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Adoption of rural development policies in rural areas: a privilege for the few?

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ABSTRACT

THE AIM OF THE PAPER IS THE ANALYSIS OF THE "CONSUMPTION" OF RURAL DEVELOPMENT POLICIES (RDP) AS THE RESULT OF ENTREPRENEURIAL BEHAVIOURS ADOPTED BY FAMILY FARMS. THE UNDERLYING HYPOTHESIS IS THAT FAMILY FARM'S CHARACTERISTICS INFLUENCE THE CONSUMPTION OF RURAL DEVELOPMENT POLICIES. BY PUTTING FORWARD A FAMILY FARM PERSPECTIVE, WE SUPPORT THE IDEA THAT ANY BOUNDARY BETWEEN PRODUCTIVE AND REPRODUCTIVE WORK IN THE FARM HOUSEHOLD IS ARTIFICIAL AND CONDITION FARM STRATEGY AND APTITUDE TO INVEST. THEREFORE, A RELEVANT ASPECT TO BE EXAMINED CONCERNS FAMILY SIZE, LOCALIZATION IN LIFE CYCLE, AND THE PRESENCE OF ASSISTANTS WITHIN THE FAMILY FARMS. THE RESULTS OF OUR ANALYSIS PERMIT TO EMPHASIZE THE IMPORTANCE OF FAMILY CONTEXT IN THE ACCESS TO RDP AND THE RELEVANCE OF THE FAMILY ASSISTANTS ON FARM'S PROPENSITY TO GET FUNDED.

Resumé:

Cet article analyse l'adoption des politiques de développement rural en l'articulant sur la base des typologies de familles agricoles, de la phase de leur cycle de vie et sur la base de la présence d'assistants familiales dans l'activité agricole. Les résultats confirment cette association, en adressant des suggestions des stratégies de politique économique.

Keywords: Family Farms, Rural Development Policy

PAPER

1. Introduction

This paper is centered around family farms and their capabilities of getting funded by Rural development policies (Rdp). Family farms may be labelled as the backbone of the European agriculture (Crowley, 2013); as a consequence, recent rural development policies are specifically targeted to this special type of business, characterised by the strict overlapping between the productive and reproductive sphere (Errington and Gasson, 1993). Against this background, the unit of analysis of our paper is the family farm business. The aim of the paper is to analyze the adoption of Rdp on behalf of family farms and eventual discrepancies in the access to rural policies, based on demographic, economic and territorial variables. The underlying hypothesis is that family farm's characteristics influence the consumption of rural development policies. By putting forward a family farm business perspective, we support the idea that any boundary between productive and reproductive work in the farm household is artificial and condition farm strategy and aptitude to invest. That means the analysis of access to Rdp on behalf of family farms involves the analysis of a collective decision-making process. Therefore, a relevant aspect to be examined concerns family size, localization in life cycle and perspective of generational renewal.

Against this background diversified strategies (portfolio strategies) are at stakes: differentiation of agricultural products, diversification of farming activity into non-farming activities, along either a supply chain or a territorial strategy. Investments are necessary to maintain farm's profitability and its persistence over time. In order to cope with an even more competitive scenario and to grant family farm's resilience, a mix of strategies has to be carried out (Darkhoner, 2010).

From a methodological point of view, the paper tries to match two different statistical sources, the Italian census of agriculture and a regional database containing information on the adoption of rural development policies in the region Lazio (Italy). This attempt may be considered as innovative, due to the lack of numerous studies in literature on this topic. By crossing the two statistical databases we will try

to excavate the socioeconomic characteristics of farms consuming/not consuming rural policies and, as a consequence, we will discover possible cases of policy failures.

2. Theoretical background

As Offutt (2002) points out, *since farm households are demonstrably diverse, analysts would seem obliged to investigate hypotheses about differential response and impact*. One of these differences concerns demographic variables: family contexts are particularly favorable to set up a farm venture (Jervell 2011): an abundant economic literature has emphasised the strict connection between farm household strategies and style of farming (among others, Whatmore, 1994), by demonstrating the persistency of family farms (Sabbatini 2011). Their ability to survive over time witnesses the relevance of F-connection[1] in fostering lower levels of transaction costs and a higher aptitude to adapt (Ben Porath, 1980; Pollack, 1985).

In the last decades, family farms have been characterizing European agricultural landscape: in this types of farms: *the principals are related by kinship or marriage, business ownership is usually combined with managerial control, and control is passed from one generation to another within the same family* (Gasson et al., 1988). The strong relevance of family farms at European level has fostered tailored policies within the framework of the Common Agricultural Policy (CAP) policies. For example, a set of measures is addressed to stimulate generational renewal, income support, farm diversification, quality certification schemes (Davidova, Thomson, 2014). At the beginning of the new programming phase for 2014-2020, new opportunities for farms have been provided, in order to encourage farm's development. The capability to exploit these opportunities may be considered as a question of entrepreneurial capability, in that the access to investment measures involves entrepreneurial skills of farmers (Rudmann, Vesala and Jackel, 2008).

Against this background, our first hypothesis is that life cycle of family farms could influence the strategic choice of measures. Moreover, the eventual presence of family assistants may envisage a collective decision-making process which affects the adoption of Rdp. A second hypothesis to be tested is the territorial discriminant that is the possibility of a differentiated access on behalf of family farms in various rural areas. Finally, possible barriers to Rdp may be related to farms' economic dimension, in that the probability to apply for Rdp may be reduced in cases of farm's low economic dimension.

Even though family farm business has been deeply explored in literature, few analyses have been conducted on the consumption of Rdp, by discriminating life cycle of family farms, role of assistants and farm's territorial localization. This paper tries to fill this gap in literature by providing a first analysis of the access to Rdp on the basis of family composition.

Materials and method

In this paper we define as "consumption of policy" the farmer's ability to obtain funds from rural development policies. Family farms are the object of our analysis, marked out by following methodological steps. The first one concerns a socio-demographic classification of family farms taking into account farm activity and the composition of family work: key-elements of the classification are family composition, its localization in the life cycle and the emphasis on the role of farm's assistants either exclusively employed within the farm (p/e: prevalent or exclusive) or not (np: not prevalent). This is a novelty in the analysis of family farms: the role of farmer's assistant has not yet been explored in recent literature.

As far as the family cycle is concerned the age of reference is 40 years, because it is the threshold to gain access to rural development policies for generational change. Following table illustrates the structure of the family farms, according to their life cycle.

Family farm typology		
Young farmer and a not young assistant (*Y+not Y ass.*) - p/e - np	Mature farmer and a young assistant (*M + Y ass.*) - p/e - np	Older farmer and a young assistant (*O + Y ass.*) - p/e - np
Young farmers with other (assistant may be young or may be not) (*Y + other*)	Mature farmers with other (assistant may be old, mature or may be not) (*M + other*)	Older farmers with other (assistant may be mature, old or may be not) (*O + other*)

The second methodological step tries to link family types and access to Rdp, by focusing attention on the consumption of rural development policies in the region of Lazio (Italy). The measures under observation belongs to the three main axes of regional rural program for the last programming period 2007-2013:

1. competitiveness of the agricultural sector;
2. environment and landscape;
3. quality of life and diversification in rural areas.

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[1] Family, friends and firms.

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Our analysis concerns the first and the third axes, including measures of investments, through which an authentic entrepreneurial activity is realized. As a matter of fact, the second pillar of the CAP provides for multiannual support to family farms by delivering different types of measures articulated on four axes. Second axis includes surface measures, which offer annual allowances based on farmers' commitments to adopt sustainable agricultural models. In this case, farmers are subsidized for lacking revenues, due to their commitments. Axes I and III comprehend investments measures, aiming at sustaining territorial development. Differently from the previous types of measures, investment measures are strictly linked to an entrepreneurial activity, which foresees risk-taking.

A matching procedure between the regional database and the national census of agriculture has been carried out, by making reference to the fiscal code of the farm. This lets the composition of the funded family farm to emerge.

Information and data are downloaded from the database of region Lazio: more precisely, funded farms are linked to farms from the data warehouse of the last census of Italian agriculture, in order to classify them on the basis of family composition. Therefore, three main aspects have been investigated:

   - demographic aspects that is the incidence of family composition on the consumption of Rdp;

   - territorial aspects: information concerning number of applications and funds obtained have been gathered and articulated on the basis of family types and farm's territorial localization according to the national strategic plan which distinguishes following homogeneous areas: A) urban poles, B) areas with intensive and specialized agriculture, C) intermediate rural areas, D) rural marginal areas.

   - economic aspects, that is the eventual relevance of the economic dimension of the farm (expressed by the standard output) in gaining access to Rdp.

Results

Table 1 shows the results of our analysis, as consequence of the match between regional database and the national census of the agriculture 2010. Table articulates the results on the basis of family composition, consumed measures per axis and type of rural area. On the whole 2.368 farms gained access to rural development policies for the period 2007-2013, 2.41% of the amount of farms located in the region Lazio. Therefore, a very small percentage of farms succeed in getting funded.

The results are articulated on the basis of either demographic profiles or type of consumed measure and standard output of applying farms.

As far as demographic profile is concerned, the majority of funded farms are located in the younger and mature phases of life cycle. Almost 54% are young farmers with various assistants, while 42% are mature families. As expected, elderly family farms evidence a reduced propensity (4%) to adopt rural policies for farm investments. Another reflection is inspired by the higher access to policies on behalf of "other" types of farms, with double percentage in the younger phases of life cycle, and triple in the mature and older phases. However, by observing the average contribution obtained in each typology of farms (tab.1b), the relevance of family farms with young helpers emerges, which doubles in the elderly phases of life cycle.

As far as types of rural areas are concerned (tab.1c), intermediate rural areas and area with intensive agriculture attract the highest share of funds (respectively, 56.8% and 21.9%), while rural marginal areas and, above all urban areas retain lower percentages of funds. By crossing demographic and territorial variables, an interesting element regards the relevance of younger farmers applying in rural marginal areas, where the percentage of application in young farms rises up to 64%. This is an important result in terms of generational renewal in difficult areas. As far as type of measure adopted and Rdp area are concerned, measures of the first axis are privileged, while access to measure for farm diversification (third axis) are not so much consumed[2].

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[2] For the evaluation of policy consumption under Axis 3 it is necessary to precise that a part (often considerable) of the resources allocated to this axis is not devoted to farmers, but to other entities, both public and private.

Table 1 – Distribution of farms, average contribution and standard output

	Y+not Y ass.	Y + other	M+not Y ass.	M + other	O+not Y ass.	O + other	Total
A + axis 1	30	78	18	78	2	7	213
A + axis 3	.	.	1	1	.	.	2
B +axis 1 and 3	5	4	1	5	.	1	16
B +axis 1	88	190	52	137	5	10	482
B +axis 3	5	2	2	12	.	.	21
C +axis 1 and 3	28	34	7	19	.	.	88
C +axis 1	238	375	123	396	6	56	1.194
C +axis 3	5	14	9	30	.	5	63
D +axis 1 and 3	3	11	3	5	.	.	22
D +axis 1	57	102	17	70	1	3	250
D +axis 3	1	4	2	8	.	2	17
Total	460	814	235	761	14	84	2.368

Tab.1b - Family type - AVERAGE CONTRIBUTION							
	Y+not Y ass.	Y + other	M+not Y ass.	M + other	O+not Y ass.	O + other	Total
A + axis 1	98.199	97.695	98.117	56.308	136.079	3.163	79.900
A + axis 3	.	.	53.618	132.338	.	.	92.978
B +axis 1 and 3	174.814	204.817	69.103	369.136	.	378.454	249.161
B +axis 1	73.334	83.088	70.793	60.483	190.310	128.040	75.601
B +axis 3	113.845	84.563	103.724	70.831	.	.	85.513
C +axis 1 and 3	212.535	169.327	131.389	164.634	.	.	179.044
C +axis 1	83.661	70.460	49.783	41.870	40.346	36.550	59.737
C +axis 3	153.486	96.491	77.814	89.250	.	124.880	97.151
D +axis 1 and 3	122.131	182.846	172.346	170.166	.	.	170.253
D +axis 1	79.316	90.283	73.115	36.271	43.528	949	70.233
D +axis 3	84.013	99.299	55.665	102.413	.	107.936	95.748
Total	92.269	85.434	65.499	55.323	107.808	54.416	74.139

Tab.1c - Family type – Territorial distribution (%) of funded farms							Total
	Y+not Y ass.	Y + other	M+not Y ass.	M + other	O+not Y ass.	O + other	
A	6,52	9,58	8,09	10,38	14,29	8,33	0,76
B	21,30	24,08	23,40	20,24	35,71	13,10	21,92
C	58,91	51,97	59,15	58,48	42,86	72,62	56,80
D	13,26	14,37	9,36	10,91	7,14	5,95	12,20

Source: data processed by the Italian census of agriculture and database of region Lazio

In order to test eventual association among the previous variables, a chi-squared test has been put forward. Results are illustrated in table 2

Table 2 – Chi-squared test

	DF	Value	Prob
χ^2	8	33,77	<.0001

The analysis of contingencies (table 3) provides useful insights related to the propensity to consume measures on the basis of the territorial location of the farms: as a matter of fact, a clear "attraction" between farms in rural areas (both intermediate and marginal) and measure of the third axis emerges. Similarly, a certain association between the youngest phases of the life cycle and the propensity to invest on farm structural adjustment and farm diversification is evident.

Mature families seem privilege diversification in not farming activities while elderly one, evidence preferences towards "traditional" measures of investments aiming at stimulating farm competitiveness.

Table 3 - Contingencies

3.a rural areas	axis 1	axis 3	axis 1+3
A	18,79	-7,35	-11,44
B	13,19	-1,57	-11,62
C	-20,93	4,50	16,43
D	-11,05	4,43	6,62

3b type of family	axis 1	axis 3	axis 1+3
Y + not Y	-2,5	-9,0	11,5
Y + other	9,7	-15,4	5,7
M + Y	-2,3	3,8	-1,5
M + other	-6,4	17,9	-11,5
O + Y	1,4	-0,6	-0,7
O + other	0,1	3,3	-3,5

A final element of reflection regards an economic discriminant, concerning farms' economic dimension and access to Rdp. Table 4 points out the differences among farms by relating standard output to farm with no application to Rdp. As a matter of fact, table points out relevant differences between economic dimensions of farms without application to Rdp and farms applying to policies, divided into farms with rejected or not application

From the table a systematic higher level of standard output characterizes farms with consumption of Rdp, which raise up in cases of farms with application and accepted investment projects (table 4b).

Table 4 - Standard output in relation to farm without application to Rdp (%)

4a - Farms with rejected application	Rural areas				
Family type	A	B	C	D	Total
Y + not Y	105,25	205,53	289,26	188,03	205,65
Y + other	275,13	137,32	716,15	210,24	320,97
M + Y	182,96	260,36	657,33	661,32	433,03
M + other	377,06	385,33	382,31	347,23	368,69
O + Y	474,48	1238,92	364,92	1338,64	438,36
O + other	1699,78	339,71	768,49	271,68	804,26
Total	502,07	342,98	637,02	410,74	493,98
4b - Farms with accepted application					
	A	B	C	D	Total
Y + not Y	213,16	229,48	472,35	329,77	315,41
Y + other	342,63	231,68	462,97	289,37	316,42
M + Y	1103,25	489,63	666,43	519,19	662,53
M + other	767,93	745,21	932,74	1507,52	896,87
O + Y	7411,08	1762,97	771,02	448,17	3009,93
O + other	810,65	1107,95	1001,98	340,11	974,36
Total	933,52	600,81	878,82	914,58	808,30

Source: data processed from the Italian census of agriculture

Conclusions

The role of the Common agricultural policy in fostering family farm's resiliency has been deeply underlined in recent literature (Koutsou, 2011; Davidova, Thomson, 2014). Nonetheless, a set of factors, generally labelled as transaction costs of policy adoption, brings about a low access with respect to the potential demand. This paper has tried to emphasize how some key aspects may condition the consumption of policy: three discriminants, territorial, demographic and economic, emerge:

- as far as territorial variables are concerned, the prevalence of some areas seems evident in terms of both average perceived contribution and percentage of adoption; rural marginal areas, for example, get low shares of funds, despite marginal rural areas need significant investments to revitalize farms and rural territories. Nonetheless, the good percentage of young farmers applying for rural policies may be an encouraging signal;

- demographic variables involve the life cycle of the family farm business and, as our analysis demonstrates discriminates between younger and elderly phases. This is not a novelty in literature, but, as our analysis demonstrates, the consideration of the role of assistants may provide further elements of evaluation by enlightening the relevance of the young assistants in performing access to Rdp;

- finally, an economic barrier seems to filter the access to rural policies with farms with high standard output getting funded. This may cast some doubts on the aptitude of Rdp to add up and targeting funds in a "democratic" way, so letting problems of result paradox to emerge: the less you need, the more you get (Bartoli, De Rosa, 2011).

To conclude, the analysis of adoption of rural policies should be carried out within a complex and articulated perspective, which endogenize either territorial, or economic or demographic variables, by endogenizing, whose relevance should be taken into account at political level.

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