Young and Older Farmers' Perception and Assessment of Government Agricultural Agencies in Poland

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This article attempts to determine significance of differences among young and older farmers' judgments on selected performance aspects of two EU paying agencies in Poland, namely Agency for Restructuring and Modernization of Agriculture (ARMA) and Agricultural Market Agency (AMA). The survey across Poland was conducted in late 2006 on a total of 194 respondents. The Likert-scale questionnaires were used to obtain data responses regarding the performance of the agencies. The sampling unit was the individual farm, the respondent being the person in charge of managing the farm and being customer of both agencies. The following hypotheses were set up for the study: 1. The young and older farmers' perceptions of the government agencies impact on economic situation of agricultural holding are not significantly different; 2. The perceptions of young and older farmers of the government agencies' role performance are not significantly different. These hypotheses have been empirically tested using the Z-test. Hypothesis no 2 was rejected for two agencies whereas Hypothesis no 1 was rejected for one agency (AMA). Study reveals that both young and older respondents are more familiar with ARMA (responsible, among others, for the direct payments to farmers) than with AMA (responsible for market measures). The overall results of the present study suggest that on average Polish young farmers are more knowledgeable about Government agencies and more critical of the agencies performance than older farmers. Consequently, policy makers, Government and its agencies should more carefully look into some problems facing young people in Polish farming.

Keywords: **Government agencies, farmers, Poland**

I. INTRODUCTION

All Member States of the EU use agencies of various forms as part of their system of public administration. An area in which national Government plays significant role in formulating and delivering policy is Common Agricultural Policy. In Poland, two accredited paying agencies are responsible for managing EU agricultural subsidies and programs: Agency for Restructuring and Modernization of Agriculture (ARMA) and Agricultural Market Agency (AMA). This study was made to assess farmers' perception of the role played by those agencies. Such analysis would help the concerned agencies to pay more attention to the shortfalls and improve their performance. The paying agencies are evaluated from the point of view of two separated groups of Polish farmers: young farmers (between the ages of 18 and 40) and older farmers (40+). I focus on youth farm for two reasons. Firstly, support granted to young Polish farmers (for example under the 'setting up of young farmers' instrument) has attracted extreme demand [1, 2]. Secondly, the creation of modern and more competitive Polish agriculture depends on young entrepreneur farmers [3]. The study results yielded are also expected to provide some useful governmental evidence to help young farmers to take advantage of what the EU offers.

II. OBJECTIVES, DATA AND METHODOLOGY

The aim of the study is to determine significance of differences among young and older farmers on opinions referring to various aspect of EU paying agencies' operation in Poland. Two research hypotheses were stated:

1. The young and older farmers' perceptions of the government agencies impact on economic situation of their agricultural holding are not significantly different.
2. The perceptions of young and older farmers of the government agencies' role performance are not significantly different.

The study is based on primary sources of information derived from the structured questionnaire survey of farmers undertaken in December 2006 through direct interviews to the persons managing farms. To select the attended number of 200 farmers, proportional quota sampling technique was applied. There were two characteristics used for estimation of number of respondents in sub-groups of the farmers' population: geographical location of the farm and farm size by area. As a result, 12-13 respondents in each of 16 geographical locations (voivodships – administrative units) were selected. Finally, only interviews with those farmers who were customers of

both agencies were completed. Analysis were further restricted to 194 respondents who reported their age (67 young and 127 older).

To find out the perceptions of the roles played by each agency, a 10-point Likert scale (10 = ceiling value, 1 = floor value) was used. The values were summated to 55 and divided by 10 to get a mean score of 5.5. The respondents' mean scores obtained for each response item lower than 5.5 were regarded as ineffective role fulfilment. To determine the respondents' opinions on effect of agencies' activities on farm economic situation similar procedure was applied. Variables with mean scores equal or above 5.5 were considered as having great impact on situation of agricultural holding.

Percentage and mean scores were used to summarize the data. Research hypotheses were tested using the Z-test (fixed level testing at the 0.05 level of significance).

For H_0: $m_1 = m_2$, the test statistic is described in Equation 1:

$$Z = \frac{m_1 - m_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \qquad (1)$$

Where Z is the Z-statistics for the desired level of confidence, m is the sample mean, S is population standard deviation, S^2 is the sample variance, n is the number of observations that produced the mean.

For 95 percent confidence level, the Z-critical value is 1.96. If $|Z| > 1.96$, H_0 is rejected at the 0.05 level of significance.

III. SUMMARY OF THE FINDINGS

The socio economic characteristics of the farmers are depicted in Table 1. Structure of holdings held by young farmers is more polarized into large and small operations.

Table 1 Distribution of sampled farmers by their personal and socioeconomic characteristics

N=194 farmers interviewed in December 2006, of which 67 young (34.5%) and 127 older (65.5%). Values are percentages in each age group

Variables		Group 1 Young farmers (18-40)	Group 2 Older farmers (40+)
Gender	Male	64.2	74.8
	Female	35.8	25.2
Educational level	Primary	3.0	15.7
	Basic vocational	35.8	49.6
	Secondary (middle)	46.3	29.1
	University/higher education	14.9	5.5
Education majors	Agricultural	43.3	53.5
	Non-agricultural	55.2	45.7
	Unknown	1.5	0.8
Access to Internet	Yes	31.3	26.8
	No	68.7	72.4
	Unknown	0.0	0.8
Farm size	Up to 3 ha	31.3	25.2
	3.01-5 ha	13.4	19.7
	5.01-10.0 ha	17.9	26.8
	>10.0 ha	37.3	28.3
Farming experience	Up to 10 years	40.3	8.7
	11-20 years	52.2	13.4
	>20 years	7.5	78.0
Purpose of farm production	Solely for own consumption	11.9	5.5
	Mainly for own consumption	28.4	34.6
	Mainly for the market	59.7	59.8
Perception of farm situation	Very good	0.0	3.1
	Good	34.3	24.4
	Regular	55.2	52.0
	Bad	9.0	19.7
	Very bad	1.5	0.8

Majority of farm youth fall under the medium category in terms of farming experience. Two age groups of farmers do not differ based on purely market orientation of farm production. Relatively more young farmers perceived situation of their farm as either good or very good. Young farmers are better educated but majority of them, in opposition to their older counterparts do not possess educational background in agriculture.

Entries in Table 2 reveal that there were differences either in the duration of relationship with the individual agencies or in frequency with which young and older farmers contact them. Moreover, overall knowledge scores of the farmers from two groups are significantly different. Obviously farm youth are less experienced in dealing with agricultural agencies but they are more aware of the agencies and their services. Higher level of knowledge of young farmers probably results from their more frequent visits to offices of the agencies as well as from their better access to Internet and to information distributed by Internet sites of the agencies. Both young and older respondents were more familiar with activities of ARMA (responsible, among others, for the direct payments to farmers) than of AMA (being in charge of market measures).

In Poland, Single Area Payment Scheme and Complementary National Direct Payments have proven to be most popular farm aid schemes with about 1.5 million of beneficiaries.

The perceived effect of agencies' activity on financial and economic situation of farms is great, but only in the case of mean scores for AMA there was a significant difference between the two groups of farmers (Table 3).

Table 2 Distribution of respondents on the basis of experience with and knowledge level on Agency for Restructuring and Modernisation of Agriculture (ARMA) and Agricultural Market Agency (AMA)

Values are percentages in each age group except last row of numbers showing scores in points.

Z = z-statistics, * significant at P≤0.05.

Variables/agency		ARMA		AMA	
		Group 1 Young farmers	Group 2 Older farmers	Group 1 Young farmers	Group 2 Older farmers
		Frequency of answers			
Duration of relationship with agency	Up to 2 years	35.8	18.9	16.4	7.1
	3-4 years	47.8	63.8	26.9	18.9
	> 4 years	16.4	17.3	56.7	74.0
Frequency of personal contact with agency	None	0.0	0.0	7.5	7.9
	Low (once a year)	10.4	15.0	25.4	24.4
	Medium (at least twice a year)	53.7	63.8	55.2	59.8
	High (at least once a month)	35.8	21.3	11.9	7.9
Level of knowledge about agency	Low (1-3 score)	7.4	7.9	14.9	18.9
	Moderate (4-7 score)	62.7	58.3	61.2	61.4
	High (8-10 scores)	29.9	33.8	23.9	19.7
	Average score for knowledge	6.5	6.4	5.8	5.7
		Z =2.23*		Z =2.83*	

Table 3 Differences between young and older farmers in terms of their perception of the agencies' impact on farm situation

The range for scores was 1-10. Mean scores ≥ 5.5 are considered as having great impact on situation of agricultural holding.

Scale: 10 = to a very great extent; 5 = to some extent 1 = not at all; * denotes significance at P≤0.05.

Agency	Young farmers		Older farmers		Z-statistics
	Mean (m_1)	Standard deviation	Mean (m_2)	Standard deviation	
ARMA	6.62	0.29	6.60	0.20	0.50
AMA	5.69	0.36	6.00	0.22	-6.44*

Table 4 Differences between young and older farmers in terms of perceived levels of role performance by the agencies

The range for scores was 1-10. Mean scores equal or above 5.5 for each response item are regarded as effective role fulfilment.

Scale: 10 = to a very great extent; 5 = to some extent 1 = not at all; * denotes significance at P≤0.05

Roles	Agency	Young farmers		Older farmers		Z-statistics
		Mean (m_1)	Standard deviation	Mean (m_2)	Standard deviation	
Encourages development of Polish agriculture	ARMA	7.0	0.24	7.6	0.17	-18.20*
	AMA	6.8	0.23	7.4	0.17	-18.81*
Has positive impact on attitudes towards Polish farmers in the UE	ARMA	6.4	0.23	7.2	0.18	-24.75*
	AMA	6.5	0.21	6.8	0.17	-10.08*
Positively adapts to the expectations of farmers	ARMA	6.3	0.23	6.9	0.19	-18.31*
	AMA	6.0	0.24	6.3	0.19	-8.87*
Manages public money effectively	ARMA	6.1	0.24	6.0	0.21	2.88*
	AMA	6.0	0.22	6.6	0.17	-19.47*
Provides sufficient information about EU-programs	ARMA	6.8	0.25	7.2	0.21	-11.18*
	AMA	6.1	0.27	6.7	0.21	-15.84*
Ensures timeless of EU payments to farmers	ARMA	6.7	0.23	7.0	0.16	-9.53*
	AMA	6.1	0.26	6.5	0.17	-11.38*

According to farmers of both groups, activity of ARMA has more important effects on the economic situation of their agricultural holdings, most likely due to direct payments and other decoupled measures having short-run 'visible' impact on farm income. In Poland, similar to other EU countries, the proportion of average family farm income derived from non-market support is increasing. In 2006, agricultural subsidies on average accounted for 49 per cent of income of FADN agricultural holdings, ranging from 80 per cent in small farms in terms of their economic size (2-4 ESU) to 34 per cent in large farms (40-100 ESU) [4].

Respondents' perceptions of roles of each agricultural agency were measured by asking them six appropriate questions about agency's key responsibilities (Table 4). It was revealed that in case of all selected areas, both Agency for Restructuring and Modernization of Agriculture and Agricultural Market Agency performed their roles effectively. The highest mean scores were given to responsibility 'Encourages development of Polish agriculture', whereas the lowest respectively to 'Manages public money effectively'. The summary of the analysis provided in Table 4 indicates also significant differences between young and older farmers with regard to their assessment of the role performance by two agricultural agencies. Relatively lower marks obtained from youth in farm suggest that they have higher expectations from Government agencies, need more and better information about EU funds for agriculture and rural development as well as less delays in paying out farmers.

IV. CONCLUSIONS

1. The study results reveal that both young and older farmers on average are knowledgeable about two paying agencies in Poland.
2. According to assessment made by each group of farmers, both agencies have had a great impact on economic situation of respondents' agricultural holdings (mean scores of 5.7 and above on a 10-point scale).
3. At the 5% level of significance, the null hypothesis No 1 was rejected only for Agency for Restructuring and Modernization of Agriculture. Perceptions of young and older farmers with regard to impact of Agricultural Market Agency on situation of their farms are not significantly different.
4. Respondents' mean scores above 5.5 for each key area of agencies' responsibility indicate that sample farmers assessed fulfilment of roles by the agencies as quite successful.
5. There were statistically significant differences between young and older farmers for perceived levels of role performance by the agencies – the null hypothesis No 2 was rejected.
6. Study suggests that youths are more critical of

the agencies than older farmers. Consequently, Government and its agencies should more carefully look into some problems facing young people in Polish farming.

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