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A Study on the Factors Affecting the Dairy Policy Opinions of the 2013 Turkey National Dairy Summit Participants

A. Uzmay[1]*, and F. Ozden[1]

ABSTRACT

This study has three main objectives. Firstly, to put forward 2013 Turkey National Dairy Summit participants' opinions about milk policy; secondly, to determine the possible factors affecting these opinions and finally; to put forth the solutions which were suggested by the participants for the determined problems. To achieve these goals, 83 participants were interviewed in the dairy summit. 43% of participants were agricultural engineers, 19% food engineers, 14% veterinarians, and 24% of them were from other occupations. The opinions of the participants on current milk policies in Turkey have been categorized as; 'effective', 'undecided',' ineffective', 'not effective at all'. When responses of 'effective' were compared to the other three opinion groups using multinomial logistic regression, the results showed that factors such as, participants' being an agricultural engineer, a veterinary practitioner, their education levels and their involvement in milk related issues within their occupation have distinguishing characteristics. Among the participants, 40% were of the opinion that the subsidiaries should be subject to milk quality and hygiene standards. Study findings indicated that a milk strategy plan should be prepared for the milk market to gain stability in the long term. To be effective in the market, this plan also should include regional feed and production strategy and should be prepared together with dairy farmer organizations.

Keywords: Dairy Policy, Dairy Policy Tools, Turkey.

INTRODUCTION

World milk production was 769 525 thousand tons in 2012. The share of cow milk is 82.82%, buffalo milk 13.09%, goat milk 2.4% and sheep milk 1.3% in total world milk production. When considering the cow milk production, most important regions are Asia with 177 million tons, European Union (EU) with 27 million tons, and North and Central America with 116 million tons. Annual milk production in Turkey is nearly 17 million tons (about 2.5% of world supply) and 92% of it is cow milk. Throughout the world, 92% of total buffalo milk production is obtained from India and Pakistan, 3% from China and 0.04% from Turkey (IDF; 2014). According to the milk production projections of Organization for Economic-Cooperation and Development (OECD)-Food and Agriculture Organization of the United Nations (FAO) based on 2013, it is estimated that the annual increase rate on milk production is 0.98% in developed countries, 2.50% in developing countries and 2.6% in Turkey (OECD-FAO, 2013). Evaluating all of the 51 member countries of International Farm Comparison Network (IFCN) according to the cost per 100 kg of milk production in 2011, the countries with the highest total cost were Canada, Italy, Norway, Sweden, Iran and Belarus with 61-120 $, whereas the countries with the lowest total cost were Pakistan, Cameroon (< 20$). Other countries with lower cost of production with 21-30 $ were Argentina, Chile, Peru and Nigeria. Turkey is in the second highest production cost group with

[1] Department of Agricultural Economics, Faculty of Agriculture, Ege University, Izmir, Turkey.
* Corresponding author; e-mail: ayse.uzmay@ege.edu.tr

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51-60 $ (in the same group with France, Spain, Germany, China and Mexico). Raw milk/feed price parity for more than 84% of the world countries decreased in 2012 comparing with a year before. While the parity is above 2 in Belarus, Canada, Egypt, South Korea, Saudi Arabia, Sudan, Uzbekistan, and Yemen; it is between 1.5 and 2 in Australia, Algeria, Azerbaijan, Brazil, Finland, Kazakhstan, Jordan, Russia, Taiwan, Turkmenistan and Venezuela. Raw milk/feed price parity is between 1.1 and 1.5 in Turkey (Hemme, 2013, USK, 2013, Uzmay, 2014). Milk cost and milk producer prices are above the world average in Turkey. Turkey's exportation value in 2012 was $ 228.3 billion and the important exportation products are cheese and whey. Besides, the important importing countries were Saudi Arabia, Iraq, Kuwait, the United Arab Emirates, Azerbaijan and Jordan.

There are 1,369,872 dairy farms, 2,222 milk processing units and 6,000 milk collection centers in Turkey (MFAL, 2013). In 2013 Turkey contributed 8 748,800,000 TL toward agricultural support payments. Although the share of livestock support payment in the total agricultural support payment was only 4% at the beginning of the 2000s, it reached 30% in 2013. The share of milk support payment in the total livestock payment was 20% in 2013. With this increase, the number of livestock and feed crop plantation areas have also increased. Raw milk support, breeding cattle support, feed crop support, credit support, the school milk project, the investment project support for the South Eastern and Eastern Anatolia Region and rural development support have taken place among the major policy instruments (Uzmay, 2009; MFAL, 2013). However, a significant level of problems related with high milk produciton costs, the failure to maintain price stability, the low market share of the producer organizations, animal diseases, milk quality and hygiene have showed that dairy cattle policies could not create the expected effects in the livestock and dairy sector (RPMD, 2014; Uzmay *et al.,* 2014).

Recently, many studies related to dairy farming in Turkey have been conducted. Some of these studies focused on the cost (Dedeoglu and Yildirim, 2006; Yildirim and Sahin, 2006; Demircan *et al.,* 2006; Topcu, 2008; Uzunoz *et al.,* 2008; Uzmay *et al.,* 2009), situation of dairy sector (TUCA, 2008; Cobanoglu *et al.,* 2013), dairy and/or livestock policies in Turkey (Sayin,1998; Sayin, 2001; Yavuz et al., 2002; Yavuz *et al.,* 2004; Goktolga *et al.,* 2004; Oren and Bahadır, 2005; Aksoy *et al.,* 2012) and current issues and competitiveness of Turkey's dairy sector with EU (Demirbas, 2005; Sacli, 2007; SPO, 2007; Guler, 2007; Cicek *et al.,* 2009; Kuyululu, 2009; Uzmay, 2014). Hence, it can be said that the problems in the dairy sector of Turkey have been studied for years and there are some objectives that are expected to be achieved from dairy policies. However, there is still a lack of studies giving a net hierarchy of the overall objectives of the dairy sector at the macro level. Due to the unavailability of a proper hierarchy of objectives, the effects of the policies are short-term, and therefore they are unable to solve the structural, economic and social problems in the long-term. In the workshops relating to the dairy sector, people working in various sectors gather from time to time. However, they may not be able to provide unbiased opinions on the dairy policies due to their professional constraints. Therefore, to ensure confidentiality in this study, the surveys were sent to the participants via emails. Any other study that deals with all the stakeholders of the dairy sector has not been encountered. The primary objective of this study was to present the unbiased opinions of the participants of Dairy Summit 2013, Turkey regarding the effectiveness of the policies implemented in the dairy sector. The other important objective was to determine the factors that can affect their opinions and the order of priority of the solutions needed to solve the policy problems if present.

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MATERIALS AND METHODS

The Second National Dairy Summit was held on 21st of May 2013 in Turkey. A total of 110 people including academicians working in the dairy sector, government officials, people working in the private sector and representatives of producer organizations participated in the summit. In this study, the participants were contacted via email and were requested to fill out the surveys. They were asked to give their opinion about dairy policy. Eighty-three participants agreed to participate in this study. In the summit, four committees were formed based on specific topics. 41% of the participants in this study were on the 'Dairy Policy and Economy Committee', 20% were on the 'Quality Milk Production and Processing Techniques Committee', 19% were on the 'Herd Management, Animal Health and Welfare Committee' and the remaining 18% were on the 'Nutrition and Consumption Committee'. Their profile statistics were as follows: 43% of them were agricultural engineers, 19% food engineers, 14% veterinarians, and 24% of them were from other occupations. 40% of them were academicians working at various universities, 36% worked in the public sector and the remainder were the representatives of producer organizations or those working in the private sector. Their opinions on dairy policy can be divided into four groups. In order to determine the factors that may affect their opinions significantly, the multinomial logit model was used in this study. It tried to find the factors that can distinguish the participants who said that the dairy policy is 'effective' from the participants who said that 'it's ineffective', 'not effective at all' or were undecided.

The multinomial logit model represents an appropriate framework to explore and explain choice process where the choice set consists of more than two alternatives. For the sake of this model to be appropriately applied, those alternatives must not be ranked (Kohansal *et al.,* 2013).

In multinomial logistic regression, for a dependent variable with *M* categories, *M-1* number of equations that represent the relation among dependent and independent variables and compare each category with reference category, are needed. For each category of dependent variable, except reference category, an equation can be written as follows (Menard, 2002).

$$g_h(X_1, X_2, ..., X_k) = e^{(a_h + b_{h1}X_1 + b_{h2}X_2 + ... + b_{hk}X_k)}$$

$$h = 1, 2, ..., M-1, \quad (1)$$

Where, the subscript *k* refers to specific independent variables *X* and the subscript *h* refers to the specific values of dependent variable *Y* for the reference category, $g_0(X_1, X_2, ..., X_k) = 1$. The probability that *Y* is equal to any value *h* other than the excluded value h_0 is:

$$P(Y = h \mid X_1, X_2, ..., X_k) = \frac{e^{(a_h + b_{h1}X_1 + b_{h2}X_2 + ... + b_{hk}X_k)}}{1 + \sum_{h=1}^{M-1} e^{(a_h + b_{h1}X_1 + b_{h2}X_2 + ... + b_{hk}X_k)}}$$

$$h = 1, 2, ..., M-1, \quad (2)$$

And for the excluded category $h_0 = M$ or *0*,

$$P(Y = h_0 \mid X_1, X_2, ..., X_k) = \frac{1}{1 + \sum_{h=1}^{M-1} e^{(a_h + b_{h1}X_1 + b_{h2}X_2 + ... + b_{hk}X_k)}}$$

$$h = 1, 2, ..., M-1. \quad (3)$$

In this study, the dependent variable is the opinion of the participants who said that the dairy policy being implemented in Turkey was effective or not. The following coding pattern was followed to transform qualitative data into quantitative one: Effective= 1; Undecided= 2; Ineffective= 3, Not effective at all= 4. A three category logit model is formed within this scope. There are three logit functions in the model. In the first function, there are *Y*= 2 (the ones who said 'undecided') and *Y*= 1 (the ones who said 'effective'). In the second function there are *Y*= 3 (the ones who said 'not effective') and

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Y= 1 (the ones who said 'effective'). In contrast, in the last function there are *Y*= 4 (the ones who said 'not effective at all') and *Y*= 1 (the ones who said 'effective'). *Y*= 1 is taken as reference group, as the objective is to analyze the difference between the ones who said 'effective' and the other groups. There were ten independent variables in this study. They are as follows: age of the participants, part of their working hours related to dairy, work experience in dairy sector, education level, professional status in the organisation they are working for, and field of work (agricultural engineer, veterinarian, food engineer). Definitive statistics related to independent variables are given in Table 1. In addition, the Pearson *Chi*-square test was implemented to determine if the participants' answers to the question of the effectiveness of the dairy policies differ according to their committees. The Kruskal-Wallis test was used for non-parametric groups.

Table 1. Descriptive statistics of variables.

Dependent variable (Y)	Type of variable	Description	Frequency	Percent (%)
	Categorical	1: Effective	17	20.50
		2 : Undecided	13	15.70
		3: Ineffective	46	55.40
		4: Not effective at all	7	08.40
Independent variables (X)			Mean	Std deviation
Age (AGE)	Continues	Year	45.00	9.51
Part of Working hours related to Dairy (PWD)	Continues	(%)	42.00	37.06
Work Experience in Dairy sector (WED)	Continues	Year	15.63	11.11
			Frequency	Percent (%)
Education (EDU)	Ordinal categorical	1: Primary school	1	1.20
		2: High school	2	2.40
		3: University	23	27.70
		4: Graduate	23	27.70
		5: Doctorate	34	41.00
Working in the Public Sector (WPS)	Dichotomous	1: Yes	30	36.14
		0: No	53	63.86
Working at the University (WU)	Dichotomous	1: Yes	33	39.76
		0: No	50	60.24
Working in the Private sector or representatives of Producer organizations (WPPS)	Dichotomous	1: Yes	20	24.10
		0: No	63	75.90
Agricultural Engineer (AE)	Dichotomous	1: Yes	36	43.37
		0: No	47	56.63
Veterinarians (VTR)	Dichotomous	1: Yes	16	19.28
		0: No	67	80.72
Food Engineer (FE)	Dichotomous	1: Yes	12	14.46
		0: No	71	85.54

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RESULTS AND DISCUSSION

In this study, almost 58.5% of the participants were of the opinion that the agricultural policy being implemented in Turkey 'is ineffective', 7% responded 'not effective at all', about 20% said 'it's effective', and the remainder were undecided. No statistically significant difference was found among the committees on whether the agricultural policy is effective or not (Pearson *Chi*-square 13.587, P> 0.05). As far as dairy policy is concerned, almost 55% of them said 'it's ineffective', about 8% said 'it's not effective at all', 21% said 'it's effective' and the remaining were undecided. Again, in order to check whether there was a difference among the opinions of the committees or not, the Pearson *Chi*-square test was used. It showed no significant difference among them (*Chi*-square statistic 9.815, P> 0.05).

Since the participants expressed 7 different views, the multinomial (polytomous) logit model was used to evaluate factors that were likely to affect their views. The likelihood ratio tests show that the model is statistically significant. The *Chi*-square likelihood ratio of the model is below 0.01 (Table 2). Based on the results of multinomial logistic regression, three equations were obtained (Table 3). The first equation shows the distinctive features between the ones who said 'it's effective' and the ones who were 'undecided', in response to the question "Are the dairy policies implemented in Turkey effective?" The results indicated that the variables like number of working hours relating to dairy (P> 0.05); and whether the participant was an agricultural engineer or not (P< 0.10) can be distinguished among the groups. The probability of being 'undecided' about the dairy policy, increases 5 times with a one unit increase in the number of working hours relating to dairy and 28 times with a one unit increase in the chances of being an agricultural engineer.

The second equation represents the distinctiveness between the group with the response 'effective' and the group with the

Table 2. Model fitting information.

Model	Model fitting criteria -2 Log likelihood	Likelihood ratio tests Chi-square	df	Sig
Intercept only	171.913			
Final	107.017	64.896	33	.001*
Pseudo *R*-square	Cox and Snell 0.569	Nagelkerke 0.638	McFadden 0.377	

Likelihood ratio tests

Effect	Model fitting criteria -2 Log likelihood of reduced model	Likelihood ratio tests Chi-square	df	Sig
Intercept	107.017(a)	.000	0	.
EDU	118.755	11.738	3	0.008**
WED	112.425	5.408	3	0.144
AGE	108.624	1.608	3	0.658
PWD	115.615	8.598	3	0.035**
AE	115.659	8.642	3	0.034**
VTR	114.720	7.704	3	0.053*
FE	113.294	6.277	3	0.099*
WPS	114.366	7.349	3	0.062*
WPPS	112.351	5.334	3	0.149
WU	117.555	10.538	3	.015**

** Significant at *P*< 0.05, * Significant at *P*< 0.10.

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Table 3. Parameter estimates of multinomial logistic regression results. [a]

Are the dairy policies implemented in Turkey effective ?		B	Std Error	Wald	df	Sig	Exp(B)	95% Confidence interval for *Exp(B)*	
								Lower bound	Upper bound
Undecided (2)	Intercept	34.996	7657.566	0.000	1	0.996			
1nd Eq. estimates	EDU	-0.201	0.776	0.067	1	0.796	0.818	0.179	3.741
	WED	-0.176	0.114	2.389	1	0.122	0.838	0.670	1.048
	AGE	2.779	4.108	0.458	1	0.499	16.103	0.005	50551.905
	PWD	1.632	0.725	5.074	1	0.024**	5.115	1.236	21.164
	AE	3.341	1.831	3.331	1	0.068*	28.247	0.781	1021.308
	VTR	1.935	1.797	1.159	1	0.282	6.922	0.204	234.481
	FE	-0.850	2.136	0.158	1	0.691	0.427	0.006	28.111
	WPS	-18.350	3676.395	0.000	1	0.996	1.070	0.000	.(c)
	WPPS	-15.705	3676.395	0.000	1	0.997	1.5107	0.000	.(c)
	WU	-36.716	4253.285	0.000	1	0.993	1.1316	0.000	.(c)
Ineffective (3)	Intercept	5.494	2138.860	0.000	1	0.998			
2nd Eq. estimates	EDU	0.932	0.501	3.455	1	0.063*	2.539	0.951	6.783
	WED	-0.056	0.098	0.327	1	0.567	0.946	0.781	1.145
	AGE	0.003	3.232	0.000	1	0.999	1.003	0.002	565.144
	PWD	0.227	0.469	0.234	1	0.628	1.255	0.500	3.149
	AE	3.420	1.474	5.386	1	0.020**	30.557	1.702	548.747
	VTR	3.189	1.476	4.668	1	0.031	24.257	1.345	437.620
	FE	1.226	1.810	0.459	1	0.498	3.408	0.098	118.275
	WPS	1.030	1.204	0.732	1	0.392	2.801	0.265	29.639
	WPPS	2.222	1.263	3.097	1	0.078*	9.229	0.777	109.693
	WU	-16.864	2138.821	0.000	1	0.994	4.758	.000	.(c)
Not effective at all (4)	Intercept	-18.935	6406.580	0.000	1	0.998			
3nd Eq. estimates	EDU	5.495	2.995	3.367	1	0.067*	243.443	0.687	86202.900
	WED	-0.297	0.210	2.000	1	0.157	0.743	0.492	1.121
	AGE	-2.959	5.505	0.289	1	0.591	0.052	1.076	2515.184
	PWD	-0.129	0.977	0.018	1	0.895	0.879	0.129	5.966
	AE	5.516	2.463	5.015	1	0.025**	248.732	1.990	31086.908
	VTR	5.407	2.808	3.708	1	0.054*	222.971	0.908	54740.840
	FE	21.201	4903.534	0.000	1	0.997	1678.860	0.000	.(c)
	WPS	-15.866	3524.805	0.000	1	0.996	1.290	0.000	.(c)
	WPPS	-0.687	0.000	.	1	.	0.503	0.503	0.503
	WU	-32.617	4122.961	0.000	1	0.994	6.831	0.000	.(c)

[a] The reference category is: Effective (1). ** Significant at $P< 0.05$, * Significant at $P< 0.10$.

response 'ineffective'. According to the results, characteristics like education level (P< 0.10), whether the person is an agricultural engineer (P< 0.05) or a veterinarian (P< 0.05) and whether he/she is working in the private sector or represents a producer organizations or not (P< 0.10) can be distinctive among the groups. The

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probability of having an opinion that the dairy policy is 'effective' increases 30 times with one unit increase in the chances of being an agricultural engineer, 24 times with one unit increase in the chances of being a veterinarian, 2.5 times with one unit increase in education level and 9 times with one unit increase in the chances of being a representative of a production firm and working in the private sector.

The third equation represents the characteristics that distinguish between the ones who responded 'it's effective' and the ones who said it's 'not effective at all'. According to the results, characteristics like education level ($P< 0.10$); and whether he/she is an agricultural engineer ($P< 0.05$) or a veterinarian ($P< 0.10$) can distinguish among the groups. The one unit increase in these characteristics increases the probability of having the opinion that the dairy policy is 'ineffective' to a large extent (this is because of very few number of participants who chose the 'not effective at all' option).

It is important to note that when we compare the participants, the number of agricultural engineers and veterinarians who said that dairy policy is 'effective' is greater than those saying that it is 'ineffective' or 'not effective at all'. Despite a larger number of food engineers than veterinarians among the participants, they did not have any significant distinctiveness. So it can be argued that the food engineers focus only on food processing and quality. They avoided to express an opinion about dairy policy.The participants who work in the private sector had a significant effect on the second equation 'the implemented policies are ineffective'. Although there were representatives of producer organizations and participants working in the private sector, the ones who evaluated the policies were academicians and people working in the public sector (76%). Moreover, in the first equation where we compared 'effective' and 'ineffective' options the people working in the private sector and representatives of production firms had strong distinctiveness between their opinions. It shows that, recently, the producers are facing problems like inability to adapt to changing market conditions, uncertain future incomes and high cost.

In the first equation, as the working hours related to dairy industry increases the probability of choosing 'undecided' increases when compared to 'effective'. No significant difference was found among the committees on the basis of number of working hours related to dairy (Kruskal Wallis Test, *Chi*-square 0.616, $P> 0.05$). In response to the question: "What do you think should be the primary objective of the support policies implemented in Turkey for milk production at the farm level?", 40% of the participants said that the policies should be focused on increasing milk quality and hygiene; 17% of them were in favor of animal health and welfare; again 17% of them said that it should focus on preventing milk price instability; 8.6% of them were in favor of providing income security; 7% said that it should encourage the milk producers to organize; 4% of them were in favor of animal health. There was no statistically significant difference among the committees on this question (Pearson *Chi*-square 34.329, $P> 0.05$). In a study conducted in Izmir, the largest milk producing province of Turkey, the milk producers were asked about their expectations from government support programs. 23% of them wanted an increase in milk prices; 21.79% were in favor of an increase in subsidies and 13% of them said that they need credits at lower price (Uzmay, 2009). In another study in Izmir about milk pricing, the major factor considered for determining the price was the quantity of milk produced rather than its composition and hygiene (Uzmay, 2009).

In response to the question: "What do you think is the order of precedence for the problems in the dairy sector?", 29% of them placed price instability as their first preference, 22% put quality problems as first, 16.7% placed unregistered production as their first priority, 9.7% put small-sized enterprises at first order, 4.2% of them

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considered the problems in exports as their first preference and the remaining put problems like imitation and adulteration, lack of boutique production as their first priority. Here also, no significant difference was found among the committees (Pearson *Chi*-square statistic 29.029, P> 0.05).

The participants were also asked: "What do you think about the most important reason of price instability in Turkey?", 34% of them responded that the unavailability of strong organizations of the milk producers was the most important cause. The second one was the absence of any planning based on demand and supply (27%). Other causes such as the lack of fodder crops production planning (14.3%), oligopolistic market structure (11.4%), developments in world markets (8.6%) and lack of input supply (4.3%) were also stated by the participants. Here, a statistically significant difference was found among the committees (Pearson *Chi*-square 25.978, P< 0.05). This difference arose because the 'Quality Milk Production and Processing Committee' placed 'the absence of any planning according to demand and supply' as first and the 'developments in world markets' as their second preference.

In response to the survey question: "What do you think about the effects of EU membership on dairy sector in Turkey?" , 47% of the participants responded that the EU would have a positive effect; whereas 43.4% said that it would have a negative effect. 3.6% believed, it would have no impact at all and 6% were undecided. Here again, there was no significant difference among the committees (Pearson *Chi*-square 11.865, P> 0.05). On this topic, a study was conducted in 2007 with 48 stakeholders of dairy sectors. 64% of the participants said that if Turkey participates in EU joint agricultural policy, it will affect Turkey positively, almost 28% of them said that it will affect it negatively and 8% of them said that there will not be any noticeable effect (Guler, 2007). This shows, the view that Turkey will be affected positively after obtaining EU membership is getting weaker.

CONCLUSIONS

In this study, the vast majority of dairy summit participants had the opinion that the dairy policies being implemented in Turkey are ineffective. Moreover, there was no significant distinctiveness among the 'effective', 'ineffective', 'not effective at all' and 'undecided' options about dairy policy opinions of the participants who work in the public sector and universities. In contrast, the participants working in private sector or those who represents producer organization showed an opposite trend. As the level of education of the participants increased, the probability of saying 'ineffective' also increased. It is important to note that no statistically significant difference was found among the four committees on evaluation, problems and suggestions to solve the problems. Based on the participants' responses, the primary objective of the support policies should be to increase milk quality and hygiene. Animal health and welfare should be considered and price stability should also be achieved. In order to achieve these objectives, the necessary infrastructure should be provided, the frequency of inspections should be increased; and the support given to cattle breeding and farming should be associated with milk quality and hygiene. According to most of the participants, milk prices are not being determined in a free market in Turkey. Here, the markets have an oligopolistic structure. The presence of this type of structure results in market irregularities. In the short-term, support policies should be designed on a regional basis keeping in view the local costs. In the long-term however,, for independent market functionality, regional strategic plans for dairy farming and products (including plans for fodder production) should be developed on the basis of market forces (demand and supply) and measures should be taken to increase the market share of the milk producers. Regulations for contract production are currently being developed and stakeholder opinions are being taken into account. The long run agreements between milk producers

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and industrialists are very important for registered milk production, providing income security to the producers and assuring food hygiene and safety.

REFERENCES

1. Aksoy, A., Terin, A. and Keskin, A. 2012. A Study on Regional Impacts of Breeding and Support Policy in Dairy Cattle Sector in Turkey. *J. Agric. Fac. Atatürk Univ.,* **43(1):** 59-64.
2. Cıcek, H., Tandogan, M., Terzi Y. and Yardımcı, M. 2009. Relationships between producer tendency towards membership of European Union (EU) and enterprise performance in dairy cattle activity in Turkey. *J. Food Agric. Environ.*, **7(1)**: 97- 100.
3. Cobanoglu, F., Karaman, A. D. and Tunalıoglu, R. 2013. Critical Evaluation for Adoption of Food Safety Systems in the Turkish Dairy and Meat Processing Businesses. *J. Agr. Sci. Tech.*, **15**: 101-114.
4. Dedeoglu, M. and Yildirim, I. 2006. Economic Analysis of Farms Associatied with Emek Agricultural Development Cooperative. *Univ. Yüzüncü Yıl. J. Agric. Sci.,* **16(1):** 39-48. (in Turkish)
5. Demirbas, N., Cukur, F. and Tosun, D. 2007. The Role of Milk Collection Centers for Providing Food Safety in Dairy Sector and Effects on Development Potential of the Sector: The Case Study of Izmir. ISBN No: 978-9944-60-187-0 p.112, Izmir Chamber of Commerce, No: 160, Izmir. (in Turkish)
6. Demircan, V., Binici, T., Koknaroglu, H. and Aktas, A.. R. 2006. Economic analysis of different dairy farm sizes in Burdur province in Turkey. *Czech J. Anim. Sci.,* **51(1):** 8–7.
7. Goktolga , Z. G., Karkacier, O. and Cicek, A. 2004. The Analysis of Milk Incentive Premium Policy for Proceed Milk and Milk Products Industry. *GOÜ. Ziraat Fakültesi Dergisi*, **21(2):**49-55. (in Turkish)
8. Guler, H. 2007. Measures Requıred to Taken Before and After Harmonization to Common Agricultural Policy (CAP) within Milk Sector during Admission Period of Turkey to European Union (EU). *Doğu Anadolu Bölgesi Araştırmaları*, **5(3)**:138-147. (in Turkish)
9. MFAL (Mınıstry of Food, Agrıculture And Lıvestock). 2013. *Records of General Livestock Directory*. Ankara. (in Turkish)
10. Hemme, T. 2013. *Overview on Milk Prices and Production Costs Worldwide*. IFCN Dairy Research Center. http://www.ifcndairy.org/media/downloads/Press-release-IFCN-Dairy-Report-2013.pdf
11. IDF. 2014. *The World Dairy Situation. Bulletin of International Dairy Federation 470/2013*, 233 PP. http://www.fil-idf.org/EventsCalendar.htm
12. Kohansal, M. R. and Firoozzare, A., 2013. Applying Multinomial Logit Model for Determining Socio-economic Factors Affecting Major Choice of Consumers in Food Purchasing: The Case of Mashhad. *J. Agr. Sci. Tech.*, **15**: 1307-1317.
13. Kuyululu Kaya, C. 2009. *Supply Management in the Dairy Production.* ADSYB Publication: 2, Ankara, 202 PP. (in Turkish)
14. Menard, S. W. 2002. Applied Logistic Regression Analysis. In: *Quantitative Applications in the Social Sciences*". Paper 106, 2rd Edition, Sage Publications (CA).
15. OECD-FAO. 2013. *Agricultural Outlook 2013-2022*. Paper 116, Highlights. http://www.oecd.org/berlin/OECD-FAO%20Highlights_FINAL_with_Covers%20(3).pdf
16. Oren, M. N. and Bahadir, B. 2005. Policy of Livestock Products and Transfers Caused From These Policies. *J. Livestock Product..* **46(1)**: 1-7. (in Turkish)
17. RPMD (Ministry of Development). 2014. Livestock production. Livestock Specialized Commission Report. Ankara, 125 PP.
18. Sacli, Y. 2005. Transformation Requirements of Animal Husbandry Sector in the Harmonization Period with the EU. Publication No: 2707, DPT, Ankara, 211pp.
19. Sayin, C. 1998. Structural Condition of Livestock in Turkey, Problems and Support Policies, Failing Aspects and Suggestions. TZOB, Ankara, 54 PP. (in Turkish)
20. Sayin, C. 2001. Livestock Policies and Effects of Reform Opportunities in Turkey. *Akdeniz Univ. J. Fac. Agric.*, **14**: 1. (in Turkish)
21. SPO (State Planing Organization). 2007. *Livestocks. IX. Development Plan*. DPT: 2717-ÖİK: 670, Specialized Commission Report, Ankara, 118 PP. (in Turkish)
22. Topcu, Y. 2008. Analysis of Success Factors in Dairy Farms: Case Study of Erzurum Province. *J. Fac. Agric. OMU*, **23(1):** 17-24. (in Turkish)
23. TSI (Turkish Statistical Institute). 2013. *Dış Ticaret İstatistikleri*. http://www.tuik.gov.tr/

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[DOR: 20.1001.1.16807073.2016.18.5.18.4]

24. TUCA (Turkey Union Chamber of Agriculture). 2008. *Evaluation of Turkey Dairy Sector in 2008 and Beyond Expectations.* Dairy Sector Report, Ankara, 99 PP.
25. 25.Uzmay, A., Koyubenbe, N. and Armagan, G. 2009. Measurement of Efficiency Using Data Envelopment Analysis (DEA) and Social Factors Affecting the Technical Efficiency in Dairy Cattle Farms within the Province of Izmir, Turkey. *J. Anim. Vet. Adv.,* **8(6):** 1110-1115.
26. Uzmay, A. 2009. Implementation of Support Policy for Dairy Cattle in Turkey, Alternative Policy Suggestions: Case Study for Izmir. ISBN 978 605 88900-1-5, Publication No: 1, Tire Dairy Cooperative, 84 PP. (in Turkish)
27. Uzmay, A., Yercan, M. and Albayram, Z. 2014. Recent Developments on Economics of Milk and Dairy Products in the World and Turkey. *25th International Scientific Experts Congress on Agriculture and Food Industry*, Cesme, Izmir.
28. Uzunoz, M., Altintas, G. and Akçay, Y. 2008. Cost of Milk and Marketing Margins in Dairy Farms of Turkey. *J. Appl. Sci.*, **8(7):** 1329-1332.
29. Yavuz, F., Akbulut, O. and Keskin, A. 2003. A Study on Efficiency of Breeding and Support Policy in Dairy Cattle Sector in Turkey. *Turk. Vet. Anim. Sci.*, **27**: 645-650. (in Turkish)
30. Yavuz, F., Tan, S. and Zulauf, R. 2004. Regional Impacts of Alternative Price Policies for Turkey's Dairy Sector, *Turk. J. Vet. Anim. Sci.,* **28**: 537-543.
31. Yildirim, I. and Sahin, A. 2006. A Comparison of Profitability between Culture and Native-breed Dairy Farms (Case Study of Eastern Part of Turkey). *Int. J. Dairy Sci.,* **1(2):** 136-145.

بررسی عوامل موثر بر نظرات شرکت کنندگان در نشست ملی سیاست های لبنی ترکیه در سال ۲۰۱۳

ا. اوزمی و ف. اوزدن

چکیده

این مطالعه سه هدف اصلی دارد .در مرحله اول، نظرات شرکت کنندگان در نشست ملی لبنیات 2013ترکیه در مورد سیاست شیر ارایه می شوند؛ در مرحله دوم، تعیین عوامل موثر بر این نظرات و در نهایت؛ پیشنهاد راه حلهایی که که توسط شرکت کنندگان برای مشکلات مشخص پیشنهاد شده است. برای دستیابی به این اهداف، 83شرکت کننده در اجلاس لبنی مورد مصاحبه قرار گرفتند. 43 درصد از شرکت کنندگان مهندسان کشاورزی، 19٪مهندسین مواد غذایی ،14 ٪دامپزشک و 24درصد از آنها مشاغل دیگر داشتند. نظرات شرکت کنندگان در مورد سیاست حال حاضر شیر در ترکیه به صورت زیر طبقه بندی شده است: "موثر "،"مردد "،"بی اثر "، و "به هیچ وجه موثر نیست". هنگامی که پاسخ "موثر" با سه گروه نظر دیگر با استفاده از رگرسیون لجستیک مقایسه شد، نتایج نشان داد که عواملی مانند مهندس کشاورزی یا دامپزشک بودن شرکت کنندگان ، سطح تحصیلات و دخالت آنها در مسائل مرتبط با شیر در محل اشغال دارای ویژگی های متمایزی بودند. در میان شرکت کنندگان، 40درصد واجد این نظر بودند که شرکت های تابعه باید در معرض استانداردهای کیفیت بهداشت شیر باشند .یافته های این مطالعه نشان دادند که برای به دست آوردن ثبات در طولانی مدت یک برنامه و استراتژی شیر مورد نیاز است. .برای موثر بودن در بازار ، این طرح باید شامل استراتژی منطقه ای تولید و خوراک بوده و با همکاری سازمان کشاورزی لبنی آماده گردد.

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