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EVALUATION of YOUNG FARMERS PROJECT SUPPORT PROGRAM in TERMS of AGRI-ENTREPRENEURSHIP in TURKEY

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Turkey has top rankings in the world in terms of the importance of the agricultural sector in economy and agricultural production value, although it can not be said that the agriculture sector has reached the desired level of entrepreneurship. Factors such as the unwillingness of young people to stay in rural areas and the fact that agricultural sector is not profitable enough to invest are influential in this. Turkey has made considerable strides in supporting entrepreneurship, especially after the 2000s and has achieved a major trend in the entrepreneurship in recent years. Henceforth, the most important stones of the new economy system, the entrepreneurship and innovation culture, must be instilled into the young population and the young entrepreneurs should be supported. For this purpose, in order to support young people in the agriculture sector, a policy instrument called "Youth Farmer Projects Support (GÇPD)" was added to the "National Agricultural Project" in 2016. By supporting young farmers with this support policy, encouraging young people to be in agriculture and supporting entrepreneurship are important goals. The purpose of this study is the evaluation of the Young Farmer Project Support in Turkey in terms of entrepreneurship. In this context, a survey study was carried out in Turkey's TR 71 Zone (Aksaray, Kırıkkale, Kırşehir, Nevsehir and Nigde) and a total of 248 young farmers (139 supported, 109 applied but not entitled to support) were interviewed. In the analysis of the data, Factor and Compliance Analyzes were used. As a result, Young Farmer Project Support with the aspect of encouraging young people in agriculture in rural areas is a shot in the arm but these supports have to be aimed at creating an economically sustainable business. Improving the entrepreneurial spirit of the entrepreneur, which is one of the factors of production in the optimization of agriculture, requires more support of the sector in this respect and more support to entrepreneurial individuals. Supporting small businesses and enterprises that do not have sufficient financing for production only with grant awards will not advance these supports beyond social assistance. Keywords: Rural Development, Young Farmers Project Support, Agri-Entreprenourship, Rural Area, Turkey.

INTRODUCTION

In the creation of a dynamic process within the free economic system, the existence of a society with entrepreneurial cultures is important. Entrepreneurship in economic, social, cultural, and even political life is a mentality that is immersive and dynamic and is an important value to support. In the EU Commission Report (2003) entrepreneurship, as a multidimensional phenomenon, is defined either as individual or collective motivation and capacity to find an opportunity and create new value, or to take this opportunity to achieve economic success. Entrepreneurship and entrepreneurs play an important role in the development of each country's economy due to features as creating added value, employment creation, strengthening inter-sectoral relations, social benefit and fight against poverty, contribution to fair income distribution (Sönmez and Toksoy, 2014). Although there are many definitions of entrepreneurship, the number of research done in terms of the sector impact on the formation of entrepreneurship has remained in the minority. Especially in the agricultural sector, entrepreneurship is not among the topics studied extensively (Fitz-Koch *et al.*, 2018).

Traditionally, agriculture is often dominated by a large number of small family businesses that do business better than to do new things, and it is seen as a low-tech industry with limited dynamics. In the last decade, this situation has changed considerably due to economic liberalization, globalization, a decline in the protection of agricultural markets and a rapidly changing agrarian society. The reasons such as particularly developing market, changing consumer habits, environmental regulations, becoming forefront of product quality, supply chain management, food safety, sustainability and so on; are more widely spoken and emphasized in the agricultural sector therefore agricultural enterprises had to adapt to the new system in order to be able to sustain their assets. These changes have opened the way for new entrepreneurs with high innovative power in the sector and have made entrepreneurship compulsory, other than

management and labor, to ensure sustainability in agriculture (Pyysiäinen *et al.*, 2006; McElwee, 2008). Research in recent years has shown that agricultural entrepreneurship has a profound effect on business growth and survival (Hron *et al.*, 2009; Verhees *et al.*, 2011; Lans *et al.*, 2013).

Entrepreneurship and innovation constitute two important building blocks of the new economy. Improving entrepreneurship and developing entrepreneurial traits and quality is crucial in the development of a country. Successful entrepreneurial activities are highly functional in the creation of employment in the country, acceleration of economic growth, emergence of new industries, community change and development process (Bozkurt et al., 2012). When considering sectoral issues, these building blocks of the new economy must be created in order to ensure the dynamism of the industry, to advance and to gain competitiveness position. The activities for the development of entrepreneurship in Turkey have been implemented since the 1980s, has gained momentum in the 1990s and there have been significant increases in the number of support and institutions / organizations providing support in the 2000s. The subject of increasing the training and support on entrepreneurship found a place in IX. and X. Five-Year Development Plans (Ministry of Development 2006; Ministry of Development 2013) and especially in the X. Five-Year Development Plan, it is stated that the entrepreneurship will be widespread not only in industry, services, trade sectors, but also in the agriculture sector (Ministry of Development, 2013). As a result of the given studies entrepreneurship in Turkey has taken serious steps in recent years. According to Growth from Knowledge (GfK) Company (2011), Turkey has become the most courageous country within the European countries on the issues of establishing a positive look to entrepreneurship and setting up self-employment, with the rate of 50% and shared this position with Switzerland (Sönmez and Toksoy, 2014).

As a result of examining entrepreneurship sectorally, it can be seen that there are efforts to support entrepreneurship in agriculture sector in Turkey. There are sample enterprises (diary, fattening, poultry, arboriculture, etc.) established in different production branches and entrepreneurs who set up these businesses, and the driving force in this area of IPARD (Instrument for Pre-Accession Assistance-Rural Development) funds is extremely important. The organizations such as Ministry of Food, Agriculture and Livestock (GTHB), Agriculture and Rural Development Support Agency (TKDK), Development Agencies, Central Finance and Contracts Unit (MFIB) and KOSGEB in Turkey has increased steadily in recent years to support the activities of agricultural entrepreneurship.

Despite having created such a positive environment for entrepreneurship, especially one of Turkey's most important problem is to increase the entrepreneurship capacity of the young population to encourage entrepreneurship and to keep them in the countryside. Young population is the most important segment of farming community (Toor, 1991). Turkey with about 52.3 billion dollars of agricultural production value for 2016 ranks first in the European Union and the eighth in the world. The formation of such a size is influenced by the availability of climate conditions, the advantages of biodiversity, the existence of important gene centers (Tan, 2010), the social structure with agricultural cultures, the dynamic population structure and the diversity of logistical facilities due to its geopolitical position (Yavuz, 2017). Although the agricultural sector is important for Turkey, it is a fact that it can not contribute to economic development at the desired level due to its structural problems (Yavuz, 2005; Özertan, 2013; TOBB, 2013; Doğan *et al.*, 2015; TİM, 2016).

The problems of agriculture in Turkey when examined from a sociological perspective, the aging of agriculture society and the fact that the rural youth is not seeing the agricultural sector as an income generating and prosperous sector are the most important problems. This situation also prevents the formation of an entrepreneurial environment. Generally speaking, Turkey's population is aging and it is seen that this aging is more rural and agricultural sector. Especially the rural-to-urban migration and the changes in the statistics that the new Laws bring to the rural population in Turkey (see the influence of the Metropolitan Act after 2012) show that the rural population is decreasing both proportionally and numerically. It can be observed that with the reason of rural migration, young people do not want to stay in the countryside too much, resulting in a population aging in agriculture. Er (2013) stated that the search for jobs outside the rural areas of the young population depends on such factors as: the rapid increase in the unemployment rate in rural areas, the complete profile of the unemployment profile of young people, agriculture is not seen as an attractive employment area by young people and the employment potential of nonagricultural sectors in rural areas is low. Especially the growing services and industry sector attracts low-skilled young population in the rural area and negatively affects the young population in agriculture (Arlı et al., 2014).

Approximately half of Turkey's population being under age of 30 requires that the employment opportunities of young people should further increased and that they should sustainable. The young population is away from agriculture for reasons such as inadequate income in rural areas, limited social opportunities in the villages, fragmented or scarce land, and lack of alternative job opportunities in rural areas. Youth away from agriculture brings with it problems such as aging and declining of rural population. It is stated that the rapid depletion in agriculture today will cause major problems in terms of food production in the future (Doğanay and Alım, 2011).

Sustainability in agricultural production can only be achieved when the young population is kept in agriculture. In ensuring that the young population is kept in agriculture, it is important to educate young people with a high entrepreneurial spirit and to make agriculture profitable and entrepreneurial for entrepreneurship. To encourage entrepreneurship and to draw attention to entrepreneurs who have the ability to set up a business in a sustainable economic growth process, contributing to this process by emphasizing the innovationcreativity performance of entrepreneurship are the conditions for creating a dynamic youth population.

According to the 2015 statistics of entrepreneurship by TURKSTAT in Turkey published in 2017 when the sectoral distribution of employers by age groups is examined (TURKSTAT, 2017a); the highest rate in the agriculture sector was in the 55-59 age group with 15.7%, and in the nonagricultural sectors in the 35-39 age group with 18.2%. While 55.2% of employers in the agricultural sector were primary school graduates, 13.1% of them were primary, secondary and vocational school graduates, those in the non-agricultural sector, the proportion of primary school graduates is 29.3%, and the proportion of primary education, junior high school and vocational school graduates is 16.4%. In addition, 15.5% of the employees in the non-agricultural sector are general high schools and 26.4% of those are college or faculty graduates. Compared to the year 2014, the share of primary school graduates in agricultural sector decreased by 4.5 points and that of non-agricultural sector decreased by 2.5 points while the share of college or faculty graduates increased by 3.5 points in agriculture sector and 1.8 point in nonagricultural sector. As it can be seen also from the statistics, most of the entrepreneurs who are called as employers in the agriculture sector constitute entrepreneurs over 50 years of age.

In order to solve these existing problems, a policy instrument named "Youth Farmer Projects Support (YFPS)" was added to the support in "National Agricultural Project" in 2016. Ministry of Food, Agriculture and Livestock has started to provide the YFPS with a notification published in the Official Gazette dated April 5, 2016 in the scope of Rural Development Supports. According to the notification, it is aimed to support sustainable agriculture, support entrepreneurship of young farmers, raise income level, create alternative income sources and support projects for agricultural production in the rural area which will contribute to the employment of young population in rural areas. In the scope of this support, project-based support for the young population, which provide specific criteria for agriculture under the age of 41, to remain in agriculture has begun. Initial support started in 2016 and this program was planned as 3 years in the first stage. Within this scope, 30.000 TL grants are given to young farmers who meet the support criteria specified in the following project subjects. Project topics are (Official Gazette, 2016).

This project, aiming at keeping young farmers in agriculture and dealing with agriculture, is an important policy argument aimed at preventing the aging of the agricultural population in rural areas. This support policy is also important in encouraging young farmers to entrepreneurship and supporting young farmers who want to start new businesses. Created this new support policy, though it is important for the integration of agriculture policies into the European Union (EU) Young Farmers Project Support Program in Turkey shows structural differences with the EU Young Farmers Support Project.

There are many factors that influence the success of your entrepreneurship. Entrepreneurship is not just a onedimensional concept that consists solely of entrepreneurs, develops depending on the characteristics of the entrepreneur. Thus, when entrepreneurship activity is considered as a dependent variable, individuals and groups as entrepreneurs as actors are also independent variables with social, economic, political, cultural and other situational variables.

There is lack of study on the young agriculture entrepreneurship. With this study, a general evaluation of YFPS, which was applied in 2016 and which is ongoing implemented in 2017 and expected to be implemented in 2018, has been carried out. In this context, the evaluation of young farmers supported by the YFPS has been carried out in terms of entrepreneurship by the survey conducted with a total of 248 people benefiting from and not benefiting from YFPS in the TR71 Region (Aksaray, Kırıkkale, Kırşehir, Nevşehir and Niğde districts) within the scope of Turkish Statistical Region Units Classification (İBBS2).

MATERIALS AND METHODS

The study was carried out in May-September 2017 in the TR71 region of Turkey (Aksaray, Kırıkkale, Kırşehir, Nevşehir ve Niğde provinces) within the scope of the NUTS-2 classification. 3 districts were selected to represent from every province (in total 15 districts) according to the number of YFP given in 2016 by Purposive Sampling Method (Black, 2010). The main material of the study is the data obtained through a questionnaire survey with 139 young farmers that randomly selected from a total of 453 people benefiting from YFPS in the selected provinces and 109 randomly selected applicants who applied from YFPS but were unable to benefit from the evaluation. The region in which the work is performed is shown in Map 1 (Fig.1).

The questionnaire forms of the study were prepared within the scope of the project "*Determination of the parameters that could be a criterion for young farmers' support and the tendency of the young people to stay in agriculture*". Within the prepared questionnaires, the general demographic and economic characteristics of the individuals were evaluated as well as the responses to entrepreneurship, rural views and risk perceptions.



Figure 1. The region (TR71) where the study was conducted in Turkey

Explanatory factor analysis and confirmatory factor analysis were used for entrepreneurship (8 variables) and risk perception (17 variables) variables in order to achieve the purpose of the study. Two main aims of exploratory factor analysis are to reduce the number of variables and to reveal some new structures by taking advantage of the relations between variables (Özdamar, 2004). Kaiser-Meyer-Olkin (KMO) and Barlett test were used to test sample adequacy and appropriateness in factor analysis (Hair 2006; Tabachnick and Fidell 2001). Factor analysis can be performed if the KMO value is greater than 0.50 and the probability value of the Barlett test is smaller than 0.05% (Büyüköztürk, 2017; Durmus et al., 2018). Analysis of basic components of varimax rotation which aims to reduce the number of factors by maximizing the variances of the loads belonging to the factors among the variables has been applied. The Chronbach Alpha coefficient was calculated to test the reliability of the factors determined at the end of the study (Hair, 2006). As a result, a total of three factors for risk perception of young farmers and one factor for entrepreneurial status of them were obtained.

A comparison of two different categorical data was made using the Relevance Harmony Analysis. Coherence analysis, which is one of the multivariate statistical analyzes, can be simply defined as a technique that allows detailed analysis of the relationships between categorical data and allows the obtained results to be displayed graphically in a twodimensional space. Compliance Analysis is a preferred method to apply instead of chi-square analysis: where the chisquare analysis is not appropriate due to the inadequacy of the frequencies in the table cells, which are categorically obtained or categorized and converted into a table; when the rank order of row / column representations between the variable categories can not be done simultaneously when analyzed by chi-square analysis; in contingency tables where joining is required due to insufficient cell frequencies in cross tables (Özdamar, 2004).

RESULTS AND DISCUSSIONS

The initial stage of development is the development of human and social capital. When the relationship between development and human capital is examined, human capital has a close relationship with the possibilities of health and education (Keskin, 2011), and since the late 1980s human capital has begun to be regarded as a qualified workforce with a good education level, and economic growth has begun to be regarded as a driving force (Nesterova and Sabirianova, 1998). The concept of human capital is used to express the whole of concepts such as knowledge, skills, abilities, health status, place of social relations and level of education that a person or society has, and constitutes the basic source of economic growth (Kar and Ağır, 2006). Nevertheless, human capital has emerged as an alternative to physical capital in industrial society and has gained importance as a development strategy for countries. Human capital, which is expressed as the personnel infrastructure of the knowledgebased society, is in essence a concept that defines specialized people (Özyakışır, 2011).

One of the most important problems in rural areas is aging and young people inclined tendency towards urban areas then rural areas, especially non-agricultural sectors. It is reported that this is not only a problem of Turkey, but also of the problems in EU countries (Aggelopoulos and Arabatzis, 2010; European Commission, 2013; European Court of Auditors, 2017). Within the scope of the Common Agricultural Policy, the aim was to develop young farmer support programs aimed at ensuring that young farmers, especially the EU, are in agriculture, supporting new businesses, or encouraging more efficient production. In Turkey, this approach come into force for the first time in 2016 in a way that will directly target young farmers to encourage them to remain in agriculture.

The impact of the YFPS on the current production process is one of the most important issues on the agenda. Expectation is that these supports create a driving force effect among young farmers, and a multiplier effect is observed due to this effect. It can be stated as the success of selected young farmers, as well as visions of these farmers' entrepreneurial capacities or the further progress of the enterprise are influential in the multiplier effect. There are many definitions in the literature about entrepreneurship and entrepreneur (Hyrsky, 2001; European Comission, 2003). At the beginning of the majority of judges; an entrepreneur can be defined as a person who can see and appreciate the opportunity, and entrepreneurship can be defined as the vision in production process, dynamism in change and creativity. Accepting the existence of a dynamic process is in fact important to establish

Indicators	Supp	Chi-Square/t				
		Not used		Used		statistic
		Count/Mean	%	Count/Mean	%	-
Gender	Male	69	63.30	29	20.86	46,04***
	Woman	40	36.70	110	79.14	
Marital status	Married	79	72.48	126	90.65	14,07***
	Single	30	27.52	13	9.35	
Age	Age 18-30	56	51.38	83	59.71	1,72
	Age 31-40	53	48.62	56	40.29	
Education level	Secondary school and under	70	64.22	104	74.82	3,28*
	High school and over	39	35.78	35	25.18	
Residence Status	With parents	32	29.36	11	7.91	22,45***
	With life-partner and children	47	43.12	67	48.20	
	Living alone	0	0.00	3	2.16	
	Extended family	28	25.69	55	39.57	
	Other	2	1.83	3	2.16	
Number of person in the Family		5.11		5.04		0.34

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Table 1. Demographical indicators of baneficiaries and non-baneficiaries from VEDS

permanent solutions to sustainability in production. Therefore, when assessing Turkey's YFPS work it is important to understand what type of support goes to farmers, to estimate the desired multiplier effect.

The study done within the TR71 region according to the NUTS-2 classification at the center of Turkey and descriptive statistics including the demographic, social and economic factors of young farmers benefiting from the YFPS and applying but not benefiting from the YFPS are presented in Table 1. Table 2 and Table 3. When Table 1 is examined, it can be seen that the individuals who benefit and can not benefit from the support are separated from each other at some points. From the point of view of demographic factors, it is seen that approximately 80% of the young farmers benefiting from the support are women and married individuals. The fact that the education status of young farmers, either the applicant who can not benefit from the support or who benefit from the support, is secondary school and lower (8 years of compulsory education) actually reflects one of the most important problems in agriculture in rural areas. When the factors determining entrepreneurship are examined, education among the individual factors, which are one of the most important factors, is an important variable (Koh, 1996). Hisrich et al., (2016) also pointed out to the education factor as one of the factors influencing entrepreneurship. Education is very important to overcome the problems encountered at the beginning of entrepreneurship. Despite this, there are researches that show that there is an inverse relationship between education and entrepreneurship (Verheul et al., 2004; Yayla and Akın, 2004).

Another issue that sets out the differences between beneficiaries and non-beneficiaries is the family environment in which the individual lives (Table 1). While the young farmers benefiting from the support usually have a family structure consisting of partner and children, an important part of them seems to be in the large family structure, including the mother and / or father. It is seen that the beneficiary individuals, who are women and the married (32.37% of young farmers benefiting from support), are included in the extended family structure. The emergence of such a structure may present a negative situation in terms of entrepreneurship. In traditional societies, patriarchal family structure is often predominant. In the patriarchal family, the family breadwinner can decide on behalf of the family and apply it. Research has shown that children who are raised in patriarchal families have fewer entrepreneurial abilities (Morton et al., 1987). It may be difficult for female individuals within the extended family structure to give independent decisions and especially her husband or her elders, can reduce the chances of the woman playing an active role in the management.

Society guides people in certain directions. For example, it is pointed out that while the individuals who has entrepreneurs in their families have developed the same business or established the same business; the individuals who have civil servants in their families have chosen more guaranteed jobs (Aytaç and İlhan, 2007). Approximately 80% of the individuals benefiting from or not benefiting from YFPS have families involved in agriculture (Table 2). It was determined that 34.86% of the young farmers who did not benefit from the support and 18.71% of the beneficiary young farmers had no agricultural experience. Therefore, it is reached here that approximately 25% of the respondents selected this agriculture as an initiative for the first time and applied for this project support. However, in the selection criteria those with experience have achieved a more favorable situation in terms of selection according to those who are not experienced.

Indicators	Su	Support Redemption Condition					
		Not used		Used		Chi-Square / t statistic	
		Count/Mean	%	Count/Mean	%	—	
Farming Status of the	Do not Farm	21	19.27	30	21.58	0,20	
family	Farming	88	80.73	109	78.42		
Number of Family Membe	rs Working in	2.01		2.17		-0.99	
Farming	-						
Farming Background (Exp	erience) (Year)	7.19		6.25		1.05	
Annual Operating Income	10.000 TL and below	58	53.21	73	52.52	0,01	
of Business	Over 10.000 TL	51	46.79	66	47.48		
Non-Agricultural Income	No	65	59.63	73	52.52	1,25	
	Yes	44	40.37	66	47.48		
Share of Non-Agricultural Income in Total		29.93		29.57			
Income (%)							
Total Land Asset (Ha)		7.50		7.07		0.28	
Property Land (Ha)		1.10		0.30		2.39**	
Land Assets of the Family	(Ha)	2.66		3.35		-0.81	
Irrigated land(Ha)	1.52		1.26		0.57		
Number of Animals (LRU)		5.93		5.90		0.02	
Tractor Asset	No	62	56.88	70	50.36	1.04	
	Yes	47	43.12	69	49.64		
Proficiency Status of Tract	or No	90	82.57	114	82.01	0.01	
and Machinery Equipment	Yes	19	17.43	25	17.99		

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Especially those who have received agricultural training within the selection criteria gain an additional 5 points advantage brings to the fore those who have experience and agricultural education. Hisrich, Peters and Shepherd (2016) report that work experience is an important facilitator and increasing entrepreneurship success because starting a new job requires expertise. Bird (1993) pointed out that motivation and ability to be entrepreneurs in the individual must be found so that good performance can be achieved in entrepreneurship and states that the talent is rooted in being more successful in learning from experience by some. For this reason, experience is an important criterion for entrepreneurship success.

When the size of farms in which agricultural farms operated by young farmers and their families in the research area are analyzed in annual agricultural activities, no statistically significant difference was found between the size of the agricultural holdings in which the beneficiary beneficiaries and non-beneficiaries were active (Table 2). However, when considering the size of the land registered on the individuals who apply and do not apply, it has been determined that the presence of land registered on the young farmers benefiting from the YFPS is very small compared to the non-beneficiary farmers. Therefore, the two factors connected with this result are foreground. One of them is that 79.14% of the young farmers benefiting from the support are women, the other one is that all of the supported young farmers reside with their own family. One of the most important problems in rural areas in Turkey is that the woman has a low status of having a registered property on her own (Candan and Özalp Günal, 2013). In this case, while it is seen that the rural inland man is the main decision maker in the production process, every effort the woman has made in the name of entrepreneurship has created a system in which the man is the guide and decision maker in the background. This situation is more clearly shown in Figure 2. When the graph is analyzed, it was determined that women who did not benefit from the support were more likely to participate in the decision-making process on marketing of products than women who benefited as a result of the relationship analysis ($\chi^2=4.11$, p=0.026).

According to the World Entrepreneurship Platform, while 65% of the individuals in entrepreneurial activities are entrepreneurial entrepreneurs by evaluating a business opportunity they perceive, the remaining 35% are compulsory entrepreneurs because they have no other job or are unsatisfactory. This changing situation in terms of the reasons behind the entrepreneurship is particularly affected by the environment in which entrepreneurs are located. In fact, following to this determination, it is also stated that the distribution of opportunity and compulsory entrepreneurship within 34 countries is very diverse. Opportunity entrepreneurs are seen more intensely in high-income countries, while compulsory entrepreneurship are mostly in low-income

countries (Acs et al., 2005). Therefore, income situation parameter, which can vary according to the development status of the countries, affects the entrepreneurship considerably. One of the YFPS evaluation criteria is the income per capita criterion (the threshold is 1/3 of the minimum wage). When it is thought that it gives an advantage to the individuals under the threshold per capita income, it provides an opportunity to generate income for low-income individuals in support of the work. However, as a result of the study, the annual income variable does not change statistically significantly in terms of benefiting from and not benefiting from the support (Table 2). Thus, it has been determined that the income variable does not make a significant difference in benefiting from support. In other words, it was determined that the individuals who applied to the support of the young farmers acted by considering the income criterion and the application rate to the support of the individuals who did not carry this criterion was low.

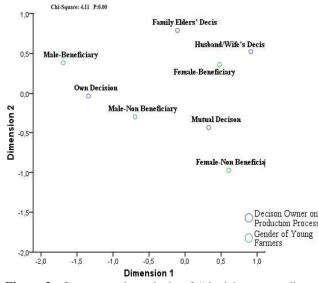


Figure 2. Correspond analysis of "decision owner" and "young farmers' gender" variables

One of the most important differences between the beneficiaries and non-beneficiaries of the project support is the use of the internet in agriculture-related issues by individuals. In today's world of Industry 4.0 revolution, internet is an indispensable tool for accessing the internet. A process where the internet is not at the core of accessing information, finding and tracking innovations, networking, information sharing and awareness has become unthinkable. For this reason, entrepreneurship and the internet are thought to be words associated with each other today. According to the "Research on Information Technologies in Initiatives, 2017" results of the TURKSTAT, between 2005 and 2017 it is seen that computer usage and internet access in enterprises

are over 90% and web page ownership is around 70% (TURKSTAT, 2017b). In the field of research, the beneficiaries of the YFSP (46.04%) use the internet more than the ones who can not benefit (33.03%) in agriculture related issues (Table 3).

There is no statistically differences between the beneficiaries and non-beneficiaries of the project support on their behaviors about the variables which are their future intention for their children, village linkage and rural-urban migration. But there is clear result on the research that if the young farmer hadn't accepted that support, the possibility of investment by the young farmers would have been low (Table 3)

If we need to approach the factors affecting entrepreneurship socially, one of the factors that could lead people to become entrepreneurs was described as "Positive Attractiveness" by Dollinger (2003). For example, it is possible that some experience, such as a job proposal from a potential business partner, an advice to start a business from a family or a mentor, an offer from an investor or a customer may create desire to establish business in the individual. Government support can also be added to these examples. When the environment of positive attraction provided by YFSP is combined with the spirit of entrepreneurship, this grant scheme can achieve its objectives. Since the expected impact is to create a multiplier effect with the grant given here, the individual characteristics of the contributor in terms of entrepreneurship will also include demographic and cultural factors. Uncertainty and risk factor in cultural factors are important. Wennekers et al., (2003) point out that in the case of the existence of the risk in communities where there is a high level of uncertainty, the individuals have chosen to have more guarantees. Saffu (2003) stated that individuals in communities where there is a low level of uncertainty are more open to newness, and risk and ambiguity are more easily accepted.

The risk perception and entrepreneurship indicators of the individuals involved in the research were subjected to factor analysis to reduce variable numbers and to group young farmers according to their factor loadings (Table 4). Primarily to test the suitability of the used data for the study, Kaiser-Mayer-Olkin (KMO) and Bartlett tests were applied and the results are given in Table 4. KMO takes a value between 0 and 1, and as this value approaches one, the degree of conformity increases. When Table 4 is examined, the KMO values obtained as 0.865 for the risk sense data set and 0.897 for the entrepreneurship data set indicate that the data sets are sufficient for use in the study. The Chi-Square critical value is also sufficiently large in both sets of data not to reject the hypothesis (H_0 = unit matrix of correlation matrix) that it is the unit matrix of the correlation matrix. The Cronbach Alpha ratio, which indicates the reliability of the factors, varies between 0.894 and 0.919 (Table 4). These results show that the dimension represented by each factor can be measured

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Indicators			Su	Chi-Square			
			N	0	Yes		_
		Count %		%	Count %		_
If there is no Young Farmer Grant Support, N		ort, No		-	63	45.32	-
would you make this investment? Yes		Yes			61	43.88	
		Undecided			15	10.79	
Do you want your children to deal with		No	50	45.87	67	48.20	0.13
agriculture in the years to come?		Yes	59	54.13	72	51.80	
Status of internet usage on getting		No	73	66.97	75	53.96	4.30**
Information on agriculture		Yes	36	33.03	64	46.04	
Which is the most Family Ties			13	18.84	17	14.91	5.71
important reason connecting you to the village you live in now?	Source of income is here All assets is here Living in the village is cheaper Love to Live in the Village		28	40.58	52	45.61	
			8	11.59	11	9.65	
			11	15.94	10	8.77	
			9	13.04	20	17.54	
	Possibility of Grant Support Facilities		0	0.00	4	3.51	
If it is possible, thought of rural- No			80	73.39	94	67.63	1.47
urban migration Maybe Yes		be	16	14.68	21	15.11	
			13	11.93	24	17.27	

Table 3. Social indicators about beneficiaries and non-beneficiaries from YFPS

Table 4. Factor loadings results for risk perception and entrepreneurship

Risk Perception Variables	1 st	2 nd	3rd	Entrepreneurship Variables	1 st	
-	Factor	Factor	Factor		Factor	
Inadequacy of family workforce	0.148	0.418	0.499	Expansion of the business next year.	0.800	
Changes in government policies	0.146	0.179	0.836	Higher profits.	0.830	
Changes in the country's economy	0.324	0.080	0.777	Increase the number of land or animals.	0.714	
Changes in input costs	0.799	0.002	0.235	Payment of debts.	0.713	
Changes in product prices	0.790	0.108	0.223	Purchase of new tool-machine.	0.787	
Debt situation	0.688	0.165	0.189	The business is going to be a model business in the future.	0.822	
Changes in yields of products	0.657	-0.046	0.248	Establishing the dream business.	0.864	
Changes in interest rates	0.446	0.452	0.408	Being a company that follows and implements technology in the coming years	0.864	
Changes in climate conditions	0.672	0.212	0.007			
Low yield due to diseases and harmful	0.669	0.234	0.080			
Problems with family relationships	0.020	0.608	0.317			
Changes in land prices	0.184	0.551	0.427			
Difficulties in finding foreign labor	0.093	0.769	-0.046			
Not having contracted production	0.039	0.656	0.324			
Inadequacy of agricultural tools and machinery	0.354	0.383	0.439			
Theft	0.327	0.564	0.036			
Product damage due to natural disasters	0.548	0.437	0.104			
Eigen value	3.993	2.908	2.521	5.135		
Variance Explained (%)	23.488	17.107	14.832	64.185		
Total Variance (%)	23.488	40.595	55.427	64.185		
Cronbach's Alpha		0.894		0.919		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.865		0.897		
Bartlett's Test of Chi-Square		1266.30		1321.11		
Sphericity df		1200.50		28		
Sphericity di Sig.		0.000		0.000		

independently of other factors and the scale is reliable (Kalaycı, 2016).

In Figure 3, the relationship between risk perceptions and entrepreneurial status of the young farmers interviewed in the research area and their beneficial use status was assessed by visual correlation analysis. When examined in Figure 3, it was determined that male subjects who benefited from support had higher risk perceptions than female subjects ($\chi^2=23.24$, p=0.026). The same applies to beneficiaries and nonbeneficiaries, that beneficiaries of the support were found to have more risk perceptions. This can be attributed to the fact that among the causes, individuals' perceptions of the factors investigated have changed due to the responsibility of using the support. For this reason, individuals may have reacted more to the questions directed at them in order to be more cautious. In terms of entrepreneurship, beneficiaries of entrepreneurship are higher than those who do not benefit from support for entrepreneurship, and women are able to set larger targets for the future than for men(χ^2 =36.27, p=0.00).. The fact that the support has been given to the lower-income individuals, in particular, has allowed women to consider their businesses more livelihood and to have more ownership. Women tend to be more inclined than men in making plans for the future.

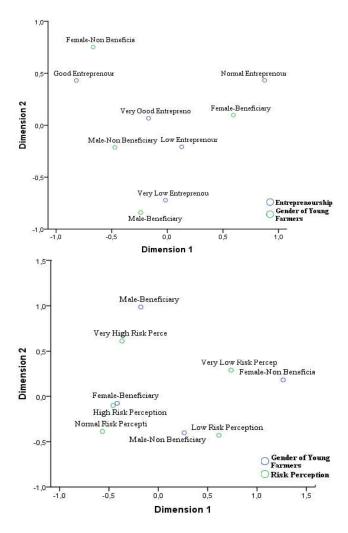


Figure 3. Risk perception and entrepreneurship states of the young farmers by gender-beneficiary situation Conclusions

After 2000's, it began gaining more attention to entrepreneurship in Turkey and this prosperity of entrepreneurship continues to increase in recent years. Especially in the industrial sector, significant steps have been taken to create an entrepreneurial culture and environment and support has continued to be given. However, the agricultural sector shows very significant structural differences compared to other sectors. Therefore, agricultural entrepreneurship should be evaluated and supported separately from other entrepreneurial activities. The agricultural entrepreneurship culture should be provided to

the young peoples. Especially women play key role to provide sustainability of agriculture. Under the scope of support, young farmer women wishing to be more prominent and providing advantage to the young farmer women when they are determined to benefit from the support can be seen as positive discrimination. However, in the study it is another determination that this condition has not been achieved as desired. Most of the young female farmers who benefited from or applied for support were found to be in the position of helpers beside their spouses instead of taking responsibility for agricultural production

As a result; It can be said that YFSP has added vitality to the rural area in order to encourage young people in agriculture. However, it can be argued that such supports are not sufficient to create economically sustainable enterprises. Prior to granting such support, the creation of entrepreneurial cultures and the environment in rural areas has a particular importance. The entrepreneurial spirit of the entrepreneur which is one of the production factors in the optimization of agriculture must be developed, the sector should be further supported in this respect, and the support must be delivered to a larger number of entrepreneurial individuals. The fact that small and non-funded businesses are supported only with grant supports will not take these supports beyond the scope of social assistance. The lack of experience, knowledge and entrepreneurial culture of young farmers benefiting from the project affect the sustainability of projects negatively. Young farmers should be trained first and then supported. They must have good business plan including financial management to provide the sustainability of the new enterprise.

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- Acs, Z. J., P. Arenius, M. Hay and M. Minniti. 2005. Global Entrepreneurship Monitor: 2004 Executive Report. Babson College and London Business School. Available online with updates at https://www.gemconsortium.org/report/47103
- Aggelopoulos, S. and G. Arabatzis. 2010. European Union Young Farmers Program: A Greek case study. New Medit. 2:50-55.
- Arlı, R., M. Balcı and C. Abay. 2014. Gençlerin Kırsalda Çiftçilik Yapma Eğilimleri: Akhisar İlçesi Örneği (in Turkish). In: B.Gülçubuk, Ö. Köksal, Y. Ataseven, and A. Elmalıpınar (eds.) National Family Farming Symposium, Ankara, pp.27-32.
- Aytaç, Ö. and S. İlhan. 2007. Girişimcilik ve girişimci kültür: sosyolojik bir perspektif. SUSBED. 18:101-121.
- Bird, B. 1993. Demographic approaches to entrepreneurship: The role of experience and background. In: J. A. Katz and R.H. Brockhause (eds), *Advances in Entrepreneurship*, *Firm Emergence, and Growth*. Greenwich: JAI Press, pp. 11-48.
- Black, K. 2010. Business Statistics: Contemporary Decision Making. 6th edition, John Wiley & Sons.
- Bozkurt, Ö. Ç., A. Kalkan, O. Koyuncu, and A.M. Alparslan. 2012. The development of entrepreneurship in Turkey: a qualitative research on entrepreneurs (in Turkish). SDU SBE Dergi.1:229-247.
- Büyüköztürk, Ş., 2017. Sosyal Bilimler İçin Veri Analizi El Kitabı (in Turkish). Ankara: Pegem Akademi.
- Candan, E. and S. Özalp Günal. 2013. Tarımda Kadın Emeği (in Turkish). TJAE. 19:93-101.
- Doğanay, S. and M. Alım. 2011. A Study on concept of city by rural population in Turkey: Yeşilyurt Village (Trabzon) (in Turkish). Eastern Geographical Review. 15:171-184.
- Doğan, Z., S. Arslan and A.N. Berkman. 2015. Development and problems of agricultural sector in Turkey: A Historical Outlook (in Turkish). OHUİİBFD. 8:29-41.
- Dollinger, M. 2003. *Entrepreneurship: Strategies and Resources.* 3 ed. New Jersey: Pearson Education, Inc..
- Durmuş, B., M. Çinko and E.S. Yurtkoru. 2018. Sosyal Bilimlerde SPSS'le Veri Analizi (in Turkish). 7 ed. Ankara: Beta Yayınları. pp.71-109
- Er, P.H. 2013. The terms of entrepreneurship and innovativeness in the economic thought: Joseph A. Schumpeter (in Turkish). SUSBED. 29:75-85.
- European Comission. 2003. Green Paper, Entrepreneurship in Europe. Available online with updates at http://ec.europa.eu/invest-inresearch/pdf/download en/entrepreneurship europe.pdf

- European Commission. 2013. Overview of CAP Reform 2014-2020. Available online with updates at https://ec.europa.eu/agriculture/sites/agriculture/files/pol icy-perspectives/policy-briefs/05 en.pdf
- European Court of Auditors. 2017. EU Support to Young Farmers Should Be Better Targeted to Foster Effective Generational Renewal. Available online with updates at www.eca.europa.eu/en/Pages/DocItem.aspx?did=41529
- Fitz-Koch, S., M. Nordqvist, S. Carter and E. Hunter. 2018. Entrepreneurship in the agricultural sector : a literature review and future research opportunities. ET&P. 42:129-166.
- Hair, J. F. 2006. *Multivariate data analysis* (6th ed). Upper Saddle River, N.J: Pearson Prentice Hall.
- Hisrich, R., M. Peters and D. Shepherd. 2016. *Entrepreneurship.* 10 ed.:McGraw-Hill Education.
- Hron, J., T. Macák and J. Huml. 2009. Design of the diversification classifier for agricultural entrepreneurs activities. AGRICECON. 55:565-570.
- Hyrsky, K. 2001. Reflections on the advent of a more enterprising culture in Finland: an exploratory study, Academic diss. University Library Jyväskylä, School of Business and Economics, Finland.
- Kalaycı, Ş. 2016. SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri. (in Turkish). 7 ed. Ankara: Asil Yayınevi, Turkey.
- Kar, M. and H. Ağır. 2003. Türkiye'de beşeri sermaye ve ekonomik büyüme ilişkisi: eş bütünleşme yaklaşımı ile nedensellik testi 1926-1994 (in Turkish). SEAD. 6:50-68.
- Keskin, A. 2011. Ekonomik kalkınmada beşeri sermayenin rolü ve Türkiye (in Turkish). Ata Uni İİBFD. 25:125-153.
- Koh, H. C. 1996. Testing hypotheses of entrepreneurial characteristics a study of Hong Kong MBA students. J Manage Psychol. 11:12-25.
- Lans, T., P. Seuneke and L. Klerkx. 2013. Agricultural Entrepreneurship. In: Elias G. Carayannis, (Ed.), Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship. New York: Springer-Verlag New York, pp. 1-6 Available online with updates at https://www.researchgate.net/publication/260985365_A gricultural_Entrepreneurship
- McElwee, G. 2008. A taxonomy of entrepreneurial farmers. IJESB. 6:465-478.
- Ministry of Development. 2006. IX. Development Plan (2007 – 2013) (in Turkish), Ankara: Kalkınma Bakanlığı. Available online with updates at http://www.sbb.gov.tr/kalkinma-planlari/
- Ministry of Development. 2013. X. Development Plan (2014 – 2018) (in Turkish). Ankara: Kalkınma Bakanlığı. Available online with updates at http://www.sbb.gov.tr/kalkinma-planlari/

with

- Morton, K., Ö. Gücelioğlu and T. Alpaslan. 1987. Türkiye'de Girişimcilikle İlgili Sorunlar ve Çözümler (in Turkish), İstanbul: TÜSİAD. Yayın No: TUSIAD-T/87.10.103. Available online with updates at https://tusiad.org/tr/yayinlar/raporlar/item/9143-turkiyede-girisimcilik-ile-ilgili-sorunlar-ve-cozumler
- Nesterova, D. V. and K.Z. Sabirianova. 1998. Investment in human capital under economic transformation in Russia. Available online with updates at: http://pdc.ceu.hu/archive/00002042/01/wp_99-04E.pdf
- Official Gazette. 2016. Kırsal Kalkınma Destekleri Kapsamında Genç Çiftçi Projelerinin Desteklenmesi Hakkında (Tebliğ No: 2016/16) (in Turkish). Available online with updates at: http://www.resmigazete.gov.tr/eskiler/2016/04/2016040 5-2.htm
- Özdamar, K. 2004. Paket Programlar ile İstatistiksel Veri Analizi-2. Eskişehir: Kaan Kitabevi.
- Özertan, Gökhan, 2013. Türkiye Tarım Sektörü'nde Yapısal Dönüşüm ve Teknoloji Kullanımının Rolü. Available online with updates at http://www.econ.boun.edu.tr/public html/RePEc/pdf/20 1301.pdf
- Özyakışır, D. 2011. Economic development process role of human capital: a theoretical assessment (in Turkish). JED. 6:46-71.
- Pyysiäinen, J., A. Anderson, G. McElwee and K. Vesala. 2006. Developing the entrepreneurial skills of farmers: some myths explored. IJEBR. 12:21-39.
- Saffu, K. 2003. The role and impact of culture on South Pacific Island entrepreneurs. IJEBR. 9:55-73.
- Sönmez, A. and A. Toksoy. 2014. Entrepreneurship in Turkey and an analysis on Turkish entrepreneur profile (in Turkish). JOME. 21:41-58.
- Tabachnick, B. G. and L. S. Fidell. 2001. Using Multivariate Statistics. (6th ed). Pearson New International Edition, London
- Tan. A. 2010. State of Plant Genetic Resources for Food and Agriculture. Second Report of Turkey on Conservation and Sustainable Utilization of Plant Genetic Resources For Food and Agriculture, İzmir: FAO. Available online

updates at http://www.fao.org/docrep/013/i1500e/Turkey.pdf

- TİM. 2016. Türkiye İhracatçılar Meclisi Tarım Raporu (in Turkish). Available online with updates at www.tim.org.tr/files/downloads/Raporlar/Tarim Rapor u 2017.pdf
- TOBB. 2013. Türkiye Tarım Sektörü Raporu (in Turkish). Available online with updates at https://www.tobb.org.tr/Documents/yayinlar/2014/turki ye_tarim_meclisi_sektor_raporu_2013_int.pdf
- Toor, M. A. 1991. Need of agricultural education for young farmers in Faisalabad Tehsil. Pak. J. Agri. Sci. 28:48-49.
- TURKSTAT. 2017a. Entrepreneurship in Turkey 2015. Available online with updates at http://www.tuik.gov.tr/PreHaberBultenleri.do?id=24870
- TURKSTAT. 2017b. Information and Communication Technology (ICT) Usage in Enterprises. 2017. Available online with updates at www.tuik.gov.tr/PdfGetir.do?id=24863
- Verhees, F. J., A. Kuipers. and M. Klopcic. 2011. Entrepreneurial proclivity and farm performance: the cases of Dutch and Slovenian farmers. IJESB. 12:169-177.
- Verheul, I., A. van Stel and R. Thurik. 2004. Explaining Female and Male Entrepreneurship Across 29 Countries, Zoetermeer: EIM Business and Policy Research. Available with updates online at https://ideas.repec.org/p/eim/papers/n200403.html
- Wennekers, S., R. Thurik, A. van Stel and N. Noorderhaven. 2003. Uncertainty Avoidance and the Rate of Business Ownership across 22 OECD Countries, 1976-2000. Tinbergen Institute Discussion Paper, Amsterdam: Tinbergen Institute. Available online with updates at https://papers.tinbergen.nl/03089.pdf
- Yavuz, F. 2005. History of Turkish Agriculture. In: F. Yavuz (ed). Agriculture in Turkey (in Turkish). Ankara: Tarım ve Köyişleri Bakanlığı, Turkey, pp. 1-8.
- Yavuz, F. 2017. Gazete Pusula. Available online with updates at http://www.gazetepusula.net/2017/06/28/82985
- Yayla, A. and B. Akın. 2004. Yılmaz Babaoğlu ile Girişimcilik ve Zenginlik Üzerine (Mülakat). Piyasa Dergisi. 9:175-192.

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