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An evaluation of the development capabilities of small farms from producer groups

Ocena zdolności rozwojowych małych gospodarstw rolnych z grup producenckich

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Abstract. The aim of the study was to determine the conditions of development of small farms from an area with dispersed agriculture. It was assumed that the development capability of farms belonging to producer groups can be considered as a valuable factor of production. The research covered ca. 300 small farms associated in agricultural producer groups in the Małopolska Voivodeship. It was found that joining a group resulted in improved economic indices (larger economic size, higher income) of farms. Other evidence of their development capabilities may be seen in relatively high values of "group" indicators (e.g. group cohesion), a tendency to formalise cooperation (mainly in the form of an association), and a democratic style of management. One of the weaknesses of the associated small farms is insufficient soft skills among farmers, visible in the decision-making process.

Key words: development of associated farms • development capability • agricultural producer group

Streszczenie. Celem badawczym artykułu było określenie przesłanek rozwojowych małych gospodarstw z rejonu rozdrobnionego rolnictwa. Założono, że zdolność do rozwoju gospodarstwa zrzeszonego można traktować jako cenny czynnik produkcji. Badania przeprowadzone w województwie małopolskim wśród kilkuset małych gospodarstw należących do grup producentów rolnych wskazują na wzrost wskaźników ekonomicznych (wielkość ekonomiczna, dochód) po wstąpieniu do grupy. Występują też inne przesłanki zdolności rozwojowych, takie jak stosunkowo wysokie wartości wskaźników „grupowych" (np. spójności grupy), skłonność do formalizacji współpracy (najczęściej w postaci zrzeszenia) oraz demokratyczny styl zarządzania. Do słabych stron zrzeszonych gospodarstw należy zaliczyć niedostatek umiejętności „miękkich", widoczny w procesie podejmowania decyzji.

Słowa kluczowe: rozwój gospodarstw zrzeszonych • zdolność rozwojowa • grupa producentów rolnych

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Introduction

There are various concepts of the development of agriculture (e.g. industrial vs. sustainable), and the Common Agricultural Policy of the European Union keeps constantly changing, providing new solutions. A farmer, therefore, faces a difficult choice about the type and method of production. It seems that some thought should rather be given to the organisation of farm functioning as early as the start of this activity: whether a farmer will be able to produce individually or should he/she consider joining a group to plan the production and operate on the market together with others (individual model vs. association). Currently, the issues concerning the development of agricultural holdings are subject to interdisciplinary studies (e.g. economics, sociology, management studies). They have been of interest to a number of Polish and foreign authors, among them K. Dautzenberg (2005), B. Gołębiewska (2005), B. Gradziuk (2005), B. Klepacki (1990), W. Sroka and M. Dacko (2010) as well as J. Żmija and E. Tyran (2013).

The present study focused on small agricultural holdings operating in a region of dispersed agriculture (the Małopolska Voivodeship), investigating the effects of "being in a group" on their development from the viewpoint of the theory of economics (quantitative results – economic performance) as well as humanities: organisation and management, sociology, social psychology (qualitative results – cohesion, group success, management style). The research concerned such issues as, among others, the extent of the changes taking place in the farms after joining an agricultural producer group as dependent on the type of agricultural production, and the nature of the qualitative and quantitative changes in two size categories of such farms: below 8 ESU and above 8 ESU. The main research task was to determine whether a group of agricultural producers can provide developmental opportunities to farms from a region with dispersed agrarian structure.

Development and development capabilities: Theoretical context

The lack of an explicit definition of the term 'development' results from the abstract nature of this category. Development is difficult to be measured directly, and hence it needs being determined in a relational context (Białasiewicz 2002, p. 11). This often requires using substitute terms, such as 'change' or 'increase', or specifying the term by associating it with other terms (e.g. 'development of systems', 'development of facilities'). The category 'change' forms a content-related basis for defining the other notions; nevertheless, the approaches to this issue vary between the authors. For example, according to T. Kotarbiński (1961, pp. 69–70) and J. Szczepański (1971, p. 503), a change in the actual state of affairs is understood as "a kinetic event (…) which establishes a difference between the actual states of affairs at the beginning and end of the examined period". Similarly, A. Stabryła (2002, pp. 246–251) thinks that the essence of change in a business organisation lies in its transition from a previous state to another one, distinctly different, in a given time period. In searching for the essence of change, both A. Stabryła (2002, pp. 246–251) and B. Nogalski (1994, p. 144) focus on the duration of its consequences and the requirement that the new state of a business organisation (or agricultural holding) should be radically different from the

previous one[1]. This means that 'change' is a relative category, i.e. it is necessary to adopt a specific approach to comparing the states in which the studied system has found itself. Changes can be quantitative (differences in the values of one or more parameters) and qualitative (development of new properties or behaviours). In this context, not so much the development, as such, but rather the capability for development (development potential) of an enterprise can be treated as a vital factor of production. According to A. Stabryła (2002, pp. 246–251), an enterprise's development capability is defined by its "production potential (all of the tangible and intangible assets) which ensures the completion of tasks having the nature of qualitative changes".

Development as a conceptual and methodological category first became the subject of philosophical interests, to be then taken up by natural, medical and social sciences. From the beginning of political economics, both the course and forms of the management process were described in terms of development (Chomątkowski 1989). While the development process as a whole is not subject to valuation, its individual phases can be valuated (Białasiewicz 2002, Domagalska-Grędys 2008). The term 'development' is considered as equivalent to the term 'progress' when, according to the earlier established criteria, the development taking place in a given system approaches perfection, leading to an improvement in the system. It is commonly recognised that the need for change lies at the roots of development. Similarly, progress and development have their origins in crisis situations (Satoła 2013, p. 477).

As mentioned before, the category of change provides a content-related basis for identifying the essence of development. For example, the development of an enterprise can be understood as "coordinated changes in its systems, adjusting it to the permanently changing surroundings" (Pierścionek 1998, p.147).

A group of agricultural producers in the concept of development for small agricultural holdings

In the period after World War II, the concepts of agricultural development have often changed in line with reforms proposed by famous politicians, such as the Mansholt Plan or the McSherry Reform. In Poland, the concept for agricultural holding development by W. Józwiak (2009, p. 37) is worth mentioning. As shown by the literature on the subject, however, no single rule for the development of agricultural holdings can be formulated. The results of the studies vary depending on the period of research and the location and type of farms. According to W. Sroka and M. Dacko (2010, p. 103), the limiting factor (i.e. the parameter assuming too low or too high values, compared to the optimum) becomes the main factor influencing the development of agricultural holdings, especially leading ones. In the opinion of the author of the present study, the issue of development (or "success") of agricultural holdings is more complex. In fact, it does not pertain solely to limiting factors but also to the organisation of farms and even to farmers' soft skills, including their ability to cooperate. Regardless of the variant of agricultural production, be it ecological, industrial or sustainable, it is the organisation of operation on the agricultural market and its financing that is of prime

[1] This viewpoint was adopted in the present study.

importance. Anyone operating in agriculture on an individual basis will not be able to avoid the effects of global competition. Therefore, smaller entities should join together to catch up with larger ones. Such a path of development seems realistic, considering that financing is available for producer groups and associations.

As follows from numerous publications on the economic effectiveness of farms operating in the structure of agricultural producer groups, the fact of "being part of a group" ensures both tangible and intangible results, among them those connected to social capital, such as cohesion, trust and a sense of success. The importance of social capital to the economy, thoroughly covered in the scientific literature, results from the complex conditions and factors of growth not only for business entities (here: agricultural holdings) themselves but also for their surroundings (region). Here we refer to such abundant sources of growth as, e.g., synergy generated through inter-personal relations (Skawińska 2012). The group activities of farmers, creating space for their interactions, also contribute to the growth effects. Some pro-development derivatives of group operations include knowledge, competences and attitudes, among them group striving towards success and giving up a demanding attitude (feeling entitled to special treatment, which was often the case of Polish farmers under the centrally planned economy) to become more creative and open-minded. The role of the creation of such attitudes is intuitively understandable in the context of the pro-development connotations of the notion of social capital, and, according to the author of this study, very important in the development through group (collective) actions of producers (or farmers). Cooperation gives farmers the capability to start up practical activities which are useful in rural areas (selling local products, building the region's brand, protecting valuable resources), and brings economic benefits[2] (limited transaction costs, improved quality of life, new jobs).

To sum up, producer groups, by promoting the growth of social capital and the resulting positive effects (cohesion, success, undemanding attitudes), contribute to the development of the agricultural holdings they associate. The fact of being part of a group is perhaps more advantageous for small and micro farms than for large entities where it is more difficult to balance interests and reach a compromise.

Material and methods

The study used the empirical data from the research based on an interview survey conducted in the Małopolska Voivodeship in 2004 and 2007. The research sample consisted of small agricultural holdings associated in producer groups[3], numbering 395 in 2004 and 290 in 2007. In addition, the data on commercial farms included in the Polish FADN[4] system, agricultural region 800 (Małopolska and Pogórze), were used as a point of reference for comparisons.

[2] J.S. Coleman (1988), an American sociologist, was among those who highlighted the economic benefits derived from social capital.

[3] The groups operated on the basis of the Act on Agricultural Producer Groups and Associations Thereof and on Amendments to Other Acts of 15 September 2000 (Ustawa… 2000).

[4] Farm Accountancy Data Network.

The study procedure was as follows. First, the size structure of farms was determined for six (year 2004) or seven (year 2007) types of agricultural production. Then the farming types which proved to ensure achieving the largest increase in the economic size (expressed in ESU) of farms upon entering a producer group were identified, and for each type the state of the farms after joining a group ("after") was compared with their state before that event ("before") and with the results obtained by the FADN-800 farms. Next, all the farms under study were classified by size into two groups: below 8 ESU (smaller farms) and above 8 ESU (bigger farms). The two groups were then compared for quantitative and qualitative parameters to obtain a more detailed insight into the development opportunities created by producer-group membership for smaller vs. larger entities. The quantitative variables considered in the analysis were: area of agricultural land (AL), total costs, and income ("before" and "after"). The qualitative variables included: group cohesion (assessed using a scale of 5–19 points), measure of group success value (scale 0–5 points), desire to avoid failure (scale 5–25 points), and strength of desire for group success (scale 5–25 points), calculated according to the concept of B. Kożusznik (1992, p. 13), i.e. on the basis of points awarded for the answers to individual questions from the survey. High values of the three latter parameters, reflecting the intensity of group actions and thus the degree of involvement of the producers, were interpreted as a higher chance of achieving better economic results by the associated farms. Similarly, a high value of "cohesion" was treated as a prerequisite for the existence of the group since, as observed by A. Etzioni (1961, p. 175), "non-cohesive organisations have a tendency to vanish". The comparisons between the two farm groups concerned also the distribution of farms according to farming type, legal form, membership duration, leader's style (LS) and corresponding farmer's behaviour (employee's style; ES), as well as decision-making mode (DMM). It was assumed that the style of management and the manner of taking decisions can be considered as one of the intangible assets (competences) possessed by an agricultural producer group, strengthening the development capabilities of its members[5].

Results and discussion

Small agricultural holdings associated in producer groups in the Małopolska region (being a typical example of regions with dispersed agriculture) considerably differed in economic size (expressed in ESU) according to farming type. There were also differences between the associated farms and the commercial farms from the FADN-800 sample. In both years of the research (2004 and 2007), the former had larger economic sizes than the latter for all farming types.

Taking into account the results after joining a producer group, the smallest farms in 2004 were those with agritourism (1.8 ESU on average), fruit production (orchard; 3.61 ESU), and dairy (9.31 ESU). In 2007, it was farms representing such types as agritourism (2.23 ESU), fruit production (4.68 ESU), and tobacco (5.43 ESU; Table 1).

[5] An analogy to the development capabilities of enterprises was used here (Stabryła 2002, pp. 246–251).

Table 1. Changes in the economic size of small agricultural holdings associated in producer groups in the Małopolska region according to farming type, as compared to the FADN-800 sample

Item		Farming type							
		Pigs	Orchard	Vegetables	Mixed	Dairy	Agri-tourism	Tobacco	Total sample
Group I*	Size before 2004 (ESU)	–	3.37	31.35	18.89	7.10	0.94	12.61	8.09
	Size after 2004 (ESU)	–	3.61	46.74	39.41	9.31	1.80	12.91	8.17
	Change in size (after : before 2004) · 100	–	107.12	149.09	208.63	131.13	191.49	102.38	100.99
Group II	Size before 2007 (ESU)	14.11	4.44	11.67	12.76	10.93	1.23	4.81	7.95
	Size after 2007 (ESU)	20.43	4.68	12.80	13.53	10.97	2.23	5.43	9.25
	Change in size (after : before 2007) · 100	144.79	105.41	109.68	106.03	100.37	181.30	112.89	116.35
FADN-800	Size in 2004 (ESU)	13.6	5.8	7.8	6.5	7.8	6.5	7.8	7.4
	Size in 2007 (ESU)	11.8	5.8	5.0	4.8	4.6	4.8	5.0	5.7
Group I size after 2004 : FADN size in 2004 (· 100)		–	62.24	599.23	606.31	119.36	27.69	165.51	110.41
Group II size after 2007 : FADN size in 2007 (· 100)		173.14	80.69	256.00	281.88	238.48	46.46	108.60	162.28

* Group I – 395 farms joining a producer group in 2004, Group II – 290 farms joining a producer group in 2007, FADN-800 – commercial farms included in the Polish FADN system, agricultural region No. 800 (Małopolska and Pogórze)

1 ESU = 1200 EUR

Source: Author's study

Comparison of the states "before" and "after" entering an agricultural producer group (APG) indicates that the economic size of small farms improved for all the farming types and both study years, which can be seen as a sign of development. The increase was highest for mixed-type farms (2004), followed by agritourism farms (both years), and farms with vegetable production (2004), pig production (2007), and dairy (2004) (Table 1).

In the years 2004 and 2007, the farms associated in the agricultural producer groups (APG) were on average larger (by 10.4% and 62.3%, respectively) than the farms from the FADN-800 sample. The same applied to most of the farming categories, especially in 2007 when the economic sizes of mixed-type farms, farms with vegetable production, and dairy farms were higher by 182%, 156% and 138%, respectively, compared to the FADN-800 sample (Table 1). In 2004, the greatest difference between the two samples occurred for mixed-type and vegetable farming (six-fold advantage).

To establish whether the developmental chances of an agricultural holding are influenced by its size, two categories of farms were compared, i.e. those below 8 ESU and those above 8 ESU.

As clearly follows from the quantitative data shown in Table 2, the condition of the associated farms improved in terms of both production resources, i.e. the area of agricultural land (1.56% increase), and income (37% increase). This was accompanied by a rise in the costs of running a farm, which can be attributed to the investment activity of farmers (testifying to the development of their entrepreneurial attitudes). Of the two farm categories, economically stronger entities (above 8 ESU) obtained better results, but weaker ones (below 8 ESU) also achieved growth, which is worth noting (one could have expected that "being in a group" would bring about negative effects such as a decrease in AL area or income).

All the qualitative variables ("group" indicators): group cohesion, measure of group success value, strength of desire for group success, and desire to avoid failure assumed clearly higher values in economically smaller units, i.e. those below 8 ESU (Table 2). This attests to the higher group's social temperature of units with worse economic results. This, in turn, constitutes a premise for the development of such a group, and, which follows, for taking joint actions in the interest of farms (investments, searching for business partners), taking prompt decisions, preventing conflicts, making savings on transaction costs. Economically stronger farms (above 8 ESU) exhibit a greater tendency towards individualism, resulting in their lower group's social temperature. This, however, does not limit their effectiveness, since associated large farms pursue different development aims, namely, they fight not for survival, but for improving their market position and absorbing smaller entities. Such specificities of the behaviour of small and large groups have already been described at length, e.g. by M. Olson (1977).

Among the seven types of agricultural production occurring in the study sample, the dominant ones in the smaller farms (below 8 ESU) were fruit (orchard) and tobacco production (52.1% and 17.37%, respectively), although agritourism-type farms had also a considerable share (8.98%) (Table 3). This was not the case for the larger farms (above 8 ESU): there, mixed production took first place (26.79%), the share of pig production was high (23.21%), while agritourism was entirely absent. Note that mixed-

Table 2. Changes in small agricultural holdings in the Małopolska region after joining a producer group

Item	Farms below 8 ESU	Farms above 8 ESU	Total sample
Quantitative parameters			
AL area "before" (ha/farm)	4.68	10.57	7.05
AL area "after" (ha/farm)	4.70	10.83	7.16
Relative change in AL	0.42%	2.46%	1.56%
Total costs "before" (PLN/farm)	33 106.03	77 903.33	51 089.18
Total costs "after" (PLN/farm)	34 336.29	92 134.69	57 538.51
Relative change in costs	3.72%	18.27%	12.62%
Income "before" (PLN/farm)	35 486.73	72 539.89	50 361.12
Income "after" (PLN/farm)	46 670.15	102 285.70	68 996.10
Relative change in income	31.51%	41.01%	37.00%
Qualitative parameters			
Group cohesion (scale 5–19 points)	13.66	13.54	13.61
Measure of group success value (scale 0–5 points)	3.39	3.03	3.24
Desire to avoid failure (scale 5–25 points)	15.99	14.45	15.37
Strength of desire for group success (scale 5–25 points)	10.34	8.53	9.61

"before" – before joining a producer group, "after" – after joining a producer group

Source: Author's study

-type farming was less frequent among smaller entities (9.58%). The fruit-production specialisation of farms in the Małopolska region results from the local tradition of fruit-tree cultivation and the large size of the labour force.

Since agricultural producer groups are allowed to receive financial support for certain categories of products[6], the choice of the type of agricultural production by

[6] The Ordinance of the Minister of Agriculture and Rural Development amending the Ordinance on the list of products and product groups for which agricultural producer groups can be created, the minimum annual market output and the minimum number of members of a producer group of 10 March 2011 (Rozporządzenie… 2011). For example, in the Małopolska Voivodeship, the minimum threshold for establishing an agricultural producer group (commercial output, and number of members) is as follows: fruits or vegetables and fruits – 200 000 PLN and 5 members, dried tobacco leaves – 380 tonnes and 50 members; pig livestock – 2000 head and 5 members; cow milk – 1 000 000 litres and 5 members; cereal grains – 600 tonnes and 5 members; ecological agricultural products – 400 000 PLN and 5 members (Rozporządzenie… 2011).

Table 3. Characteristics of small agricultural holdings associated in producer groups in the Małopolska region

Item	Farms below 8 ESU		Farms above 8 ESU	
	No.	Share (%)	No.	Share (%)
Farming type				
Pigs	10	5.99	26	23.21
Orchard	87	52.10	15	13.39
Vegetables	8	4.79	22	19.64
Mixed	16	9.58	30	26.79
Dairy	2	1.20	8	7.14
Agritourism	15	8.98	–	–
Tobacco	29	17.37	11	9.82
Total	167	100	112	100
Legal form				
Company	8	4.79	1	0.89
Cooperative	28	16.77	32	28.57
Society	45	26.95	18	16.07
Association	82	49.10	40	35.71
Informal	4	2.40	21	18.75
Total	167	100	112	100
Duration of membership (years)	4.99		6.19	
Leader's style (LS)				
Tribal	136	81.44	62	55.36
Egocentric	14	8.38	7	6.25
Conformist	10	5.99	15	13.39
Manipulative	4	2.40	10	8.93
Sociocentric	3	1.80	18	16.07
Total	167	100	112	100
Employee's style (ES)				
Tribal	56	33.53	30	26.79
Egocentric	1	0.60	–	0.00
Conformist	59	35.33	43	38.39
Manipulative	22	13.17	14	12.50
Sociocentric	18	10.78	8	7.14
Existentialist	11	6.59	17	15.18
Total	167	100	112	100
Decision-making mode (DMM)				
Group decision-making	83	49.70	31	27.68
Negotiations	80	47.90	76	67.86
Participation of an expert	4	2.40	5	4.46
Total	167	100	112	100

Source: Author's study

farms associated in a group influences their development capabilities and thus constitutes a vital element of their strategy of development.

As shown by the results of the Italian study conducted by C. Salvioni et al. (2009), small farms commonly employ a strategy of diversification through expanding their operations into agritourism, social services, occupational therapy, etc. (*broadening path*). This brings about better economic developmental effects than other diversification strategies such as increasing the scale of production or introducing traditional and organic products (*deepening path*), or changing the proportion between the production types and selecting the most profitable ones (*economical farming*).

The agricultural producer groups (APG) differed in legal form (Table 2). The choice of legal form depended on the capital possessed by the members of the group (in the case of a company) and the simplicity of the legal formalities connected with the registration (simple for an association and a society, relatively complicated for a company). Regardless of the economic size of farms, the dominant legal form of APG was an association (below 8 ESU – 49.1%, above 8 ESU – 35.71%). The second most popular form of APG for smaller farms was a society (26.95%), while for larger ones, a cooperative (28.57%). It is worth noticing that smaller entities very rarely functioned in informal groups (only 2.4%, compared to 18.75%, i.e. almost 8 times less frequently that bigger ones). This fact may be interpreted as their tendency to formally protect the group against disintegration, and regarded as a pro-developmental factor. Economically larger units seemed not to have such a kind of motivation; they teetered on the edge of risk, but this probably resulted from their economic advantage, which allowed them to ignore formalities and reap profit without designing a development strategy.

The economically smaller farms had a shorter history of cooperation in agricultural producer groups (by about one year) than the larger farms. The duration of their membership in an AGP was about 5 years, whereas that of the larger entities exceeded 6 years (Table 3).

The style of management in a group, creating a specific atmosphere for cooperation, constitutes an internal factor of its development. Nowadays, the management of an enterprise, a farm or a group is a very complex process. As observed by P.F. Ducker, one of the classics of the theory of organisation and management, "management first and foremost pertains to persons who are the priority resource of an organisation; it is deeply rooted in culture, the elements of which need to be respected; requires simple and comprehensible values, efficient communication and indicators allowing for the effectiveness of the operation to be evaluated" (after Białasiewicz 2002, p. 192).

The prevailing leader's style in the APGs was tribal for both farm-size categories (below 8 ESU – 81.44%, above 8 ESU – 55.36%). The egocentric style of management (autocratic and kind) enjoyed a greater popularity among smaller farms (8.38% vs. 6.25%) (Table 3). The sociocentric leader's style was the least popular among the latter (1.80%) but ranked second (16.07%) by larger farms.

As follows from the above comparison, the tribal (democratic) style was overwhelmingly dominant in smaller entities, with other styles being supplementary. The leader's style structure of stronger farms was more varied; while tribal style had also the highest share, such styles as sociocentric (moderately democratic, 16.07%) and

conformist (strict autocratic, 13.39%) were also important. This indicates that democracy in a group is commonly valued, however, in economically larger entities, autocracy also plays a part. The research findings showed that extreme management styles in farmer groups gave good economic results.

The employee's style structure diverged markedly from that of leader's styles, suggesting that the employees' expectations are not fully compatible with the managers' requirements, which may lead to misunderstandings. The discrepancies were wider for smaller farms, e.g. the share of conformist employees (35.33%) was over five times higher than the proportion of managers representing the same style (5.99%) (Table 3). An egocentric leader (6.25%) did not have a match among employees. Interestingly, both farm-size categories showed a considerable share of existential employees ((i.e. self-motivated, needing no management at all), which was quite high (15.18%) for bigger farms. Such a style, i.e. existential (passive), was not observed in leaders, regardless of farm-size category, indicating that the management of the APGs was firm.

Of the four decision-making modes (DMM) considered in the research, one – a haphazard mode – did not occur in agricultural producer groups[7]. Among the smaller farms, the first position was held by a group decision-making mode (low-quality, but very much approved by the members of the group), closely followed by negotiations (high-quality, and strongly approved by farmers) (49.7% and 47.9%, respectively; Table 3). By contrast, bigger farms largely preferred the negotiating mode of making decisions (67.86% of farms), and less frequently chose the group decision-making (27.68%). This fact suggests that smaller entities have poorer soft skills, and clearly need training in decision-making skills and techniques. Resorting to lower-quality modes, such as group decision-making, brings its members closer together; however, it may also lead to choosing easier solutions, thus limiting the development of farms. It is worth noticing that the "expert" mode (high-quality, but with a low group acceptance) was rather unpopular in either farm-size category, and especially so in smaller entities. Currently, an agricultural producer encounters difficult problems (e.g. the formulation of contracting agreements with clauses, the purchase of modern IT systems, the preparation of price forecasts, the choice of investment or loan types), the solution of which often requires expert knowledge (legal, accounting, technological, etc.).

Conclusions

Assessment of the development capabilities of small agricultural holdings constitutes a complex research problem. The present study attempted to demonstrate that these capabilities improve considerably in a situation of being a member of a group of agricultural producers (APG). This proved to be true for both smaller farms (below 8 ESU)

[7] The decision-making modes were assessed according to the concept of N.R.F. Maier (1973), using two variables: 1) measure of the acceptance of a decision by the group (low – high), and 2) measure of the quality of the decision made (low – high).

and larger entities (above 8 ESU), despite some differences occurring between the two farm-size categories. Evidence to support the above thesis may be seen in the positive changes in farm size, relatively high values of some "group" indicators, as well as in specific management styles.

The increase in the economic size of small farms upon joining a group was greatest for agritourism-type entities.

Compared to commercial farms from the FADN sample, the associated farms under study had on average a larger size, indicating that they have the potential for growth and development. This was visible especially for mixed- and vegetable-production types, where a six-fold advantage was recorded.

Becoming a member of an APG resulted in increased both production resources, i.e. agricultural land area and income. The costs went up as well, which may be attributed to investment activity. The level of "group" indicators (group cohesion, group success value) was clearly higher in economically smaller farms.

The development capabilities of farms are limited by the lack of soft skills, e.g. the ability to make very complex decisions, requiring expert knowledge (i.e. high-quality decisions).

Diversification of the activities of small agricultural holdings in Poland is less common than in the Western-European countries. This fact confirms the ineffectiveness of the Common Agricultural Policy with regard to small farms[8]. Having an insignificant impact, the CAP fails to encourage them to create new jobs in rural areas by expanding non-agricultural activity (e.g. providing various services).

It was found that smaller farms (below 8 ESU) tended to formally protect themselves against risks and avoided operating on an informal basis, which manifested itself in assuming one of the common legal forms (most often an association) by their APGs more frequently than in the case of larger farms (above 8 ESU).

The style of management in groups associating smaller entities was mostly democratic. By contrast, groups associating bigger units were also quite often managed in an autocratic style. Regardless of the leader's style, however, the effectiveness of a farm improved after its joining an APG.

The model of development of agricultural holdings, discussed in the study, belongs to macroeconomic growth models which place the agricultural sector in the context of broadly understood economic growth. The development policy remains a vital issue, so factors determining the dynamics of growth need to be identified. A model of development by investing in the "human factor" (i.e. human capital) and not only in fixed assets grows in importance. In this context, it is worth quoting the still relevant words of J. Stacewicz (1991, p. 30): "there is strong indication that the solution to basic management problems in current conditions is to be found in a non-economic dimension". Hence, the growth and development of market entities should also be investigated in philosophical, psychological, ecological or institutional terms. The

[8] The CAP payments made to small farms have not changed their weak position in the food chain. Such entities have not adjusted their production to the changing market conditions, or have done so on a significantly smaller scale than larger farms (Judzińska and Łopaciuk 2012, p. 103).

latter approach was reflected in the present paper where we tried to demonstrate the role of agricultural producer groups in the development of the associated agricultural holdings.

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