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THE LEVEL OF JOB SATISFACTION OF YOUNG FARMERS SUBSIDIZED BY EUROPEAN RURAL MEASURES: EVIDENCE FROM NORTHERN GREECE

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ABSTRACT

This paper examines the job satisfaction of a sample of 182 young farmers from northern Greece who are beneficiaries of support policies, as well as the factors influencing it. The results indicate that young farmers are little satisfied in their job and the practices applied by institutional bodies are the main cause of their job dissatisfaction. Nevertheless, they like the content and nature of their job. Residing in peri-urban rural areas, the intention to continue exercising the farming profession, the sense of achievement, training opportunities, and optimism have positive effects on job satisfaction. However, considering that young people in mountainous areas have a strong sense of job dissatisfaction and claim that they are less likely to continue farming there is a need for integrated development of the countryside focused on the local needs of each area.

Contribution/ Originality
This study is important as it is the first effort to examine job satisfaction of people working in the farming sector, and especially among beneficiaries of the *Setting up of Young Farmers* Measure (EU Common Agricultural Policy, Pillar II). The set of data gathered for this study is unique to date and the findings serve as a good start to the relevant discussion.

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1. INTRODUCTION

In order to renew the age structure of workers in the agricultural sector and maintain the population in rural areas the European Union has established a series of policy measures and incentives for new entrants into farming, since the contribution of institutional bodies is decisive for the achievement of prosperity and sustainability in rural areas (Rieznik and Beom, 2018). Thus in the framework of the Common Agricultural Policy the Agricultural Development Measure titled Setting Up of Young Farmers (European Parliament, 2013) is being implemented in EU member states, since more than 50% of agricultural holding managers are over 55 years old, while only 6% are under the age of 35 years (European Committee of the Regions, 2017). Success in the agricultural sector can only be achieved through a change in generations, considering that the lack of young farmers has an adverse effect on the dissemination of know-how, adoption of new practices, and implementation of innovations, thus putting the survival and competitiveness of the agricultural sector at risk.

As part of the Agricultural Development Measure the initial establishment of new entrants into farming is facilitated by giving significant financial incentives with the aim of achieving structural adjustment and improvement of the economic sustainability of agricultural households within five years. However, this adjustment does not show any indications of the intention or decision of beneficiaries to continue exercising the farming profession, since the lack of young farmers has been a problem in the EU for many decades despite the financial resources that have been allocated to its solution. This aspect is crucial in relation to the basic objective of the measure, which is to maintain the social and economic fabric of the countryside and introduce nonfinancial parameters to the discussion on sustainable farming.

The literature suggests that young farmers' job satisfaction possibly indicates their commitment to establishing a future in farming (Kontogeorgos *et al.*, 2014). According to Agarwal and Agarwal (2017) farmers' satisfaction could affect their incentives to make long-term investments. Furthermore, for the owners of small enterprises success can be measured based on nonfinancial criteria such as job satisfaction (Reijonen and Komppula, 2007). Moreover, farmers' satisfaction with their quality of life is connected to job satisfaction (Herrera *et al.*, 2018). Therefore understanding the attitudes and views of new farmers can support competent bodies in their policy making with regard to planning integrated and sustainable agricultural development. This claim is supported by previous studies which suggest that the integration of psychological parameters in the survey of the farming community in general leads to correct proposals, conclusions, and recommendations (Mzoughi, 2014).

The literature shows that those who are satisfied with their jobs have lower job departure rates and better performance (Robbins and Judge, 2013). At the same time the mobility and behaviour of employees in the labour market are affected by the job satisfaction factor (Freeman, 1977; Tansel and Gazioglu, 2006; Mensah *et al.*, 2017). The factors influencing job satisfaction include inter alia, age, sex (Iroegbu, 2015), income, level of education, professional training, marital status, the employee's personality (Tansel and Gazioglu, 2006), structural characteristics of the farms (Besser and Mann, 2015), and geographical position (Herrera *et al.*, 2018).

1.1. The concept of job satisfaction

The concept of job satisfaction has been the subject of systematic study over the last fifty years in the context of human resource management (Giraldo-O'Mearaetal *et al.*, 2014) in various professional sectors. Nevertheless, it has not been systematically studied in relation to farmers and especially young farmers.

Job satisfaction is defined as a positive feeling about the job resulting from an assessment of its characteristics (Robbins and Judge, 2013). This concept has a cognitive component (the individual

perceives their job in a specific way and believes that their job is either good or bad), an affective component (the individual has positive or negative feelings about their job), and a behavioural component (the individual stays at a job or quits, performs or doesn't, etc.). Individuals with a high level of job satisfaction feel positively about their jobs as opposed to individuals with a low level of job satisfaction who feel negatively about their jobs. Spector (1997) has stated that job satisfaction simply has to do with the feeling people have about their jobs and the different aspects thereof. It has to do with satisfaction with different aspects of the job such as supervision, independence, social status, cooperation, recognition, security, competition, etc. An aspect is defined as a part of the job causing one to feel satisfied or dissatisfied. According to Spector (1997) job satisfaction is either intrinsic or extrinsic: intrinsic refers to the feelings people have about the nature and content of the actual job tasks (e.g. variety, skill utilisation, autonomy), extrinsic refers to the feelings people have about aspects of their work that are external to the actual tasks or work (e.g. salary, working conditions, co-workers). Thiagaraj and Thangaswamy (2017) divide theories on job satisfaction into two categories: content theories, which attempt to identify and interpret content, the type of needs, and the factors that motivate individuals to work; and process theories, which focus on the dynamic of the motivational process and examine the types and categories of variables that contribute to job satisfaction.

The objectives of this study are to assess the overall level of job satisfaction of young farmers, assess satisfaction in relation to other aspects of the job, identify the sources of job satisfaction or dissatisfaction, examine the factors that influence job satisfaction, and study the connection between the job satisfaction of young farmers and their intention to continue working in the agricultural sector.

The survey focuses on the demographic, economic, and structural features of agricultural holdings, and the characteristics of the area of permanent residence. Given the lack of relevant research on the job satisfaction of young farmers this paper aims to fill this gap and start a discussion on this matter.

2. METHODOLOGY

2.1. Sample

The survey sample includes 182 new entrants into farming (under 40 years of age) who live in the Prefecture of Thessaloniki in northern Greece (see Map 1). They first entered the agricultural sector in 2014 as beneficiaries of the Setting up of Young Farmers Measure which required them to implement the structural adjustment of their agricultural holdings within five years. They were selected by random sampling from a total of 482 beneficiaries throughout the Prefecture based on their ability to take part in the survey. 218 questionnaires were initially distributed, 36 were rejected. The survey was conducted from June to September 2018 and the study sample was retrieved from the records of the paying agency.

Map 1: Location of the study area in Greece

2.2. Instrument

The level of job satisfaction was measured with the Minnesota Satisfaction Questionnaire (MSQ) - long form (Weiss *et al.*, 1977) which was adapted to the needs of this study. It was initially developed in 1967 and revised in 1977. It is suitable for all educational levels (Sarraf, 2018) and provides detailed information on separate aspects of the job (Aslan, 2017). It has been used in numerous sectors to measure job satisfaction (Saner and Eyupoglu, 2012). However, the review of the literature did not show any corresponding study for agriculture.

For the needs of this survey supervision was considered to have been carried out by the Ministry of Rural Development and Food (MRDF), which is responsible for supervising the proper implementation of the measure in Greece. The MSQ - long form includes 100 items, 5 for each of the 20 individual aspects of the job, which are described in the MSQ Manual, as well as 2 subscales measuring intrinsic (65 items) and extrinsic (35 items) job satisfaction (Table A, in Appendix). The subject is required to answer the question: 'How satisfied do you feel with this aspect of the work?' Items are rated on a 5-point Likert scale (1 = very dissatisfied, 2 = dissatisfied, 3 = cannot decide, 4 = satisfied, 5 = very satisfied). The reliability of the questionnaire items was measured using Cronbach's Alpha test. All cases produced a coefficient of Cronbach Alpha > 0.7, which is widely accepted (Khushk *et al.*, 2016; Solis-Carcano *et al.*, 2015). The survey questionnaire also includes items concerning perceptions, the demographic characteristics of subjects, and the structural characteristics of their agricultural holdings.

Table 1: Independent variables used in the analysis

Independent variables	Description
Sex	1= male 2 = female
Age	Years
Marital status	1= married, 2 = single, 3 = in relationship, 4 = divorced
Education level	1= primary, 2 = lower secondary, 3 = upper secondary 4 = post-secondary / non-higher, 5 = higher
Characterization of the residence area	1= normal area, 2 = disadvantage area, 3 = mountain area
Annual household income	1 ≤ 5.604 $, 2 = 5.605-16.811 $, 3 = 16.812-28.018 $ 4 = 28.019-39.226 $, 5 ≥ 39.227 $
% of total household income from agricultural activities	Percentage
% of agricultural income from agricultural subsidies	Percentage

Probability to remain in agriculture	1 = extremely likely, 2 = very likely, 3 = somewhat likely 4 = not very likely, 5 = not likely at all
Prediction for the development of the farm	1 = will improve significantly, 2 = will improve slightly, 3 = will remain the same, 4 = will deteriorate slightly, 5 = will deteriorate significantly
The continuous training as an important factor for the development of the farm	1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree 4 = agree, 5 = strongly agree
Evaluation of the development of the farm	1 = much better, 2 = somewhat better, 3 = about the same, 4 = somewhat worse, 5 = much worse
Saving money	1 = a great deal, 2 = much, 3 = somewhat, 4 = a little, 5 = not at all
Productive direction of the farm	1 = plant production, 2 = animal production
Total number of hectares	Hectares
Existing sectors of plant and animal production	1= yes, 2 = no

Note: Dependent variable is 'total mean score of overall job satisfaction'

2.3. Data analysis

Descriptive and inferential statistics were used to analyse the data. In particular:

- Descriptive statistics (mean, standard deviation) was used to analyse the socioeconomic characteristics of subjects and their agricultural holdings to measure their satisfaction with the 20 aspects of the job, their overall intrinsic and extrinsic job satisfaction, and to identify the sources of job satisfaction or dissatisfaction.
- Inferential statistics was used to examine the factors affecting overall job satisfaction as a dependent variable. One parametric (ANOVA & t-test) and one nonparametric test (Kruskal-Wallis & Mann-Whitney U) was performed on each independent variable of the survey:

Mann-Whitney U & t-test performed when the independent variable had two values, Kruskal-Wallis & ANOVA performed when the independent variable had three values or more.

These four tests are performed in order to determine whether the samples derive from the same population or not. The initial assumption is that k samples derive from the same population, and the assumption is accepted when the Asymptotic Significance (p-value) ≥ 0.05 and rejected when the Asymptotic Significance (p-value) < 0.05. Thus when the initial assumption is rejected, we have a significant statistical difference in the levels of satisfaction pertaining to each factor. The independent variables used in the analysis are presented in Table 1.

In order to determine which of the tests above is suitable for each case, Kolmogorov-Smirnov & Shapiro-Wilk (Ghasemi and Zahediasl, 2012) normality tests were performed on the dependent variable and based on these tests, the Kruskal-Wallis and Mann-Whitney U nonparametric tests were deemed most suitable as they resulted in rejection of normality. For each test a p-value of less than 0.05 was considered statistically significant. The Statistical Package for the Social Sciences (SPSS v.24) was used to analyse the collected data.

3. RESULTS AND DISCUSSION

3.1. Profile of young farmers

The survey sample mainly includes men (73.6%) with a mean age of 32 years, 45.6% of whom are married and 42.9% of whom are single. The level of education of young farmers is highly satisfactory, considering that 26.9% have completed upper secondary school, 39% have completed postsecondary school / no higher education, and 22% have completed higher education. The

agricultural holdings cover a small surface area, considering that 49.5% of these holdings are limited to 5 hectares, with the average of privately-owned land amounting to 2.16 hectares. In terms of geographical area, 41.2% reside in normal areas, i.e. peri-urban rural areas where farming is based on a broad spectrum of intensively irrigated crops. 32.4% of the entire sample reside in disadvantaged areas, i.e. areas that are remote from urban areas and have natural disadvantages such as limited irrigation capacity and sloping grounds. In these areas agriculture is mainly based on a narrow spectrum of extensively farmed, not irrigated crops and cow breeding, and secondarily on the extensive farming of sheep and goats. 26.4% of the questioned subjects reside in mountainous areas where isolation and natural disadvantages are far more intense. In these areas 77% of agricultural holdings are smaller than 5 hectares and agriculture is based mainly on not irrigated crops and extensive farming of sheep and goats. Lastly, 56.6% of the survey subjects claim that they have an income of less than $16.811, while 53.3% receive an extra-agricultural income.

3.2. Level of job satisfaction

The job satisfaction level of young farmers was examined in two stages. Initially the level of satisfaction with the 20 facets of the job described in the MSQ Manual (Weiss *et al.*, 1977) was assessed. The mean value for each facet of the job was calculated based on the average of the values given to each one of the five items on the long-form MSQ. The reliability of the 5 items / facets of job was tested. This was followed by an assessment of the level of intrinsic and extrinsic job satisfaction. The scores of the two subscales were calculated based on the mean score of the corresponding facets of the job (Table A, in Appendix). The mean of the 100 items was used to calculate the overall job satisfaction score (Figure A, Table B in Appendix). According to the literature mean scores below 3.50 are placed in the 'dissatisfied' column on the 'satisfaction-dissatisfaction' scale, while mean scores above 3.50 are placed in the 'satisfied' column (Pearson and Seiler, 1983).

3.2.1. Level of satisfaction with the 20 facets of the job

The mean values, standard deviations and values of Cronbach's Alpha for the 20 facets of job satisfaction appear in Tables 2-3.

Table 2 indicates the facets of the job with which young farmers are satisfied. In particular, they are satisfied with the opportunity they have to do things that do not go against their conscience and principles (Mean = 4.13), to use their skills and do what they know well (Mean = 4.07), to work independently of others without being controlled (Mean = 4.02), and to experiment and try their own methods (Mean = 3.94). Furthermore, they are satisfied because they feel a sense of achievement (Mean = 3.92), they are free to apply their decisions in practice (Mean = 3.92), they work constantly and do not have to go through periods of idleness (Mean = 3.85), they offer products and services to others (Mean = 3.84), they occupy themselves with various things (Mean = 3.77), they feel that they have value in society (Mean = 3.52), and they receive praise when they do their job well (Mean = 3.51). Finally, they are satisfied with their collaboration and, in general, their interaction with other farmers (Mean = 3.51).

The results show that the survey subjects are satisfied with specific facets of the job, which mainly make up its content. These intangible outcomes constitute non-financial benefits, which could enhance their intention to remain in agriculture. When examining the impact of measures designed to support young farmers, we suggest that policy makers or researchers take these subjective aspects into account, thus adding more perspective to their recommendations and conclusions.

Table 2: Sources of job satisfaction for young farmers **N = 182**

Facets of the job	Mean	Std. Deviation	Cronbach's Alpha	N of Items	Type
Moral values	4.13	0.701	0.759	5	Intrinsic
Ability of utilization	4.07	0.71	0.820	5	Intrinsic
Independence	4.02	0.797	0.754	5	Intrinsic
Creativity	3.94	0.714	0.803	5	Intrinsic
Achievement	3.92	0.735	0.770	5	Intrinsic
Responsibility	3.92	0.643	0.737	5	Intrinsic
Activity	3.85	0.799	0.842	5	Intrinsic
Social service	3.84	0.717	0.771	5	Intrinsic
Variety	3.77	0.727	0.750	5	Intrinsic
Social status	3.52	0.846	0.799	5	Intrinsic
Recognition	3.51	0.903	0.886	5	Intrinsic
Co-workers	3.51	0.89	0.870	5	Extrinsic

Note: 1 - 1.5 Very Dissatisfied, 1.5 - 2.5 Dissatisfied, 2.5 - 3.5 Cannot Decide, 3.5 - 4.5 Satisfied, 4.5 - 5 Very Satisfied

Table 3 shows the facets of the job with which new entrants into farming are dissatisfied. In particular, they are dissatisfied with the ways in which the Ministry of Rural Development and Food (MRDF) supports them (Mean = 2.22), the way in which the MRDF's policies are applied in practice (Mean = 2.26), the ability of the MRDF to make decisions (Mean = 2.31), the income they receive from farming (M = 2.51), their job security (M = 2.67), the opportunity they have to progress and grow (M = 3.05), their working conditions (M = 3.21) and the possibility to guide other farmers (M = 3.34).

The results indicate clear dissatisfaction of young farmers with the body responsible for supervising them, and show the need to improve the institutional environment. Despite the fact that they receive substantial financial support for their initial establishment in the farming sector, as well as encouragement in the form of income aid in the framework of the European Common Agricultural Policy, they feel dissatisfied and insecure in the agricultural sector's existing structural framework.

Table 3: Sources of job dissatisfaction for young farmers **N = 182**

Facets of the job	Mean	Std. Deviation	Cronbach's Alpha	N of Items	Type
Authority	3.34	0.761	0.831	5	Intrinsic
Working conditions	3.21	0.906	0.807	5	Extrinsic
Advancement	3.05	1.034	0.885	5	Intrinsic
Security	2.67	0.88	0.765	5	Extrinsic
Compensation	2.51	1.066	0.900	5	Extrinsic
Supervision*-technical	2.31	1.016	0.868	5	Extrinsic
Supervision policies and practices	2.26	0.977	0.874	5	Extrinsic
Supervision-human relations	2.22	1.017	0.892	5	Extrinsic

Note: 1 - 1.5 Very Dissatisfied, 1.5 - 2.5 Dissatisfied, 2.5 - 3.5 Cannot Decide, 3.5 - 4.5 Satisfied, 4.5 - 5 Very Satisfied

* Ministry of Rural Development and Food (MRDF)

3.2.2. Level of extrinsic, intrinsic and overall job satisfaction

Table 4, which reflects the analysis of Tables 2-3, presents the mean satisfaction scores pertaining to the 7 and 13 facets of the job, which determine extrinsic and intrinsic satisfaction respectively,

as well as the mean for the 100 items representing overall job satisfaction. It follows from this table that the subjects are generally dissatisfied with their job (M = 3.28). Young farmers have a low level of extrinsic satisfaction as they are dissatisfied with the facets of their job that are external to the job tasks or work itself (M = 2.66). On the contrary, they have a higher level of intrinsic satisfaction deriving from their satisfaction with the content and nature of their job (M = 3.77); they like farming itself as they consider it to be challenging and interesting.

The results indicate that young farmers need further support, however the fact that they like farming is positive feedback for the parties responsible for creating policies to support new entrants into farming.

Table 4: Job satisfaction mean scores **N = 182**

	Mean	Std. Deviation	Cronbach's Alpha	N of Items
Extrinsic job satisfaction	2.66	0.797	0.884	7
Intrinsic job satisfaction	3.77	0.655	0.944	13
Overall job satisfaction	3.28	0.657	0.974	100

Note: 1 - 1.5 Very Dissatisfied, 1.5 - 2.5 Dissatisfied, 2.5 - 3.5 Cannot Decide, 3.5 - 4.5 Satisfied, 4.5 - 5 Very Satisfied

3.3. Factors affecting overall job satisfaction

In order to identify the factors affecting job satisfaction, one non-parametric (Kruskal-Wallis and Mann-Whitney U) and one parametric test (ANOVA and t-test) was performed on each independent variable. The results are presented in Table 5.

Table 5: Nonparametric and parametric tests

Independent Variables	Nonparametric Tests		Parametric Tests	
	Mann-Whitney U	Kruskal-Wallis	T-test	ANOVA
Sex	0.223	-	0.869	-
Age	-	0.918	-	0.616
Marital status	-	0.142	-	0.471
Education level	-	0.979	-	0.737
Annual household income	-	0.480	-	0.801
Percentage of total household income from agricultural activities	-	0.910	-	0.106
Percentage of agricultural income from agricultural subsidies	-	0.881	-	0.123
Characterization of the residence area	-	0.006	-	0.009
Probability to remain in agriculture	-	0.000	-	0.000
Prediction for the development of the farm	-	0.000	-	0.118
The continuous training as an important factor for the development of the farm	-	0.008	-	0.074
Evaluation of the development of the farm	-	0.000	-	0.018
Saving money	-	0.007	-	0.180
Productive direction of the farm	-	0.102	-	0.293
Total number of hectares	-	0.085	-	0.304
Cereals	0.972	-	0.265	-
Cotton	0.827	-	0.260	-
Rice	0.230	-	0.365	-
Tobacco	0.124	-	0.594	-

Sugar beet	0.410	-	0.388	-
Sunflower	0.930	-	0.963	-
Legumes	0.243	-	0.344	-
Potatoes	0.207	-	0.593	-
Industrial tomato	0.155	-	0.544	-
Outdoor vegetables	0.660	-	0.342	-
Greenhouse flowers and vegetables	0.344	-	0.902	-
Vineyards	0.636	-	0.654	-
Olives	0.250	-	0.834	-
Fruit trees	0.628	-	0.528	-
Nuts and dried fruits	0.483	-	0.663	-
Aromatic plants	0.240	-	0.429	-
Animal feed	0.778	-	0.782	-
Cow farming	0.081	-	0.211	-
Sheep and goat farming	0.009	-	0.005	-
Apiculture	0.861	-	0.669	-

Note: Statistically significant values when p-value < 0.05

The non-parametric tests were found to be most suitable, since the Kolmogorov-Smirnov and Shapiro-Wilk normality tests (Table 6) indicated rejection of normality in the case of the dependent variable (p-value < 0.05).

Table 6: Tests of normality

	Kolmogorov-Smirnov*			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Overall Job Satisfaction	0.078	182	0.009	0.981	182	0.014

* Lilliefors Significance Correction

The Kruskal-Wallis and Mann-Whitney U non-parametric tests showed that the dependent variable 'Overall Job Satisfaction' is statistically significantly affected by seven factors. In particular:

- Characteristics of the area of permanent residence (p = 0.006): the young farmers in the sample residing in 'normal areas'[1] where natural conditions and access to 'social welfare' and infrastructure (entertainment, information, health, education, transport) are good, feel more satisfied with their work situation compared to those living in 'disadvantaged' [2] and 'mountainous'[2] areas where they are exposed to less favourable natural, financial and social conditions (Figure 1). This finding comes to complement the study by Herrera *et al.* (2018), who suggest that studies on farmer perceptions should include data on the characteristics of the areas in which they reside. This gives rise to the need to achieve the integrated development of the countryside through the creation or enhancement of infrastructure in order to create favourable conditions to attract young people to rural areas and especially to mountainous areas, where the possibility of economic diversification is extremely limited due to adverse geomorphological and structural characteristics.
- Probability to remain in agriculture (p = 0.000): those responding that it is 'extremely likely' that they will remain in agriculture present a higher level of job satisfaction. Furthermore, those responding that it is 'very likely', 'somewhat likely' or 'not likely at all' to remain in agriculture expressed an average level of satisfaction, while those responding that it is 'not very likely' are the least satisfied (Figure 2).

[1] Reference is made to peri-urban rural areas

[2] For Greece, these areas have been identified by Council Directive 85/148/EEC (European Council, 1985)

This finding is in line with Freeman (1977); Robbins and Judge (2013); Tansel and Gazioglu (2006), who claim that workers' behaviour in relation to their current job situation is interrelated to their professional satisfaction.

- Continuous training as an important factor for the development of the farm (p = 0.008): Those indicating that they strongly agree with this statement usually have a high level of job satisfaction. Those who strongly disagree are less satisfied (Figure 3). This result corresponds to that of Tansel and Gazioglu (2006), who discovered that training opportunities have a positive impact on workers' job satisfaction and development.
- Prediction on the development of the farm (p = 0.000): the more optimistic the subjects are about the future of their farms, the higher their job satisfaction (Figure 4). This is similar to Lange's (2012) finding on workers in general.
- Evaluation of the development of the farm (p = 0.000): those who responded that their farm has improved significantly have a higher level of satisfaction, whereas the smaller they consider the improvement to be, the less satisfied they are (Figure 5).
- Saving money (p = 0.007): those stating that they have saved a great deal of money tend to have very high levels of satisfaction (Figure 6).
  Thus, the sense of achievement drawn from the belief that the farm has improved and from saving has a statistically significant effect on the dependent variable, despite the fact that the result is not the same for the annual household income (p = 0.480 > 0.05). This finding is in line with Tansel and Gazioglu (2006).
- Breeding of sheep and goats (p = 0.009): those operating in this sector have a very low level of job satisfaction even though they receive additional financial aid for their initial establishment in the agricultural sector, especially in mountainous areas (Figure 7).
  The results show that the demographic characteristics of subjects (sex, age, marital status, educational level, annual household income) and the structural characteristics of their farms do not affect job satisfaction.

(Figure 8) Shows factors affecting overall job satisfaction.

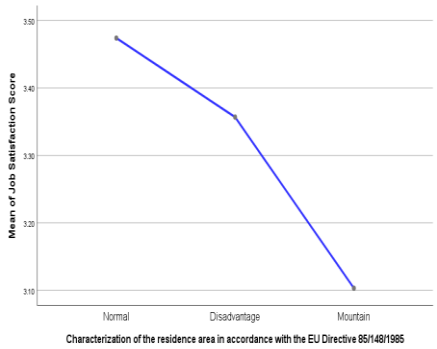

Figure 1

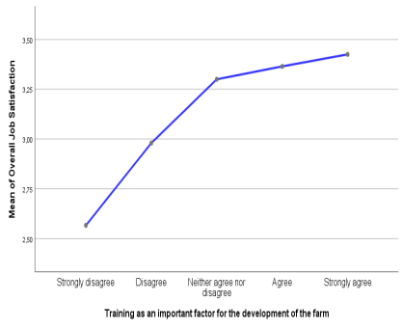

Figure 3

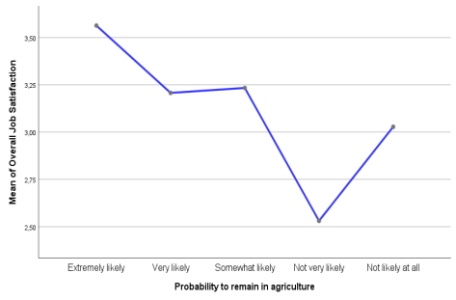

Figure 2

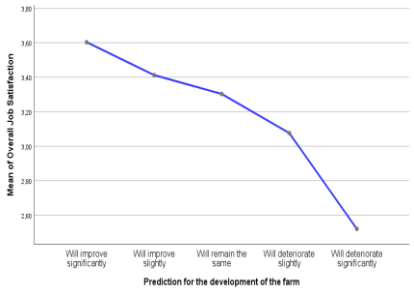

Figure 4

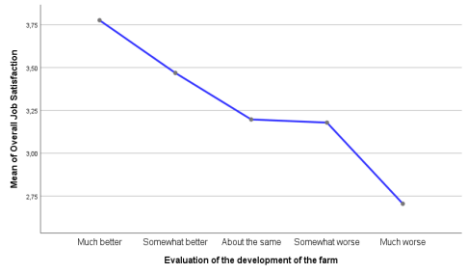

Figure 5

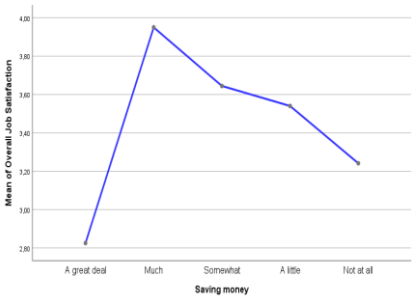

Figure 6

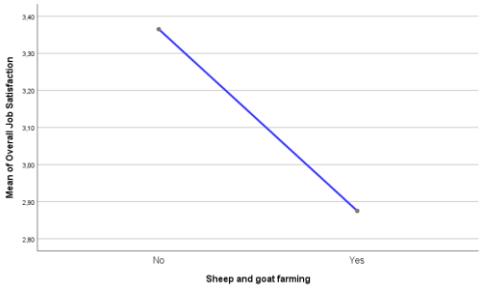

Figure 7

Figures 1-7: Dependencies between independent variables and overall job satisfaction

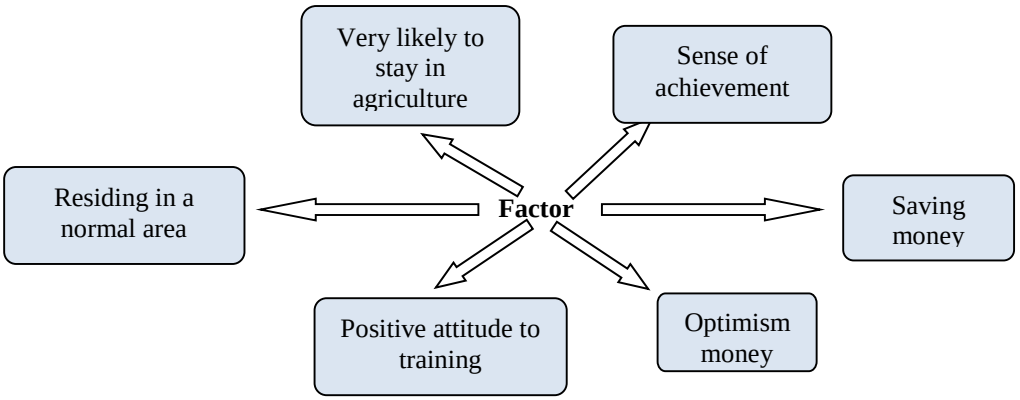

Figure 8: Factors affecting overall job satisfaction

3.3.1. Relationship between the variables 'Characterization of the residence area' and 'Probability to stay in agriculture'

As the results showed that the characteristics of the area of permanent residence of subjects affect the level of job satisfaction, researchers examined the relationship between the two variables 'characterization of the residence area' and 'probability to stay in agriculture'. The performance (Table 7-8) of one nonparametric test (Kruskal-Wallis) and one parametric test (Anova) between the two variables showed that there is a significant statistical correlation between them ($p = 0.002$). In particular the results showed that young farmers living in 'normal areas' are more likely to stay in agriculture than those living in 'disadvantaged' and 'mountainous areas' (Figure 9).

Table 7: Test statistics [a, b]

	Probability to remain in agriculture
Kruskal-Wallis	12.150
Df	2
Asymptotic Significances	0.002

a. Kruskal-Wallis Test
b. Grouping Variable: Characterization of the residence area

Table 8: ANOVA test

Probability to remain in agriculture	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	22.731	2	11.366	6.476	0.002
Within Groups	314.131	179	1.755		
Total	336.863	181			

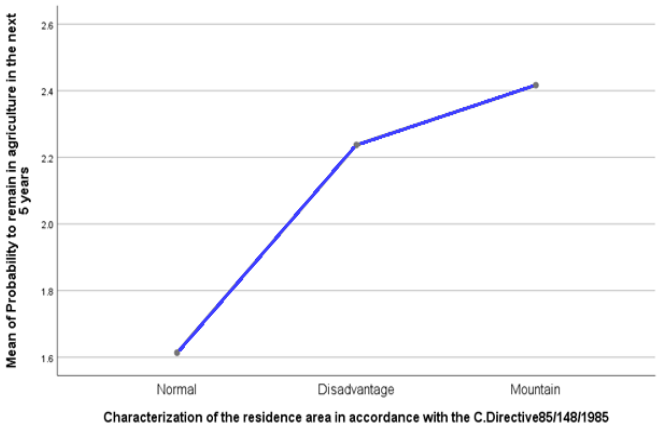

Figure 9: Dependencies between the characterization of the residence and the probability to stay in agriculture

The results are based on a set of data from the farms of beneficiaries/young farmers in northern Greece and are affected by local conditions. Consequently the results may not be as relevant to farms in other areas. Nevertheless, these observations are a good start to encouraging further research in other areas with the use of a bigger sample. It is also recommended that the same survey be conducted on young farmers who are not beneficiaries of the Setting up of Young Farmers Measure in order to compare the results. Another limitation of the survey was the time required to complete the long-form MSQ. The researchers chose this instrument because it provides detailed information on job satisfaction.

4. CONCLUSIONS

Young farmers have low job satisfaction and it is therefore crucial to improve the institutional environment and working conditions to provide additional income aid and create a security framework in order to increase job satisfaction. Apart from the provision of financial incentives it is recommended that programmes for young farmers be accompanied by practices to increase training opportunities and develop vital infrastructure, especially in mountainous areas where dissatisfaction is high and the likelihood of staying in agriculture is lower. High intrinsic

satisfaction sends an encouraging message, however increasing overall satisfaction is the focus when designing policies to support new entrants into agriculture.

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Contributors: All authors participated equally in designing and estimation of current research.
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Appendix

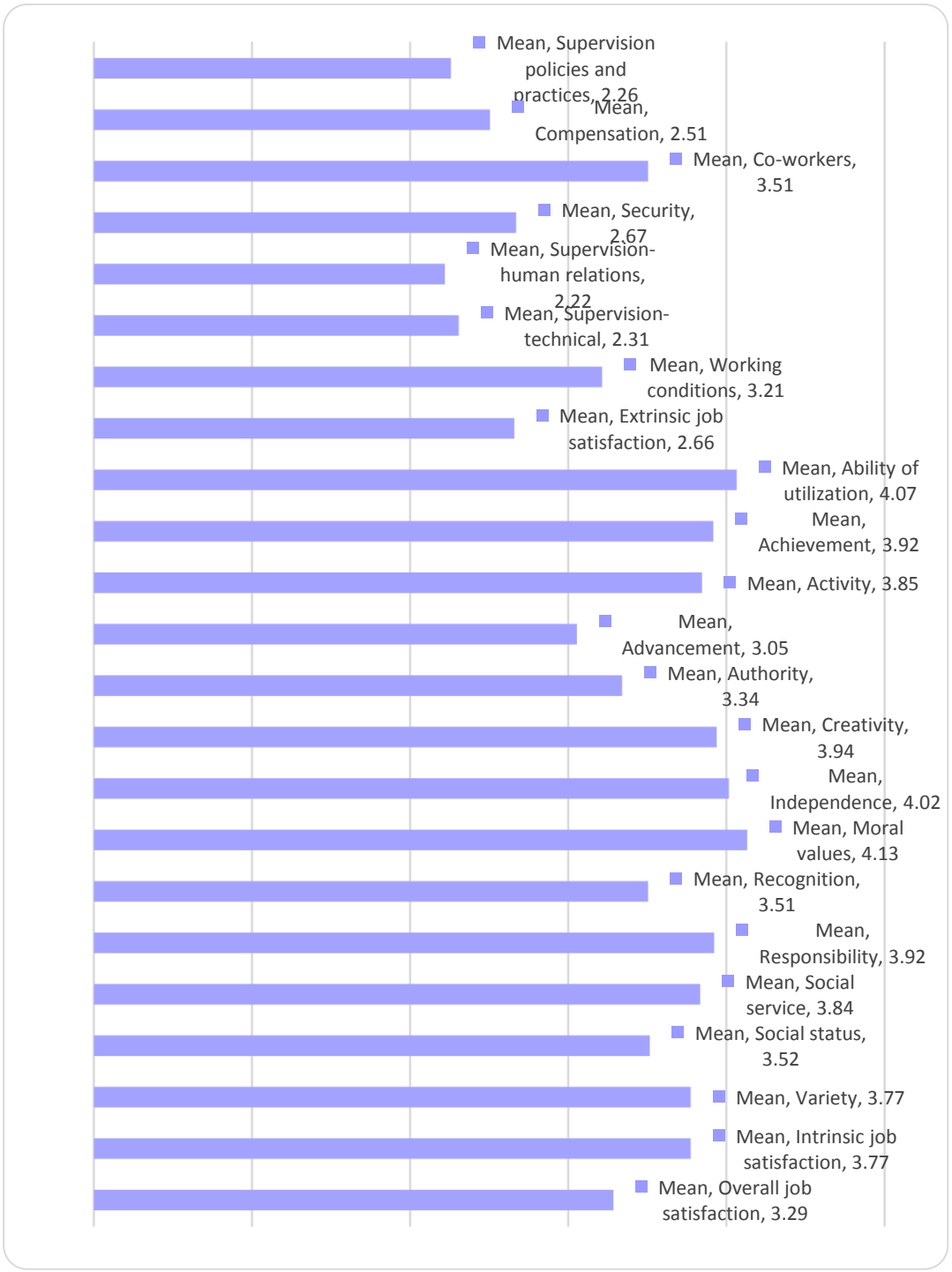

Figure A: Level of job satisfaction

Source: SPSS

Table A: Statement examples for the MSQ

Statement examples	Facets of the job		Subscales
'On my present job, this is how I feel about'			
Being able to do things that don't go against my conscience	1	moral values	Intrinsic
The chance to make use of my abilities and skills	2	ability utilization	Intrinsic
The chance to work independently of others	3	independence	Intrinsic
The chance to try out some of my own ideas	4	creativity	Intrinsic
The feeling of accomplishment I get from the job	5	achievement	Intrinsic
The chance to make decisions on my own	6	responsibility	Intrinsic
Being able to keep busy all the time	7	activity	Intrinsic
The chance to be of service to people	8	social service	Intrinsic
The chance to do different things from time to time	9	variety	Intrinsic
The chance to be "somebody" in the community	10	social status	Intrinsic
The praise I get for doing a good job	11	recognition	Intrinsic
The chance to tell others what to do	12	authority	Intrinsic
The chances of getting ahead on this job	13	advancement	Intrinsic
The working conditions	14	working conditions	Extrinsic
The spirit of cooperation among my co-workers	15	co-workers	Extrinsic
The way my job provides for a secure future	16	security	Extrinsic
The amount of pay for the work I do	17	compensation	Extrinsic
The way MRDF* trains young farmers	18	supervision - technical	Extrinsic
The way MRDF policies are put into practice	19	supervision policies and practices	Extrinsic
The way the MRDF handles young farmers	20	supervision- human relations	Extrinsic

*MRDF: Ministry of Rural Development and Food
Source: Manual of MSQ (Weiss *et al.*, 1977)

Table B: SPSS survey data

Questionnaire	Facets of Extrinsic Job Satisfaction (5X7=35 items)								MEAN SCORE EXTRINSIC J.S	Facets of Intrinsic Job Satisfaction (5X13=65 items)								MEAN SCORE INTRINSIC J.S	MEAN SCORE OVERALL J.S. (100 items)
	1 Facet					2 Facet	……	7 Facet		8 Facet					9 Facet	……	20 Facet		
N=182	1 item	2 item	3 item	4 item	5 item					1 item	2 item	3 item	4 item	5 item					
1	.	.	.	.	.	.	.	.	Mean1	.	.	.	.	.	.	.	.	Mean1´	MEAN 1
2	.	.	.	.	.	.	.	.	Mean2	.	.	.	.	.	.	.	.	Mean2´	MEAN 2
3	.	.	.	.	.	.	.	.	Mean3	.	.	.	.	.	.	.	.	Mean3´	MEAN 3
.	.	.	.	.	.	.	.	.	……	.	.	.	.	.	.	.	.	……	……
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.	.	.	.	.	.	.	.	.	……	.	.	.	.	.	.	.	.	……	……
181	.	.	.	.	.	.	.	.	……	.	.	.	.	.	.	.	.	……	……
182	.	.	.	.	.	.	.	.	Mean182 Total Mean Score E.J.S.	.	.	.	.	.	.	.	.	Mean182´ Total Mean Score I.J.S.	MEAN 182 Total Mean Score O.J.S.