

THE FACTORS AFFECTING PSYCHOLOGICAL EMPOWERMENT LEVELS OF ENTREPRENEURS IN AGRICULTURAL HOLDINGS OF KIRSEHIR PROVINCE, TURKEY

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The agricultural sector takes an important part of the Turkish economy yet it cannot provide the desired contribution to the national economy due to its structural problems. Particularly the field of agricultural entrepreneurship is extremely affected by the cyclical fluctuations as well as by the lack of motivation of the individuals. This is among the significant reasons why the desired changes and improvements cannot be achieved. The motivations of both the employees and the entrepreneurs should be increased and they should have sufficient knowledge and experience to increase the contribution of agriculture to the national economy. The object of this study is to examine the relations between the psychological empowerment index (PEI) indicating the motivations of the owners in the agricultural holdings operating in the province of Kirsehir where dry farming system prevails and some demographical, agricultural, perceptual and behavioral variables. As a result of the survey study conducted with the owners of 265 agricultural holdings, a positive relation was found between PEI and age, land size and income while there was a negative relation between education level, risk behavior and information sources. In conclusion, it was found in the study, which was conducted in the field of agriculture for the first time in Turkey, that the structural problems in the agricultural segment caused some results in contrary to what was theoretically expected. The reasons can be listed to include low education level in the agricultural sector, lack of trust in information sources, financial uncertainties and reluctance in taking risks.

Keywords: Personal empowerment, psychological empowerment, motivation, agricultural holdings, Kirsehir-Turkey.

INTRODUCTION

Empowerment is a concept that briefly refers to the condition where employees feel motivated, have more confidence on their knowledge and speciality, have the desire to take action using initiative and believe that they can control events (Koçel, 2010). In other words, it refers to the power of employees to take decisions within the area of their activity without the approval of anyone. In a broader explanation, it increases the decision making authorities of employees and makes them own the job they do, that is it highlights solidarity, sharing, training and team work (Ataman, 2002). Similarly, according to Roberts (2010), personal empowerment requires the individual to take responsibility and control over his or her experience of life. According to Doğan (2003) who argues that an effective leadership system has to be established for personal empowerment, job enrichment increases the responsibilities of employees, makes them change positions to obtain additional powers or to have different roles and powers in the same position.

The definitions on empowerment usually target the holdings in the sectors other than agriculture. The situation in agricultural holdings is a little different than the other holdings. When we look at the agricultural holdings in the

world, we observe that majority of the owners of the agricultural holdings are also an employee of the same holding. Therefore, it is difficult to make a distinction of entrepreneurs, holding owners and employees. In addition, the solidarity, sharing, training and team work are essential in agricultural holdings. In addition, division of labour in agricultural holdings is different than the other businesses. It is not possible to talk about division of labour in agricultural holdings in an agricultural system with predominantly family farming. Therefore, the owner of the agricultural holding is affected by many factors in managing the holding and thus governance in agricultural holdings becomes a multidimensional concept. The concept of empowerment is one of the dimensional qualities of these effects.

The most important concept used in the definition of empowerment is self-efficacy. This concept refers to the belief of the employee that he or she is able to do a certain job (Mitchell, 1994). The object of empowerment is to ensure that decisions are taken by the person who has the knowledge that that is the most appropriate and closest to the decision (Mitchell, 1997). Caudron (1995) explained this concept as “nobody can know how to develop a job better than the person who actually does the job every day”. Erstad (1997) defined empowerment to be “providing employers with the

possibilities to take decisions on their jobs or providing them with an environment where they can take the responsibility for their activities”.

With empowerment, employee will improve himself or herself with increased skills and creativity while power and responsibility are given to the same employee. Energies will turn to synergy. Therefore, decisions in the organization will be taken rapidly, flexibility of work will increase and alternative product and work possibilities will emerge. In addition, new technological possibilities will be used more, covered information will be open, information sharing will be maximized, technologies will be used and competitiveness will be increased. As a result, empowered organizations will benefit to organizations, employees and the parties receiving the service (Çuhadar, 2005).

When we look at the studies in the literature, we notice that there are no works in the agricultural holdings with regards to personal empowerment. Therefore, the works carried out in agricultural holdings with regards to similar concepts such as motivation can be given as example which was mentioned when defining empowerment. When we consider empowerment to be “referring to a condition where employees feel motivated” (Koçel, 2010), then we can see that there are some studies in the literature on motivation in agricultural holdings. In a study conducted in Hungary, it was stated that the organizational achievement was assumed to depend on the interaction of three main factor groups. These are: (a) motivation possibilities of the organization; (b) motivation instruments preferred by managers; and (c) motivation instruments preferred by workers/subordinates. In this context, that study examined the motivational orientations of 389 managers and 393 subordinates in agricultural holdings. As a result, it was stated that these three conditions only partly supplemented each other and even there were agricultural holdings with no conformity at all (Csilla and Csaba, 2006). Beza *et al.* (2017) conducted a study on the motivation of the farmers in different countries on 3 different continents and found that the 20% of motivation of farmers were explained by the education level and country differences. Accordingly, they found that the trained farmers had more contribution to the folk based science and had higher motivation in participating in the relevant study. Charmchian and Alibaygi (2013) studies the effective factors with impact on the psychological empowerment of rural women. To achieve this object, they determined the psychological empowerment indicators of women and the factors affecting the psychological empowerment of women. According to the result of the study, it was found that the most effective factor in the psychological empowerment of rural women was a loan received from a different source with the coefficient of 0.423.

The agricultural holdings in Turkey are usually managed as family farms. According to the 2018 data of the Farmer Registration System, there are 2,152,003 agricultural

holdings with an average holding size of 10.77 ha (TOB, 2019). The segment operating in agriculture in Turkey which primarily includes rain-fed farming system can be shown among the disadvantageous groups compared to the other segments. Both the structural problems of agriculture and the paradigmatic changes in the sociological structure of the agricultural community have negative effects on the development of the agricultural society. In addition, a great motivation problem is observed in the agricultural community, particularly among the owners of the agricultural holdings in the dry agriculture system in the Central Anatolia Region. This problem is caused by the socio-demographical qualities of the owners of the agricultural holdings as well as the financial factors. The present study aims to reveal the elements affecting the personal empowerments of the owners who are also employees of the agricultural holdings operating in the Kırşehir province and its districts. The fact that there are few studies on the organizational behaviors of employees and owners (and also employee) in agricultural holdings is one the main reasons behind conducting this study.

MATERIALS AND METHODS

Physiological Empowerment Index (PEI): with empowerment, the person that actually does the job is enabled to see the opportunities, take the necessary decisions and become the owner of the work. That means that the authority already belongs to the person doing the job (Koçel, 2010). Several management theoreticians studied personal empowerment from the managerial point of view and the studies were conducted only in this direction. Some scientists mentioned about the weaknesses of this one-way study and addressed to empowerment from a psychological point of view and focused on the argument that empowerment is a concept that cannot be explained in a single dimension (Thomas and Velthouse, 1990; Conger and Kanungo, 1988). Psychological Empowerment Instrument-PEI scale was developed by Spreitzer (1995) to measure the four dimensions of psychological empowerment including meaning, competence, self-determination and impact. The Turkish adaptation of the scale was done by Sürgevil *et al.* (2013). This study can be implemented to both the managers and the employee groups and it is expected to explain the psychological aspect of personal empowerment. Spreitzer (1995) states that the scale is valid in the group including managers and employees who are not managers. Laschinger *et al.* (2003) conducted a confirmatory factor analysis and stated that this scale had an acceptable goodness of fit values ($\chi^2 = 4.63$, $df=1$, $CFI=.97$, $IFI=.97$, $RMSEA=.14$) (Laschinger *et al.* 2003).

In this scope, the PEI developed by Spreitzer (1995) was used and total 12 questions were asked including 3 questions for each of the 4 dimensions that require explanation. The answers to the questions were scored according to the 5-point

Likert scale. As a result of the evaluation of 12 questions with 5-point scoring, those with a score of 0 to 2,59 were classified to be Poor PEI, those with a score of 2,60 to 3,79 were classified to be Medium PEI and those with a score of 3,80 and more were classified to be Strong PEI.

Data Collection and Sampling Methodology: The research area was purposively selected for the data collection. The study was conducted in all of the 7 districts of the Kırsehir Province. According to the Farmer Record System (FRS) database in this area, 19.934 farmers were recorded to be farms in the 2018-2019 production season. Pre-survey was done to determine the p and (p-1) value in the area. The main theory was to find that the share of the Physiological Empowerment Index (PEI) of the farms was greater than 3 points. Pre-study showed that the p value is around 0.8 and p-1 value is 0.2. Proportional Sampling Method was used to determine the sample size by using the formula (Yamane, 2001)

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

$$\sigma_p^2 = \left(\frac{r}{Z_{\alpha/2}} \right)^2$$

In the formula, n: sample size, N: number of holdings in the population, σ_p^2 : variance of the ratio, r: error margin from the average (5%), $Z_{\alpha/2}$: z table value (1, 96), p: probability of having PEI values of the farmers in the population greater than 3 (determined by the preliminary survey). Here, the number of farmers to be surveyed was determined to be 243 by a 95% reliability ($z=1.96$) and 5% deviation from the average. Total 265 surveys were conducted in the study. In the distribution of number of surveys to be conducted, the land size cultivated by the farmers registered in the Farmer Registration System by districts in 2018 was used. Accordingly, Table 1 gives the distribution of the number of surveys by the districts of Kirsehir province.

After determining the sample sizes, a semi-structured questionnaire was developed and printed for conducting one to one interview. Data were from the respondents in October-November, 2019. A reserve list was maintained to fill in the

gaps if any respondent in the original list was found missing. To ensure the same respondents for the two phase interviews, 5% additional respondents were interviewed. Each parameter was developed by the outputs of focused group discussion held with the officials, experts, and academicians.

This study was conducted with the relational screening method which is among the qualitative survey models. Karasar (2016) defines the relational screening model to be “a research model aiming to determine the existence and/or the extent of a relation between two or more variables”. The variables were grouped as “Demographic Variables”, “Agricultural Variables”, “Attitudinal Variables” and “Perceptual Variables”.

Statistical Methods: In the study, chi-square independence tests were conducted in order to obtain information on whether or not they are independent of each other in the analysis of discrete variables, and the results were interpreted according to the chi-square dependence coefficients (Çömlekçi, 2001). We also used the Correspondence analysis (CA) technique for graphically displaying a two-way table by calculating coordinates representing its rows and columns. The results provide information which is similar in nature to those produced by Factor Analysis techniques, and they allow you to explore the structure of categorical variables included in the table (STATSOFT, 2019). In the analysis of continuous variables for the 2-level groups, the T test was performed in parametric cases and the Two-Sample Kolmogorov-Smirnov (KS) test was applied for nonparametric cases. Variance analysis was used in parametric cases and Kruskal-Wallis test in non-parametric cases to determine whether there was a statistically significant difference between groups with more than 2 levels. In case of significant difference in statistics, Duncan Analysis of Multiple Comparison Methods was applied in order to determine the group the difference originates from (Kesici and Kocabaş, 2007).

RESULTS AND DISCUSSIONS

Table 2 and 3 includes the descriptive statistics to reveal the general characteristics of the agricultural holdings in the

Table 1. The Distrubution of Sample Size By Districts.

Districts	The Agricultural Area of Farmers Recorded in Farmers Record System (FRS) in 2018*	The Percentage of Agricultural Area in Total Agricultural Area (%)	The Distrubution of Sample Size By Districts
Akçakent	91785	3.92	10
Akpınar	172470	7.36	20
Boztepe	276265	11.79	31
Çiçekdağ	343413	14.65	39
Kaman	468782	20.00	53
Merkez	523917	22.35	59
Mucur	467073	19.93	53
Total	2343705	100.00	265

*Source: KİTOM, 2019

sample of the research region. When we look at the descriptive statistics of the owners of agricultural holdings and their families, we notice that the owners of agricultural holdings mainly consist of people older than 55 years (40.38%). This complies with the fact that the age limits of the agricultural works in Turkey increase. Kan *et al.* (2018)

stated that the age levels of the rural people increased and that it should be taken into consideration in the rural development policies. A similar case is noticed in the Kırşehir province and it can be said that the ratio of the agricultural holding owners in Turkey who are stated to be in the age group from 18 to 40

Table 2. Socio-Demographic Variables of the Farmers.

Variables		Count	%	Mean
Demographic Age Variables	18-24 Ages	16	6.04	
	25-34 Ages	19	7.17	
	35-44 Ages	50	18.87	
	45-54 Ages	73	27.55	
	55+ Ages	107	40.38	
Education Levels	Illiterate	9	3.40	
	Primary-Secondary Schools	177	66.79	
	High School	52	19.62	
	University	27	10.19	
Marital Statue	Married	231	87.83	
	Single	32	12.17	
Number of Child				3.27
Social Security	No Social Security	21	7.98	
	State Retirement Fund	55	20.91	
	Social Insurance Institution (SSK)	110	41.83	
	Social security organization for artisans and the self-employed (BAGKUR)	24	9.13	
	Social security organization for farmers (BAGKUR)	45	17.11	
Others	8	3.04		

Table 3. Agricultural, Attitudinal, and Perceptual Variables of the Farmers.

Variables		Count	%	Mean	
Agricultural Variables	Own Area (Ha)			12.54	
	Rented Area (Ha)			3.24	
	Irrigated Area (Ha)			2.94	
	Total Area (Ha)			15.78	
	The Number of Animal (Animal Unit)			21.58	
	Experience on Crop Production (Year)			24.00	
	Experience on Animal Production (Year)			22.00	
Attitudinal Variables	Information Sources	Own Experience (No information source)	223	85.77	
		Province/District Directorates of Agriculture and Forestry	16	6.15	
		Academics	8	3.08	
		Relatives	10	3.85	
		Leader Farmers	2	0.77	
	Risk	Mukhtar (Head of Village)	1	0.38	
		Risk Seeking	114	43.02	
		Risk Neutral	29	10.94	
Perceptual Variables	Income	Risk Averse	122	46.04	
		Poor	11	4.15	
		Middle Class	185	69.81	
	Satisfaction Level of the Farmers on Agriculture	Wealthy	69	26.04	
		Very dissatisfied	49	18.70	
		Dissatisfied	44	16.79	
		Neither satisfied nor dissatisfied	41	15.65	
Satisfied	103	39.31			
Very Satisfied	25	9.54			

years (Official Gazette, 2018; Kan *et al.* 2018) is around 30% (Table 2).

Another variable among the descriptive statistics is the education level of the agricultural holding owners. Several studies conducted in Turkey (Birinci and Akin, 2008; Önal and Özder, 2008; Olhan *et al.*, 2010; Olhan *et al.*, 2010; Kızılaslan and Adıgüzel, 2012; Yener and Cebeci, 2013; Çelik *et al.*, 2015) reported that the education level of the agricultural holding owners was primary school and secondary school. The present study also determined that the 66,79% of the agricultural holding owners had primary school and secondary school education (Table 2).

One of the socio-demographical factors is the social security status of the agricultural holding owner. Working without a social security is prevalent in the agricultural segment. Unregistered employment in agriculture has several reasons. The leading result can be the fact that the low income of farmers is not sufficient to pay premium (Karadeniz, 2006). This is an important factor also with regards to lack of motivation. In Turkey, all social security institutions were gathered under a single roof in 2006 (Alper, 2011). In this regard, BAĞKUR-Agriculture is known to be the social security umbrella for those working in the agricultural sector in Turkey. The fact that 17.11% of the agricultural holding owners in the research area has social security under BAĞKUR-Agriculture and 7.98% has no social security indicates that at least 74.91% of the agricultural holding owners has non-agricultural income (Table 2). It was determined that the social security institution registration date in some studies on the agricultural holdings in Turkey were similar to the present study (Kızılaslan and Adıgüzel, 2012; Oğuz *et al.* 2012). The studies in certain regions in Turkey where dry agriculture system is popular show different rates of BAĞKUR-Agriculture registrations by the agricultural holding owners. Çelik *et al.* (2015) found in their study in Konya that 54.30% of the agricultural holding owners had BAĞKUR-Agriculture registrations.

Table 3 includes some agricultural activities as well as attitudinal and perceptual variables of the agricultural holding owners in the sample in the research area. Kırşehir is one of the provinces in Turkey where dry agriculture system prevails in agricultural production. Dry agricultural system prevails in 90,73% of the agricultural land totaling to 457.720 ha. The main products are wheat, barley, chickpea oil sunflower in dry areas and sugar beet, potatoes, sunflowers and corn (silage) in watery areas (AHİKA, 2014) As a result of the study in the research area, it was determined that 78.49% of the doesn't labour in irrigated farming while 83.02% doesn't have self-owned irrigated farming land. When we look at the Table 3, the total cultivated land per holding (self-owned + leased) is 15.78 ha with 79.47% of it being self-owned. Average irrigated land size is 2.94 ha. According to the 2018 Farmer Registration System records, the average holding size in Kırşehir was calculated to be 11.76 ha which is similar to the

present study (ÇKS, 2018). 4.91% of the agricultural holdings is not agricultural land and these holdings are animal holdings. The ratio of the holdings with animals is 58.87%. It was determined that each holding had 21.58 Bovine Animal Unit (BAU) in the average of the agricultural holdings. The fact that the Kırşehir province is an important animal husbandry region and that particularly cattle farming is prevalent is an important factor behind this high number. Considering that the 40.38% of the agricultural holding owners are 55 years and older, they have an experience of 24 and 22 years in the vegetative production and animal production respectively. It can be said that the agricultural holding owners have significant experience in agricultural production.

Agricultural production in Turkey is generally carried out in the form of family farming including the agricultural holding owner and his or her family. In directing the production in agricultural production, the agricultural holding owner is generally an unpaid family worker and tends to use own experience and traditional information sources including neighbours, relatives and village headman in the decision making processes. In other words, agricultural production doesn't use any information source or mainly uses the informal/traditional information sources (Kızılaslan and Kızılaslan, 1998; Boz *et al.*, 2004; Ozdemir and Kan, 2020). In the agricultural holdings interviewed in the research area, it was determined that the holding owners primarily used their own experience as the information source for the management of the agricultural holding and in the decision making process during agricultural production (85.77%). Other information sources include the experts at the Province/District Directorate of Agriculture and Forest (Table 3).

Openness of the agricultural holding owner, i.e. the person managing the agricultural production to agricultural innovations may be related to the risk taking attitude (Knight *et al.*, 2003; Fafchamps, 2010). Farmers who are fearful of future loss of earnings may be reluctant to adopt technological innovations with a variable or unknown return. It was determined in the study area that 43.02% of the agricultural holding owners (we also called as agricultural holding managers) are willing to take risk and 46.04% of them are reluctant on this matter (Table 3).

Some perceptual data of the interviewed farm managers on income and agriculture were examined. One of the most important variables among them is the variable of subjective poverty. The concept of subjective poverty considers whether people find themselves to be "poor" and thus a line of subjective poverty is determined (Erdugan, 2010). Subjective poverty is related to a minimum living standard that can be accepted by the society (Goodman *et al.*, 1997). The subjective poverty data of an individual is also effective in decision making processes in agricultural production (Kan, 2012; Oğuz *et al.*, 2012). In the study, 26.04% of the producers find themselves to be in a good income position

while 4.15% of them classified themselves to be poor. It is observed that the managers of agricultural holdings usually considered themselves in the middle group regarding subjective poverty (Table 3).

Another perceptual variable is the perspective of the people managing agricultural holdings on agriculture. Nearly half of the managers stated that they are satisfied with the agricultural production activities (Table 3). The reason of this satisfaction is explained by the fact that the satisfied managers of agricultural holdings are usually in the group who stated to be in the good income category (Chi Square: 27.52, p:0.00).

The relations between some demographic, agricultural, attitudinal and perceptual variables of the managers of agricultural holdings were examined with the PEI which is the main scope of the study. The demographical variables included the age, education level and social security institution registration status of the farm manager and the relation between these variables and PEI was examined. As a result of the Variance Analysis, it was found that the relation between the age of the farm manager and PEI was statistically significant (F: 3.96; p:0.00) (Fig. 1). It is seen that the PEI values increases as age increases. The fact that the increase of age in particular is directly proportional to the increase of experience may be one of the main reasons behind the increase of PEI.

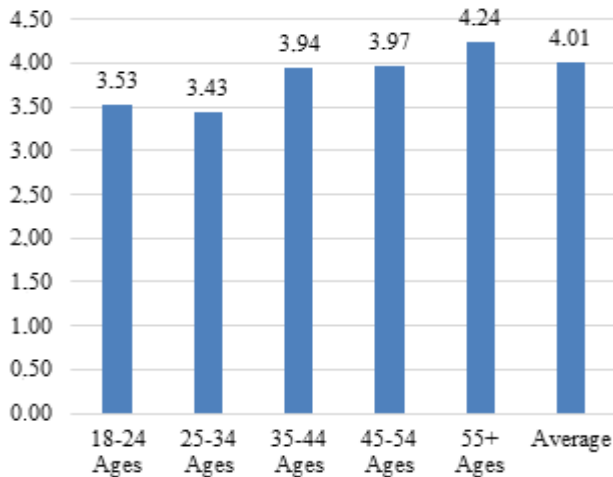


Figure 1. The Relation Between PEI and The Farmers' Age.

Education level is one of the important variables that may affect the PEI value. Previous studies indicate a directly proportional relation between PEI and education level. The increase in education level increases the motivation and control of people on the work they are doing and the PEI is expected to be high accordingly (Chang, *et al.*, 2010; Sparks, 2012). However, majority of the people working in the agricultural sector in Turkey has an education level of primary school or secondary school. When we examine the education levels of the managers of agricultural holdings in the sample,

we find that this reality is also valid in the Kırşehir province. As a result of the analysis, an inverse relation was found between the PEI value and the education level of the farm managers and this relation was found to be statistically significant (Table 4). It is believed that there may be 2 reasons behind the inverse relation between the two variables. First one is the fact the majority of the main group in the first example has an education level lower than high school and therefore having a concentration in that section. The second reason is that the education fields of the persons with an education level of high school and university in the research area are generally not related to agriculture. Particularly the people with high education level in fields other than agriculture don't feel themselves fully sufficient and do more search and engage in more interaction with the environment to bridge the gap. This causes the PEI of the owners of agricultural holdings with high education level turn out to be lower than the people with lower education level.

Table 4. The Relation Between PEI and The Farmers' Education Level.

Education Level		PEI			Total
		Poor	Medium	Strong	
Illiterate	Count	0	0	9	9
	%	0.00	0.00	100.00	100.00
Primary-School	Count	29	10	138	177
	%	16.38	5.65	77.97	100.00
High School	Count	3	10	39	52
	%	5.77	19.23	75.00	100.00
University	Count	5	1	21	27
	%	18.52	3.70	77.78	100.00
Total	Count	37	21	207	265
	%	13.96	7.92	78.11	100.00

$\chi^2:16.38$ p : 0.01 $\phi:0.25$

Another variable is the agricultural assets of the farm managers in the research area. 20.53% of the total land cultivated by the agricultural holdings in the region are used as leased. It was determined that the size of the agricultural holdings in the research area was bigger than 6.1 ha which was the size of the agricultural holdings throughout Turkey and then 14,1 ha which is the size of the agricultural holdings of the TR71 Region (TÜİK, 2001). There is an inverse relation between the scale of the agricultural holdings and the level of poverty (Oğuz *et al.* 2012). The effectiveness of the farm manager increases in parallel to the increase in the size of the holding. It was determined that the farm managers with strong PEI had larger lands than the other PEI groups and it was concluded by the Kruskal-Wallis Test that this relation was statistically significant (Table 5).

The information sources of a person are an important factor in the studies related to psychological empowerment. It is expected that innovative people who keeps pace with innovations, who make researches, who are open to new technology and who have large communication network

would have high PEI (Avcı and Ulu; 2014). In several studies in Turkey particularly in the agricultural holdings, the producers were found to have a tendency of carrying out agricultural activities with their own experience (no information source) or by using information sources (Kızılaslan and Kızılaslan, 1998; Boz *et al.*, 2004; Demircan and Aktaş, 2004; Yılmaz, 2008; Hasdemir *et al.* 2015).

Table 5. The Relation Between PEI and The Farmers' Land Asset.

PEI Levels		Own Land (Ha)	Rented Land (Ha)	Total Land (Ha)
Poor PEI	Mean	12.79	2.09	14.88
	Median	5.00	0.00	7.00
	Std. Deviation	32.73	4.37	32.72
Medium PEI	Mean	4.10	0.86	4.96
	Median	2.00	0.00	3.00
	Std. Deviation	4.71	1.62	5.23
Strong PEI	Mean	13.35	3.68	17.04
	Median	8.00	0.00	10.00
	Std. Deviation	18.93	11.02	21.23
Average	Mean	12.54	3.24	15.78
	Median	8.00	0.00	10.00
	Std. Deviation	20.82	9.91	22.59
Kruskall-Wallis Test		8.30**	0.23	15.90***

Statistically important at *90%, **95%, and ***99% confidence levels

Upon examining the relation between the information sources of the interviewed farm managers in the research area and PEI, it was determined that the PEI of the farm managers without any information source was higher and this was statistically significant as a result of the correspondence analysis that was conducted (Table 6, Fig. 2). This conforms to the demographical findings including the education level and age of the farm managers. The farm managers who are effectively using the formal information sources in agricultural production are usually the people with higher education and in middle and young ages. Therefore, the relation between the information sources and PEI value was in the expected direction.

Table 6. The Relation Between PEI and The Farmers' Information Sources.

Information Sources		PEI			Total
		Poor	Medium	Strong	
Own Experience (No information source)	Count	31	12	180	223
	%	13.90	5.38	80.72	100.00
Relatives-Friends-Neighbours	Count	2	2	6	10
	%	20.00	20.00	60.00	100.00
Formal information sources	Count	4	7	16	27
	%	14.81	25.93	59.26	100.00
Total	Count	37	21	202	260
	%	14.23	8.08	77.69	100.00

$\chi: 16.52$ p : 0.00 $\phi: 0.25$

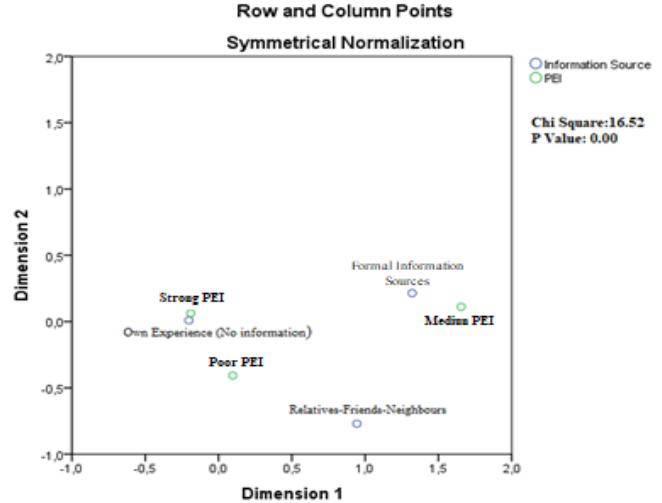


Figure 2. The Relation Between PEI and The Farmers' Information Sources.

Another variable considered in the study is the risk taking behaviours of the farm managers. The risk taking managers in the agricultural sector are usually open to innovation and keep up to date. Theoretically, risk taking managers are expected to have higher PEI value. It was determined that the PEI value of the risk taking managers interviewed in the research area was lower than that of the managers in the group consisting of the managers who avoided risks (Table 7). It is believed that this situation, which is contrary to the theoretical expectation, is due to the financial uncertainties in Turkey rather than the attitudinal condition of the farm managers. The main reasons behind this inverse relation can be stated to include particularly the negative effects of the financial uncertainties on the agricultural sector, increasing costs, fluctuations in product prices and the uncertainty in the agricultural sector in recent years. Therefore, even if they have high PEI values, producers may wish to be precautious in risks due to this uncertainty. Despite that, the PEI values of the risk taking group were found to be close to the PEI values of the group who avoided risks (Table 7).

Table 7. The Relation Between PEI and The Farmers' Risk Attitude.

Risk Levels	PEI Levels			Total	
	Poor	Medium	Strong		
Risk Seeking	Count	22	7	85	114
	%	59.46	33.33	41.06	43.02
Risk Neutral	Count	0	4	25	29
	%	0.00	19.05	12.08	10.94
Risk Averse	Count	15	10	97	122
	%	40.54	47.62	46.86	46.04
Total	Count	37	21	207	265
	%	100.00	100.00	100.00	100.00

$\chi: 8.80$ p : 0.066 $\phi: 0.182$

Another variable addressed in the study is the subjective poverty of the farm managers. Subjective poverty is also closely related to the self-confidence of individuals. It can be said that the segment with high self-confidence, developed spirit of entrepreneurship and desire in taking risks is usually represented by those with a good income level. Upon examining Table 8, it was determined that the relation between subjective poverty and PEI values was statistically significant in the border of 90% reliability. According to Table 8, it is noticed that the PI value increases in subjective poverty as the person feels better in terms of income. This is caused by positive relation between PEI and the general characteristic qualities of the group with good income level.

Table 8. The Relation Between PEI and The Farmers' Subjective Poverty Perception.

Subjective Poverty		PEI Levels			Total
		Poor	Medium	Strong	
Poor	Count	0	3	8	11
	%	0.00	27.27	72.73	100.00
Medium	Count	24	15	146	185
	%	12.97	8.11	78.92	100.00
Wealth	Count	13	3	53	69
	%	18.84	4.35	76.81	100.00
Total	Count	37	21	207	265
	%	13.96	7.92	78.11	100.00

$\chi^2:9.23$ $p:0.056$ $\phi:0.187$

Conclusion: The agricultural sector doesn't provide sufficient level of contribution to national economy due to its structural problems despite having a significant place in the economy of Turkey. In addition to the fluctuations in the economic conjuncture particularly in the field of agricultural entrepreneurship, lack of motivation of individuals is among the significant reasons behind the fact that the desired changes and developments cannot be achieved. The agricultural sector has a different logic of management compared to other sectors. Farm managers are also the most important labour force of the enterprise. Therefore, it is difficult to distinguish worker and entrepreneur in agriculture in countries like Turkey where family enterprises are prevalent. In increasing the contribution of agriculture to national economy, the motivation of both employees and entrepreneurs needs to be increased to ensure that they embrace their work and have sufficient knowledge and experience in that matter.

The relations between the PEI values and some demographical, agricultural, attitudinal and perceptual variables of the owners/managers of agricultural holdings in the Kırşehir province in Turkey were examined whereas dry agriculture system prevails in the province with significant animal husbandry activities being carried out despite the shortage of water. The limited number of sociological studies in the rural and agricultural areas in Turkey causes the explanation of the parameters such as efficiency, profitability and sustainability in agricultural holdings merely through

quantitative values. Future studies from sociological point of view are important for the explanation of the relations between the perception, attitude and behaviors of producers. As a result of this study which is among the first studies in the field of agriculture in Turkey, it was seen that the PEI values of the owners of agricultural holdings (the managers and the employees at the same time) in the agricultural sector in Turkey where family holdings are prevalent were out of the theoretical expectations from time to time. Due to the structural problems in the rural area of Turkey where the agricultural sector is dominant (increasing ages of the people in rural area and even those dealing with agriculture, their low level of education, low profitability in agricultural production and therefore slow and limited number of changes in the desired direction in the values of risk behavior and subjective poverty etc.), it was determined that the relations between the PEI values and the criteria that were addressed operated in different directions in the agricultural sector. In this regard, the macroeconomic balances and the higher number of risks and uncertainties in the agricultural sector compared to the other sectors have a significant impact on the relation between PEI and the variables that were dealt with. Here it can be concluded that the perception, attitude and behaviors of the producers who are also managers in the agricultural sector should be analyzed very well, that the studies should be planned by taking sociological factors into consideration and that the results should be examined in a holistic framework.

Finally, psychological empowerment to strengthen employees should be instilled in agricultural holdings as an organizational culture. Turning every development in an agricultural holding, which is an organization, into an opportunity will be useful in terms of psychological empowerment. In addition, willingness to share information is also important for psychological empowerment and striving to remove the matters that may lead to psychological weakness will also provide positive contributions with regards to ensuring effectiveness in agricultural holdings.

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