, =parameter to be estimated,  $X_i$ =independent variables. Based on the natural log of this equation (2), the following equation can be written:

$$L_{i}=\ln\left[\frac{P_{i}}{1-P_{i}}\right]=Z=\beta_{0}+\beta_{1}X_{1}+....+\beta_{k}X_{k}$$
 [3]

McFadden's pseudo R-squared value and the likelihood ratio (LR) were calculated to the goodness of fit of the model and its explanatory power. McFadden's pseudo R-squared value can be as low as 0 but can never be equal to 1, and parameter values between 0.2 and 0.4 contain a reference to an appropriate model fit. The likelihood ratio chi-square (LR chi²) is defined as -2 ( $L_0$ -  $L_1$ ), where  $L_0$  describes the log likelihood for the constant-only model and  $L_1$  is the log likelihood for the full model with constant and predictors (Greene, 2002). When the LR statistic value of the model is greater than the value of chi-square, the null hypothesis ( $H_0$ ) is rejected.

# **Definition of Variables**

The dependent variable of the logit model has two response categories. To determine the dependent variable, women were asked whether they market home-made food products or not. Accordingly, these results were combined into a dummy variable; if women do not market home-made food products, this is given the value of 0 (0=no event) and the value of 1 is given if women market home-made food products (1=event). The independent variables included in the model were selected from previous studies (Bayraktar and Gaytancioğlu, 2000; Pieniak et al., 2009; Özdemir et al., 2017a).

Age is one of the important demographic features affecting the behaviors of the producers since producers' preferences may change depending on their ages. In particular, home-made food product marketing tendencies of women may decrease due to the increase in their ages. For this reason, the willingness of women to market their home-made food products is expected to change depending on the increase in age.



The level of education is also an important factor affecting the producers' production preferences. Because the increase in the education level of the producers may affect the tendency of their production abilities. Therefore, this variable is expected to have an impact on the willingness of women to market homemade food products.

Household size is an effective factor in the decision-making process of producers' participation in the labour force. Since whether the increase or the decrease in the number of individuals in the household may affect the participation of producers in the labour force. Considering the fact that women's marital status is still effective on their participation in the labour force, the household size is expected to have an impact on women's willingness to market home-made food products.

Income level is an important factor in the tendencies of producers to produce a new product or to continue their production. Since especially the tendencies toward production of women who do not have their own income and want to gain economic independence may be higher. Therefore, the income level is expected to have an impact on the willingness of women to market their home-made food products.

Land assets can be seen as an important advantage for producers engaged in agricultural production. Land assets can be seen as an important advantage for producers engaged in agricultural production. Because the fact that women who produce home-made food have their own lands, it may ease their raw material supply. For this reason, land assets are expected to have an impact on women willingness to market their homemade food products.

Animal husbandry can be considered as an influential factor in producers' production activities. It can be said that women engaged in animal husbandry can earn income from this field of activity in addition to their current activities. Therefore, animal husbandry is expected to have an impact on the willingness of women to market their home-made food products.

Continuing home-made food production can positively affect producers' production activities. It is thought that women who produce home-made food products and earn income from this production activity compared to other women will have more tendency to continue home-made food production. For this reason, continuing home-made food production is expected to have an impact on the willingness of women to market home-made food products.

Home-made food production as the main source of income may have an impact on the producers' production activities. In line with what has been indicated, these independent variables were included in the model. It is thought that women whose the main source of income is home-made food production have an higher tendencies to production home-made food products compared to other women. Therefore, home-made food production as the main source of income is expected to have an impact on women's willingness to market their home-made food products.

## **Results and Discussion**

In the study area, the majority of women who produce homemade food were between 46 and 57 years old and the average age of them was 50.9 (Table 1). According to these results, it can

be said that the majority of women in Gokceada district is 46 age old and above. In a study conducted in the Thrace region, the majority of women producers were found to be 35 years old and above (Özdemir et al., 2017a). Thus, it can be said that these results are not congruent with those of Özdemir et al. (2017a), which indicated that the age of women producers was middle age and above.

In Gokceada district, the education level of women (51.3%) was a secondary school and above. Njang Che and Sundjo (2018) found that 42% of women participating in labor force in Cameroon were primary school graduate. In a study conducted in the Thrace region, it was determined that 91.2% of women producing home-made food were primary school graduate (Özdemir et al 2017a). In this context, it can be said that the education level of women in the district is higher than that of women producers in Cameroon and less than that of women producers in the Thrace region.

In the present study, 80.9% of women were married. In a study conducted in the Thrace region, the majority of women producers (91.2%) were found to be married (Özdemir et al., 2017a). Njang Che and Sundjo (2018) found that 73% of women producers were married in Cameroon. Thus, it can be said that the ratio of married women producers in the study area is higher than that of women producers in Cameroon and less than that of women producers in the Thrace region.

In Gokceada district, the average household size of women who produce home-made food products was 3.5 persons. According to this result, it is possible to say that the majority of women producing home-made food products in the district are part of the nuclear family structure. Also, it can be said that the average household size of women in the district (3.5 persons) is the same as the average in Turkey (3.4 persons) (TURKSTAT, 2018).

In the study area, the majority of women (49.6%) defined themselves as housewives in terms of occupation. In a study conducted in Turkey, it was found that 69% of women producers who participate in the labour force were housewives (Varol, 2017). Özdemir et al. (2017a) found that 85.4% of women identified themselves as housewives in the Thrace region. Thus, the ratio of women identifying themselves as housewives in Gokceada district is less than those of women producers in the Thrace region and in Turkey. According to these results, it can be said that women in the study area have different occupational groups apart from being a housewife.

In the present study, the monthly income level of women (41.7%) who produce home-made food products was proportionally between  $\in 460.9 - \in 614.4$ . Özdemir et al. (2017a) found that more than half (56.3%) of women producers had a monthly income between  $\in 153.6 - \in 460.8$  in the Thrace region. Thus, it can be said that the monthly income level of women in the study area is higher than that of women producers in the Thrace region.

In Gokceada district, 90.4% of women who produce homemade food products had social security. In a study conducted in Van province, 59% of women working in the rural area had social security (Karakaş et al., 2016). In another study, 36.5% of women were found to have a social security (Soysal, 2013).

Thus, it can be stated that the social security ratio of women in the study area have a higher than those of women producers in studies conducted by Soysal (2013) and Karakaş et al. (2016). In this context, it can be said that women in the district have information about the importance of benefiting from social security.

In the study area, 62.6% of women had less than 25 hectares of land and 91.3% of them had cultivated their lands. In a study conducted in the Thrace region, it was determined that the majority of women producers had 100 decares of land or below and %83.6 of them had processed their lands (Özdemir et al 2017a). In another study in the Thrace region, 55% of women producers were found to have their own land (Özdemir et al 2017b). Thus, it can be said that the findings of the present study are similar to the results of previous studies.

In the present study, 38.3% of women who produce homemade food products were engaged in animal husbandry and 28.7% of them were found to be ovine breeding (goat and sheep). According to these results, it can be said that the number of women engaged in animal husbandry is low and they continue their livestock production in order to obtain additional income.

In Gokceada district, "pasta, tarhana, tomato paste, marmalade, canned vegetables and jam" were among the most produced home-made food products by women. However, "kefir, bulgur, cream and butter" production were not preferred by women. In a study conducted in the Thrace region, it was concluded that while the most produced products producing by women producers were "tomato paste, tarhana, couscous and cheese" respectively, "bulgur, butter and molasses" were rarely produced (Özdemir et al., 2017a). In a study conducted in Greece, it was determined that women producers attached the highest importance to the production of sweets, pasta, bread, cheese, salty and spicy meats among the home-made food products (Anthopoulou, 2010). Thus, it can be said that the home-made food products produced by women in Gokceada district are similar to products in the Thrace region while being different from what is mostly produced in Greece.

In the study area, 39.1% of women produced home-made food products for their own consumption only. Women who produce these products for their own consumption only were based on this situation to the low production capacity (66.7%), the inability to find a market to sell (24.4%) and the absence of demand (8.9%). In a study conducted in the Thrace region, it was determined that 83.9% of women producers who make home-made food production produced these products only for own consumption (Özdemir et al., 2017). In addition, they based on their reasons to low production capacity (35.2%), lack of a market to sell (10%) and demand deficiency (%21.5). In a study conducted in Spain, it was determined that women producers produced traditional food for both to consume and to market (Martinez et al., 2014). According to these results, it can be said that the tendencies of women towards home-made food production (commercial) in Gokceada district are higher than those of women in the Thrace region. Also, it can be stated that producing home-made food for women living in the rural areas of Gokceada district, Thrace region and Spain is very important for their own consumption. In addition, it can be said

that the most important reason that force women in Gokceada district and Thrace region in order to produce home-made food products only for their own consumption is the low production capacity.

In the present study, 32.1% of women who produce homemade food products for commercial purpose had produced 9 years and longer. Özdemir et al. (2017) found that 37.3% of women producers in the Thrace region had produced homemade food for 2-5 years, 33.9% those had produced for 11 years and longer. According to these results, it can be said that the majority of women producers in Gokceada district and Thrace region tend to produce home-made food for commercial purpose for many years.

In Gokceada district, home-made food production was not the main source of income for 75.6% of women. In a study conducted in Greece, it was revealed that the main source of income for the majority of women producers was not home-made food production (Anthopoulou, 2010). Similarly, in a study conducted in the Thrace region, it was determined that the main source of income of the majority of women producers (93.5%) was not traditional food production (Özdemir et al., 2017). According to these results, the findings of this study are congruent with those of the study conducted in Greece and in the Thrace region. In this context, it can be said that the results obtained from Gokceada district are supported by the findings obtained from Greece and Thrace region.

In the study area, 32.2% of women supplied their raw materials/materials both from their own lands and their own animals. In a study conducted in the Thrace region, it was determined that women producers provided their raw materials/materials required for traditional food production mostly from their own farms (64.6%) (Özdemir et al., 2017). According to these results, it can be said that women of Gokceada district and Thrace region obtain the raw materials required for home-made food production from their own farms or lands mostly.

In the present study, it was found that 90.4% of women tended to continue home-made food production. This situation can be interpreted as an indication that women's approaches to home-made food production are positive. At the same time, this situation can be considered as an indication that women attach importance to transferring the home-made food products approach to future generations.

In Gokceada district, the most important factor affecting the contribution of women in home-made food products to the family economy was insufficient sales opportunities. Also, this was followed by the lack of sufficient workforce, the lack of financial support for production and the inability to promote home-made food products. In a study conducted in the Thrace region, it was determined that the most important factor affecting the contribution of home-made products to the economy was the adaptation to the standards. This was followed by factors such as creating sales opportunities, finding sufficient raw materials and providing financial support for production (Özdemir et al., 2017). According to these results, it can be said that the results obtained from both studies are similar to the results obtained from the current study in terms of some factors.

In the study area, women sold their home-made food



products mostly through neighbour/acquaintance (21.3%), relatives (20.4%), friends (20.1%) and local markets (15%). In a study conducted in the Thrace region, it was found that women producers sold their products to wholesalers or retailers (17.7%), cooperatives (15.7%) and local markets (19.3%). In a study that examines the current situation of women entrepreneurs in rural areas in Turkey, it was determined that 25.4% of women producers sold their home-made food products through their

acquaintances (Soysal, 2013). According to these results, it can be said that the majority of women in Gokceada district sell home-made food products through their acquaintances, neighbours, friends and local markets. Thus, it can be said that women should pay more attention to advertisements and promotions related to home-made food products and it is important that they are supported to make their sales using various marketing channels.

Table 1. Definition of variables used in the logit model (n=115)

| Variables   | Frequency | %     | Mean | **SD |
|---|-----------|-------|------|------|
| Dependent variables                                 |           |       |      |      |
| Home-made food product                              |           |       |      |      |
| Women marketing this product =0                     | 45        | 39.1  | 0.61 | 0.49 |
| Women not marketing this product =1                 | 70        | 60.9  | 0.01 |      |
| Independent variables                               |           |       |      |      |
| Age (year)  | 115       | 100 0 | 50.9 | 10.9 |
| Education level (year)                              | 115       | 100.0 | 8.7  | 4.2  |
| Household size (person)                             |           |       |      |      |
| 0 = <3  | 28        | 24.3  | 0.76 | 0.43 |
| 1 = ≥3  | 87        | 75.7  | 0.70 |      |
| *Income level (€ month <sup>-1</sup> )              |           |       |      |      |
| 0= < €460.9   | 30        | 26.1  | 0.74 | 0.44 |
| 1=≥€460.9   | 85        | 73.9  | 0.74 |      |
| Own agricultural land asset (hectare)               |           |       |      |      |
| $0 = N_0$   | 40        | 34.8  | 0.65 | 0.45 |
| 1= Yes  | 75        | 65.2  | 0.65 |      |
| The status of animal husbandry                      |           |       |      |      |
| 0= Does not do                                      | 71        | 61.7  |      | 0.49 |
| 1= Doing  | 44        | 38.3  | 0.38 |      |
| The status of continuing home-made food production  |           |       |      |      |
| 0= Does not want to continue                        | 11        | 9.6   | 0.00 | 0.30 |
| 1= Wants to continue                                | 104       | 90.4  | 0.90 |      |
| The status of home-made food production as the main |           |       |      |      |
| income source                                       |           |       |      |      |
| 0=The main source of income is not a home-made food | 87        | 75.6  | 0.24 | 0.43 |
| 1=The main source of income is a home-made food     | 28        | 24.3  | 0.24 |      |

<sup>\*1</sup> Euro=6.51 TRY (Turkish lira) in April 2019, \*\*SD=Standard deviation

Age, education level, household size, monthly income level, own agricultural land asset, the status of animal husbandry and continuing home-made food production and home-made food production as the main source of income were defined as independent variables in the logit model, which is estimated to determine the factors affecting on women's willingness to market their home-made food products. The McFadden's pseudo R-squared value and likelihood ratio (LR) were calculated to test the goodness of fit of the established model and its explanatory power. The LR and chi-square statistic (chi²) values were calculated as 68.67 and 15.51, respectively. The null hypothesis at 5% significance was rejected because the LR value was found to be greater than the chi² value (Table 2). These results revealed

that the model is statistically significant and appropriate for the study.

In Gokceada district, it was found that there was a significant and negative relationship between the age of women and their willingness to market their home-made food products. This result shows that the willingness of women's home-made food product marketing decreases depending on the increase in their age. Therefore, it can be said that the willingness of older women to market their home-made food products is lower than younger women. In this context, it can be stated that the tendency of women to continue this activity, which is intense in terms of the manual labour, is expected to decrease depending on the increase in their age. In a study conducted in the Thrace

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region, it was found that there was a significant and negative relationship between the age variable and the willingness to market their home-made food products (Özdemir et al., 2017a). In studies conducted in Cameroon and in Pakistan, a significant and positive relationship was found between the age variable and women's labour force participation. In addition, it was stated that older women participating in the labour force were more experienced than young women and young women's goals such as education and marriage were higher than older women (Mujuhid, 2014; Njang Che and Sundjo, 2018).

According to these results, the findings obtained from women in Gokceada district are similar to the results obtained from the Thrace region but differ from the findings obtained from the studies in Cameroon and Pakistan. Thus, it is considered that encouraging and supporting younger women for this activity is important for the continuity of home-made food production in Gokceada district. Furthermore, it is expected that this situation has a positive impact on willingness to market their home-made food products.

Table 2. Factors affecting home-made food product marketing willingness of women

| Variables   | Coefficient                                 | Standard<br>error                        | z-statistic | p-value> z    | Marjinal |  |  |
|---|---|--|-------------|---------------|----------|--|--|
|   |   |  |             | (probability) | Effects  |  |  |
| Age   | -0.1416                                     | 0.0405                                   | -3.49       | 0.001**       | -0.0263  |  |  |
| Education level   | -0.3981                                     | 0.1061                                   | -3.75       | $0.000^{**}$  | -0.0739  |  |  |
| Household size  | -2.2674                                     | 0.8289                                   | -2.74       | $0.006^{**}$  | -0.3069  |  |  |
| Income level  | -1.7879                                     | 0.7032                                   | -2.54       | $0.011^*$     | -0.2626  |  |  |
| Own agricultural land asset                                       | 2.0848                                      | 0.6335                                   | 3.29        | $0.001^{**}$  | 0.4236   |  |  |
| The status of animal husbandry                                    | 1.8409                                      | 0.6413                                   | 2.87        | $0.001^{**}$  | 0.3033   |  |  |
| The status of continuing home-made food production                | 2.6571                                      | 1.0168                                   | 2.61        | 0.004**       | 0.5810   |  |  |
| The status of home-made food production as the main income source | 3.9074                                      | 1.2066                                   | 3.24        | 0.009**       | 0.4421   |  |  |
| Constant  | 8.9714                                      | 2.9175                                   | 3.06        | $0.001^{**}$  |          |  |  |
| McFadden pseudo R-squared =0.45                                   | log likelihood (L <sub>1</sub> )= -42.63842 |  |             |               |          |  |  |
| $\log \text{ likelihood } (L_0) = -76.97272$                      |   | likelihood ratio (LR)=68.67              |             |               |          |  |  |
| Prob>chi square (chi²)=0.0000 (Probability)                       |   | $LR > chi^2(8)_{(0.05)} = 68.67 > 15.51$ |             |               |          |  |  |

The levels of significance: \*p<0.05; \*\*p<0.01

In the study area, it was found that there was a significant and negative relationship between the education level of women and their willingness to market their home-made food products. This result shows that the willingness of women's home-made food product marketing decreases depending on the increase in their educational level. In the study conducted in the Thrace region, it was determined that there was a significant and negative relationship between the level of education and the willingness to market their home-made food products (Özdemir et al., 2017). In a study conducted in Cameroon, it was found that having a low education level of women had a positive effect on the labour force participation ratio and the ratio of participation in the labour market decreased as the education level of women increased (Njang Che and Sundjo, 2018). The findings obtained from women in Gokceada district are similar to the results obtained from the studies conducted in the Trace region and Cameroon. Based on these results, the fact that womens' education level variable can be interpreted in two different ways. The first is that the majority of women have a certain level of education (literate and primary school graduate). The second is that, as women's education level increases, their tendency towards jobs related to their occupational increases.

In the present area, it was found that there was a significant and negative relationship between women's household size and their willingness to market their home-made food products. This result shows that the willingness of women's home-made food product marketing decreases depending on the increase in the number of individuals in their households. In a study conducted in Pakistan, it was found that there was a significant and negative relationship between household size and women's labor force participation (Ejaz, 2007). Accordingly, the results of this study are congruent with those of the study conducted in Pakistan. In Turkey, it is known that whether women are married or not has significant effects on labour force participation ratio and that married women participate less in the labour force. Also, since women who are married and have children have more responsibilities, working or participating in the labour force becomes more difficult for them (Er, 2013). Due to the fact that the number of individuals in the household of women is 3 or more leads to increase their responsibilities such as food, care, laundry, it is thought that their probability of participating in the labour force is hindered. Therefore, women's labour force participation rate is expected to decrease due to the increase in the number of individuals in the household.

In Gokceada district, it was found that there was a significant and negative relationship between the income level of women and their willingness to market their home-made food products. This result shows that the willingness of women's home-made food product marketing decreases depending on the increase in their income levels. In a study conducted in



the Thrace region, it was found that when the income level of women producers increased, their willingness to market homemade food products decreased (Özdemir et al., 2017a). In this context, the results of this study are similar to the findings obtained from the Thrace region. According to these results, it can be stated that the willingness to market their home-made food products of women who want to have their own income in Gokceada district is higher than other women. Therefore, it can be said that the willingness to market their home-made food products of women with low monthly income (<€460.9) or without their own income will increase. This situation also reveals the importance of women's economic independence. Based on this situation, it is expected that encouraging women who do not have their own income for home-made food products will have an impact on spreading this field of activity. Furthermore, it is thought that the production and marketing of home-made food products will gain more importance over time.

In the study area, it was found that there was a significant and positive relationship between the own agricultural land assets of women and their willingness to market their homemade food products. This result shows that the willingness to market home-made food products of women who have own agricultural land is higher than other women. In a study conducted in Pakistan, it was determined that having own agricultural land assets had a positive effect on women's labour force participation (Ejaz, 2007). Thus, the results of this study are similar to the study conducted in Pakistan. Based on these findings, the fact that women have their own lands facilitates the supply of the raw materials necessary for the production of home-made food products and affects the production positively because 91.3% of women who own land cultivate their existing land. Based on this fact, it can be said that women gain income from home-made food products, both by selling their own products and by providing the raw material required for the production of these products Therefore, it can be said that the increase of land assets belonging to women and the cultivation of their existing lands have a positive effect on the women's willingness to market their home-made food products.

In the present study, it was found that there was a significant and positive relationship between the status of animal husbandry of women and their willingness to market their home-made food products. This result shows that the willingness to market home-made food products of women who engaged in animal husbandry is higher than compared to women not engaged in animal husbandry. In a study conducted in Pakistan, it was determined that having an animal presence had a positive impact on women's labor force participation (Ejaz, 2007). Thus, the results of this study are similar to the study conducted in Pakistan. Based on these results, it can be said that women who engaged in animal husbandry in the district provide the raw materials required for home-made food production from this field activity and continue this activity to obtain additional income

In Gokceada district, it was a significant and positive relationship between the status of continuing to home-made food production of women and their willingness to market home-made food products. This shows that the willingness to market their home-made food products of women who want to continue home-made food production is higher than women who do not want to continue home-made food production. Based on this situation, increasing the tendency of women to continue home-made food production is expected to have a positive effect on increasing their willingness to produce and market these products.

In the study area, it was found that there was a significant and positive relationship between the status of the main source of income of women and their willingness to market their homemade food products. This shows that the willingness to market home-made food products of women whose main income is home-made food production is higher than women whose main income is not home-made food production. Therefore, it is expected that women whose main source of income is homemade food production want to gain more income and show more tendency to continue this field activity to provide more marketing opportunity by promoting these products.

#### Conclusion

As a result, it is thought that it is important to raise more awareness and encourage young women about this activity compared to older women for the widespread and continuity of the home-made food production tendencies of women in Gokceada district. In addition, women who don't have their income or who want to gain economic independence can be supported about the production of home-made food products. Generally, women who are married and have children have more responsibilities in household. Therefore, working or participating in the labour force is more difficult for them. Hence, it is important to determine strategies that will increase the labour force participation rate of married women with children. Furthermore, women who belongs to nuclear family and has fewer children are more likely to produce home-made food products. Women who have their own agricultural land should be supported to cultivate their agricultural lands and their tendency towards agricultural activities should be encouraged to earn additional income. This situation will increase women's home-made food products marketing willingness. Supporting women, whose main source of income is home-made food production and who tend to continue producing home-made food, has a vital role in eliminating their shortcomings in production and marketing.

# Compliance with Ethical Standards Conflict of interest

The authors declared that for this research article, they have no actual, potential or perceived conflict of interest.

# Author contribution

The contribution of the authors to the present study is equal. All the authors read and approved the final manuscript. All the authors verify that the Text, Figures, and Tables are original and that they have not been published before.

## Ethical approval

Not applicable.

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## Data availability

Not applicable.

# **Consent for publication**

Not applicable.

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