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# Tarım Ekonomisi Dergisi

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# The Role of Producers' Markets in Empowering Rural Women

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#### Abstract

**Purpose:** This study aims at analyzing the behaviors of women producers in producers' markets and obtain results that will help the decision and policy makers in local governments.

**Design/Methodology/Approach:** The content-text analyses done with the Maxqda data analysis software on the answers to the face-to-face interviews, the changes in the producer women's lives, feelings and perceptions have been analyzed.

**Findings:** According to the results of the study, it has been concluded that the women who are economically powered feel better about themselves and their self-confidence improve. In conclusion, this study emphasizes the importance of producer women's places in the labor market.

Originality/Value: The importance of producer women's places in the labor market and changes in women's lives are identified.

Key words: Women, Producers' Market, Maxqda Data Analysis, Rural, Socio-Economic Status, Mersin

# Kırsaldaki Kadınların Güçlendirilmesinde Üretici Pazarlarının Rolü Özet

Amaç: Bu çalışma, üretici pazarlarındaki kadın üreticilerin davranışlarını analiz etmeyi ve elde edilen sonuçların yerel yönetimlerde politika yapıcılara ve karar vericilere yardımcı olmasını amaçlamaktadır.

Tasarım/Metodoloji/Yaklaşım: Üretici kadınların hayatlarındaki, hislerindeki ve algılarındaki değişimler yüz yüze yapılan görüşmeler sonucunda Maxqda veri analizi yazılımı yardımıyla yapılan içerik analizi ile analiz edilmiştir.

**Bulgular:** Araştırma sonuçlarına göre ekonomik olarak güçlü olan kadınların kendilerini daha iyi hissettikleri ve öz güvenlerinin arttığı sonuçlarına ulaşılmıştır. Sonuç olarak bu çalışma, üretici kadınların iş gücü piyasasındaki yerlerinin önemini vurgulamaktadır.

Özgünlük/Değer: Kadın üreticilerin iş gücü piyasasındaki önemleri ve hayatlarındaki değişimler belirlenmiştir.

Anahtar kelimeler: Kadınlar, Üretici Pazarı, Maxqda Veri Analizi, Kırsal, Sosyo-Ekonomik Statü, Mersin

# 1.INTRODUCTION

Markets are important places where producer and consumer interactions are experienced intensely. The markets, while reflecting the socio-economic and cultural characteristics of their regions, along with the concepts of urbanization and modernization, they also reveal the changes and transformations in societies (Saritas, 2017).

Producers markets are the means of direct sales to local consumers, instead of global markets or wholesalers of goods. In other words, they are the channels through which farm produce are directly provided to local consumers (Martinez et al., 2010). The sales of local produce in these markets supply a cash flow in the local economy. Because opening a stall in a producers' market does not require capital, the producers derive supplemental income from them. Additionally, these markets are places where producers and consumers come together for face-to-face transactions. These markets allow the producers sell their extra goods left after meeting their own needs. In this respect, they are important sales channels contributing to added income of small scale operations. According to Wolf et al. (2005), producers' markets have become leading places where especially small operations can derive income from marketing their produce directly and nationwide. In the study by Sercinoglu and Bektas (2014), it was emphasized that producers' markets were particularly important for small family operations utilizing their extra produce. From the viewpoint of consumers, neighborhood markets serve as local alternatives to supermarkets and grocery markets to meet their needs for food. According to Farma (2011), the produce sold in producers' markets must be produced locally and the sellers must be the producers, themselves.

Producers markets are not new concepts. Direct markets go back thousands of years (Mazoyer and Roudart, 2006). However, in the way it is understood in today's Britain, producers' markets are a new phenomenon (Holloway and Kneafsey, 2000). In the last twenty years, there has been a leaning towards direct markets also in the countries which are European Union (EU) members. According to the results of Eurostat's Farm Structure Analysis, 15% of the EU farmers, 6.9% of the U.S. farmers and 25% of Canadian farmers have sold their products directly to the consumers (Adanacioglu, 2017).

In recent years, a growth is being observed in direct marketing of agricultural products. There have also been academic studies focusing on the economic, social and environmental benefits of direct marketing. In the studies on producers' markets, trust, face-to-face communication, rivalry and social integration factors have been considered (Guthman, 2008). In general, the topics include advantages the markets bring to producers, the products sold in the markets, the consumer profiles and the reasons for producers prefer these markets (Govindasamy et al., 2002; Vecchio, 2009). On the topic of the trust placed on local products of producers markets, the perceptions of the consumers and their purchasing behavior have been studied. It has been determined that, producers' markets enable the consumers to access safer food items and local products are superior in terms of freshness, food safety and nutritional value (Li et al., 2017). It is noted that the studies undertaken in this context generally have examined the producers' markets from the demand (consumer) viewpoint, while the supply side has been ignored and the effects on producers have been analyzed without differentiating the genders. Therefore, studies that will distinguish producers' genders will be extremely important.

In Simone Beauvoir's words, woman is the "second sex" (the man being the first). Considering the types of work done traditionally by men, women's labor came in second (Marçal, 2018). Indeed, Serdaroglu (2010) stated that neo-classical theory of human capital ignored the women's labor and treats the work performed by women as activities outside the economy. In other words, the women who undertake raising children, caring for the elderly and producing at-home were not considered a part of productive labor force.

Consequently, the women were attributed no roles in economy, or their roles were downplayed. However, when the value of unpaid labor was calculated in Canada, it was found to be between 30.6% and 41.4% of the gross national product. Marcal (2018) stated that this point of view changed after 1950s and Chicago economists included women as parts of economy.

One of the first experts to recognize the importance of women's participation in the labor market is considered to be Gilman (1898) with his study of women's at-home statuses (Pujol, 1992). The low human capital attributed to women and their burden of house chores hinder their participation in the labor market.

The foremost actors of these producers' markets, which are also becoming popular in Turkey, are women producers. The producers' markets provide women with opportunities to socialize and find means of employment. Women have been selling their produce in these markets in accordance with their skills. Producers markets are important in terms of providing rural women with income. While women play active roles in household consumption and produce for the market, they also contribute to continuing agricultural production process and improving the economic well-being of the household (Hablemitoglu, 1998). However, women's activities in the production and distribution of food items are considered to be of secondary importance, even though the food items are crucial for the well-being of the society.

However, because the products of rural women are usually sold their husbands or fathers, those women have little or no control over that income. In this context, producers' markets are important places giving the women control of their own incomes.

In Turkey, the producers' markets were established on the basis of a regulation issued in 2012, with the "Regulations on Market Places" published on July 12, 2012 edition of the Turkish Legal Gazette, numbered 28351. The studies on these markets are insufficient, especially on the place of women in these markets. Furthermore, there is a need for studies that establish women's viewpoints. From this respect, this study has aimed at filling in this gap in the literature, by analyzing the women producers' roles and consumer behavior in the Yenisehir and Mezitli county markets in Mersin province. It is hoped that the results of the study will contribute to the decisions made by local governors and policy makers.

# 2.MATERIAL and METHOD

## The field of study

There are 8 producers' markets operating under Mezitli County Municipiality in Mersin province. The market which served as a field of study covers an area of 1300 m2 and there are 200 women who have stalls in that market. Yenisehir County Municipality has one such market covering an area of 2799 m2 and 62 women operate stalls there. The women producers selling in these Mezitli and Yenisehir County markets and consumers who shop there form the field of study.

## Method of sampling, data collection and analysis

Since this study focuses on a specific geographical area, Yenisehir and Mezitli counties have been selected to form a sampling set. In addition, Yenisehir and Mezitli producers' markets were preferred for their convenience for the purpose as "targeted samplings". The facts that these markets were the firsts of their kind, were known better and attracted applications from more women producers were also effective in the choice.

The market stalls were given numbers in accordance with the systematic sampling method. Out of the 62 women producers' stalls in Yenisehir market, four stalls were to be selected, so the division of 60 by 4 being 15, every 15th stall was considered in the study. In order to select four stalls from Mezitli market, 200 divided by 4 being 50, every 50th stall was considered. In the two markets, detailed interviews were done with the eight women producers selected for the study, as done in quantitative studies. The method of "interview form" was preferred for this. In this method, a specific list of questions is formed and information are collected on the same subjects, but from different people (Patton, 1987). Using this method, data were collected in July 2019 from the producer women owning stalls.

In this study, content-text analyses were done with Maxqda Data Analysis Software. In the analyses, considering the sociodemographic and economic characteristics of women and the changes in their lives, feelings and perceptions, 16 codes were produced.

### 3.FINDINGS

Table 1. The Codes Specified in the Study

Code	Code Frequency (f)	Code Percentage (%)
Personal effects	11	11.1
Consumer-producer relationships	13	13.1
Household relationships	8	8.1
Kin-neighbor relationships	4	4
Social effects	3	3
Decision making	8	8.1
Basic income	1	1
Additional income	11	11.1
Time	4	4
Regular attendance	8	8.1
Improve operations	5	5.1
To myself	2	2
To house	2	2
Production costs	5	5.1
To children	6	6.1
Vegetable and own productions	8	8.1
TOTAL	99	100

In the interviews done in the study, the specified codes were encountered 99 times. The most-often-repeated codes were seen to be "Consumer-producer relationships" (f = 13, 13.1%), "Additional income" (f = 11, 11.1%) and "Personal effects" (f = 11, 11.1%). "Basic income" (f = 1, 1%), Spending on "To myself" (f = 2, 2%) and Spending "To house" (f = 2, 2%) codes were the least used.

# Socio-demographic and economic characteristics of the participating women producers

The women producers interviewed in the field of study were aged from 28 to 52. Only one woman was single. All the married women had children. Except one high-school graduate, they had only finished the elementary school. Looking at the working-age women in Turkey for comparison, 78% of them are below high-school level, 58% are at or below primary school level and 17% are not literate. For that reason, the ratio of participation in the labor market is low for women (34.7%). The difficulty or the impossibility of rural women's access to education, financial loans, social security and technology hinder their participation in the labor force. However, according to Uraz et al. (2010), the level of education has little effect in rural areas on the decisions relating to participating in the labor market. In the rural areas, 38% of women are illiterate or without a diploma, while 43% are primary school graduates. Despite of this, 90% of the agricultural work force is made up of women who are at or below primary school level. Women with low education are barred from the labor market only in urban areas.

The married women producers had social security due to their husbands. Their income from the sales in the market were additional income for their households, except for one woman. Considering that the means of employment were limited for women with low education in the area of study and the potential income would be low, producers' markets have created opportunities for them.

# The changes in the perceptions, emotions and livelihoods of the participating women producers

In the study field, it was determined that producers market generally created means and opportunities for women to earn income, to improve marketing skills, to access public services, improve their statuses in the family and the society, while socializing and supporting each other.

In the rural areas of Turkey, women are not viewed as producers. It is generally accepted that women serve as helpers to men in agricultural production. Indeed, women have also adopted that role. The women interviewed in this study sold products with added value, such as tomato paste, pomegranate molasse, olive oil, jams and cheese, etc., as well as the produce from their gardens. Nevertheless, these women ignored their accomplishments as producers and sellers and stated their profession as just "housewife". Multiple roles of women (being housewives and working in and outside agriculture) affect social statuses in their households (Rosada, 2016).

Producers markets have now become one of the means of interaction between the rural and urban areas (Wolf et al., 2005). Producers are pleased by being there; they like the atmosphere in the market and they appreciate interacting with the consumers. They are also happy to be with the fellow producers. The direct interaction between the producers and the consumers help the producers to take pride in the produce they grew, to determine the expectations of the consumers and feel as an important part of the production/marketing chain (Kirwan, 2004). According to a study by Hunt (2007), the foremost factor that motivates the producers to sell in the markets is the direct interactions with the consumers, while earning income is the second factor.

Indeed, the women producers interviewed in the field of study stated that their interactions with the consumers, as well as other women producers have been quite well, with conversations and tea parties. They also stated that sometimes they visited each others' homes and one of their most important motivations were these interactions. When the Code Matrix Browser in Table 2 is examined, it is seen that the code most repeated by the participants (13 times) was "the relationships with the consumers and producers".

**Table 2.** Code Matrix

correlation

CODE SYSTEM	Yenisehir	Yenisehir	Yenisehir	Yenisehir	Mezitli	Mezitli	Mezitli	Mezitli	Total
	1	2	3	4	1	2	3	4	
RELATIONSHIPS									
Personal Effects									11
ConsProduc.									13
Relationships									
Household									8
Kin-Neighbor									4
Social Effects									3
DECISION MAKING									8
INCOME									
Basic Income									1
Additional Income									11
TIME									4
REGULAR									8
ATTENDANCE									
EXPENSE									
Improve Operations									5
To Myself									2
To House									2
Production Costs									5
To Children									6
VEGETABLE									8
TOTAL	15	11	12	12	13	12	13	11	99

Producers markets encourage the producers in increasing the variety of food items they produce. The increase in variety, in turn, help strengthen the small scale businesses (Brown and Miller, 2008). Feenstra et al. (2003), in their study on the human capital, noted that producer markets provide 80% of the producer-sellers with great opportunities to improve their operations.

A woman producer interviewed in the field, code named Yenisehir-4 supported the findings of Feenstra et al. (2003):

"... my most important sources of motivation are the consumers and the fellow producers who opened their stalls. I started with purslane. Now I am growing fresh fruits and vegetables. I also make and bring jams and tomato paste..."

Another producer, code named Mezitli-1 expressed her thoughts:

"Same people come to the market every week; they want me to bring new products. Thus the products I bring to the market become more varied. (Table 3).

Another code mostly repeated in the field (11 times) was the increase in self-confidence, knowledge, skills, prestige and communication with the town (Table 2). An interviewed woman code named Yenisehir-1 and Yenisehir-2 said:

"... my self-confidence improved; neighbors and relatives speak highly of me."

Two others, Yenisehir-3 and Mezitli-2 thus quoted their experiences:

"... my communication with the town increased. Previously, I came to the city only when the chores required it, but now I come once or twice, every week. I also find time to sightsee."

It was noted that, the neighbors or relatives who saw how the lives of these women changed applied to the municipalities to open their own stalls in the markets.

Women's mobility is limited and varied, depending on the hours of the day, distances to be covered, means of transportation, cultural norms, workload and house chores, etc. It is relatively easier for women to take short trips than long ones. However, women also need permission from their husbands to go anywhere. For example, in Bangladesh, women's movements are restricted to nearby fields where they perform limited types of works (weeding, post-harvest care, etc.). In Ethiopia, women can go to places in accordance with their marital statuses, financial means, the purposes of the trips, cultural and religious norms. In Tanzania, women's mobility primarily depends on their relationships with their husbands (Meinzen-Dick et al., 2019).

Hunt (2007), in his study, also stated that markets boosted the self-confidences of the producers, while helping them improve their skills.

The women who participated in the study stated that they wanted to open stalls in the market as long as they could afford.

Earning income is the most important dimension in empowering women (Meinzen-Dick et al., 2019). Producer markets contribute to the producers' agricultural incomes (Brown and Miller, 2008). Payne (2002) found that producers sold as much as 28% of their produce in these markets. In another study, Varner and Otto (2008) stated that producers' markets supported the household income. The producers interviewed in this study expressed that they spent the extra income from the markets firstly for their children, then to household needs, and then sometimes for the agricultural costs (Table 3). All the interviewed women emphasized the importance of independently earning income. For example, Mezitli-4 and Yenisehir-4 said that they could also spend money for their own needs. Even if the women did not earn much in these markets, it was nevertheless the first income they independently earned.

According to Chicago economists, the income derived outside home affect the power balance at home, and thus the household decisions. In case the man is the bread-earner, the woman has very little say at home (Marcal, 2018). The money earned by the woman at home or outside and her contribution to economic well-being of the household improve her effectiveness in the decision processes. For example, in rural Bangladesh, if a woman earns money and that money is needed by the man, she participates in the decision processes more often. However, again in Bangladesh, some men believe that men, not women should be the breadwinners. Such men insist that they should be the who make all the decisions (Meinzen-Dick et al., 2019). In Ghana, men do feel that women's monetary contributions relieve them financially, but they see the same contribution as a possible threat to their powerful roles in the households (Meinzen-Dick et al., 2019). Kieran et al. (2018) notes that women's contribution to family income improve the respect between the couples.

According to Yuliati (2008), there are five types of decision making processes for women:

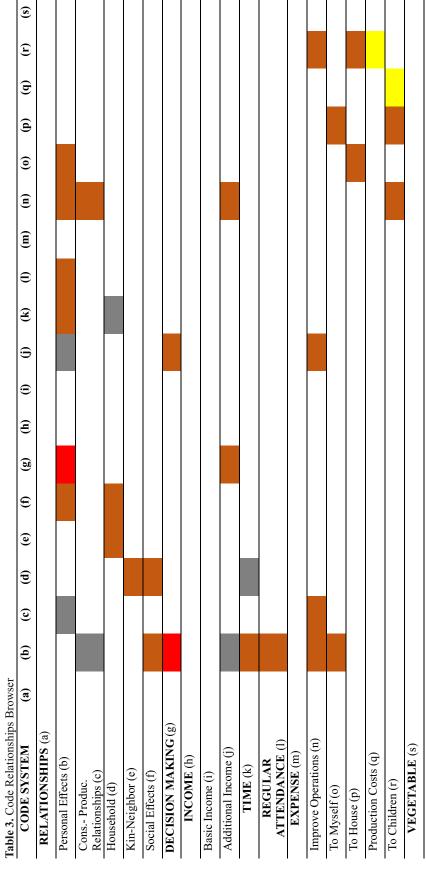
- 1. They make decisions on their own.
- 2. They make decisions with their husbands, but women dominate more.
- 3. They make decisions with their husbands, on equal terms.
- 4. They make decisions with their husbands, but men dominate more.
- 5. They let their husbands make the decisions.

The important subjects they decide on are running the kitchen, managing the household finances, meeting the various needs, managing the time and chores outside home, earning money, education of children, and arranging the communications in and out of home (Rosada, 2016). In the study by (Meinzen-Dick et al. 2019), it is claimed that the man is the only decision maker at home about the family income, and that the woman cannot sell farm animals she cares for and the income earned by the woman belongs to her children.

The women interviewed in the markets stated that their husbands dominated the decision process in agricultural production. IAs women, they primarily made the decisions about running the kitchen and taking care of the children and the children's education. In Damisa and Yohanna (2007) study, as well, it was noted that women did not take part agricultural decision processes and men ruled the subjects related to economy. On the other hand, Schultz (1999) claimed that women in Thailand not only participated in agricultural activities, but they also played important roles in management and decision processes (Yavuz et al., 2018).

In all domains of work, at home, on the farm and in the society, the workloads of women are quite heavy. For example, in Mali, women are the first to rise and the last to sleep. In Ethiopia, it is reported that money-making activities increase the workload for women. Women are allowed to trade in mil by their husbands, only as long as they fulfill their responsibilities in cooking, house chores and the caring for the children or the elderly (Meinzen-Dick and et al., 2019). Demir et al. (2017), in their study undertaken in the province of Kars, determined that women worked on animal husbandry for 32 hours per week on the average, and had to do house chores and care for their children for the rest of the time. Arikan (1988) noted that the work hours for women remained the same as 16 hours per day, even though the men's work periods varied greatly, depending on the season and the region they lived in. An item that became prominent in this study were the increase in the burden of work for the women in producers' markets (Table 3). The women Yenisehir-3 and Mezitli-3 said that in their interviews:

"... opening a stall in this market increased our burden of work. The time left for our children and house chores decreased. That's why I have been having problems with the children.



Red colour: Strong correlation / Yellow colour: Medium correlation / Grey colour: Weak correlation / Orange colour: Too weak correlation / White colour: No correlation

### **4.RESULTS and RECOMMENDATIONS**

The interviews done in the field of study helped obtain subjective information about the perceptions and feelings of the producer women in the rural areas.

Earning income and establishing social bonds empower women. Having these abilities are important tools for joining the producers' markets. Women selling in producer markets have started to connect to both each other and to consumers, and to participate in the social and economic activities. The women who have gained self-confidence by leaving the confines of home have also felt themselves more valuable.

Producers markets help the women in rural areas the means for selling their produce they grew as part of "women's traditional roles", in a way that suits their skill sets. Even though they did not make much money, the money they made were the first they made on their own. The women with economic power felt safer and more confident. They participated more in the household decision making and established better relationships. Rural women with an income generating work felt more like a part of the society, outside their traditional roles as mothers and wives.

A woman who can access to the labor market outside home socializes, gains new skills, communicates better inside or outside home, while her respectability in the society improves. Economic empowerment provides security for women and it is effective in making the women feel better.

Producers markets provide the women selling produce with a continuous flow of cash. The continuity of the income for meeting their needs help the women with the means to expand their operations and increase the product variety.

In conclusion, the women have gained much from their operations in producers' markets, such as:

- ·Earning income,
- ·Socializing,
- ·Improving the skills in production and sales,
- ·Respectability inside and outside home,
- ·Expanding the labor outlets.

In this context, any type of enterprise that will place the rural women in the labor market becomes crucial. Producers markets are especially important means to empower women socially and provide them with jobs. In order to improve and expand this effect of empowerment, other activities that will provide income for women must also be supported. Additionally, helping the women organize under the cooperatives will also contribute to the raising their levels of prosperity.

# Contribution Rate of Researchers Declaration Summary

The authors declare that they have contributed equally to the article and have not plagiarized.

### **Conflict of Interest Declaration**

The authors of the article declare that there is no conflict of interest between them.

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# Tarım Ekonomisi Dergisi

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# Türkiye'de Kırdan Kente Göç-İşsizlik: Todaro Paradoksu

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### Özet

Amaç: Az gelişmiş ve gelişmekte olan ülkelerin sanayileşmiş kentlerinde istihdam olanaklarının artmasının işsizlik üzerindeki pozitif etkisi, kırdan kente olan göçlerin işsizlik üzerinde yarattığı negatif etki ile ortadan kalkabilmektedir. Dahası bu etki işsizliği artırabilmektedir. Bu olgu, literatürde "Todaro Paradoksu" olarak bilinmektedir. Bu çalışmada, Türkiye'de 1988-2019 yılları arasında istihdam ve işsizlik arasında ilişki incelenmiş ve incelenen dönemde Todaro paradoksunun gerçekleşip-gerçekleşmediğinin ortaya konulması amaclanmıstır.

**Tasarım/Metodoloji /Yaklaşım:** Çalışmada kriz yılları (dummy değişken), kentsel istihdam oranı, kentsel işsizlik oranı ve kırsal nüfusun toplam nüfustaki payı değişken olarak kullanılmıştır. Çalışmada, en küçük kareler yöntemi kullanılmıştır.

**Bulgular:** Tahmin edilen model sonucunda Türkiye'de 1988-2019 yılları arasında kentsel istihdam oranı ile kırsal nüfusun toplam nüfustaki payı ve işsizlik oranı arasında negatif yönlü ve anlamlı bir ilişki olduğu gözlemlenmistir.

gözlemlenmiştir. Özgünlük/Değer: Çalışma; istihdam artışlarının, kırdan kente göçler dolayısıyla kentsel işsizlik üzerinde yarattığı negatif etkiyi ortaya koyan sınırlı sayıdaki araştırmadan biridir.

Anahtar kelimeler: Todaro Paradoksu, İstihdam, İşsizlik, Göç, Türkiye.

# Rural To Urgan Migration-Unemployment in Turkey: Todaro Paradox Abstract

**Purpose:** Increment of employment opportunities in industrialized cities of underdeveloped and developing countries and its positive impact on job generation is suppressed by negative impact of immigration from rural areas. It further increases unemployment. This phenomenon is called "Todaro Paradox" in scientific literature. The relationship between employment and unemployment during 1988-2019 was assessed in this to determine if the Todaro Paradox did occur or not during this period.

**Design/Methodology/Approach:** To this end, the crisis years, urban employment and unemployment rates and ratio of rural population in overall population were used as variables. Least Squares Method was used for analysis.

**Findings:** A meaningful and negative relationship was observed between urban employment are, ratio of rural population and unemployment during 1988-2019.

**Originality/Value:** The study is one of the limited number of studies that reveal the negative impact of employment increases on urban unemployment due to rural-urban migration.

**Key words:** Todaro Paradox, Employment, Unemployment, Migration, Turkey.

# 1.GİRİŞ

İstihdam kavramı, dar anlamda emeğin optimal kullanılarak, üretime katılması anlamına gelmektedir (Unay, 1993). Ekonomi politikalarının amaçlarından olan işsizlik sorunun çözümünde devletler farklı yaklaşımlar ve mücadele politikaları uygulamaktadır.

Kentlere yönelik uygulanan istihdam arttırıcı politikalar, özellikle gelişmekte olan ülkelerde kırdan kente göçe neden olmaktadır. Nitekim, Todaro (1969), Harris ve Todaro (1970) yaptıkları çalışmalarda, gelişmekte olan ülkelerde kırdan kente olan göç hareketlerini belirleyen faktörleri modellemişlerdir. Modele göre göçü belirleyen faktörler, kırsal ve kentsel kesimler arasındaki ücret farklılıkları ve kentsel kesimdeki istihdam olanaklarıdır. Harris-Todaro modeline göre sanayileşmiş olan kentsel kesimde iş bulabilme olanağı ile ağırlıklandırılmış ücretler (kentlerde beklenen ücret), kırsal kesimdeki ücretlerden yüksek olduğu sürece kırdan kente göç hareketleri devam edecektir. Gelişmekte olan ve az gelişmiş ülkelerde bu göç akımları iki aşamalı olmaktadır. Birinci aşamada göç edenler yeteri kadar donanıma sahip olmadıkları için doğrudan kentsel formel sektörde iş bulamayıp, enformel sektörde çalışma fırsatı bulabilmektedir.

Göç edenler ancak ikinci aşamada formel sektörde iş bulmaktadır. Yani, Harris ve Todaro (1970)'ya göre işsizlik, göçün hem nedeni hem de sonucudur. Ülke içerisinde kırsal ve kentsel bölgeler arasında ücret ve istihdam olanaklarında farklılık bulunduğu sürece kırdan kente göç devam edecektir. Kır ve kent arasındaki ücret farklılıkları ne kadar yüksek olursa olsun göç etme eğiliminde olan kişiler kırdan kente göç etme kararı alırken modern sektörde iş bulabilmek için geçirecekleri süreyi göz önünde bulundurmaktadır (Todaro, 1969). Yani kentsel sektörde yaratılacak istihdam olanakları ve iş bulabilme süresi göçü tetikleyen önemli etkenlerdir. Todaro (1976)'da yayınladığı çalışmasında, "Todaro Paradoksu" olarak adlandırılan bir çelişkiden söz etmiştir. Todaro Paradoksuna göre: az gelişmiş ve gelişmekte olan ülkelerin sanayileşmiş olan kentlerinde istihdam olanaklarının artırılmasının işsizlik üzerindeki pozitif etkisi, kırdan kente olan göçlerin işsizlik üzerinde yarattığı negatif etki ile ortadan kalkmaktadır. Bu nedenle kentlerde işsizliği azaltmak için yapılan yatırımlar, işsizliği azaltmak yerine artırabilmektedir. Kentsel işsizlik sorununu çözebilmek için kentsel bir çözüm bulunmayıp; kırsal kalkınma şarttır. Bu sonuç birçok araştırmacı tarafından araştırılmıştır ve çalışmaların çoğunda Todaro paradoksunun hangi durumlarda var olduğu ortaya konulmuştur. Bu bağlamda; Todaro (1969) yaptığı çalışma ile kentlerde daha yüksek oranda istihdam yaratmanın göç ve kentsel işsizlik üzerindeki etkisini ilk inceleyen kişi olmuştur. Todaro, modern sektörde daha fazla iş imkânlarının yaratılmasının işsizlik oranını artırmayacağını söylemiştir (Todaro, 1969). Zarembka (1970) da, çıktı artışı ile iş bulma olasılığındaki artışın göçü artıracağını ve dolayısıyla işsizlik oranının da artacağını ifade etmiştir. Bu sonuç Todaro'nun (1969) çözümünün tersidir. Todaro, Zarembka'ya yanıt olarak; kentsel sektördeki istihdam fırsatlarındaki bir iyileşmenin, örneğin üretimin genişletilmesi yoluyla iş bulma olasılığında bir artış olacağını dolayısıyla bunun da göçte artışa neden olarak işsizlik oranını artıracağını söylemiştir (Todaro, 1970). Blomqvist (1970) kentlerde istihdam yaratıcı politikaların işsizlik üzerine etkilerini incelediği çalışmasında; az gelişmiş ve gelişmekte olan ülkelerde veriye ulaşma sorunu olduğunu, bu nedenle kırdan kente göç ile ilgili mevcut ampirik çalışmaların Todaro Paradoks'unun geçerliliğini test etmek için yeterli olmadığını belirtmiştir. Paradoksu test edebilmek için daha fazla ampirik çalışmanın olması gerektiğini vurgulayarak; Todaro (1969) ve Harris ve Todaro (1970) modellerini sentezleyerek alternatif bir model sunmuştur. Todaro (1969) çalışmasında modern sektörde yaratılan iş imkânlarının, işsizliği artırmayacağı sonucuna ulaşmıştır ancak Blomqvist ve Zarembka ise farklı bir göç fonksiyonu varsayıldığında uzun vadede işsizlik oranının artabileceğini ortaya çıkarmıştır (Arellano, 1981). Takagi (1984), Todaro paradoksunu karar alıcıların beklentilerindeki farklılıklara göre modellemiş ve paradoksun hangi durumlarda ortaya çıkacağını saptamıştır. Nakagome (1989) ise, Todaro paradoksunu mekânsal bağlamda incelemis ve modeli, mekânsal bir isgücü piyasasını tanımlamak için genisletmistir. İstihdam olanaklarının artırılması ile beklenen gelir yükseldiğinde, ya işgücü piyasasının mekânsal genişlemesinin etkisi ile ya da kırdan kente göçün etkisiyle işsizliğin artacağını ifade etmiştir. Stark, Gupta ve Levhari (1991), kentsel emek talebinin inelastik olması durumunda, kentsel istihdam artışlarının kentteki işsizliği azaltacağını belirtmiştir. Todaro paradoksu belirli varsayımların olası sonucudur. Az gelişmiş ve gelişmekte olan ülkeler, ücret oranında küçük bir düşüş ile istihdamda büyük bir artış elde edebilecek durumda değillerdir. Bu ekonomiler, tipik olarak talep eğrisinin esnekliğinin düşük olduğu bir noktadır ve dolayısıyla bu tip ekonomilerde paradoks hiçbir zaman mevcut olmayabilir (Stark vd, 1991, s.280).

Diğer yandan Raimondos (1993)'da çalışmasında, kırsal işgücü piyasasının tekelci davranış ile karakterize edildiği bir Harris-Todaro modeli oluşturmuştur. Kentte istihdam edilen işçi sayısı, işsiz sayısından fazla ise kentte istihdam yaratılmasının işsizliği azaltacağını ve Todaro paradoksunun ortaya çıkmayacağını belirtmiştir. Ayrıca Raimondos'a göre tekelci kırsal iş gücü piyasasına sahip bir ekonomide, kentlerde büyüme kırsal alandan aşırı göç yaratmayacak ve işsizliğin düşme olasılığı yüksek olacaktır. Brueckner ve Zenou (1999) ise, Harris-Todaro modeline arazi piyasasını ekleyerek modeli değiştirmişlerdir (BZ modeli). Bu modele göre; formel sektörde büyüme kırsaldan kente göçe sebep olmayacaktır. Çünkü formel sektörde büyüme, iş bulabilme olasılığını artırmasına karşın, kentte arazi kiralarının yüksek olması göçü engelleyecektir. Brueckner ve Kim (2001)'de, sektör büyümesinin kent nüfusunu artıracağını ve bunun da arazi rantını artırarak; faydayı ve Harris-Todaro beklenen gelir düzeyini düşüreceğini ifade etmişlerdir. Zenou (2005) Todaro paradoksunu etkin ücret teorisi ve eşleştirme modeli bağlamında incelediği çalışmasında; etkin ücret eklentili modelde Todaro paradoksunun gerçekleşmediği sonucuna ulaşmıştır. Ancak eşleştirme modelinde, politika aracı olarak ele alınan işsizlik yardımlarındaki azalışın hem kentsel istihdamı hem de kentsel işsizliği artıracağını saptamıştır. Kentlerde uygulanan istihdam politikalarının, kırsal alandan ya da daha küçük kentlerden büyükşehirlere hareketlilik yaratacağını, bunun da paradoksa neden olacağını vurgulamıştır.

Literatür incelendiğinde; Türkiye'de bu paradoksu ortaya koyan yeterli çalışma bulunmadığı saptanmıştır. Bu bağlamda çalışmada; Türkiye'de 1988-2019 döneminde istihdam ile işsizlik oranları arasındaki ilişkinin, kırdan kente göçün negatif etkisi dikkate alınarak ortaya konulması amaçlanmıştır. Ayrıca çalışmada, Todaro Paradoksunun gerçekleşme durumu belirlenmeye ve böylece literatüre katkıda bulunulmaya çalışılmıştır.

# 2. MATERYAL ve YÖNTEM

# Veri kaynakları

Türkiye'de göç verilerine ulaşılamadığından, araştırmada Todaro Paradoks'unun geçerliliğini test etmek için 1988-2019 dönemini kapsayan kentte istihdam ve işsizlik oranı (%) (Türkiye İstatistik Kurumu (TÜİK)'dan alınmıştır). toplam nüfus ve kırsal nüfus verileri (Birleşmiş Milletler Tarım ve Gıda Örgütü (FAO)'den alınmıştır) kullanılmıştır. 6 Aralık 2012 Tarihinde 6360 sayılı toplam 37 maddeden ve 2 tane de geçici maddeden oluşan yasa sebebiyle nüfus verilerinde ortaya çıkan değişiklileri ortadan kaldırabilmek için FAO verileri alınmıştır.

**Çizelge 1.** Kentte 1988-2019 Yılları Arasında İstihdam ve İşsizlik Oranları (%) **Table 1.** Employment and Unemployment Rates in the City Between 1988-2019 (%)

Yıllar	KENT	KENT	Yıllar	KENT	KENT
	İstihdam %	İşsizlik %		İstihdam %	İşsizlik %
1988	42	13.1	2004	37.1	13.6
1989	41.3	13.1	2005	38.5	12.8
1990	41.5	12	2006	38.9	12.2
1991	40.4	12.7	2007	39	12
1992	40.9	12.6	2008	39.2	12.8
1993	39.5	12.6	2009	38.2	16.6
1994	40.5	12.4	2010	40.1	14.2
1995	40.3	10.8	2011	41.9	11.9
1996	40.1	9.9	2012	42.9	11.1
1997	40.3	10	2013	43.9	11.5
1998	40	10.5	2014	45.5	12
1999	39.8	11.4	2015	46	12.4
2000	40.2	8.8	2016	46.3	13
2001	38.9	11.6	2017	47.1	13
2002	38.1	14.2	2018	47.4	13
2003	37.7	13.8	2019	45.4	16.1

Kaynak: Türkiye İstatistik Kurumu, 2020. İşgücü istatistikleri 1988-2019.

**Cizelge 2.** Türkiye'de Toplam ve Kırsal Nüfus Sayısı ile Oranı (%) **Table 2.** Number and Ratio of Total and Rural Population in Turkey (%)

Yıllar	KırNüfusu	ToplamNüfus	%	Yıllar	KırNüfusu	ToplamNüfus	%
1988	22.598.256	52.053.704	0.434133486	2004	21.962.050	67.007.855	0.327753366
1989	22.310.208	52.992.429	0.421007461	2005	21.837.813	67.903.406	0.321601143
1990	21.998.667	53.921.699	0.407974293	2006	21.694.980	68.763.405	0.315501828
1991	21.949.266	54.840.531	0.400238028	2007	21.537.953	69.597.281	0.309465437
1992	22.010.994	55.748.875	0.394824003	2008	21.377.504	70.440.032	0.303485155
1993	22.063.820	56.653.729	0.389450446	2009	21.229.600	71.339.185	0.297586803
1994	22.110.168	57.564.132	0.384096263	2010	21.101.166	72.326.914	0.29174708
1995	22.152.887	58.486.381	0.378770008	2011	20.993.291	73.409.455	0.285975301
1996	22.192.521	59.423.208	0.373465549	2012	20.899.302	74.569.867	0.280264708
1997	22.229.506	60.372.499	0.368205828	2013	20.818.043	75.787.333	0.27469027
1998	22.260.806	61.329.59	0.362970077	2014	20.738.821	77.030.628	0.269228248
1999	22.284.325	62.287.326	0.357766602	2015	20.654.742	78.271.472	0.263885953
2000	22.297.793	63.240.121	0.352589348	2016	20.566.910	79.512.426	0.258662841
2001	22.248.580	64.191.474	0.34659712	2017	20.473.563	80.745.02	0.253558213
2002	22.165.676	65.143.054	0.340261542	2018	20.362.183	81.916.871	0.248571299
2003	22.071.506	66.085.803	0.333982565	2019	20.217.893	82.961.805	0.243701219

Kaynak: Birleşmiş Milletler Tarım ve Gıda Örgütü (FAO), 2020.

# Değişkenler ve analiz yöntemi

Analizde; işsizlik oranı bağımlı değişken olarak alınmıştır. Bağımsız değişken olarak kırdan kente göç verileri elde edilemediğinden; kırsal nüfusun toplam nüfusa oranı modele temsili değişken olarak eklenmiştir. Bir diğer bağımsız değişken olarak kentsel istihdam oranı ve kriz yılları içinde kukla değişkenin kentsel işsizlik oranlarına etkisini görebilmek amacıyla kukla değişkeni modele dahil edilmiştir (Cizelge 3).

Çizelge 3. Analizde Kullanılan Değişkenler Table 3. Variables Used in Analysis

Değişkenler	Değişkenlerin açıklaması
ISSIZORAN	Kentsel işsizlik oranı
ISTHORAN	Kentsel İstihdam oranı
KIRORAN	Kırsal nüfusun toplam nüfusa oranı
DK	Kriz yılları kukla değişkeni

En Küçük Kareler (EKK) yöntemi, ana kütle regresyon modelinde bağımlı değişken ile bağımsız değişken arasında ilişki kuran parametrelerin tahmin edilmesinde en çok kullanılan yöntemlerden birisidir. Diğer tahmin yöntemlerine kıyasla EKK yöntemi, uygulanması daha kolay olduğundan daha çok tercih edilmektedir (Çil Yavuz, 2014).

Bu çalışmada; Türkiye'de kentte istihdam olanakları artışının, kırdan kente göçe neden olup, bu göçün negatif etkisinin işsizliği artırıp artırmadığını ortaya koyabilmek için En Küçük Kareler yöntemi kullanılmış ve değişkenler arasındaki ilişki tespit edilmistir.

Zaman serileri, zaman içerisinde sürekli olarak gözlemlenebiliyorsa, bu seri sürekli bir yapıdadır. Ancak, bir zaman serisi yalnızca özel durumlarda gözlemlenebiliyorsa, bu dizi kesikli bir yapıya sahiptir. Diğer bir deyişle; zaman serileri tam olarak öngörülebiliyorsa, deterministik bir seridir. Fakat zaman serilerinin çoğu stokastik bir yapıya sahip olduğundan dolayı, serinin gelecekteki durumunu öngörebilmek, geçmiş değerler ile kısmen yapılabilmektedir (Sevütekin ve Nargeleçekenler, 2010).

Nelson ve Plosser (1982), zaman serisi uygulamalarında kullanılan makroekonomik zaman serilerinin neredeyse tamamının birim kök içerdiğini iddia etmişlerdir. Birim kökün var olduğu durumda, yani serilerin durağan olmaması durumunda seriler uzun dönemli deterministik bir yönde olma eğilimi taşımayabilir ve bu serilerin varyansları zamana bağlı olarak değişiklik gösterebilmektedir. Birim kökün yokluğu durumunda, durağan zaman serileri, sabit bir ortalama etrafında uzun dönemli dalgalanmakta ve zamana bağlı olmayan sonlu bir varyansa sahip olmaktadır (Atgür ve Altay, 2014).

Çalışmada, serilerin durağanlığını test etmek için de Augmented Dickey-Fuller birim kök testi (ADF) kullanılmıştır.

## 3.BULGULAR ve TARTIŞMA

Serilerin durağanlığını test etmek için kullanılan Augmented Dickey-Fuller birim kök testi sonuçlarına göre; kırsal nüfusun toplam nüfusa oranı (KIRORAN) değişkeni, düzey olarak durağandır. Türkiye'de kentsel istihdam oranı (ISTHORAN) ve kentsel işsizlik oranı (ISSIZORAN) serileri durağan olmadığından, serilerin birinci derece farkı alınıp durağan hale getirilmiştir (Çizelge 4).

Çizelge 4. Birim Kök Testi (ADF) Sonuçları Table 4. Unit Root Test (ADF) Results

			ADF (Birinci Dereceden	
Değişkenler	Sabit, Sabit Trend	ADF(Düzey olarak)	Fark Değerleri)	P (Probability) Değerleri
ISSIZORAN	Sabit		-4.88208	0.0005
ISTHORAN	Sabit &Trend		-4.326935	0.0093
KIRORAN	Sabit &Trend	-5.209221		0.0011

Tahmin edilen model sonucunda elde edilen bulgular Çizelge 5'te verilmiştir. Buna göre; modelin bütünü istatistiki açıdan anlamlıdır (Prob(F-istatistik)=0.000000).

R² değerinin yaklaşık olarak %73, düzeltilmiş R² değerinin de yaklaşık olarak %70 olduğu görülmektedir. Bağımlı değişken (ISSIZORAN), bağımsız değişkenler (KIRORAN, ISTHORAN) tarafından yaklaşık olarak %70 oranında açıklanmaktadır.

Bağımsız değişken olan kırsal nüfusun toplam nüfustaki payı (KIRORAN) ile bağımlı değişken işsizlik oranı arasında istatistiki olarak anlamlı ve negatif yönlü ilişki mevcuttur. Kırsal nüfusun toplam nüfustaki payında %1'lik bir azalış, işsizlik oranını %0.092 artırmaktadır. Yani kırdan kente olan göçler işsizliği artırmaktadır.

Bir diğer bağımsız değişken olan kentsel istihdam oranı (ISTHORAN) ile bağımlı değişken (ISSIZORAN) arasında istatistiki olarak anlamlı negatif yönlü ilişki mevcuttur. Kentsel istihdam oranındaki %1'lik bir artış, kentsel işsizlik oranını %0.85 azaltmaktadır.

Çizelge 5. En Küçük Kareler Tahmin Sonuçları

Table 5. Least Squares Prediction Results

Bağımlı Değişken: I	O(ISSIZORAN)			
Değişken	Katsayı	Std. Hata	t-Statistic	Olasılık
D(ISTHORAN)	-0.854379	0.181482	-4.707782	0.0001
KIRORAN	-0.091884	0.030345	-3.02799	0.0054
DK	1.619731	0.388044	4.174094	0.0003
С	2.835524	1.032007	2.747583	0.0106

R<sup>2</sup>: 0.727499

Düzeltilmiş R<sup>2</sup>: 0.697221 Durbin-Watson stat: 1.687001

F-statistic: 24.02741

Olasılık (F-statistic): 0.000000

Genel olarak göç gelişmekte olan ülkelerden gelişmiş ülkelere ve gelişmekte olan ülkelerde ise kırdan kente olmaktadır. Türkiye'de de kırsal alanlarda ekilebilir arazinin sınırına gelinmesi, üretimde mekanizasyonun artması ve tarım dışı istihdam olanaklarının yaratılamaması kırdan kente göçe neden olmaktadır. Başel (2011) yaptığı çalışmada göçlerin kırsaldan kentsel alanlara doğru olduğu belirtmiştir.

Göçlerin önemli bir bölümü iş bulma amacıyla gerçekleşmektedir (Şen, 2014, s. 252). Tarım sektörünün, GSYIH'dan aldığı payın düşüklüğü, diğer bir deyişle kır/kent kişi başına düşen gelirin 1/3 oranında olması kırdan kente göçü tetiklemektedir. İncelenen çalışmalarda görülmüştür. Nitekim Şahin (2018) Harris-Todaro Göç Modeli: Türkiye Uygulaması adlı çalışmasında; Türkiye'de kentsel istihdam olanakları artmaya devam ettikçe ve tarımsal katma değerin toplam katma değerdeki payı azaldıkça, kırdan kente göçlerin devam edeceğini vurgulamıştır. Türkiye'de kırdan kente göçü etkileyen faktörleri, HarrisTodaro göç modeli ile açıklanmaya çalışılan Aktaş ve Şahin (2019) çalışmalarında; kırdan kente yönelik göç hareketlerinin en önemli açıklayıcılarından birinin kentsel istihdamdaki artışlar olduğu sonucuna ulaşılmış ve kentsel istihdam ile kırsal nüfusun toplam nüfusa oranı arasında negatif yönlü ilişki tespit edilmiştir. Göç ve işsizlik arasındaki ilişkiyi inceleyen çalışmalarda göç ve işsizlik arasında çift yönlü nedensellik olduğu görülmüştür. Bahar ve Bingöl (2010) çalışmalarında kırdan kente göçün, kentlerde işgücü oranını artırarak istihdam olumsuz etkilediğini belirterek; kentte artan işgücü arzının, işsizliği kronikleştirdiğini ifade etmişlerdir. Çünkü çiftçilik yapan ve eğitim düzeyi düşük kişiler refah düzeylerini artırmak amacıyla kırdan kente göç ettiğinde ya marjinal alanlarda iş bulmakta ya da kentlerdeki işsizlik oranlarını artırmaktadır. Nitekim Gross (1998) Kanada'da yaptığı çalışmada eğitim düzeyi düşük, yeteneği olmayan kişilerin göçlerinin işsizliği artığını saptamıştır.

Şahin ve Yiğit (2016)'de göçün işsizliğin sonucu değil sebebi olduğu belirttiği çalışmasında, göç hareketlerinde meydana gelen 1 birimlik değişimin işsizlikte 0,28 birimlik değişime neden olduğunu saptamışlardır. Yapılan bu çalışmada da; kırsal nüfusun toplam nüfustaki payında (kırdan kente göç) %1'lik bir azalış, işsizlik oranını %0.092 artırmaktadır.

### 4. SONUÇ

Çalışmada; tahmin edilen model sonucunda Türkiye'de 1988-2019 dönemi için kentsel istihdam oranı, kırsal nüfusun toplam nüfustaki payı ve işsizlik oranı arasında bir ilişki olduğu gözlemlenmiştir. Analiz sonucu; Türkiye'de kentlerde istihdam olanaklarının artırılmasının işsizlik oranını azaltması yönündeki olumlu etkisinin kırdan kente göç ile azaldığını göstermiştir. Bu sonuç, Todaro paradoksunu doğrulamaktadır. Diğer bir deyişle; kentte istihdam olanaklarının artması, kırdan kente göçe ivme kazandırmakta ve bu göç kentsel işsizliği artırıcı etki yaratmaktadır.

Bu bağlamda; işsizlikle mücadele politikaları yürütülürken; sadece kentte değil kırsalda da istihdam artırıcı politikalar uygulanmalıdır. Kentsel istihdam artırıcı politikaların, kırsal kalkınmaya yönelik politikalarla (kırsalda tarıma dayalı sanayinin kurulması, tarım dışı gelir olanaklarının artırılması vb) birlikte uygulanması işsizliği azaltmak yönündeki politikaların etkinliğini artıracaktır.

# Araştırmacıların Katkı Oranı Beyan Özeti

Yazarlar makaleye eşit oranda katkı sağlamış olduklarını ve intihal yapmadıklarını beyan eder.

### Cıkar Catısması Bevanı

Makale yazarları aralarında herhangi bir çıkar çatışması olmadığını beyan ederler.

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# A Study on Farmers' Approaches on Input Supply and Marketing of Agricultural Products

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### Abstract

**Purpose:** The main purpose of this research is to reveal the preferences of farmers for input supply and sales of agricultural products, interpreting the differences in this field and suggesting solutions.

**Design/Methodology/Approach:** The main material of the research is the survey study conducted with the producers in the research area. Apart from the survey data, the Farmer Registration System (CKS) data recorded by the Ministry of Agriculture and Forestry in the field of crop production was used. The records of the producers surveyed from the data of the National Milk Registration System were determined and included in the data set. Results were evaluated with descriptive statistics and Likert scale.

**Findings:** It has been determined that farmers prefer agricultural credit cooperatives and dealers for input supply, whereas they work with traders in the sale of agricultural products. In addition, it is observed that the agricultural sales or agricultural development cooperatives established to provide cheap input to the farmers are insufficient in this area.

**Originality/Value:** For farmers to have cheap inputs and low financing costs, the cooperatives operating in this field should be more institutionalized. In order to ensure the preference of cooperatives in terms of product sales, both information activities and strict controls of the state should be expanded.

Key words: Farmer, agricultural input, marketing, cooperative

# Çiftçilerin Girdi Temini ve Tarımsal Ürün Pazarlaması Konusundaki Yaklaşımları Üzerine Bir Araştırma

Özet

Amaç: Bu araştırmanın temel amacı, çiftçilerin girdi temini ve tarımsal ürün satışı konusundaki tercihlerini ortaya koymak ve bu alanda yaşanan farklılıkları yorumlayarak çözüm önerileri getirmektedir.

Tasarım/Metodoloji /Yaklaşım: Araştırmanın ana materyalini araştırma alanındaki çiftçilerle yapılan anket çalışması oluşturmaktadır. Anket verileri dışında bitkisel üretim alanında Tarım ve Orman Bakanlığı tarafından kaydı tutulan Çiftçi Kayıt Sistemi (ÇKS) verileri kullanılmıştır. Ulusal Süt Kayıt Sistemi verilerinden anket yapılan üreticilerin kayıtları tespit edilerek veri seti içerisine alınmıştır. Sonuçlar tanımlayıcı istatistikler ve likert ölçeği ile değerlendirilmiştir.

**Bulgular:** Çiftçilerin girdi temini konusunda tarım kredi kooperatifleri ve bayileri tercih ettiği buna karşın tarımsal ürün satışında tüccarlar ile çalıştığı tespit edilmiştir. Ayrıca çiftçilere ucuz girdi sağlamak için kurulan tarım satış ya da tarımsal kalkınma kooperatiflerinin bu alanda yetersiz kaldığı görülmektedir.

Özgünlük/Değer: Çiftçilerin ucuz girdi temini ve düşük finansman maliyetine sahip olması için bu alanda faaliyet gösteren kooperatiflerin daha kurumsal bir yapıya kavuşturulması gerekmektedir. Ürün satışı açısından kooperatiflerin tercih edilmesini sağlamak amacıyla hem bilgilendirme çalışmalarının ve hem de devletin yönlendirici rolünün yaygınlaştırılması gerekmektedir.

Anahtar kelimeler: Çiftçi, tarımsal girdi, pazarlama, kooperatif

### 1.INTRODUCTION

Sustainable agricultural production is relevant with marketing of agricultural goods and proper agricultural inputs supplying system. Understanding of types of buying agri-inputs and sales points give ideas that is important for agricultural production dynamics of farmers. Main purpose of this research is demonstrating of choices of farmers interms of buying agri-inputs and selling their agricultural products and bringing solutions with analysis of differences on this topic. In this framework, it has been tried to put forward the improvement suggestions that can be made in this field by demonstrating the commercial relations of the farmers' own businesses. In addition, advices are prepared considering whether there are differences between farmers choices or not. In many studies conducted in this area, it is seen that farmers prefer dealers or cooperatives for input, and similarly, they use cooperative or private sector companies as sales channels to sell their products. It is known that the preferences of farmers, especially those operating in different agricultural production areas, vary (Arici, 2018; Şahin ve ark. 2013; Sayılı ve Adıgüzel 2011; Kaya ve ark. 2019; Funk ve Downey 1983; USDA 1998; Artukoğlu, Olgun ve Adanacıoğlu, 2012; ACC 2018; Kınıklı ve ark, 2019; Değer ve ark., 2020). This research is different and important from other studies in terms of revealing the attitudes of farmers regarding input supply and marketing of their products, especially in terms of income groups.

### 2.MATERIAL and METHOD

#### Material

The main material of the research is the survey study conducted with the farmers in the research area. Apart from the survey data, the Farmer Registration System (ÇKS) data recorded by the Ministry of Agriculture and Forestry in the field of crop production was used.

### Method

### The method followed in selecting the research area

Saruhanlı and Gölmarmara districts from Manisa province and Malkara and Hayrabolu districts from Tekirdağ province were selected as research areas. In the selection of these districts, the combination of dry-irrigated agricultural production types, operating in the fields of fruit growing, olive cultivation and viticulture, and production in the field of cattle and dairy farming played a role. Thus, while analyzing the findings, it was ensured that the solution proposals to be put forward by the research cover wider masses and to act on a hybrid agricultural gross income composed of different products rather than single types of agricultural production. Agricultural production information was obtained from all the villages of the 4 districts in the area in the study area, gross income amounts were calculated and marked as low, medium, and high-income villages by dividing them into certain income levels. (Table 1.)

In the ranking made by the World Bank income levels Turkey is in the upper middle-income countries were identified among this group of countries in income per capita in 3.976 to 12,275 dollars. Average income per capita in 2018 was calculated by TURKSTAT as \$ 9,638 (45,463 TL). These two data were used when classifying the income levels of producers, and the net minimum wage figure for 2018 was used as the basis (TURKSTAT, 2019). Thus, segments corresponding to 24 minimum wages for low income level, 48 minimum wages for middle income level and 72 minimum wages for high income levels were envisaged. Thus, 0-50,000 TL for low income, 50,000-100,000 TL for middle income and 100,000 TL and above for high income were taken into consideration.

Table 1. Distribution of Villages in the Research Area by Income Ranges

	0-2.500.000	2.500.000- 5.000.000	5.000.000- 10.000.000	10.000.000+	Total
Gölmarmara	6	4	3	2	15
Hayrabolu	4	24	13	5	46
Malkara	28	24	16	3	71
Saruhanli	5	8	15	13	41
Genel Toplam	43	60	47	23	173

The distribution of the producers in the research area is determined by the principle of proportional representation. In this case, two villages were selected from among high, middle- and low-income villages, and a total of 24 villages were determined, 6 villages from each district (Table 2). The proportional representation principle has been adopted in the distribution of the survey numbers to the districts. While deciding on the number of surveys on district basis, the share of the relevant district in terms of the number of producers in the population was taken into consideration. It was aimed to distribute the questionnaires determined per district equally to the villages, but it was not possible to conduct equal surveys in each village.

**Table 2.** Distribution of the Surveys by Income Level and Villages

District	Income Level	Village	Number of Surveys	Total
Gölmarmara	Düşük	Ayanlar	5	38
	Düşük	Taşkuyucak	6	
	Orta	Kayaaltı	5	
	Orta	Ozanca	5	
	Yüksek	Beyler	5	
	Yüksek	Tiğinli	12	
Hayrabolu	Düşük	Çerkezmüsellim	14	81
	Düşük	Şalgamlı	16	
	Orta	Büyükkarakarlı	3	
	Orta	Çeneköy	16	
	Yüksek	Canhıdır	16	
	Yüksek	Tatarlı	16	
Malkara	Düşük	Balabancık	20	80
	Düşük	Gözsüz	25	
	Orta	Alaybey	14	
	Orta	Doğanköy	7	
	Yüksek	Vakıfiğdemir	10	
	Yüksek	Yenice	4	
Saruhanli	Düşük	Hatipler	22	133
	Düşük	Tirkeş	21	
	Orta	Dilek	22	
	Orta	Gökçe	20	
	Yüksek	Hacırahmanlı	22	
	Yüksek	Nuriye	26	
Toplam		•		332

### The method followed in the selection of the manufacturers

For the sample size to be surveyed, the number of ÇKS registered producers in 4 districts in the research area is 18,866 according to 2017 data. The sample size was calculated jointly for 4 districts and then distributed to the districts using the proportional representation method. The following formula was used in the sample size calculation. (Newbold, 1995):

$$n = \frac{N \bullet p \bullet (1-p)}{(N-1) \bullet \sigma^2 + p(1-p)}$$

N: Main set

p: The proportion of the number of enterprises with the expected characteristics in the main population (will be considered as 50% to reach the highest sample volume.)

# ;: Population variance

Gample volume was calculated with 95% confidence interval and 5.5% margin of error. In this case, the sample size was found to be 313, but the number of questionnaires was reached to 332 producers as much as possible and 332 questionnaires were evaluated. FRS records of the surveyed producers, it was ensured that the data were obtained anonymously, and Agricultural Gross Income, Agricultural Net Income and Total Net Income were calculated based on these data.

# The method followed in data analysis

Since the survey area consists of 4 different districts and there are producers from different income levels in each district, it is possible to evaluate and interpret the data from different angles. This situation also allows for a wide variety of comparisons, making it easier to prepare more accurate determinations and suggestions. In this respect, the research findings were classified according to the following criteria and converted into a Chart:

Village Income Threshold: It is divided into three as Low, Medium, and High. These groups were found by calculating the incomes of the villages included in the research area before the survey. However, these do not represent the income level of the producers surveyed, but the income level of the village where that producer lives. Since the sample selection is made according to these strata, the findings are shared primarily based on these income groups in the tables.

Land size: Classified as (0-50) - (50-100) - (100-250) - (250-500) - (500) and above) over the lands cultivated by the surveyed producers (including rents).

The breakdown of land size and income levels were compared together, and thus the impact of land assets on the data was analyzed.

Income Segmentation: It is determined by dividing into 50.000 and 100.000 TL tranches over the total income of the producers.

While determining these tranches, the actual income brackets used by banks were taken into consideration and the income segment was mostly used for better interpretation of the data on financing usage.

While calculating the gross income and net income of plants, the tables of the unit income, expenditure and yield of herbal products, called the agricultural chart of 3 banks (TEB, 2019; TC.Ziraat Bankası, 2019; Denizbank A.Ş., 2019) were used.

Explanations regarding data such as income and expenditure per decare included in these tables are as follows:

Income per decare: It is calculated as the gross production value. It is the value equivalent of the whole product (including consumption at source, seed allocated, etc.) purchased by farmers in a production period. Buna yan ürün gelirleri de dahildir.

Expenditure Per Decare: Includes all crop production costs. This includes variable operating costs and active capital interest, land lease and depreciation costs for annual and perennial plants. However, the land rent is only included in the calculation for rental parcels. For the rental land prices, the average rental value in that region has been taken into consideration. While calculating the vegetative net income, the difference between the income per decare and the expenditure per decare was taken. However, in the findings regarding income, which has an important place in the analyzes within the scope of the research, non-agricultural income was excluded to show non-agricultural income separately. Livestock income was calculated using the same approach as in the vegetable gross income calculation as described above. While calculating the livestock production value, the amount of milk produced by the producers in the last 3 years was taken as a basis for premium and the revenues from the sale of calves and fertilizers were added to the Gross production value.

The following formula was used in calculating the total net income:

Total Net Income: [Gross product (vegetable + animal + non-agricultural income)] - [(Operating expenses + Equity interest + land rent)]

The Likert scale asks participants to indicate to what extent they agree or disagree with a range of mental beliefs or behavioral belief statements about a particular object. Normally, scale format, consensus, and disagreement are balanced between scale descriptors. Named after its original developer, Rensis Likert, this scale consists of five scale descriptors: "strongly agree", "agree", "neither agree nor disagree", "disagree", "strongly disagree. Within the scope of this research, a 10-point Likert scale was used and the farmers were asked to score between 1-10. Afterwards, these scores were grouped in pairs and evaluated (Hair, Bush and Ontinau, 2002).

# 3.FINDINGS and DISCUSSION

# **Demographic Information**

It is striking that the surveyed farmers are predominantly primary school graduates (81%) (they are generally evaluated over 8 years because they have 8 years of education). This is followed by high school graduation with 14.8% and undergraduate graduation with 3.6%. The illiterate producer rate is 0.6%. When the distribution of farmers by age groups is examined, the highest producer is in the 51-60 age group (37%). 38.6% of the farmers are in the 30-50 age group, 24.4% are 61 and over. All farmers are included in a social security system. It is seen that among the producers, the producers are registered to Bag-Kur the most with 79%, and they are registered to SGK (formerly SSK) with 18%. The least registered social security institution is the Pension Fund, with its former name.

# **Enterprises Information**

When the land size, product type, income and expenditure figures of the villages where the surveyed producers are located are examined, the average land size of the producers in the low income group is 108.4 decares, the producers in the middle income group are 123.7 decares and the producers in the high income group are 195, It is seen to be 5 decares (Table 3).

While the vegetable gross income per decare of the producers in the low-income group is  $703\,\text{TL/Da}$ , this figure is  $937\,\text{TL/Da}$  for the middle-income group and  $913\,\text{TL/Da}$  for the high income group.

Table 3. Land size, crop income and expense figures of farmers according to income groups

Income Level of Village	Numbers of Farmers	Avg. Farm Size (decare)	Avg. Plants Gross Income (TL)	Avg. Plants Costs Expenditure (TL)	Avg. Plants Net Income
Low	129	108.4	76 198	33 826	42 372
Mid	92	123.7	115 907	51 533	64 373
High	111	195.5	178 607	79 830	98 777
Total	332	141.8	121 441	54 114	67 327

When the organizational status of the farmers was examined, it was determined that 322 farmers, excluding 10 farmers, were members of at least one organization. While the highest membership is in the chamber of farmers, it is seen that the least membership is in the irrigation union. The total number of members is calculated as 698. Considering that the number of farmers who are members of at least one organization is 322, farmers are members of at least 2 to 3 organizations. (Table 4)

**Table 4.** Cooperative, union and chamber membership status of farmers according to income groups (A farmer can have more than one membership)

Income Level of Village	Development Coop.	Breeding Association	Chamber of farmers	Credit Coop.	Irrigation Union	Irrgation Coop.	Farmers Association
Low	31	29	103	73	10	15	25
Mid	39	6	49	38	2	4	11
High	30	14	82	59	20	18	28
Total	100	49	234	170	32	37	64

# Input Supply and Product Sales Points in the Research Area

When the agricultural organization in the research area and the situation of the dealers selling agricultural inputs are examined, different cooperatives organized in each district stand out. However, the effectiveness of these cooperatives is not clear.

In addition, it is observed that many drug, fertilizer, seed and equipment dealers operate in the districts. For fuel, another important input for agricultural production, many fuel stations operate in the districts. Saruhanlı district is the district with the most fuel dealers with 31 stations. On the other hand, there are only 5 fuel stations in Gölmarmara. (Table 5)

**Table 5.** Number of cooperatives in the research area and companies providing input

	Coo	Cooperatives				Dealer/Supplier				
	Development Coop.	Irrgation Coop.	Credit Coop.	Seed	Fertilize	Pesticide	Machinery	Gas		
Gölmarmara	2	2	1	8	1*	13	2	5		
Hayrabolu	25	11	9	1*	24	17	7	12		
Malkara	56	8	7	1*	28	15	10	23		
Saruhanlı	4		9	25	1*	42	21	31		

<sup>\*:</sup> Official data are not available. However, it is known that there is at least one dealer as observation data.

Source: Tekirdağ Provincial Directorate of Agriculture, Manisa Provincial Directorate of Agriculture, Agricultural Reports, EPDK Fuel Dealers List (2020)

In addition to agricultural organizations and dealers, many food businesses operate in the research area. Especially in terms of the number of establishments engaged in food production, Saruhanlı is the most intense district. Malkara is the most intense district in terms of collective consumption enterprises, which are defined as restaurants and similar enterprises (Table 6).

Table 6. Food Manufacturers and Retailers in Research Area(2019)

	Gölmarmara	Hayrabolu	Malkara	Saruhanlı	Toplam
Warehouse, Food Sales and Other Retail Operations	87	214	420	239	960
Food Production Businesses	13	37	52	87	189
Whole Consumption Businesses	77	245	500	209	1031
Total	177	496	972	535	2180

Source:https://ggbs.tarim.gov.tr/cis/servlet/StartCISPage?PAGEURL=/FSIS/ggbs.onayliIsletmeSorgu.htmlFarmers' Input Supply Structure

# Farmers' Input Supply Structure

When the input supply points of the surveyed farmers are examined, it is seen that input supply is made from different sources, but in fact, the input supply is generally concentrated in agricultural credit cooperatives and dealers. In fuel supply, 58.1% of the farmers prefer the agricultural credit cooperative, and 41.3% of them buy gas from the dealer. In fertilizer supply, agricultural credit cooperatives are preferred at a rate of 69%, while the rate of preference for dealers is 28.6%. Similarly, 62.3% of agricultural credit cooperatives are preferred for seed supply. In fact, it can be said that the basis of the preference of the agricultural credit cooperative here is that the farmers can use loans in kind from the agricultural credit cooperatives (Table 7). This situation is one of the prominent factors in input supply for Cooperatives.

**Table 7.** Supplier Points for Farmers

		Gas		rtilize	,	Seed	Feed	
	N	%	N	%	N	%	N	%
Cooperative	193	58.1	229	69.0	207	62.3	92	27.7
Dealer	137	41.3	95	28.6	89	26.8	42	12.7
Company	0	0.0	2	0.6	4	1.2	4	1.2
Chamber of Farmers	0	0.0	0	0.0	4	1.2	0	0.0
Other	0	0.0	2	0.6	1	0.3	0	0.0
Not Buying	2	0.6	4	1.2	27	8.1	194	58.4
Total	332	100.0	332	100.0	332	100.0	332	100.0

When the payment methods preferred by farmers for input supply are analyzed, it is seen that they make 73.8% cash payment in fuel purchases, whereas they purchase fuel with a harvest maturity of 19.9%. In fertilizer procurement, the rate of purchasing by paying in cash is 52.1%, while the rate of those who pay for harvest is 38%. In seed purchases, the cash payment rate is 44.7% and the harvest deferred payment rate is 33.9%. In feed purchases, it is seen that predominantly harvest deferred payment is preferred. Since the price changes in the fuel market occur in very short periods, cash payment is generally demanded in this market. However, it is thought that the farmers who shop from the agricultural credit cooperatives perceive their fuel purchases from the cooperatives as "cash" payments. However, farmers are credited in non-cash in agricultural credit cooperatives. In this respect, this perception of farmers is considered in the evaluation of the survey findings on fuel purchases. Because very few farmers stated that they use credit cards or harvest term cards (4.5%). Based on these data, it can be said that farmers mostly make harvest-term purchases but tend to shop in advance when they have the means. (Table 8).

Table 8. Farmers' Payments Methods

	Gas		Ferti	ilizer	Se	ed	Feed	
	N	%	N	%	N	%	N	%
In advance	245	73.8	173	52.1	149	44.7	24	7.2
Harvest Deferred	66	19.9	126	38.0	113	33.9	93	28.0
Product Money	3	0.9	10	3.0	14	4.2	10	3.0
Credit Card	4	1.2	2	0.6	3	0.9	4	1.2
Harvest Deferred Credit card	11	3.3	13	3.9	11	3.3	5	1.5
Not Buying	3	0.9	8	2.4	43	12.9	196	59.0
Total	332	100.0	332	100.0	333	100.0	332	100.0

Indeed, when the payment methods for fuel purchases are examined according to income groups, it is seen that 40% of the farmers in the low-income group make advance payments. On the other hand, 30.2% of producers in the middle-income group and 29.8% of producers in the high-income group prefer cash. On the other hand, the following fact should be considered: Farmers in the low-income group shop for much lower amounts in absolute value. For this reason, there may be opportunities to pay these amounts in advance.

# Agricultural Product Marketing and Product Price Collection Status of Farmers

When the points where farmers sell their products and collection forms are examined, it is seen that merchants are predominantly preferred. Farmers can sell products to more than one point. In this respect, the preference rate of merchants for all payment methods is 88.6%. The prominence of merchants in marketing can be explained by the large scale of farms to some extent. Development cooperatives and producer unions are preferred after the traders. However, traders are preferred in terms of the capacity to pay the farmers in advance. It is seen that the farmers who sell products to the farmers' unions and breeder unions (it is known that the product sold here is raw milk due to the sector structure) has long terms of up to 45 days. The preference rate of cooperatives and unions preferred by farmers after merchants is up to 25%. In fact, farmers prefer agricultural credit cooperatives for input supply, while they prefer merchants rather than cooperatives for product sales (Table 9).

Table 9. Farmers' product sales points and collection methods

	Trader	Development Cooperative	Farmers' Union	Breeder Association	Company
In advance	251	39	45		46
0-45 Days Deferred	44	83	42	48	44
90 and more days Deferred	1	1			1
Not Selling	36	209	245	284	241
Total	332	332	332	332	332

	Shares											
	Trader	Development Cooperative	Farmers' Union	Breeder Association	Company							
In advance	75.6%	11.7%	13.6%	0.0%	13.9%							
0-45 Days Deferred	13.3%	25.0%	12.7%	14.5%	13.3%							
90 and more days Deferred	0.3%	0.3%	0.0%	0.0%	0.3%							
Not Selling	10.8%	63.0%	73.8%	85.5%	72.6%							
Total	100.0%	100.0%	100.0%	100.0%	100.0%							

In the interviews with the farmers, their views on organization were tried to be obtained. Most of the farmers think that organizing is insufficient (8,27/10). However, as mentioned in the previous sections, farmers are members of at least one organization and it is known that many producer organizations operate in the field of research. Here, it can be said that the current organizations are inadequate in functioning and functioning. Indeed, in the other two questions, both the opinion that the level of knowledge of the cooperative managements is inadequate (6,8/10) is dominant and the majority of the farmers' organizations should be supervised by the state (8,85/10). In the light of this information, it can be concluded that farmers do not fully trust the organizations they are members of or that these organizations do not adequately meet their promised functions (Table 10).

**Table 10.** Farmers' attitudes towards organizing

	1	2	3	4	5	6	7	8	9	10	Mean
Organization is inadequate	13	5	3	2	6	8	8	36	94	81	8.27
%	3.9	1.5	0.9	0.6	1.8	2.4	2.4	10.8	28.3	24.4	
The level of knowledge of the cooperative or union managements is insufficient	6	9	10	3	11	23	91	39	46	12	6.8
%	1.8	2.7	3	0.9	3.3	6.9	27.4	11.7	13.9	3.6	
It should be controlled by farmers' organizations and the state	2	0	1	1	0	2	9	25	96	112	8.85
%	0.6	0	0.3	0.3	0	0.6	2.7	7.5	28.9	33.7	

The farmers' thoughts on marketing their agricultural products are especially important for evaluating the issues related to participation in competition or the ability to sell the product at value-for-money. Farmers generally think that they can market the products they produce themselves (8,32/10). However, there are more people who think that agricultural products should be marketed by the state (8,45/10). The basis of this contradiction lies in the fact that farmers do not notice the difference between being able to sell their products and be able to market them. Being able to sell the product at the value price and in the right market is completely different from selling it to the trader who comes to the field. Most of the farmers think that farmers' organizations are unsuccessful in marketing agricultural products (5.87/10). In addition, they want agricultural consultants to provide services in marketing issues (8.1/10) (Table 11).

Table 11. Farmers' attitudes towards marketing their agricultural products

	1	2	3	4	5	6	7	8	9	10	Mean
I can market my products myself	6	0	5	3	5	6	9	56	132	32	8.32
0/0	1.8	0	1.5	0.9	1.5	1.8	2.7	16.9	39.8	9.6	
Marketing of agricultural products must be by the state	3	6	1	3	3	11	13	46	103	64	8.45
%	0.9	1.8	0.3	0.9	0.9	3.3	3.9	13.9	31	19.3	
Cooperatives and Unions know product marketing well	17	15	10	7	21	46	99	25	8	1	5.87
%	5.1	4.5	3	2.1	6.3	13.9	29.8	7.5	2.4	0.3	
Agricultural Consultants should also provide services in marketing	2	5	4	1	8	9	27	68	89	36	8.10
%	0.6	1.5	1.2	0.3	2.4	2.7	8.1	20.5	26.8	10.8	

# **4.CONCLUSION and SUGGESTIONS**

The fact that the farmers prefer agricultural credit cooperatives and dealers for input supply shows us that the agricultural sales and agricultural development cooperatives, which were established to provide cheap input to the farmers, are inadequate in this field. It is understood that a small number of farmers may benefit from discounted shopping with cash payment opportunity in input supply, however, they may have to bear financing costs for the harvest deferred payments.

It suggests that farmers do not get enough prices for their agricultural products because of preferring traders for the sale of products and avoiding the cooperatives. Based on the findings of the research and the findings made, suggestions for farmers' input supply and marketing of their products can be listed as follows:

- 1) In order for farmers' organizations to have a greater market share in the agricultural input market, the cooperatives operating in this field should be made aware of both management and economic management.
- 2) It would be beneficial to teach farmers more precisely about the input purchasing and utilization periods to reduce the financing costs arising from the harvest term purchases of the farmers. For example, pesticides to be used 2 months after the start of production should be avoided at the beginning of production. Local input supply calendars can be created to avoid similar examples.
- 3) In order for farmers' organizations to buy the most basic inputs such as fertilizers, seeds, and pesticides collectively, it is obligatory to have staff who can open procurement tenders. The cash discounts to be provided here should be adjusted to meet the financing costs that the farmers will pay on the forward sales side, and the farmers should be reflected at the least level of financing cost.
- 4) The farmers should be informed about the commercial shopping rules on issues such as possible fraud or failure to collect the products they sell on a maturity basis. Training / seminars should be organized for the use of valuable documents such as checks, bills, invoices, and contracts.
- 5) Farmers need a marketing cooperative to sell their products, but they do not rely on cooperatives. Farmers think that the knowledge level of the management staff of the cooperatives is insufficient. In order to break this perception, face-to-face or electronic sharing platforms should be implemented where successful cooperative managers can transfer their experiences to other cooperatives and farmers.
- 6) Farmers feel that cooperatives should be strictly controlled. It should be ensured that these audits are carried out frequently and the commercial data of the cooperatives are shared with the partners in a transparent manner.

# Contribution Rate of Researchers Declaration Summary

The authors declare that they have contributed equally to the article and have not plagiarized.

### **Conflict of Interest Declaration**

The authors of the article declare that there is no conflict of interest between them.

### Statement

This article is part of the first author's doctoral thesis.

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# **Certification Process of Organic Agricultural Products and Problems Experienced in the Implementation in Turkey**

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### Abstract

**Purpose:** This study aims to identify the problems of the certification process of organic products by the control and certification companies in Turkey.

**Design/Methodology/Approach:** According to the records of the Ministry of Agriculture and Forestry, in 2017, there are 31 bodies authorised to certify organic agricultural products in the country. No sampling method was used because all 31 bodies were included into the study. Data were collected with telephones and emails from the companies to identify problems in the certification process of organic agricultural products. These control and certification companies provide certification services in 21 different provinces.

**Findings:** Organic farming certification process can be done in two ways, as a group or individual, in Turkey. As a result, certification organizations declared that farmers' thought that they overcharged for this process and low educational level of farmers. Also, 64% of the control and certification bodies indicated that residue analysis laboratory is urgently needed in order to make these analyses in all over the Turkey. Furthermore, control and certification bodies mentioned other important problems as follows; farmers' awareness level on organic agriculture, not enough registration, insufficient information on changes in implementation, low level of municipalities' pest control, and lack of information/consultancy activities for farmers.

**Originality/Value:** There is no study conducted with the control and certification organizations on the certification process of organic products.

Key words: Organic agriculture; certification process; application problems

Türkiye'de Organik Tarım Ürünlerinin Sertifikasyon Süreci ve Uygulamada Karşılaşılan Sorunlar

Özei

Amaç: Bu çalışma, Türkiye'deki kontrol ve sertifikasyon firmaları tarafından organik ürünlerin sertifikasyon sürecindeki sorunları tespit etmeyi amaçlamaktadır.

Tasarım/Metodoloji/Yaklaşım: Tarım ve Orman Bakanlığı kayıtlarına göre 2017 yılında ülkede organik tarım ürünlerini sertifikalandırmaya yetkili 31 firma bulunmaktadır. Çalışmaya 31 şirketin tamamı dahil edildiği için herhangi bir örnekleme yöntemi kullanılmamıştır. Organik tarım ürünlerinin sertifikasyon sürecindeki sorunları tespit etmek için şirketlerden telefon ve e-postalar ile veriler toplanmıştır. Bu kontrol ve sertifikasyon firmaları 21 farklı ilde sertifika hizmeti vermektedir.

Bulgular: Organik tarım sertifikasyon süreci Türkiye'de grup ve bireysel olmak üzere iki şekilde yapılabilir. Kontrol ve sertifikasyon kuruluşlarının çiftçilerin sertifikasyon maliyetlerini fazla bulması, üreticilerin bilgi seviyesinin düşük olması gibi sorunlarla sıklıkla karşılaştıkları belirlenmiştir. Ayrıca, kontrol ve belgelendirme kuruluşunun %64'ü Türkiye'de bu analizlerin yapılabilmesi için kalıntı analiz laboratuvarına acilen ihtiyaç olduğunu belirtmiştir. Bunların dışında kontrol ve sertifikasyon kuruluşları çiftçilerin organik tarım bilinci olmaması, kayıt yetersizliği, uygulama değişikliklerinde bilgilendirme yetersizliği, belediyelerin haşere mücadelesi yapması, üreticilere yönelik bilgilendirme/danışmanlık faaliyetinin bulunmaması gibi nedenleri de sektörün diğer sorunları arasında sıralamaktadır.

Özgünlük/Değer: Organik ürünlerin sertifikasyon süreci konusunda kontrol ve sertifikasyon kuruluşları ile yapılmış çalışma bulunmamaktadır.

Anahtar kelimeler: Organik tarım; sertifikasyon süreci; uygulama sorunları

### 1.INTRODUCTION

To meet increasing food demand, enormous practices such as wrong tillage methods, excessive use of pesticides and chemical, have been applied to improve agricultural production. This heavy pressure on agriculture has resulted in degradation of ecological balance, destruction of soil structure, increase of diseases in human beings and animals. In the face of such adverse conditions, in many countries both producers and consumers with high-income levels are consciously organised against the problem mainly prefer to produce and consume agricultural products that do not cause toxic effects in humans with appropriate methods that do not damage the nature (Kızılaslan and Taner, 2011). Organic production represents the possibility of a substantial improvement for consumers' health and the long run yields of the soil (Gitli and Arce, 2001). Maintaining sustainability in agriculture, preserving ecological balance, and increasing consumer demand for healthy and reliable food are the primary factors which lead the spread of organic production. The most critical factor that separates organic agriculture from other sustainable agriculture methods is the existence of production and processing standards and certification procedures (George, 2001). Organic agricultural production and marketing is a process that is stages of the process (Demiryürek, 2011). The Organic Farming Law was prepared and published in the Gazette in 2004, manifesting the principles and procedures regarding the necessary precautions to ensure the production of organic products and feedstocks in to provide reliable, high-quality products to consumers in Turkey. According to the law, organic farming activities; producing or growing organic products or inputs using soil, water, plants, animals and natural resources, collecting, harvesting, cutting, processing, sorting, packaging, labelling, preservation, storing, transportation, marketing, importing, exporting and also they include other transactions from the production stage to the arrival of the input to the consumer (Anonymous, 2017). In Turkey, it is aimed to organise and develop organic agricultural production and marketing through preserving the ecological balance, ensuring sustainability in agriculture thus disseminating production and consumption of organic products to provide reliable and high-quality output to consumers (Cakır et al., 2015).

Organic agriculture is a production system, which requires that, every stage of the product to be under control and certificated until it reaches the consumer. The certification process consists of evaluating and documenting the conformity of the operator, product and input with accredited control and certification companies. This certificate can serve as a reliable quality indicator throughout the supply chain, guaranteeing these audit processes at each stage of the supply chain (Albersmeier et al., 2009). For a product to be considered as an organic, it must be certified by an Organic Farm Control and Certification Authority that is authorised by the Ministry of Agriculture and Forestry (MAF) and it should be carried out the Organic Product Logos which is defined by the MAF, as well. The Organic Product Certificate is not issued if a distorted application is encountered during the inspections of the Control and Certification Bodies (CCBs).

While there is an increase in demand for organic products, it is not possible to be able to meet the demand by current limited production. They argue that the shift in organic agriculture in Brazil and China is mostly market-oriented, and that significant external support is needed for technical consulting, documentation and marketing, especially when small farmers are adopting organic agriculture, and that support for farmers is mainly dependent on organic farming (Oelofse et al., 2010). Since organic production is a process that requires certification in every stage of control, the increases in this sector are not at the desired level. In addition, some problems in the organic product sector are also affecting the development process negatively. While one of the essential actors in this sector is the farmer himself and the other one is certification organisations.

In Turkey, there are so many studies have been conducted in organic production and the problem of the sector which were taken into consideration from the producer point of view (Atış et al., 2016; Akın et al., 2014; Küp et al., 2013; Çobanoğlu and Işın, 2009; Bayram et al., 2007; Birinci and Er, 2006). This study aimed to identify the problems in the certification process and application of organic agricultural products from a different perspective; opinions of certification bodies, which are the important actors in this process.

# 2.MATERIALS and METHOD

The primary data of this study was obtained from the Organic Farm Control and Certification Bodies, which were authorised by the MAF. There were 31 organic farming control and certification bodies in Turkey on July 2017. The study was conducted between July and December, 2017. No sampling method was used because all 31 companies were included to the study. The questionnaire was designed by the researchers. While 31 companies were located in different provinces of Turkey, e-mails and phone calls were used to fill out the questionnaires. Only 25 companies were agreed to participate the study. The results were given as frequency distributions and means because of low sample number.

### 3.FINDINGS and DISCUSSION

The characteristics of the bodies' representatives participating in the research are as follows. 44% of the company representatives participating in the research are women and 56% are men. The average age of the respondents is 42. The average working period in the company is 5.27 years. While 56% of the questionnaire was answered by the persons working as controllers and certifiers, 20% was answered by the general manager, 16% by the assistant manager, and 8% by the people in other positions.

Approximately 32% of the Organic Agriculture Control and Certification Bodies have been working as a certification company for 1 to 3 years and 36% of them have been providing this service about ten years or longer. To increase in organic agricultural activities also leads to an increase in the number of bodies providing control and certification services.

Especially new bodies can be defined as a micro enterprises because 48% of them having less than ten employees. Almost 44% of them had 10-49 employees. The number of the employee is important because of the time of the process. Almost every company has at least one certifier and five controllers. These control and certification bodies provide certification services in 21 different provinces. Ankara, which is the capital of Turkey, leads the company size with 36%. Izmir follows with 32% and the remainings are located in Antalya, Mersin, Istanbul, Yalova and Van. Most of the companies (88%) are Turkish owner and only 12% are foreign owner. The findings shows that because of low number of companies, some of them provide certification services to the different regions' farmers.

Organic farming certification process can be done in two ways in Turkey. It can be arranged individually and also possible for the bodies to provide a "group certification" for a producer group, as well. While 92% of the certification company in Turkey provide group certification services, only 8% of them provide individual certification. This bodies' reasons for not providing group certification services were; the regulation is not appropriate for this kind of utilizations and some farmers do organic farming just to get subsidies from government. The main reason for the widespread use of group certification services in Turkey is due to the high cost of certification. Farmers are trying to reduce certification costs by receiving group certification services.

Organic farming principles were defined as health, ecology, honesty and sensitivity, in Turkey. The importance of these principles are given in Table 1. As seen below most bodies are stated that ecology is the most important principle.

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Table	Ι.	Organic	tarm	nnσ	princ	cini	es
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Principles	Not Important at all		Not Im	portant	Not Sure		Important		Very Important		Mean
	f	%	f	%	f	%	f	%	f	%	Mican
Health	1	4.0	0	0	2	8.0	3	12.0	17	68.0	4.52
Ecology	0	0	0	0	2	8.0	3	12.0	19	76.0	4.71
Honesty	2	8.0	0	0	1	4.0	2	8.0	19	76.0	4.50
Sensitivity	1	4.0	1	4.0	0	0	4	16.0	18	72.0	4.54

Seventy six percent of the control and certification bodies also provide raw material certification services. Eighty-eight percent of the bodies have been prepared only one contract after inspections but they should be specified every single of the activity in this contract. However, the remaining 12% of the company have been prepared different contracts for each activity. The product certificate is issued mostly (48%) by giving a wholesale product certificate for unprocessed products.

Progration process refers to the period from the very beginning of the operation by the provisions of the Regulation on Organic Farming Principles and Implementation (Anonymous 2017a), until the certification of the product as organic. The transition process can be shortened or extended in some cases. The transitional period can be shortened by one year if the official company determined that the land was not exposed to fire or any chemicals during the last three years. In this study, it was found that the control and certification company shortened the transition period (73%), because the land was not exposed to any fire or any chemicals during the last three years; documentation of the absenteeism of agricultural activities within five years (8%) and land exploitation for the first time (8%). As a result of this inspections, the progration process could be extended when faced inproper applications. These applications include; chemical use, use of medicines which are not allowed to be administer, influences from the surrounding environment and the risk of contamination. Also, in some cases direct organic farming is allowed before the transition process is implemented; if the control and certification organisations acknowledged that the crops were collected from nature (64%) and the agricultural soils were not exposed to any kind of processing at all (8%).

Specific control requirements are necessary and certification companies were handling during the organic agriculture certification process. These inspections such as field inspections, product inspections, control are essential and always carried out by certification companies (Table 2).

Table 2. Controls of certification process

Controls	Never	Rarely	Usually	Often	Always	Mean
Controls	%	%	%	%	%	Mican
Field Control	8.0	4.0	0	0	88.0	4.56
Training and Inspection of Farmer	32.0	12.0	16.0	8.0	32.0	2.96
Seed Control	24.0	8.0	8.0	4.0	56.0	3.6
Natural Fertilizer Control	20.0	4.0	12.0	8.0	56.0	3.76
Natural Pesticide Control	28.0	12.0	0	8.0	52.0	3.44
Growing Product Control	8.0	0	0	12.0	80.0	4.56
Product Processor Control	4.0	12.0	8.0	8.0	68.0	4.24
Product Marketing Process Control	8.0	8.0	4.0	4.0	76.0	4.32
Product Conservation Control	16.0	12.0	8.0	4.0	60.0	3.8

In this study, 64% of the control and certification bodies indicated that residue analysis laboratory is needed urgently in order to make these analyses in Turkey. However, 36% of the bodies declared that the residue analysis laboratories are not enough. Only one control and certification body has its' own residual analysis laboratory. Others have stated that none of the body should own residual analysis laboratory. Government has to own these laboratories to have more reliable results.

Of course, there are so many problems in the certification process of organic agricultural products. The certification companies declared that the farmers thought that they were overcharged for this process and their educational level was low. While they were registering Farmer Registration System (FSR), they were frequently having trouble because of misinformation and the changes in harvesting period of products and bureaucracy problems. Moreover, there were other problems rarely faced like farmers' did not bring the conditions within the given period of time, incomplete and misinformation provided by farmers, not enough number of laboratories and change of address by farmer without informing authorities (Figure 1).

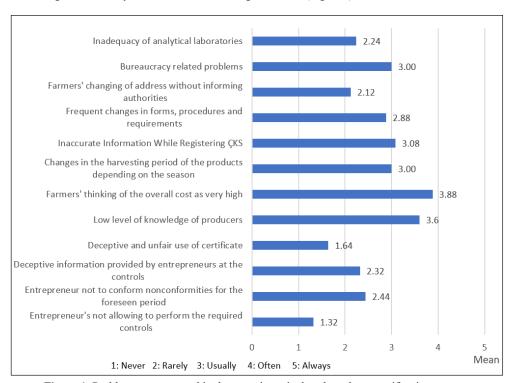


Figure 1. Problems encountered in the organic agricultural products certification process

The control and certification bodies were stated that they never have obstruction from farmers during the inspection and illegal use of certification. They state that the most crucial problems in organic farming are coming from farmers. First of all, producers are not organized under cooperatives or unions (Bayram et al., 2007). This causes cost-enhancing effect on the contracts with the inspection and certification companies in small areas. Secondly, farmers have insufficient knowledge about organic agriculture. The results showed that, to increase and improve organic agriculture in Turkey, farmers need to be organized to get support for production, raw materials, marketing and certification and also technical education/consultancy services. Çobanoğlu and Işın (2009) stated that the most important factor in the orientation of farmers to organic agriculture is that the export companies make contractual production with the farmers and they give purchase guarantee to the product, the farmers do not turn to an environmental protection production, and that they do not become widespread due to the lack of sufficient awareness about organic agriculture. Birinci and Er (2006) found that the problems faced by organic peach producers in production were; lack of knowledge on diseases and technical issues, lack of organization in marketing, storage and packaging. Pezikoğlu (2006) stated that the low level of education, knowledge and awareness of the farmers and processor/ exporter companies are not enough number regarding the organic farming method.

Other problems declared by the control and certification companies in the certification process other than those mentioned above; the fact that farmers unconsciousness about organic agriculture and it is also considered to be sufficient to apply the measures only because of the commercial dimension of organic agriculture. Furthermore, inadequacy of registration and of information in changing applications, application of pest management by municipalities, and lack of information/consultancy activities for producers were defined other problems during the certification process.

Some suggestions were provided by the control and certification companies for the development of organic agriculture in Turkey. These recommendations are as follows; solving the problem of organic input, increasing the funding from government, supporting the growth of organic seeds, defining the basin region just for only organic agriculture production, increasing number of organic fertilizer, increasing the number of organic markets, and organic stock market, establishment of cooperatives and producer unions at regional level, increasing the awareness of consumers about organic products, establishing mandatory organic product departments in the markets, supporting infrastructure investments needed for organic production, increasing agricultural extension and education activities, and providing consultancy services. At set al. (2016) stated that the price support being at the expected level will positively affect the desire to produce organic raisins. Dalbeyler and Işin (2017) found out that there is a linear relationship between organic production and supports, and supports are of great importance for the sustainability of organic production. In addition, they stated that the marketing of organic products to the farmers, establishment of market connections, training of the farmers and consultancy services should be provided effectively. Government support is very important to encourage young farmers because young farmers engaging with agricultural activities and their families do not want their children to pursue the same profession (Berk, 2018).

During this study, 72% of the control and certification bodies stated that support for organic agriculture from government is inadequate. This inadequancy came from the fluctuations in the price of the per unit, the conditions of applicability to receive support, inapportinateness of the support regarding the overall purpose, the lack of support for inputs and labor, the lack of support for animal based productions.

Sixty four percent of the control and certification companies stated that they should also receive incentives to practising this activity by the government. These incentives could be funding of technical staff, training and accreditation, Value Added Tax Discount, support to attend Fairs, CCBs staff personnel, social security and salary support, office vehicle support, accreditation support and project support will contribute to the development and dissemination of control and certification bodies.

# 4.CONCLUSION

Organic agriculture is a process that needs to be checked and certified in every each step. One of the important part of this process is the control and certification companies. The development and widespread use of organic agriculture may be possible by identifying and solving the problems of the field and actors in this sector. The survey was conducted with the control and certification companies in Turkey to define the problems of the certification process. While the cost of certification and lack of knowledge are expressed as the most important problems, the control and certification companies also stated that the bureaucratic problems and the inaccurate information while registering FRS of producers were the other mostly faced problems. It is suggested that these problems can be eliminated and organic farming can be promoted with educating farmers with agricultural extension activities. Likewise, it is claimed that control and certification companies need to create not just product-oriented but also a process-oriented support system. In order to facilitate the marketing of organic agricultural products, extra importance should be given on advertisement and producers should be organised under the cooperatives or unions to decrease the cost. The control and certification companies in Turkey also pointed out that the incentives should be provided by the government. Particularly, it is asserted that government funding of the cost of certification will contribute to the decision of the producer to enable them towards the transition to organic production and to the improvement of the services of CCBs. In order to provide healthier service in practice, the technical personnel support can be provided by the government.

Social security premiums and salary support will also advance to the national economy by increasing employment in these companies. To increase organic agriculture young farmers can be used with appropriate supports.

### Contribution Rate of Researchers Declaration Summary

The authors declare that they have contributed equally to the article and have not plagiarized.

### **Conflict of Interest Declaration**

The authors of the article declare that there is no conflict of interest between them.

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# Is There Any Link Between Cattle Milk Price and Beef Production? Empirical Evidence from Turkey

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## Abstract

**Purpose:** This study aims to investigate the impact of cattle milk prices on beef production from 1970 through 2018 for Turkey.

**Design/Methodology/Approach:** The structural properties of the series and prior tests refer to that cointegration analysis should be conducted to establish the impact of cattle milk prices on beef production. In this context, the bounds testing approach is employed to analyze the long-run relationship between variables. Following the long-run cointegration relationship between variables is confirmed, the econometric model of the study is estimated by using the autoregressive distributed lag (ARDL) approach.

**Findings:** The findings of the bounds testing approach indicate that the existence of the cointegration relationship between cattle milk prices and beef production in the long run. According to the estimation results of the ARDL model, beef production decreases owing to higher milk prices. The negative effect of cattle milk prices on beef production may be explained that as milk prices increase, the number of dairy cows dispatching to slaughter decreases, and hereby beef production cuts down. On the other hand, cutting down milk prices leads to an increase in dispatching of dairy cows to be slaughtered, which results in harming the production of male calves (the main fattening material) and the dairy market. Therefore, policy measures to prevent the fluctuations in milk prices will able to support beef production as well.

**Originality/Value:** The study is, to the best of our knowledge, the first one which focuses on the link between cattle milk prices and beef production for Turkey.

Key words: Cattle Milk Price, Beef Production, ARDL Cointegration Approach.

Sığır Sütü Fiyatı ile Sığır Eti Üretimi Arasında Bir Bağlantı Var mı? Türkiye'den Ampirik Bulgular

Özet

Amaç: Bu çalışmanın amacı Türkiye'deki sığır sütü fiyatlarının sığır eti üretimi üzerindeki etkisini 1970-2018 dönemi kapsamında analiz etmektir.

Tasarım/Metodoloji /Yaklaşım: Çalışmanın ekonometrik modelinde yer alan serilerin yapısal özellikleri ve önsel testler, sığır sütü fiyatlarının sığır eti üretimi üzerindeki etkisini belirlemek için eşbütünleşme analizinin yürütülmesi gerektiğine işaret etmektedir. Bu bağlamda ekonometrik modelde yer alan değişkenler arasındaki uzun dönem eşbütünleşme ilişkisi sınır testi yaklaşımı kullanılarak analiz edilmektedir. Değişkenler arasında uzun dönem eşbütünleşme ilişkisi tespit edildikten sonra çalışmanın ekonometrik modeli gecikmesi dağıtılmış otoregresif sınır testi (ARDL) yaklaşımı kullanılarak tahmin edilmektedir.

Bulgular: Sınır testi yaklaşımından elde edilen bulgular, sığır sütü fiyatları ile sığır eti üretimi arasında uzun dönemli eşbütünleşme ilişkisinin varlığını doğrulamaktadır. ARDL modeli tahmin sonuçlarına göre sığır eti üretimi sığır sütü fiyatlarındaki artış nedeniyle azalmaktadır. Sığır sütü fiyatlarının sığır eti üretimi üzerindeki negatif yönlü etkisi, süt fiyatlarındaki artış dolayısıyla daha az sayıda süt ineğinin kesime gönderilmesi kanalıyla açıklanabilmektedir. Diğer taraftan, süt fiyatlarındaki düşüş daha çok sayıda süt ineğinin kesime gönderilmesine yol açmakta ve dolayısıyla erkek buzağıların üretimine (ana besi malzemesi) ve süt pazarına zarar verebilmektedir. Bu nedenle, süt fiyatlarındaki dalgalanmaları önlemeye yönelik politika önlemlerinin et üretimini de destekleyebileceği düşünülmektedir.

Özgünlük/Değer: Bildiğimiz kadarıyla bu çalışma Türkiye'deki sığır sütü fiyatları ile sığır eti üretimi arasındaki bağlantıya odaklanan ilk çalışma olma özelliği taşımaktadır.

Anahtar kelimeler: Sığır Sütü Fiyatı, Sığır Eti Üretimi, ARDL Eşbütünleşme Yaklaşımı.

#### 1.INTRODUCTION

Nowadays, the main problem in human nutrition is unbalanced nutrition and related human disorders (Aktaç et al., 2019). In this context, animal proteins play an important role in balanced nutrition (Cevger et al., 2008). According to the Ministry of Health of the Republic of Turkey (2019), animal source foods such as milk and meat should be absolutely in a person's daily diet. Besides milk and meat production constitutes the basis of healthy nutrition, it is an important line of business and source of income within agricultural enterprises. In addition to crop production, animal production not only helps to meet the current costs of the agricultural enterprise by providing regular cash flow, but it also serves as an important risk management tool and helps the agricultural enterprise survive (Hayran and Gül, 2015). Bayramoglu et al. (2018) estimated that the number of cattle in Turkey for the realization of beef consumption should be increased 55.49% compared to 2016 in the next decade. In this respect, it is important to investigate the barriers to meat and milk production and to develop policy recommendations to support production. However, while implementing these support policies, it should be taken into account that beef milk and beef production are complementary production branches.

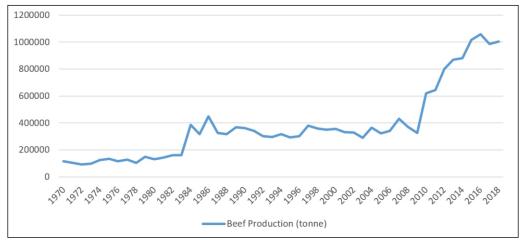
In literature, the relationship between the changes in the prices of vegetal/animal products and the production amounts of these products has been studied in detail. Some of these studies are; for the sunflower production and its price by Berk (2017), for the wheat production and its price by Özçelik and Özer (2006), for the meat production and its price by Akgül and Yıldız (2010), for the strawberry production and its price by Çobanoğlu (2010), for the cow milk production and its price by Ozsayın (2017), for the garlic production and its price by Hasan and Khalequzzaman (2015). Akgül and Yıldız (2016) investigated the relationship between meat production and its prices in Turkey. According to their findings, meat production is influenced by its prices over the past six years. Ozsayın (2017) investigated the relationship between cow milk production and its price, according to the results of the research, milk production was dramatically affected by the increase/decrease in milk prices. Saghaian et al. (2013) analyzed the interaction and causality of milk and beef prices. As a result, the authors reported that milk prices had a significant effect on beef prices.

The above studies showed that a decrease in milk prices will lead to a decrease in both milk production and meat prices. The decrease in meat prices as a result of the decrease in milk prices may be the result of an increase in meat production. This may be the result of the farmers sending milk cows to slaughter as a consequence of the reduction of farm capacity and/or the abandonment of milk production by farmers who have difficulty in meeting their current costs in the face of the decrease in milk prices. In this study, the validity of this hypothesis was examined. The influence of milk production as a result of the decrease in milk prices directly affects the production of beef. The fact that farmers who give up milk production as a result of decreasing milk prices send dairy animals to slaughter increases meat production in the short term, but, it will be possible to obtain and sustain the fattening material in the long term with the continuation of milk production. In another study conducted in Adana Province of Turkey, on average, 27% of dairy cattle breeders answered the question "what do you do against the decrease in milk prices" as "I send milk cow to the slaughter" (Hayran, 2015). So, it is a vital issue that investigating the interaction between cattle milk prices and beef production.

In this study, the influence of the fluctuation of cattle milk prices on beef production is analyzed. The rest of the study is organized as follows: section 2 is dedicated to explaining of materials and methodology used in the study. Research findings and discussions are presented in section 3. The study ends up with section 4 involving the conclusion and policy recommendations.

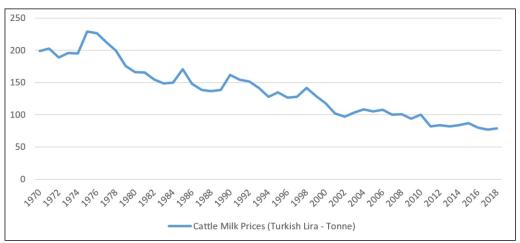
#### 2.MATERIALS and METHOD

In the study, mainly the impact of the cattle milk prices on beef production is analyzed for Turkey from 1970 to 2018. However, to test the mediation effect of the cattle milk production in the association between cattle milk price and beef production, the study also analyses the impact of cattle milk prices on cattle milk production. Herewith, the study estimates two econometric models. All the variables were transformed in the logarithmic form to avoid possible heteroscedasticity. This procedure also enables interpreting the parameter coefficients as elasticity. The data of beef production, cattle milk prices, and cattle milk production were obtained from the Food and Agriculture Organization of the United Nations (FAOSTAT) database. The 2008-2009 global financial crisis was also included in every two models as a control variable. In Figures 1, 2, and 3, for the 1970-2018 period, the development of beef production, cattle milk prices, and cattle milk production in Turkey are presented, respectively.



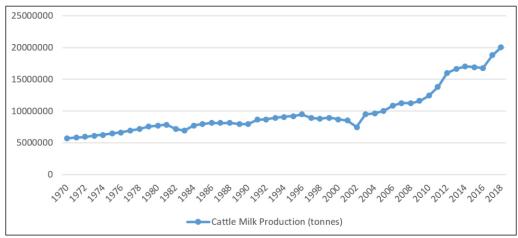
Source: FAOSTAT (2020).

Figure 1. Beef Production in Turkey: 1970-2018



Note: Cattle milk prices deflated by consumer price index are in 2010=100 based index. Source: FAOSTAT (2020).

Figure 2. Cattle Milk Prices in Turkey: 1970-2018



Source: FAOSTAT (2020).

Figure 3. Cattle Milk Production in Turkey: 1970-2018

According to Figures 1, 2, and 3, while beef production and cattle milk production keeps increasing trend, whereas cattle milk prices have a decreasing trend. Descriptive statistics of the variables are presented in Table 1. Pairwise correlation results show that while the correlation coefficient between cattle milk prices and beef production is -0.887, the coefficient of correlation between cattle milk prices and cattle milk production is -0.897.

Table 1: Descriptive Statistics

Variables	Mean	Std. Dev.	Max.	Min.	Jarque-Bera*	N
BEEFPRO	5.480	0.297	6.043	4.961	0.998	49
MILKPRICE	1.078	0.136	1.321	0.848	2362	49
MILKPRO	6.965	0.141	7.301	6.757	5.726	49

The linear logarithmic model which analyzes the impact of changes in cattle milk prices on beef production in Turkey is as follows:

$$\ln \text{MILKPRO}_t = \delta_0 + \delta_1 \ln \text{MILKPRICE}_t + \delta_2 \text{CRISES}_t + u_t$$
(1)

In equation 1, BEEFPRO and MILKPRICE denote the beef production and cattle milk prices, respectively. While ln, t, and  $\epsilon$  symbolize the natural logarithm operator, time, and error term,  $\beta$  is the coefficient of the parameter to be estimated. Following the estimation of equation 1, the impact of cattle milk prices on cattle milk production is shown in equation 2.

$$\ln BEEFPRO_t = \beta_0 + \beta_1 \ln MILKPRICE_t + \beta_2 CRISES_t + \varepsilon_t$$
 (2)

In equation 2, MILKPRO and MILKPRICE show the cattle milk production and cattle milk prices, respectively. While ln, t, and u symbolize the natural logarithm operator, time, and error term,  $\delta$  is the coefficient of the parameter to be estimated. Before estimating the econometric models in equations 1 and 2, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) stationarity tests were applied to all series and the results are presented in Table 2.

Table 2: The Results of ADF and PP Unit Root Tests

Variables		ADF		PP		
variables	•	Test stat.	Prob.	Test stat.	Prob.	
InBEEFPRO	Level	-0.799	0.811	-0.799	0.810	
IIIDEEFPRO	First Difference	-9.416*	0.000	-9.417*	0.000	
lnMILKPRICE	Level	-0.561	0.869	-0.055	0.948	
	First Difference	-7.175*	0.000	-10.65*	0.000	
lnMILKPRO	Level	0.911	0.994	1.181	0.997	
	First Difference	-6.636*	0.000	-6.636*	0.000	

Note: \* denotes statistical significance at 1% level. Optimal lag length is determined by Schwarz Information Criterion.

The results in Table 2 indicate that all the variables are not stationary at the level according to both ADF and PP tests. On the other hand, the first differences of the series were found to be stationary. According to unit root test results, the ordinary least squares method leads to spurious regression. At this point, the appropriate estimation technique is cointegration analysis. By applying cointegration analysis, it may be observed whether the series are co-integrated or not in the long run. If the cointegration relationship between series confirms, then long-run coefficients of parameters are estimated.

The long-term relationship between first-differenced variables is analyzed using the autoregressive distributed lag (ARDL) approach which was developed by Pesaran et al. (2001). ARDL technique has some advantages compared to other cointegration techniques (Halicioglu, 2004): Firstly, the weak test power and endogeneity problem encountered in the Engle-Granger method in estimating long-term parameter coefficients do not exist in this method. Secondly, short and long-term parameter coefficients could be estimated simultaneously. Thirdly, in the ARDL technique, there is no limitation that all variables must be at the same integration level. Thus ARDL is superior to other cointegration techniques. However, there is still a need to make the unit root analysis. The distribution of F statistics in the ARDL cointegration test assumes that the series are integrated at the I(0) or I(1) integration level. In other words, the series should be at maximum first-order stationary (Yazici and Islam, 2014, p. 346). ARDL model indicating the impact of cattle milk prices on beef production is shown as follows:

$$\Delta BEEFPRO_{t} = \beta_{0} + \sum_{i=1}^{m} \beta_{1} \Delta BEEFPRO_{t-i} + \sum_{i=0}^{m} \beta_{2} \Delta MILKPRICE_{t-i} + \beta_{3}BEEFPRO_{t-1} + \beta_{4}MILKPRICE_{t-i} + \varepsilon_{t}$$

$$(3)$$

ARDL model indicating the impact of cattle milk prices on cattle milk production is shown as follows:

$$\Delta MILKPRO_{t} = \delta_{0} + \sum_{i=1}^{m} \delta_{1} \Delta MILKPRO_{t-i} + \sum_{i=0}^{m} \delta_{2} \Delta MILKPRICE_{t-i} + \delta_{3} MILKPRO_{t-1} + \delta_{4} MILKPRICE_{t-1} + u_{t}$$

$$(4)$$

#### 3.FINDINGS and DISCUSSION

Applying in the first stage of the ARDL cointegration approach, the bound test procedure is based on Fisher (F) or Wald test statistics. While the H0 hypothesis on these tests points to no cointegration relationship, the alternative hypothesis points to cointegration relation. F test here does not have a standard distribution. Therefore, two sets of critical values (upper and lower) were developed by Pesaran et al. (2001). In this sense, there is a cointegration relationship between the variables if F statistics exceeds the upper critical value. On the contrary, there is no cointegration relationship if F statistics are lower than the lower critical value. If the F statistics are between these two critical values, the power of the test is weak. F test (bound test) estimation results on the beef production model are shown in Table 3.

Table 3: F Test (Bounds Test) Results

Dependent Variable: Beef P	,		Critical	Values	Ramsey RESET Test Statistic=
_ ·F			011010	, , , , , , , , , , , , , , , , , , , ,	0.116
F Test	k		Io	$I_1$	Prob. (RESET test) = $0.736$
		10%	2.63	3.35	P <sup>2</sup> 0.020 F 11 50.002
3.976	2	5%	3.10	3.87	- R <sup>2</sup> =0.938 F stat. = 59.602
		1%	4.13	5.00	Prob. (F-statistic) = $0.000$

*Note: ARDL (4,1,2) model was used in cointegration analysis. The model selection procedure was shown in the appendix.* 

The F test results presented in Table 3 show that there is a long-term cointegration relationship between beef production and cattle milk prices at 10% and 5% probability levels. Accordingly, long-run coefficients of variables were estimated, and the results were presented in Table 4.

Table 4: Estimation Results of ARDL Model: Long-Term Parameter Coefficients

	Variables	Coefficients	Std. Err.	t_stat.	Prob.
Dependent Variable: Beef	С	7.425	0.347	21.38	0.000*
Production ARDL (4,1,2)	MILKPRICE	-1.741	0.319	-5.445	0.000*
ARDL (4,1,2)	CRISES	0.197	0.328	0.601	0.552

Note: \* shows that statistics are significant at the level of 1%.

The sign of the estimated parameter coefficient of cattle milk price is consistent with theoretical expectations and statistically significant. Accordingly, a 1% increment in cattle milk prices decreases beef production by 1.741% in Turkey. Besides, there is no significant impact of the 2007-2008 global financial crisis on beef production.

The results indicate a decrease in beef production owing to higher cattle milk prices. Because there is a negative relationship between cattle milk production and beef production. When cattle milk prices have decreased, producers deliver their animals to slaughter because they cannot meet production costs, and thus beef production increases. In this regard, in addition to the main analysis of the study, here the long-term relationship between cattle milk prices and cattle milk production is analyzed. As in the previous analysis, the long-run relationship between cattle milk prices and cattle milk production was analyzed by the ARDL cointegration technique. The results of the bounds testing approach were presented in Table 5.

Table 5: F Test (Bound Test) Results

Dependent Variable: Cattle Milk Production		Critical Values		Ramsey RESET Test Statistic= 2.309		
F Test	k		Io	$I_1$	Prob. (RESET test) = $0.136$	
		10%	2.63	3.35	P <sup>2</sup> 0.072 F 4 4 100.002	
4.876	2	5%	3.10	3.87	- R <sup>2</sup> =0.972 F stat. = 186.063	
	_	1%	4.13	5.00	Prob. (F-statistic) = $0.000$	

Note: ARDL (1,4,0) model was used in cointegration analysis. The model selection procedure was shown in the appendix.

The bounds testing results presented in Table 5 show that there is a long-term cointegration relationship between cattle milk production and cattle milk prices at 10% and 5% levels. Accordingly, long-run coefficients were estimated, and the results were presented in Table 6.

Table 6: Estimation Results of ARDL Model: Long-Term Parameter Coefficients

Dependent Variable:	<u>Variables</u>	Coefficients	Std. Err.	t_stat.	Prob.
Cattle Milk Production	С	7.238	0.021	3.095	0.000*
ARDL (1,4,0)	MILKPRICE	0.065	0.021	3.095	0.004*
	CRISES	-0.505	0.063	-0.843	0.571

Note: \* shows that statistics are significant at the level of 1%.

The sign of the estimated parameter coefficient of cattle milk price is consistent with theoretical expectations and statistically significant. Accordingly, a 1% increase in cattle milk prices rises cattle milk production by 0.065% in Turkey. Consequently, increasing cattle milk prices cause a rise in cattle milk production, and therefore a decrease in beef production. This result, which may be evaluated as a robustness test for the negative association between cattle milk prices and beef production, supports the mediation effect of cattle milk production in the relationship between cattle milk prices and beef production.

#### 4. CONCLUSIONS and RECOMMENDATIONS

In this study, the relationship between beef production and cattle milk prices was investigated. According to our results, cattle milk price fluctuations directly affect beef production in Turkey. As a result of the decrease in cattle milk prices, beef production increasing. This short-term increase may be the result of sending animals to slaughter. But, this increase is not sustainable in the long run. On the contrary, it is a situation that will affect, negatively, both meat production and milk production and the industry connected to milk and meat production in the long term. This short-term increase in meat production may be because farmers who give up milk production or reduce farm capacity in the face of the decrease in milk prices send milk cows to slaughter. Milk production in Turkey is a dual structure. In dairy farms, both milk and male calves (basic fattening materials) are produced. As a result of the decrease in milk production, it will not be possible to produce male calves in the long term. As a result, long-term problems in meat production will arise. Consequently, precautionary policies to support milk production will have a positive effect on beef production in the long term as a natural result.

#### **Contribution Rate of Researchers Declaration Summary**

The authors declare that they have contributed equally to the article and have not plagiarized.

#### **Conflict of Interest Declaration**

The authors of the article declare that there is no conflict of interest between them.

#### Appendix

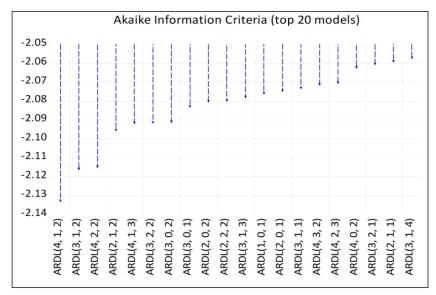


Figure 1. Model Selection Procedure (Beef Production and Cattle Milk Price)

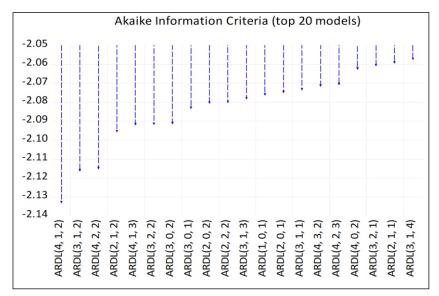


Figure 1. Model Selection Procedure (Beef Production and Cattle Milk Price)

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## Tarım Ekonomisi Dergisi

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# International Fund for Agricultural Development and Evaluation of Turkey's Practices

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#### Özet

#### Abstract

**Purpose:** The aim of this study is to raise awareness about IFAD, which has an important experience in agriculture and rural development at the international level and in Turkey.

**Design/Methodology/Approach:** The International Agricultural Development Fund is a specialist institution affiliated to the United Nations, which uses its financial funds and technical background to encourage investments and improve life in order to increase prosperity in rural areas in less developed countries. It carries out activities in the field of investing in the rural area through public institutions by bringing together different sectors and disciplines, primarily agricultural production. It aims to contribute to sustainable development goals through all the activities it carries out. The study material is mainly based on seconder data.

**Findings:** IFAD supports agricultural development projects in rural areas of all member countries, especially underdeveloped and developing countries. It is important that IFAD, which is active in nearly 40 years in Turkey, to continue transfer its experience with efficient and effective way. Especially, to overcome the economic and social problems, experienced in Turkey, because of Syrian war, lobbying needs to be done in direction of implement more projects and programs. Accordingly, the creation of employment should be targeted so as to be included in IFAD decision support processes. It is necessary to raise awareness about international organizations, especially among the graduates of the Faculty of Agriculture, especially the students of the Agricultural Economics department.

Originality/Value: With the study, it was revealed that the awareness of IFAD and the effectiveness of its activities in Turkey should be increased and Turkish experts should have been more employed and active under the institutional roof of IFAD. In addition, it was concluded that it is important to increase the interest of experts and academicians working in this field in Turkey.

**Key words:** The International Agricultural Development Fund, Turkey, rural development, Agricultural Economist

#### Uluslararası Tarımsal Kalkınma Fonu ve Türkiye Uygulamalarının Değerlendirilmesi Özet

Amaç: Bu çalışmanın temel amacı, uluslararası alanda ve Türkiye'de, tarım ve kırsal kalkınma konusunda faaliyette bulunan ve önemli bir deneyime sahip olan IFAD hakkında farkındalık oluşturmaktır.

Tasarım/Metodoloji /Yaklaşım: Uluslararası Tarımsal Kalkınma Fonu, daha çok az gelişmiş ülkelerde kırsal alanlarda refahı artırmak için yatırımları teşvik etmek ve yaşamı iyileştirmek amacıyla sahip olduğu mali fonları ve teknik birikimi kullanan Birleşmiş Milletlere bağlı uzman bir kuruluştur. Başta tarımsal üretim olmak üzere farklı sektör ve disiplinleri bir araya getirerek kamu kurumları eliyle kırsal alana yönelik yatırım yapılması noktasında faaliyetler yürütmektedir. Yürüttüğü tüm faaliyetlerle sürdürülebilir kalkınma hedeflerine katkı vermeyi amaçlamaktadır. Çalışma materyali ağırlıklı olarak ikincil verilere dayalıdır.

Bulgular: IFAD, başta az gelişmiş ve gelişmekte olan ülkeler olmak üzere üye tüm ülkelerin kırsal alanlarında tarımsal kalkınma projelerini desteklemektedir. Türkiye'de yaklaşık 40 yıldır faaliyette olan bu uzman kuruluşun sahip olduğu deneyimi etkin ve verimli bir şekilde aktarmaya devam etmesi önem arz etmektedir. Özellikle, Suriye savaşı nedeniyle Türkiye'de yaşanan ekonomik ve sosyal problemlerin aşılması için daha fazla proje ve programın uygulanması yönünde lobi faaliyetlerinin yapılması gerekmektedir. Bu doğrultuda IFAD karar destek süreçlerine dahil olacak şekilde istihdamın oluşturulması hedeflenmelidir. Ziraat Fakülteleri mezunları başta olmak üzere özellikle Tarım Ekonomisi bölüm öğrencileri nezdinde uluslararası kuruluşlarla ilgili farkındalığın artırılması gerekmektedir.

Özgünlük/Değer: Çalışma ile IFAD hakkında farkındalığın artırılması, Türkiye'de yürüttüğü faaliyetlerin etkinliğinin artırılması ve Türk uzmanların IFAD kurumsal çatısı altında daha çok etkin olması gerektiği ortaya konmuştur. Ayrıca Türkiye'de bu alanda çalışan uzman ve akademisyenlerin ilgisinin artırılmasının önemli olduğu sonucu çıkmıştır.

Anahtar kelimeler: Uluslararası Tarımsal Kalkınma Fonu, Türkiye, kırsal kalkınma, Tarım Ekonomisti

#### 1.INTRODUCTION

The International Agricultural Development Fund (IFAD) is the only international specialized organization affiliated to United Nations which it focus on agriculture and rural development projects and food security and poverty reduction in rural areas, and has funding to support initiatives in this direction. With its experience, it contributes greatly to the national policies and programs of countries (IFAD, 2020). International organizations such as IFAD, which produce many projects at international, national and regional level, have financial incentive practices, and have technical expertise infrastructure, are considered as an important opportunity for underdeveloped and developing countries in reducing the rural poverty in the world.

Many countries in the world benefit from IFAD resources. Turkey, IFAD has been a member in 1981. It is still both a donor (donor) and beneficiary country. IFAD Turkey relationship began with the implementation of the first project in 1982. 8 projects have been completed so far. 3 projects are still ongoing. IFAD is the contact point of the Ministry of Agriculture and Forestry in Turkey, project processes and activities are followed up by the relevant units of the Ministry (IFAD, 2019).

With the support of IFAD, up to now 669 million dollars worth of projects in Turkey has been transformed into investment in agriculture and rural development. 231 million dollars of this budget is used as a loan from IFAD, the rest was paid by Turkey as co-financing. When evaluated spatially, these projects were implemented in 36 provinces (IFAD, 2019). The realized projects have contributed significantly to the rural development of Turkey. The budget contribution of IFAD in implemented projects is 34.5%. Projects realized with the Country Strategic Opportunities Program (COSOP) documents are evaluated and new strategies are developed. In the current process, projects aimed at reducing rural poverty in upland areas of Turkey are at the forefront.

Academic studies evaluating IFAD, which contributes to the realization of very large projects in terms of its scope and budget in the field of agriculture and rural development in Turkey, are extremely limited. Limited availability studies are generally project-oriented. Atsan (1998) examined the Erzurum Rural Development Project in terms of agricultural extension, Tuncel and Yalçın (2011) in terms of their impact on animal husbandry. Berk and Akdemir (2006), Yozgat Rural Development Project, Baydaş et al. (2018) investigated the effects of Murat River Basin Rehabilitation Project on producers. The number of international studies is also limited. Despite this, there are also studies that approach the subject as holistic. Shuai et al. (2011) in China and Oghenebrume et al (2017) in Nigeria investigated the economic, social and ecological impacts of IFAD projects carried out, and concluded that IFAD projects play an important role in reducing rural poverty. IFAD's projects and studies in Turkey, there are not adequate academic work to evaluated in a holistic way. In addition, any evaluation work related to IFAD's COSOP documents prepared for its activities in Turkey was not conducted.

The aim of this study is to raise awareness about IFAD, which has an important experience in agriculture and rural development at the international level and in Turkey. In this field, where there is not enough academic work, it is aimed to inform stakeholders such as institutions and organizations, universities and non-governmental organizations that are active in agriculture and rural development and to direct their work. In addition, this study aimed to raise awareness of employment opportunities for all Agricultural Engineers, especially Agricultural Economists, who may be involved in decision support processes in the international arena.

#### 2. MATERIAL and METHOD

The study material is mainly based on seconder data. First of all, the information notes and reports shared by IFAD on the corporate website were used. In addition, other open access sources and academic studies and various documents related to the subject were utilized.

As well as the compiled secondary data, primary data obtained as a result of bilateral talks with Turkey's IFAD country representative, officials of the General Directorate of Agricultural Reform, which is the contact point of the Ministry, representatives of IFAD of General Directorate for European Union and Foreign Relations

#### 3. INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

#### Corporate Structure of International Fund for Agricultural Development

In the 1970s, there was a food shortage that had a large impact in the world. The lack of an organization that will provide solutions to hunger, famine and malnutrition crises especially in the Sub-Saharan countries of Africa had been felt (IFAD, 2019). While these developments were taking place, the World Food Conference was held in 1974 by the Food and Agriculture Organization (FAO) with the participation of 140 countries in Rome. One of the most important outputs of the conference is the decision to establish IFAD. IFAD was established as an international financial institution three years after the conference, in 1977. The aim of the fund is to increase agricultural production in developing countries and to reduce rural poverty.

In this framework, IFAD supports projects aiming to increase agricultural production, social development, gender equality, income generation, nutrition improvement, environmental sustainability and effective management, and provides countries with long-term, low interest loans and grants. In addition, the organization contributes to the preparation of national strategic plans and ensures the execution of agricultural projects.

IFAD, with international legal entity, is a specialized organization affiliated to the UN system. Operating in order to increase food production, new jobs and income opportunities to combat hunger and rural poverty in developing countries, IFAD offers private loans and additional resources to developing country governments to finance programs and projects designed within this scope. The financial resources required for IFAD activities are provided by the voluntary contributions of the member states (IFAD, 2018). IFAD carries out its activities with its 42 offices worldwide.

Operating in a wide area in the world, IFAD carries out effective projects in many countries around the world with its large number of members. IFAD is a structure made up of countries from all over the world who struggle with poverty in rural areas or care about this issue. Membership to 176-member IFAD is open to any state that is a member of the United Nations, one of the specialized organizations or the International Atomic Energy Agency. Member states are divided into classes as follows (IFAD, 2019)

List A (primarily contributing developed countries)

List B (primarily contributing developing countries)

List C (potential recipient countries)

Sub-list C1 (countries in Africa)

Sub-list C2 (countries in Europe, Asia and the Pacific)

Sub-list C3 (countries in Latin America and the Caribbean) Turkey in Europe, Asia and Pacific group of countries, which is the group C2.

The main decision-making body of IFAD is Governing Council. This council is the decision-maker and, in other words, approving authority, where the senior representatives of the member countries take part and convene annually. The governing council has the power to decide on issues such as the admission of new members, the appointment of the chairman, the issues regarding permanent membership, the approval of the budget, the acceptance of policies, criteria and regulations.

As a Governor, Minister of Agriculture and Forestry, as to Deputy of Governor, Ambassador of Rome represent for Turkey in the presence of IFAD.

The second main administrative body of the IFAD after Governing Council is the Executive Board. The President of IFAD, appointed by Governing Council, is the head of the Executive Board. Executive Board; fully authorized in policy, annual administrative budget, membership and personnel issues, business plan, project approval, grant and action acceptance / recommendation / decision making. Executive Board meetings are held 3 times a year, in April, September and December. So far, Turkey, 2009, 2010 and 2013 years has made membership in the Executive Committee for and "Performance-Based Working Group on" served as a member (GTHB, 2016)

The Audit Committee, established as a sub-unit of the Executive Board, is responsible for matters relating to the audit.

The Evaluation Committee, another subcommittee of the executive committee, besides their strategies and methodologies, is tasked with in-depth evaluation of certain selected issues and presenting them to the Executive Committee.

Evaluation Committee is responsible to Executive Board and all evaluation reports it makes are reviewed and approved by the board. The Board appoints or dismisses the managers of the committee. It also approves the annual program and budget of the Independent Evaluation Office (IOE) and policies aimed at increasing the independence and effectiveness of the evaluation.

#### Financial Structure of International Agricultural Development Fund

IFAD conducts its financial activities in line with the principles partaking in the financial regulations and related documents. IFAD basically has 2 financial products, namely credit and grant. Credits are determined in line with the gross national income per capita and creditworthiness assessment of the countries according to IFAD Finance Policies and Criteria document. Credits are divided into three according to the interest rate and repayment conditions applied. These are highly concessional, blend or ordinary terms loans. Which credit package the applicant countries can use is determined according to the World Bank country classifications. Gross domestic product is the most important criterion.

*Highly concessional terms loans;* Loans are made available to underdeveloped and developing member countries with low interest rates. Loans with high privileged conditions have a 40-year maturity period, including a 10-year grace period starting from the date of approval by the Board of Directors (IFAD, 2019).

Blend terms loans; Starting from the date of approval by the Board of Directors, it has a 25-year maturity period including a five-year grace period.

*Ordinary terms loans*; these loans have variable terms and grace periods. The maximum maturity period that the borrower can request is 35 years, depending on the maximum average payback term of 20 years.

*Grants*; i) developing countries, ii) it is used by intergovernmental organizations in which it is a member of IFAD member countries, and finally iii) to countries deemed appropriate by the Executive Committee. Grant-supported resources cannot exceed 6.5% of the annual loan program. IFAD projects in Turkey, 1 million USD / Euro up amount, can be used as grants for training and technical support is disbursed to the beneficiaries and the implementing agency of this project amount (IFAD Turkey Regional Office, 2019).

#### International Fund of Agricultural Development Strategic Documents

IFAD carries out all its activities in line with the strategy plans prepared as a basic framework document. It is expected that all programs and projects will comply with these framework plans and serve the objectives included in the plan. There are many strategy and planning documents in force. These plans are periodically updated as they cover certain periods in terms of time. Considering the application to IFAD projects, it is important to carefully examine these policy documents. Below is a list of some of the strategy documents currently in effect.

- · IFAD Strategic Framework 2016-2025
- · IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025
- · IFAD Action Plan Rural Youth 2019-2021
- · IFAD Private Sector Engagement Strategy 2019-2024
- · IFAD Annual Work Plan

#### **Project Process at IFAD**

The project processes carried out by IFAD with the member countries begin when countries submit their project requests to IFAD. Project requests in these processes are not collected by methods such as call for proposals. Developing or underdeveloped countries, which are eligible to receive support among member countries, forward their project implementation request to IFAD, as long as it determines its location. This request is examined on-site by a team created for preliminary survey by IFAD. Then, this request is transformed into a concept paper and the project design begins when it is approved by the President of IFAD. The project design is completed in line with the needs of the region where the project will be implemented and the requests of the relevant units of the state. The project is finalized through the IFAD board and enters the applicant country's investment program. Then, making the loan negotiation, process is completed with the financial agreement (IFAD Turkey Regional Office, 2019).

The ideas that are transformed into projects with IFAD as a result of the evaluations made on the requests submitted to IFAD through the institutions like Ministry of Agriculture and Forestry responsible for making projects and the guarantor institutions like Ministry of Treasury and Finance authorized to use loans, are also carried out using Treasury guaranteed loan by the Ministries (IFAD Regional Office of Turkey, 2019)

The rate of support given in projects implemented by IFAD in the previous years may be limited in proportion to its own resources. However, the recently implemented system is the Performance Based Allocation System. In recent period, approximately 75% of project costs can be borrowed. However, it can be stated that this support seems high due to the inability to measure the country's contribution completely.

#### 4. INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT and TURKEY

#### **Bilateral Relations**

Turkey's relations with the IFAD started in 1982 with Erzurum Rural Development Project, once this relationship has evolved into collaborations such as knowledge management and capacity development. In addition to its relations with the Ministry of Agriculture and Forestry, IFAD develops collaborations with the Turkish Cooperation and Coordination Agency and Regional Development Administrations (IFAD, 2019).

Turkey is both beneficiary country and donor countries. Turkey has made contributions of approximately 23.8 million dollars to pay for ten replenishment period until today. For the 11th resource replenishment period, it made a commitment of \$ 5 million. these payments on behalf of Turkey Ministry of Agriculture and Forestry, is maintained by the General Directorate of Agricultural Reform (TOB, 2019; DİB, 2019; IFAD, 2019).

Turkey, located in different activities and initiatives to increase awareness at the international level and to improve its relations with IFAD. In this context, one of the lobby lounge, situated in IFAD center, Rome campus was built by Turkey and has been registered on behalf of Turkey. The hall was furnished by the Ministry of Agriculture and Forestry and was opened during the 38th Council of Governors on 17 February 2015 (IFAD, 2016).

Apart from this, attempts have been made for the opening of IFAD's regional office in Turkey. Within the framework of the realization of IFAD's restructuring plans; Azerbaijan, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Moldova, Tajikistan and to include Uzbekistan, in Istanbul, the establishment of the Central Asian and Eastern European Center for IFAD had been offered to Turkey and opened regional office in Istanbul in 2018.

#### International Fund for Agricultural Development Strategy for Turkey

IFAD conducts its activities based on the Country Strategic Opportunities Program (COSOP) Reports they have prepared in line with their strategy documents. So far, 3 COSOP has been prepared for Turkey.

Third COSOP document, covering the period 2016-2021, which is still in force constitute the framework of programs and projects to be carried out in Turkey. The overall strategic goal of Turkey COSOP program is to contribute to reducing rural poverty in Turkey in upland areas. To achieve this goal, two mutually supportive strategic objectives have been created. These objectives; Strategic objective 1: "Enhance market access for productive, poor smallholder farmers" and Strategic objective 2: "Mainstream sustainable natural resource management into all aspects of upland agricultural production and increase upland climate change resilience"

Turkey's COSOP Report especially focused on upland areas. In line with this focus, "Rural Disadvantaged Areas Development Program (URDP)" has been created and took in the project investment program for upland areas in Turkey. There are 4 projects within the scope of Turkey COSOP (2016-2020) (IFAD, 2017).

- 1. Ardahan-Kars-Artvin Development Project
- 2. Murat River Development Project
- 3. Göksu-Taşeli Basin Development Project
- 4. Uplands Rural Development Program

COSOP was reviewed in the second half of 2019, and recommendations were submitted on the evaluation of the project work carried out and the issues that could be addressed within the scope of COSOP until the end of 2021. Works on the renovation of COSOP is expected to begin in 2021.

#### IFAD Project in Turkey and Impacts

So far, 669.26 million US dollars financing mobilized for 11 projects with IFAD's supported in Turkey. \$ 231 million of this source met from IFAD, the remaining portion was met by Turkey as a source of co-financing contribution under the name of investment program and the beneficiary country. Co-financing comprises of central government budget, the budgets of local governments where the project's implementation areas, the contribution of the beneficiaries and finally the resources obtained by the initiative of the Republic of Turkey from other external funding. To date, World Bank, OPEC, International Development Fund and Swedish Development Union have been used as external sources.

As seen in Table 1, about 65% of IFAD projects and programs of the Republic of Turkey are met from co-financing budget. Approximately 37.5% of the total budget was obtained from the central government, 7.4% beneficiaries and 20.5% from other national and international funding sources.

**Table 1.** Development programs and projects supported by IFAD (Million \$)

Program and Project	IFAD Support	Co-Finance Turkey Central Government	Co-Finance Turkey Local- Beneficiars Support	Co- Finance External Source	Total Budget
Erzurum Development Project (1982-1989)	15.21	58.56	0	30.98	104.75
Agricultural Extension and Applied Research Project (1984-1993)	6.51	94.4	0	64	164.91
Bingöl Muş Rural Development Project (1989-1999)	19.89	13.84	9.44	9	52.17
Yozgat Rural Development Project (1990-2001)	16.4	24.13	0	0	40.53
Ordu Giresun Rural Development Project (1995-2005)	19.99	18.22	4.81	8.17	51.19
Sivas-Erzincan Development Project (2003-2013)	13.08	4.4	2.67	9.9	30.05
Diyarbakır, Batman ve Siirt Development Project (2006-2014)	24.1	4.45	7.61	0	36.16
Ardahan-Kars-Artvin Development Project (2009-2017)	19.2	3.22	3.99	0	26.41
Murat Nehri Havzası Rehabilitation Project(2012-2022)	36.29	7.42	2.66	15.11	61.48
Göksu-Taşeli Watershed Development Project 2015-2023)	18.29	3.85	2.86	0	25
Kırsal Dezavantajlı Alanlar Development Program(2017-2023)	41.96	18.27	15.64	0	75.87
Total	230.92	250.76	49.68	137.16	668.52

IFAD's budget contribution in projects and programs implemented in Turkey is 34.5% proportionally.

8 of 11 projects implemented in Turkey completed and 2 projects and 1 program is still ongoing. With these projects, approximately 1.5 million households will be affected positively (IFAD, 2011; IFAD, 2018; UNDP, 2019).

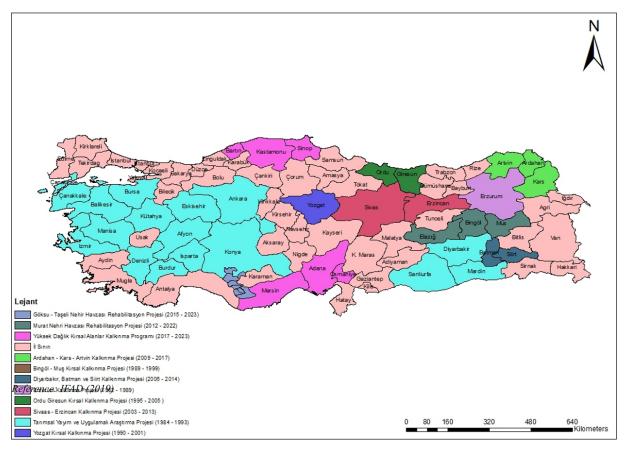


Figure 1. Completed and ongoing IFAD projects in Turkey

In Turkey, except from ongoing and closed project and program, there are any signed, approved and planning program and project. When completed and ongoing projects are examined, it is understood that certain amounts of grants were received from IFAD sources, being in the first place technical support and trainings in every project.

#### Completed Projects

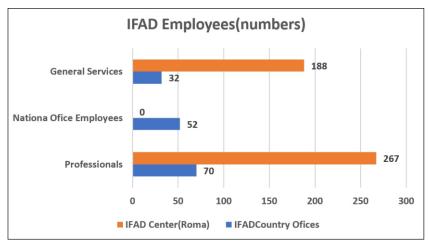
8 IFAD project in Turkey has been completed. The total budget of these projects is \$506.17 million and approximately 26.5% of this value is credited by IFAD (IFAD, 2019)

#### Ongoing Projects

Turkey made credit application for 2 project and 1 program to IFAD between 2010-2017 years. The total budget of these projects is \$162.35 million and the IFAD contribution is \$96.54 million (www.ifad.org).

#### **Working Conditions and Career Opportunities**

When the IFAD human resources statistics are analyzed, as of December 31, 2018, a total of 609 people are employed. 337 of them are consist of consultants, field experts, program assistants, program managers, 220 of them are as a general administrative service staff, and 52 of them employed in countries where IFAD offices are located. In The interviews with IFAD officials, as of 2019, it is understood that a total of 7 Turkish staff that are employed in Turkey Sub-Regional Office and the other office in the world. 4 of them work in administrative services and 3 of them in assisted services staff. In order to have Turkish employees to be in effective positions, political and international ownership must exist by Turkey.



Reference: IFAD (2019)

Figure 2. IFAD Distribution of Staff (number)

IFAD has a very rich staff structure compose of different ethnicities and cultures. Employees consist of 98 countries that are members of IFAD. When gender distribution of IFAD employees is examined, it is understood that approximately 57% of the employees are women.

One of the strongest aspects of IFAD is the diversity of ethnic personnel and the commitment of its employees to work. When examining in which positions employees work within IFAD, it is understood that there are very different staff structures.

#### IFAD Staff Categories;

Professional: The Professional category demands a high level of analytical and communication skills, substantive expertise and managerial leadership ability

National Professional Officer: A National Professional Officer (NPO) is recruited locally in the country of assignment and performs functions at the professional level. The qualifications for an NPO are the same as for the Professional category.

General Service: The functions in the General Service and related categories include administrative, secretarial and clerical support as well as specialized technical functions – for example, printing, security or building maintenance.

Other employment opportunities: IFAD partners with other organizations and governments for the recruitment of fellows, special programmer officers and other individuals. Employment opportunities vary based on the agreement between IFAD and the sponsor.

Consultancies: Consultants are employees who are recruited for a maximum of 11 months in a 12-month project period, who have technical competence or special skills in the project implemented. They play a vital role in increasing the effectiveness of IFAD projects.

Junior Professional Officer (JPO): They are young employees under the age of 35 who are university graduates. It is the personnel financed by the member countries and working for 1-2 years for investment in human resources.

The Internship Programme: It is a position for students who have recently graduated from the university or students who are trained in the fields of interest of IFAD.

The working time of the permanent staff and contracted personnel varies depending on the title and the nature of the job.

Types of Appointment

- · Fixed-term
- · Short-term Professional
- · Short-term General Service

#### Qualifications of Staff

Professional and administrative staff must be at least university graduates. It is also expected to speak fluently one or more of the official languages of IFAD, English, Arabic, French and Spanish.

International organizations affiliated to the United Nations, such as IFAD, offer significant career opportunities to those involved in relevant undergraduate graduates or postgraduate programs that can work in agriculture and rural development. In recent years, job advertisements especially for Agricultural Economics have been encountered. Not only IFAD, but many institutions that carry out projects and programs in the field of agriculture and rural development are making vacancy announcement for candidates who are graduates of Agricultural Economics or have at least master's or doctorate degrees in this field.

It was taken some special details about graduates of Agricultural Economics in the interviews with The Officials of IFAD Turkey Sub-Regional Office. It is stated that job descriptions are very important in entering international institutions, and graduates of agricultural economics department can be one step ahead in recruiting for IFAD.

However, it has been particularly emphasized that knowing a language or even two languages may be an advantage. It is stated that additional features such as dealing with project implementation, management and especially rural development projects, general culture, knowledge of the duties of international organizations and working on sustainable development goals may have a positive effect.

It is thought that applications for suitable positions should be encouraged and turned into a country policy, since the representation of our citizens is weak not only in IFAD but also in the United Nations.

#### 5. DISCUSSION and CONCLUSION

Turkey is a member of IFAD for 28 years, in this period Turkey completed 8 projects and has been carrying on 3 project. Following the membership transactions in 1981, he used his first loan in 1982 and realized the Erzurum Development Project, which lasted about 8 years. Because of the loan rates and easy payment, IFAD's loans which are appear attractive for Turkey, they are so important in relation to accessing financial resources for rural development projects.

IFAD's financial contribution to the project budget in Turkey is 34.5%, which is below the proportional contribution to the projects implemented by IFAD in the world this rate. Agricultural Extension and Applied Research Project is a project that reduces the average contribution rate of IFAD. With its 3,9% contribution, it significantly reduces the average. When the average contribution is evaluated over 10 projects, the IFAD average contribution rises above the world average to about 49%. This ratio has increased even more especially in ongoing projects.

The evaluation of the donor countries as Turkey, have limited opportunities to use the grant from IFAD. At the point of overcoming the economic problems caused by the intense migration wave after the Syrian war, projects for agriculture and rural development have gained importance. These kinds of projects are carried out intensely especially by international organizations. In this direction, it is of great importance to establish grant programs for integrated projects that prevent migration and generate employment, especially in province, region and rural areas where affected by heavy migration.

Turkey, which has made the project partnership with IFAD for nearly 40 years and been both donor and beneficiary, has achieved gains in many ways. As well as financial and technical assistance, in the EU accession process of Turkey, the capacity about the IPARD program also strengthens.

Except "Republic of Turkey Country Program Evaluation" study by IOE in 2016, there is not any a wide range of academic or expertise work which evaluated or analyses effect of IFAD works. It is important to reveal the effectiveness of the programs and projects that have transformed approximately 669 million dollars of financing into agricultural rural development investment until today.

In order for such studies to be carried out, IFAD should open to share a database for the projects it carries out. The documents on the website for IFAD projects do not provide sufficient content and information for analysis and evaluation. Project documents are more open to IFAD staff and consultants. In order to promote these resources more, it is important that country offices take initiatives in this field or create a demand in this direction.

IFAD realizes its missions in countries in line with the country framework documents (COSOP). The third COSOP document, which remains in force, covering the period 2016-2021 for Turkey, is binding for IFAD's mission will be conducted in Turkey. In these documents, sort of priorities and areas of intervention are determined for that country. Being involved in the preparation processes of these documents and contributing to the institutional and scientific level will have a positive effect on the success of these documents. Particularly, the contribution to the plan preparation processes of subject specialists, who are graduates from agricultural economy or have master of science regard as agricultural economy, other related departments and academic studies in the field of agricultural economics, will have a positive effect on the success of these documents.

IFAD, an international organization specialized in rural development, has many projects it has implemented. More projects need to be implemented in our country in order to benefit from this experience. Except financial projects, it is expected that organizations operating in the field of development at local level will take steps towards developing cooperation with IFAD. Provincial Coordination Units by Agricultural and Rural Development Support Institution, Regional Development Agencies, Regional Development Administrations should be enabled to contribute to IFAD projects.

IFAD has announced a 5-year strategy document for the involvement of the private sector in development projects in rural areas in 2019. It is anticipating that the private sector will accelerate rural development projects and increase the resistance to overcome the problems in rural areas. In this direction, participation of the private sector in projects that will contribute to IFAD strategies will be supported. Turkey's needs to be ready for this new policies and carry out lobbying activities in order to the private sector to benefit from low interest loan opportunities for rural development projects are required to conduct.

In projects to be carried out in rural areas, the locomotive sectors are agriculture and food sectors. It is important to raise awareness among the graduates of agriculture faculties, veterinary faculties and food engineering departments that provide education in this field. It should be ensured to raise awareness among the students of the Agricultural Economics Department of the Faculty of Agriculture, who have academic studies especially in the field of agriculture and rural development. In addition, development programs for the qualifications required by IFAD in the undergraduate and graduate curricula should be provided.

It is important that the graduate students of the Faculty of Agriculture, Department of Agricultural Economics, who receive training at national and international standards, especially in the fields of project preparation, execution, monitoring and evaluation in the field of agriculture and rural development, follow IFAD and similar international organizations operating in the field of agriculture and rural development.

Transfer the experience gained from both IFAD resources and from other resources with IFAD partnership to the other countries which are on the way development, motivating the employees of the relevant institution, and assigning more experts within the scope of technical collaboration should be evaluated as an important policy area.

#### Contribution Rate of Researchers Declaration Summary

The authors declare that they have contributed equally to the article and have not plagiarized.

#### **Conflict of Interest Declaration**

The authors of the article declare that there is no conflict of interest between them.

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## Tarım Ekonomisi Dergisi

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### Türkçede 'Yayım' Sözcüğünün Yanlış Kullanımı

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#### Özet

Amaç: Bu makalede, Türkçe yazı ve ifadelerde 'yayınlamak' yerine 'yayımlamak' fiiline yer verilmesinin yanlış bir kullanım olduğu mevcut yayın ve bilimsel verilerin ışığında açıklanmaya çalışılmıştır.

Tasarım/Metodoloji /Yaklaşım: İngilizcedeki 'extension' sözcüğünün Türkçe anlamlarından birisi de 'yayım'dır. Yayım basit olarak örgün öğrenimin dışındaki bir yaygın eğitim sistemi olarak tanımlanabilir. Yayım, tarım ve kırsal kalkınma başta olmak üzere sanayi, sağlık ve eğitim alanına uygulanabilir. Türkiye'de yayım sözcüğü bu anlamda ilk defa 1934 yılında kullanılmasına ve Tarım Bakanlığında bir yayım servisi kurulmasına karşın Türkçe sözlüklerde bu anlam verilmemektedir. Bu arada yayım konusunda Türkiye'de ziraat fakültelerinde lisans düzeyinde verilen 'Tarımsal Yayım ve Haberleşme' gibi dersler olduğunu, aynı zamanda 'yayım'ın akademik çalışmalara konu olan bilimsel bir alan olduğunu da hatırlamak gerekmektedir. Bu somut gerçeklere karşın 'yayım' sözcüğünden nasıl ve niçin türetildiği anlaşılmayan 'yayımlamak' fiili, yayın yapmak işleminin karşılığı olarak bu alanda otorite olan Türk Dil Kurumunun sözlük ve yazım kurallarında yer almaktadır. Uygulamada da 'yayınlamak' sözcüğüyle birlikte veya onun yerine kullanılmaktadır. Bu karmaşık durum dil ve edebiyat alanındaki bilim insanları ve uygulayıcıları arasında da tartışma konusu olmaktadır. Yapılan tartışmalar ve ilgili yayınlara dayalı olarak, konu kapsamlı olarak incelenmiştir.

**Bulgular:** Dil bilimi çalışmalarında, dil bilimi yanında ilgili bilim dallarının da dikkate alınması gereklidir. Makale ile bir bilim alanı ve kendisi doğrudan fiil olan "yayım" kelimesine ek yapılarak "yayımlamak" şeklinde kullanımının doğru olmadığı ortaya konmuştur.

Özgünlük/Değer: Konu daha önceki bazı çalışmalarda da ele alınmışsa da, bu makale ile sunulan bilgiler "yayım" bilim alanını temel alması itibarıyla özgündür.

Anahtar kelimeler: Yayım, Yayım hizmeti, Yayım eğitimi, Yayım elemanı, Yayınlamak

## Misuse of 'The Term of Extension' in Turkish

Abstract

**Purpose:** This paper aims to explain that using the word of 'yayımlamak' instead of "yayımlamak-publishing" in Turkish is not only a misuse but also a wrong choice.

Design/Methodology/Approach: Extension can be described simply as a system of out of school education. In general terms, it is a function that can be applied to various areas of society. It operates in the industrial, health and education sectors, as well as agricultural and rural development. It is very interesting that there is not any word in Turkish dictionaries while the word was first used in 1934 (yayım in Turkish) and afterward an extension service has been established under the Ministry of Agriculture. It is also a subject to a course named as 'Agricultural Extension and Communication' at the undergraduate and gradual level and a scientific discipline at the Agricultural Faculties in Turkey. It is very interesting that a word 'yayımlamak' originated from 'yayım' has been given in the dictionary and the writing guides of The Turk Language Society which is the authority in this field and also some other sources. 'Yayımlamak' is presented as counterpart of 'publishing'. Fortunately, this issue has also been discussing among the scientists and practitioners from the language and literature disciplines.

**Findings:** In linguistics studies, besides linguistics, related branches of science should also be considered. This paper argued that it is not correct to use the word "extension" as "publishing" by adding a word suffix which is a field of science itself and a verb.

**Originality/Value:** Although this topic has been addressed in some previous studies, this article is an original one that based on not only linguistics discussions but also "extension" as a science and a way of education.

Key words: Extension, Extension Service, Extension Education, Extension Expert, Publishing

#### 1.GİRİS

Türkçe dünyanın kadim dillerinden birisi olarak İmparatorluk döneminde Arapça, Farsça ve daha sonra da tazminatla birlikte Fransızcadan önemli ölçüde etkilenmiştir. Arapça harflerle yazılan eski Türkçe neredeyse bir saray ve entelektüel dili haline gelmiş, halkın konuştuğu dille tamamen farklılaşmıştır. Cumhuriyetle birlikte en önemli Atatürk Devrimlerinden biri olan Harf Devrimiyle 1928'de kabul edilen yasayla Arapça harfler yerine Latin alfabesi kullanılmaya başlamıştır. Türkçenin, Arapça ve Farsça kökenli sözcük ve dilbilgisi kurallarından arındırılıp Türkiye Cumhuriyeti'nin ortak, ulusal dili olarak yazı ve konuşma dili haline getirilmesi amacıyla 1932'de tam bir dil devrimi başlamıştır (Tıraş ve Ertürk, 2015). Dil devrimi yanında, bilim ve teknolojik gelişmelerle birçok yeni sözcük Türkçede yer almaya başlamıştır. Bu gelişmelerle dil daha da zenginleşirken, bazı sözcüklerin yazımı, okunması ve anlamları tartışma konusu olmuştur. Bunlardan birisi de makalede konu edilen "yayımlamak" mı, "yayınlamak" mı sorusudur.

Türkiye'de yazılı ve görsel basında, kamu kurumlarının idari yapıları ve yazışmalarında, yayın yapmak anlamına gelen 'yayınlamak' yanında ve/veya bunun yerine 'yayım' sözcüğünden kimin tarafından ve nasıl türetildiği bilinmeyen 'yayımlamak' sözcüğü de sıklıkla kullanılmaktadır. Bu karmaşık durum, yarım asır önce öğrenciliğinde tarımsal yayım ve haberleşme dersi almış ve uzmanlık alanı olmamasına karşın bu konuda lisans düzeyinde ders vermiş biri olarak dikkatimizi çekmiştir. Tüm dünyada olduğu gibi Türkiye'de de, tarım ekonomisi bilim dalına bağlı 'tarımsal yayım ve haberleşme' şeklinde bir ana bilim dalı olduğu ve bu alanda akademik çalışmalar yapılıp, yüksek lisans derecesi, doktora, doçent ve profesörlük gibi unvanlara sahip olunduğu dikkate alındığında, bunun bir karmaşanın ötesinde yanlış bir uygulama olduğu görülmüştür. Bu alanda temel belirleyici olması gereken Türk Dil Kurumuna (TDK) yapılan başvuruya bir yanıt alamayınca, konuyu gündeme getirme, doğruyu önermenin bir vatandaşlık görevi olduğunu düşünerek 6 Ağustos 2017 tarihinde kısa bir makale yayınlanmıştır. Daha sonraki süreçte makaleyi de konu ederek, Türk Dil Kurumu, Türkiye'deki bazı Türk Dili ve Edebiyatı öğretim elemanları, Yüksek Öğretim Kurumuyla iletişim kurulmaya çalışılmıştır. Ancak kayda değer bir yanıt alınamayınca, konunun etraflıca ele alınıp, bilimsel bir çerçevede incelenmesine çalışılmıştır. Buradaki tartışmaya katılmak için öncelikle İngilizce 'extension' sözcüğünün İngilizcede olduğu gibi Türkçede de farklı karşılıkları olmakla birlikte, bunlardan birisinin de 'yayım' olduğunu kabul etmek gerekmektedir.

#### 2.TÜRKİYE'DE YAYINLAMA VE YAYIMLAMA SÖZCÜKLERİNİN KULLANIMI

Türkçede yayım sözcüğünün, İngilizcedeki 'extension' sözcüğüne karşılığı olarak kullanılması gerekmektedir. İngilizce sözlüklerde 'extension' sözcüğü isim olarak; uzatma, genişletme, yayma, telefonda dâhili numara, saç eki, yapı eki vb. çok farklı anlamlara gelirken, isimden önce sıfat olarak da yer alabileceğine de işaret edilerek, örnek olarak da eğitim alanı gösterilmektedir."

TDK Sözlüğü'nde 'yayın' basılıp satışa çıkarılan kitap, gazete vb. neşriyat ve radyo ve televizyon aracılığıyla halka sunulan, duyurulan, iletilen eser, program, neşriyat olarak veriliyor (İngilizce karşılığı da 'publication'). Ancak, yayıncı kelimesi arandığında; 'yayımcı' denerek (İngilizce karşılık olarak da 'publisher' sözcüğü veriliyor). Gariplik burada başlıyor. 'Publication' yayın ise, 'publisher' neden yayımcı olsun (yayıncı olması gerekmez mi?). Gariplik devam ediyor. 'Yayınlamak' sözcüğünün İngilizce karsılığı olarak 'publish' fiili verilirken, anlamı olarak İngilizce 'broadcasting' (resim ve ses imlerini televizyon almaclarının izleyebileceği bicimde, elektromiknatıs ısımayla yaymak) sözcüğünün anlamı yazılıyor. (Neden publishing değil?). TDK'da 'yayımlamak' sözcüğünün İngilizce karşılığı yanlış olarak 'broadcasting' şeklinde verilirken anlam da yanlış olarak 'kitap, gazete, dergi vb. şeyleri basmak ve dağıtmak, neşretmek' şeklinde sunulmaktadır. Neşriyat'ın karşılığı ise yayın olarak verilirken, neşretmek de birden yayımlamak oluyor. Kurumun yaptığı sunumların yanlışlığının bir göstergesi de verilen anlamların kendi içinde çelişkili olmasıdır. TDK'daki uygulama tezatlarına başka bir örnek olarak, kurum yayını olan Türk Dünyası Dil ve Edebiyat Dergisinde yer alan ilkeler dizininin başlığının doğru olarak, yayım ilkeleri değil, 'Türk Dili Dergisi Yayın İlkeleri' şeklinde yazılması gösterilebilir. Aynı kaynakta 'Süreli Yayınlarımız' ve kaynak gösterimi örneklerinde yine 'TDK yayını' gibi doğru ifadeler yer alırken, metin içeriğinde defalarca yayınların yayımlandığı anlamına gelecek tümceler vardır. İ Buradan şu soruyu sorma durumu ortaya çıkmaktadır. Yayın yayımlanır mı? Kuşkusuz bir yayın, yayım faaliyetine konu olabilir. Başka bir anlatımla konu olan kitabın hedef kitleye her türlü yayım ve haberleşme teknikleri kullanılarak benimsetilmesine çalışılabilir. Buradaki benimseme de bir yayım terimi olup, örneğimizde kitabın okunması nihai hedefini göstermektedir.

Türkiye'de birçok resmi isimlendirme ve yazışmalarda yayın ve yayınlama sözcükleri doğru olarak kullanılırken, aynı anda yanlış olarak da yazılmaktadır. Örneğin, Türkiye'nin önde gelen Üniversitelerinin birinde yer alan Edebiyat Fakültesi ilgili bölümünün dergisinin tanıtımı ve yayın ilkelerinde de "yayınlamak" fiili kullanılmaktadır. Başka bir örnek olarak 'Adalet Bakanlığı Yayın İşleri Dairesi Başkanlığı'nı ele alalım. Görevler bölümünden iki madde seçelim ("....mesleki yayınlarda bulunmak üzere teşvik etmek ve haricen yayınlanan mesleki kitapları satın alarak mensuplarımıza dağıtmak") şeklinde doğru bir cümle varken, "Mesleki kitapların ve ilgili mevzuatın basımını yaparak yayımlamak" şeklinde yanlış olarak da kullanıldığı görülmektedir. Gıda ve Orman Bakanlığı'nın ana hizmet birimlerinden birisi 'Eğitim, Yayım ve Yayınlar Dairesi Başkanlığı' idi. Bu birimin adı değişse de etkinlik alanı değişmemiş olup, Tarımsal Yayım ve Danışmanlık sınavları yaparak, tarımsal yayım hizmetini yerine getirecek elemanlar istihdam etmektedir. Dolayısıyla yazılarında doğru olarak yayım danışmanı ve danışmanlığı gibi ifadeler yer almaktadır. Bu örnekler daha da çoğaltılabilir.

Dil bilimi açısından da konu tartışılmakla birlikte çok net açıklamalar yoktur. Örneğin internet kaynaklarında yer alan bir açıklamada yayın ve yayım sözcükleriyle ilgili olarak; "Her iki sözcük de 'yay' eyleminden türemekle beraber sözcüklere ulanan eklerin işlerliği aynı özelliği göstermiyor. Öncelikle '-ım, -im' eki eklendiği sözcükteki eylem anlamını bir parça sürdürür. Ve kimi zaman geniş süreli kılış anlamını bu eki alan kök korur. 'Geçim, bakım, verim, sürüm, basım, tutum, kırım, yıkım, ölüm, doğum, sayım, seçim, yayım' gibi birçok sözcükte fark edileceği üzere sözcük eylem anlamını ekin işlerliğiyle bir parça devam ettirebilmektedir. Ancak aynı durum '-ın, -in' eki için söylenemez. Çünkü bu ek, sözcüğe eylem anlamı katmaktansa bu eylemin ürününü gösterir. 'Yığın, ekin, tütün, dizin, yayın, ışın, basın' gibi örneklerde bu farklılığı daha net görebilmekteyiz. Bundan ötürü 'yayım' işin eylem hâline, 'yayın' ise bu eylemin ürününe morfolojik olarak da uygun düşmektedir.''' Dilbilimi uzmanı olmadığımıza göre bu yorumun özüne karşı çıkmamız olası değildir. Bu açıklamanın dil bilimi açısından doğru veya yanlışlığı dil bilimcilere bırakmak doğrudur. Ancak bu açıklamayı kendi tezimize dayanak olarak alabiliriz.

Bu değerlendirmede 'yayım' sözcüğünün bir fiil, bir eylem ve 'yayın' sözcüğünün de bir isim olduğu açıkça belirtilmektedir. Biz de aynı görüşü savunuyoruz. Yanlış olan 'yayım'dan türetilen yayımlamak sözcüğünün, yayın sözcüğünün fiil hali olarak sunulmasıdır. Verilen örneklerde yayım sözcüğünün de içinde yer aldığı 'im', 'ım' eki ile türetilmiş eylem ifade eden sözcüklerden de anlaşılacağı gibi, bunların hiçbirine 'yayım'a yapılan eklemenin yapılamayacağı görülecektir. Yaparsak da anlamsız olacağı kesindir. Örneğin: geçim-lemek, bakım-lamak, verim-lemek vb. olabilir mi?

Türkiye'nin önde gelen dil bilimcilerinden Ö.Asım Aksoy (1964) "'yayım' yayma işidir; yazıp çizmekle (gazete, dergi, kitap ve resimle ile) olur; sesle (konuşma, teyp, radyo ile) olur; görüntüyle (sinema ve televizyon ile) olur" diyerek çok doğru ve net bir şekilde yayımı bir fiil/eylem olarak tanımlamıştır. Ancak aynı eserde kendi ile tezada düşecek şekilde "yayımlamak" fiilini doğruluğundan söz etmektedir. Şayet 'yayım' sözcüğü bir fiil ise, fiilden başka bir fiil kabul edilen 'yayımlamak' nasıl türetilebilir. Ayrıca başka bir çalışmasında Aksoy (1982) "...dile her zaman büyük çoğunluğun kullanışı egemen olur. Bu nedenle sözlüklerimizde yavaş, yavaş yayınlamanın da yer alacağı ve giderek yayımlamayı unutturacağı anlaşılmaktadır" şeklinde bir eğilime de işaret etmektedir (Balyemez 2018). Türkçe yazınında özdeyiş "Deme kalbura kallabur; lugat-ı fasihten evladır galatı meşhur" şeklindedir (Dağlar, 2008). Burada doğru kelimenin kallabur olduğunu ve yanlış olarak bunun yerine "kalbur" denildiğine işaret edilerek, yanlış olan "kalbur" daha yaygın (meşhur) olduğundan bu şekilde kullanılması daha evladır, denmektedir. Aslında Türkçeye geçen kelimelerin seslendirme ve yazımındaki yanlışlar için 'galat' ve onun çoğulu 'galatat' olup, 'fasih' de 'galat' kavramının karşıtıdır (Uzun, 2018).

Yayın, yayım, yayınlamak, yayımlamak sözcüklerinin kullanımında da bir karışıklık olduğu saptamasını yapan bir makalede konu ile ilgili kapsamlı bir incelemeye yer verilmiştir (Balyemez, 2018). Bu kapsamlı çalışmada da sunulduğu gibi her ikisi de doğrudur gibi bir sonuç ortaya çıkmaktadır. İlginç bir şekilde bazı ünlü dil bilimciler bir gerekçe ortaya koymadan 'yayımlamak' sözcüğünün daha doğru olduğunu belirtmekte iken, 'yayınlamak' sözcüğünün kullanımının daha yaygın olduğuna da işaret etmektedirler (Balyemez 2018). Balyemez (2018) yayınlanan makalesinde öğretmenlerle yaptığı anket sonuçlarını da sunmuştur. Görüşümüze göre bu konuyu tartışanların 'yayım' sözcüğünün, Dünya'da ve Türkiye'de özellikle tarım alanında yaygın bir uygulama ve bilim dalının adı olduğu konusunda bir fikirleri bulunmamaktadır. Ayrıca yayım sözcüğünü bir fiil olarak gören dil bilimcilerinin 'yayımlamak' fiilini neden ve nasıl türettikleri konusunda da bir açıklık yoktur. Bu nedenle 'yayımlamak doğrudur ve Türkçede yayınlamak diye bir sözcük yoktur' ifadesi çok iddialı olup, bilimsel bir temeli de yoktur.

Diğer yandan yayım farklı bir etkinliğin ve bilim dalının adıdır. Aralarındaki ilgi sadece yayının yayım faaliyetinin önemli araçlardan biri olmasıdır. Yayınlamak gerçekten dil bilimi açısından çok yanlış ise, bunun yerine yayın yapmak kullanılabilir. Zaten yayın evi, yayıncı, yayın hakkı, vb. hatta yayın yapmak ifadeleri sıkça kullanılmaktadır.

Bu açıklamalara dayalı olarak bizim doğru kabul ettiğimiz 'yayım' sözcüğünün bir eylem ve 'yayın' kelimesinin ise bir ürün olduğudur. Burada zemini olmayan iddialı açıklama ve yanlışlık; ürün olduğu kabul edilen 'yayın'ın 'yayım' etkinliğinin bir ürünü olduğu saptamasıdır. Başka bir anlatımla, fiilden fiil türetip, 'yayımlamak' sözcüğünü kullanmak herhalde doğru olamaz. Bırakalım yayın yapmak işine yayınlama denip denmeyeceği işi ile dilbilimciler uğraşsın. 'Yayınlamak' ifadesinin uzun yıllardır Türkiye'de yazılı ve görsel basında yaygın olarak kullanıldığı gerçeğinin herkes tarafından kabul edildiğini biliyoruz. Gerçekte yayınlamak kelimesinin galat değil fasih olduğunu, galat olanın yayımlamak sözcüğü olduğudur. Buradan 'yayım' sözcüğünün Türkçe sözcük olarak bir eylemi ifade ettiği gerçeğini temellendirdikten sonra, bize düşen bu eylemin (yayım) ne anlama geldiğini açıklamak olacaktır.

#### 3. "YAYIM"IN ANLAMI

Yayım genel anlamda toplumla ilgili sanayi, tarım, sağlık ve eğitim alanlarında kullanılabilen bir işlemdir. Orijinal olarak 'Üniversite Yayım' faaliyeti şeklinde ortaya çıktığından kalkınma hedefleri doğrultusunda birçok alana uygulanabilir. 'Yayım' insanı ilgilendiren her alanda bilgi ve yeniliklerin örgün eğitim dışında (bir yaygın eğitim uygulaması olarak) hedef kitleye iletilmesi ve bu kitle tarafından benimsetilmesi olarak tanımlanabilir. Dünyada yayım konusundaki uygulamalara bakıldığında yayım (extension) sözcüğünün, tanımlanmış bir etkinliğin karşılığı olarak, genellikle kendini tarif eden bir sözcükle birlikte kullanıldığı görülmektedir. Yayım faaliyeti, yayım eğitimi, yayım yöntemleri, yayım danışmanı veya danışmanlığı, kooperatif yayım, katılımcı yayım, tarımsal yayım, yayım dairesi, yayım kurumu vb. şeklinde birçok örnek verilebilir.

Konuyu, kendileri ile ilgili bilgi ve tavsiyeleri çiftçilere iletmekle sınırlı olduğunu kabul edenler, 19. yüzyılda çağdaş tarımsal yayımın ortaya çıkmasına kadar, yayımın çok eski bir tarihi geçmişi olduğu üzerinde durmaktadırlar. MÖ yaklaşık 1800'lerde Mezopotamya'da bunun ilk örneklerinin olduğu bilgisi vardır. Arkeologlar o döneme ait sulama, farelerden kurtulma vb. konularda tavsiyelere yer veren tabletler bulmuşlardır. Mısır, Eski Yunan ve Roma'da da buna benzer bulgulardan söz edilmektedir (Jones ve Garforth, 1997). Modern çağda 'yayım' sözcüğünün kullanılması İngiltere'de 19.yüzyılın ikinci yarısındaki eğitimdeki gelişmelerden kaynaklanmıştır. 1850'lerde iki tarihi üniversite olan Oxford ve Cambridge'de üniversitelerin etrafındaki kentsel alanlarda hızla artan sanayi nüfusunun eğitim konusundaki gereksinimleri nasıl karşılayacakları konusu tartışılmaya başlamıştır. 'Üniversite Yayım' olarak düşünülen ilk hareketin 1867'de ortaya çıkmasına kadar önemli bir gelişme olmazken, bu girişim yüzyılın tamamlanmasından önce oldukça hızla gelişerek köklü bir uygulama haline gelmiştir.

Başlangıçta dersler daha çok edebiyat ve sosyal konularda iken 1890'larda gezici eğitmenler tarafından verilen tarımsal konulardaki dersler de faaliyete dâhil edilmiştir. İngiltere'de bu faaliyetlerin başarı kazanması başta Amerika olmak üzere başka yerlerde de benzer hareketlerin ortaya çıkmasını özendirmiştir.

Amerika'da devlet destekli tarım üniversitelerinin gelişmesine paralel olarak, çiftçi ailelerine eğitim hizmeti götürmeyi amaçlayan bu faaliyet hızla yayılmış ve kurumsal bir yapıya kavuşmuştur. ABD'deki gelişmeler sonunda yayım faaliyeti, üniversitelerde bilgilerin kırsal kesime aktarılmasının ötesine geçerek, kırsal kalkınmaya öncülük edecek gençlik örgütlenmesinden sanatsal etkinliklere kadar çok farklı konuları kapsayan kırsal kalkınma anlayışına dayalı bir yapıya kavuşmuştur. 1904'lerin başlarından itibaren gelişen bu sistem 'kooperatif yayım' olarak isimlendirilmiştir (Peters, 2002). 2014 yılında geçmişte kırsal kalkınma konusunda çok önemli katkıları olan bu kooperatif yayım kurumunun 100. yıl kutlaması yapılmıştır (Gould ve ark., 2014). Tarımsal yayım faaliyetinin Almancası Landwirtschaftlichen Erweiterung, Fransızcası da Vulgarisation Agricole'dür.

20.yüzyılın başlarında İngiltere'de 'tarımsal 'yayım hizmeti-extension services' Tarım Bakanlığına bırakılarak, bu başlık altındaki hizmetler resmi olarak 'danışmanlık hizmeti-advisory services' şeklinde tanımlanmıştır. Avrupa'da kamu hizmeti olan yayım hizmetlerinin çoğulcu bir yapıya kavuşması ile 'extension service' 'advisory service' şeklinde kullanılmaya başlamıştır (Labarthe ve Laurent, 2013). Bu gelişime bağlı olarak halen ABD ve Kanada 'yayım hizmeti' kavramını kullanırken birçok Avrupa ülkesi 'danışmanlık hizmeti' kavramını kullanmaktadır. Gelişmekte olan ülkelerin çoğunda, bu ülkelerde kamu yayım ve danışmanlık kurumunun oluşmasına destek veren Batılı Destek kuruluşlarının önerilerine bağlı olarak yayım veya danışmanlık sözcükleri kullanılmıştır. Örneğin ABD Uluslararası Kalkınma Teşkilatı (USAID) 1960 ve 1970'lerde birçok gelişmekte olan ülkede araştırma ve yayım sistemi yanında tarım üniversitelerinin kuruluşunda da aktif rol oynamıştır. Bu nedenle bu ülkelerde hala 'yayım' sözcüğü kullanılmaya devam etmektedir. Bunun yanında birçok gelişmekte olan ülkede özellikle Güney-Sahra Afrika'sında 'danışmanlık hizmeti' kavramı kullanılmaktadır (Swanson ve Rajalahti, 2010).

Özellikle ABD'de tarımsal yayım ve yayım eğitimi konularında çok sayıda lisans ve lisansüstü program bulunmaktadır. Bu alanda halen internet üzerinden yayınlanmakta olan İngilizce bir dergi de vardır. Derginin ilk sayısında editörler, derginin amacını "yayım eğitimini bir kariyer olarak seçen ve diğer yetişkinlerin eğitimi ve toplum gelişimi liderlerinin profesyonel olarak kendilerini yetiştirme ve geliştirmelerine yardımcı olmak" şeklinde açıklamışlardır (Ferguson ve Carter, 1963). Bu dergi 1994 den itibaren eski ve yeni sayıları internet üzerinden ücretsiz olarak sunulan iki ayda bir yayınlanan hakemli bir yayındır. Aynı sayıda yine 'Profesyoneller ve Onların Dergisi' başlığı taşıyan sunumda "Bu dergi görece yeni ve farklı bir eğitim alanı olan 'yayım'a özgü fikir ve gelişmeleri sunmayı amaçlamaktadır" ifadesi ile yayımın kendine özgü bir eğitim şekli olduğu gerçeğine işaret edilmektedir (York, 1963).

Türkiye'de çiftçi eğitimi kavramı ilk defa 1931 yılında Birinci Ziraat Kongresinde 'Zirai Tahsil ve Neşriyat' başlığı ile sunulan raporda yer almıştır. Tarımsal yayım kavramı ise ilk defa 1938 yılında toplanan 'Birinci Köy ve Ziraat Kalkınma Kongresinde' kullanılmıştır (Şenocak, 1967). Yayım, ev ekonomisi ve 4-K kulüpleri<sup>vii</sup>gibi terimler ilk defa bu kongre ile tarımsal sözlüğe girmiş bulunmaktadır (Şenocak, 1967). 1960 yılında başlayan başlayan planlı dönemle tarımsal yayım faaliyetleri daha da yaygınlaşmıştır. 1965 yılında düzenlenen Türkiye Ziraat Mühendisliği I. Teknik Kongresi'nde 'Tarımsal Yayım ve Öğretim' problemleri yeniden ele alınmıştır (Şenocak, 1967). 1980'lerden başlayarak, tarımda liberalleşme ve sanayileşme hareketlerine bağlı olarak tarımsal yayım da önemli değişimler geçirmiş, gelişmiş Batıda olduğu gibi tarımsal yayım yanında tarım danışmanlığı kavramı da yaygın olarak kullanılmaya başlamıştır.

#### 4. SONUÇ ve ÖNERİLER

Yapılan incelemelerle ortaya konulduğu gibi 'yayım' tek başına bir fiil olup, bir faaliyeti ve bir akademik disiplini tanımlamaktadır. 'Yayınlamak' kelimesinin Türkçe dil yapısına göre uygun olup olmadığı konusunda fikir belirtmek için kendimizi yetkili göremeyiz. Dil bilimciler yaptıkları değerlendirmelerde yayınlamak fiilinin 'yayımlamaya' göre daha fazla kullanıldığından bahisle "galatı meşhur lügati fasihten yeğdir (yanlışın yaygını, kitabi doğrudan iyidir)" özdeyişini hatırlatarak 'yayınlamak' fiilinin yanlış da olsa daha yaygın olarak kullanılacağı görüşünü ileri sürmüşlerdir. Başka bir anlatımla, bir anlamda 'yayınlamak' kelimesinin kullanımına dolaylı bir onay söz konusudur.

Ancak uygulamaya baktığımızda bunun aksi bir gelişme olmuş ve 'yayınlamak' kullanılmakla birlikte, yanlış olan yayımlamak sözcüğünün kullanımı giderek yaygınlaşmaktadır. Bunun nedenlerinden birisi maalesef 'yayım' uygulamaları ve 'yayım bilim alanı' ile ilgili değişimlerdir. Türkiye'de 1980'lerde başlatılan liberalleşme ve özelleştirme rüzgârıyla birlikte önceleri daha çok bir kamu hizmeti olan 'yayım' etkinliğinin de özelleştirilmesi yoluna gidilmiş ve tarımsal yayım yerine tarım danışmanlığı kavramı daha çok kullanılır olmuştur. Nitekim 2017'den sonra Tarım Bakanlığındaki ilgili daire başkanlığının adından 'yayım' sözcüğü çıkarılmıştır. Diğer bir nokta da 1980 sonrası yüksek öğretim kurumunda yaşanan değişimlerdir. Ziraat mühendislerinin uygulamada yüklendikleri temel görevlerin başında kısaca 'tarımsal bilgi ve yeniliklerin çiftçiye ulaştırılması' konusunu içeren 'tarımsal yayım'la ilgili lisans düzeyinde dersler alarak bilgilenmelerinin önemi ihmal edilmiştir.

Maalesef daha önceki yıllarda bu konu tüm bölümlerde 'Tarımsal Yayım ve Haberleşme' dersi olarak programlarda yer alırken, giderek bu dersi alan bölüm sayısı azalmış, sonunda neredeyse sadece ilgili bölüm olan tarım ekonomisi lisans öğrencilerinin aldığı bir ders durumuna gelmiştir. Kanımızca bu iki gelişme 'yayım' sözcüğünün gerçek anlamının unutulmasında etkin olmuş ve hem dil kurallarına hem de bilimsel gerçeklere uymayacak şekilde 'yayımlamak' ifadesinin kullanımı daha da yaygınlaşmıştır. Bir dilin gelişmesinde dil bilimi yanında diğer disiplinlerin de dikkate alınmasının gereğini vurgulayıp, tüm ilgililere ve paydaşlara Türkçede 'yayımlamak' diye bir sözcüğün olamayacağını bir kez daha hatırlatarak makalemizi sonlandıralım.

#### **SON NOTLAR**

https://www.aydinlik.com.tr/haber/dogrusu-yayinlamak-erkan-rehber-kose-yazilari-agustos-2017

"https://dictionary.cambridge.org/tr/s%C3%B6zl%C3%BCk/ingilizce/extension

"https://sozluk.gov.tr/?kelime=

ivhttp://tdk.gov.tr/yayinlar/sureli-yayinlarimiz/turk-dunyasi-dergisi/

https://tuded.istanbul.edu.tr/tr/content/yazarlara-bilgi/yazilarin-hazirlanmasi

vihttps://journo.com.tr/yayinlamak-mi-yayimlamak-mi

http://www.uzunhikaye.org/icerik/hangisi-dogru-dilyanlislari/index1.html?page=1

viiKırsal gençliğe yönelik çalışmalar 1960'lı yıllara kurulan kulüpler olup, 4K (Kafa, Kalp, Kol ve Kuvvet) İngilizce 4H (Head, Heart, Hands, and Health) kelimelerinden alınmıştır.

#### Çıkar Çatışması Beyanı

Makale yazarı herhangi bir çıkar çatışması olmadığınıve intihal yapmadığını beyan eder.

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