

## FARMERS' OPINIONS ABOUT THE PROSPECTS OF FAMILY FARMING DEVELOPMENT IN POLAND

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**Abstract.** Rural areas are inhabited by a large proportion of Poland's population, and farming production is responsible for a considerable quota of the country's economy. The production is characterized by the occurrence of a large number of individual farms. The quality of life of farmers and other country dwellers plays an important role in sustainable farming and this is why measuring of farmers' satisfaction level, verifying if their production provides them with satisfying income, and defining prospects and development opportunities are so vital. The aim of the study was twofold. The author wanted to check if Polish farmers can see any possibilities of developing their production, and if so, to establish its direction. The data for the study were obtained during 2014 and 2017 and provided by 155 respondents who filled in questionnaires. The study proved that almost half of the farmers were not satisfied with the income they obtained from farming production. At the same time, most of the respondents stressed that they were willing to pursue alternative operations in order to improve their inadequate economic situation.

**Key words:** rural areas, farming, non-farming operations, development opportunities

**JEL code:** D21, O10, Q01, Q12, Q13

### Introduction

Poland's rural areas are inhabited by a large proportion of the country's population. Farming production is responsible for a considerable quota of the country's economy. On one hand, farming determines the country's whole food production and secures its food demand as far as its quality and quantity are concerned (Cordell D., et al., 2009; Foley, J. A., et al., 2011; Godfray H. C. J., et al., 2010; Schmidhuber J., Tubiello F. N. 2007). What is more, it also provides the society with other non-food products used in certain industries (Bonjean A., Le Goffic F., 1999; Kerckow B., et al., 1997; Kim S., Dale B. E., 2004; Kocar G., Civas N., 2013; Smeets, E. M., et al., 2007; White B., Dasgupta A., 2010). On the other hand, farming production must also secure the needs of the farmers and their families (Prus P., 2008). Unfortunately, farming and rural areas experience numerous problems, which stem from the lack of balance between eco-natural, economic and social factors (Koreleska E., 2016). The harmony between the three spheres is the key when it comes to implementing the ideas of sustainable development in rural areas and agriculture (Marsden T., et al., 2002; Olesen J. E., Bindi M., 2002; Pasakarnis G., Maliene V., 2010; Westhoek H. J., et al., 2006). The country has a long history of underdeveloped economy, which remains the most serious obstacle in levelling up the differences in development of rural areas in Poland, and it has negative influence on the undergoing social processes (Wojewodzic T., 2005). In order to meet the contemporary demands of the sustainable economy and achieve complex socio-economical goals, farmers must understand the need to adjust their production to the ever-changing farming market requirements. This can be achieved by means of changing the orientation of their production or integrating with, and creating networks with other farmers in the supply chain (Bojar W., et al., 2017; Sikora M., Bielski I., 2017), which would help them to function more effectively in a dynamic environment.

The fundamental changes which took place in Poland in 1990s demonstrated the weakness and ineffective structure of the Polish farming as well as over-employment in this sector of the country's economy (Mickiewicz A., Mickiewicz B., 2014; Mickiewicz B., Mickiewicz A., 2017; Pawlak J., 2001; Poczta W., Pawlak K., 2010). On the other hand, due to numerous advancements

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in technology, the changes also helped to rationalize the production and develop the agricultural know-how. The farming and non-farming sectors started to compete for land, which resulted in diminishing of the available arable land by 1.4 m ha between 2002 and 2010 in Poland (Marcysiak T., Prus P., 2017).

Sustainable farming regards the quality of life of farmers and other country dwellers as one of its priorities (Prus P., 2008; Kowalska M., et al., 2016). Polish farming production is characterized by the occurrence of a large number individual farms. Checking farmers' satisfaction level, verifying if production provides them with satisfying income, and defining prospects and development opportunities is vital (Roman M., et al., 2018).

The aim of the research was to learn about individual farmers' satisfaction regarding the income obtained from farming production, the opportunities for and the directions in which their farms might develop.

### **Material and the research method**

The study data was collected using the questionnaire method among 155 Master's degree students of Agriculture during 2014 and 2017. They were either farm owners themselves or were soon to take over and run their parents' farms. Therefore, rather than being random, the choice of the sample group was deliberate. The author wanted to discover the opinions of young farmers who are bound to shape the image of Polish farming in the near future. It must be said that the respondents interest in the subject was above the average. Having graduated from secondary schools and having completed the first degree of Agriculture studies, they decided continue their education and enrolled for the master's degree course. Following the opinions of other authors (Dutka B., Mickiewicz B., 2015; Kalinowski S., 2011; Kielbasa B., 2016; Prus P., Drzazdzynska K., 2017; van den Ban A. W., Hawkins H. S., 1996; Zawisza S., Pilarska S., 2005), it can be argued that formal education, professional know-how, practical skills, having access to up-to-date information and professional advice considerably facilitate farm organization and management. These factors also stimulate entrepreneurship because they help farmers recognize potential business opportunities, consequently leading to farm improvements and the overall development of the rural areas.

The empirical data was verified using the statistical hypothesis test. The author tried to determine whether there were any statistically relevant differences between the respondents' answers and the chosen variable in the studied community. He decided that the size of a farm should be used as the variable to differentiate both the groups, as it determines its production potential and development prospects, (Rys-Jurek R., 2008; Rys-Jurek R., 2009; Satola L., et al., 2014). The average size of a farm in the Kujawsko-pomorskie region in the studied period (Srednia powierzchnia ..., 2017) was 15 ha and this value was adopted to distinguish between the two groups.

The statistical analysis was performed in two stages. Firstly, the existence of relationship was tested, followed by determining its force and direction. In order to confirm the relationship between the variables, the author used the Chi-squared test ( $\chi^2$ ). In order to establish its character (direction) and strength, the author established the Pearson contingency coefficient [C] and the convergence coefficient [g], which were calculated twice for both events:  $g_{rc}$  (convergence: row to column) and  $g_{cr}$  (convergence: column to row) (Babbie E., 2003; Dziekanski P., 2016; Dziekanski P., 2017; Gruszczynski L. A., 1986; Sobczyk M., 2004). The conducted statistical

analysis proved that the differences between both groups were statistically relevant. The farmers exhibited different level of satisfaction regarding the profits obtained from farming production. They also had different ideas regarding new ventures aimed at improving their income (Table 1).

Table 1

**Differences in farmers' opinions versus farm size – Chi-squared test results ( $\chi^2$ ), Pearson contingency coefficient (C) and the convergence coefficient (g)**

Respondents' opinions on	$\chi^2$ $\alpha=0,01$	$\chi^2$	C	grc	gcr
income from farming production	13.277	14.329*	0.291	0.100	0.035
the potential for generating additional income	13.277	2.168	-	-	-
actual attempts to obtain additional income	23.209	25.344*	0.283	0.000	0.157

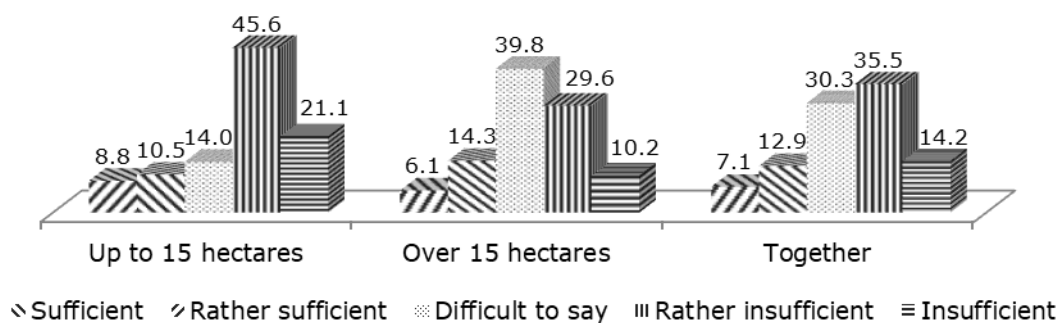
\*Figure is significant for  $\alpha=0.01$

Source: author's calculations based on research

Complementary techniques such as regular and structured interviews were employed in order to increase the cognitive value of the study. The author was able to perform a comprehensive evaluation of the problem by asking a set of supplementary non-standard questions.

**Research results and discussion**

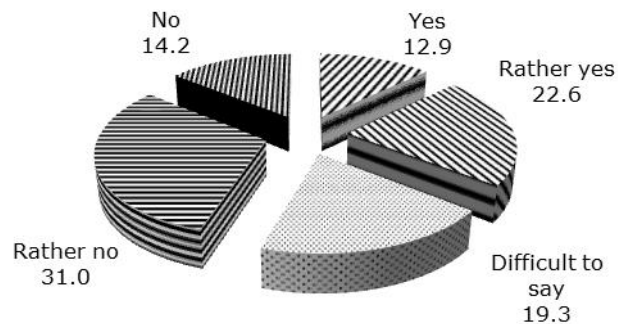
It goes without saying that farm development (buying means of production, machine upkeep and maintenance, planning new investment, etc) depends on the income it generates. Having said that, maintaining a decent standard of life and catering for the needs of their families is equally important for farmers (Prus P., 2010; van den Ban A. W., Hawkins H. S., 1996). Sadly, the research showed (Figure 1) that almost half of the polled (49.7 %) did not believe their income was big enough to satisfy these needs. Only one out of five farmers (20.0 %) was satisfied in that respect, and claimed that their income was satisfactory or near-satisfactory. Significant statistical discrepancies were observed between the two groups in this respect (Table 1). As mentioned earlier, the groups were divided according to the farm size: those measuring less than 15 ha and those measuring more than 15 ha. The two groups exhibited insignificant differences with regards to the satisfaction levels from the profits generated from farming production. The respondents from bigger farms were slightly more satisfied (20.4 %) than their colleagues from smaller farms (19.3 %). However, as far as dissatisfaction levels are concerned, the differences were more pronounced (66.7 % among the smaller farms, and 39.8 % among the bigger farms respectively). It can be explained by the fact that farmers who manage larger areas can increase the scope of production, use labour, buildings, machines and tools more effectively and, consequently, generate more profit (Mickiewicz B., Mickiewicz A. 2017; Prus P., 2010; Satola L., et al., 2014; van den Ban A. W., Hawkins H. S., 1996).



Source: author's calculations based on research

Fig. 1. Respondents' opinions regarding farming production income ( % )

Only 35.5 % of the respondents admitted they had the potential to generate additional income, as opposed to 45.2 % who did not see such opportunity. 19.3 % of the respondents were unable to provide a satisfactory answer (Figure 2). The conducted statistical analysis proved (Table 1) that the answers provided by the members belonging to both groups were unrelated.

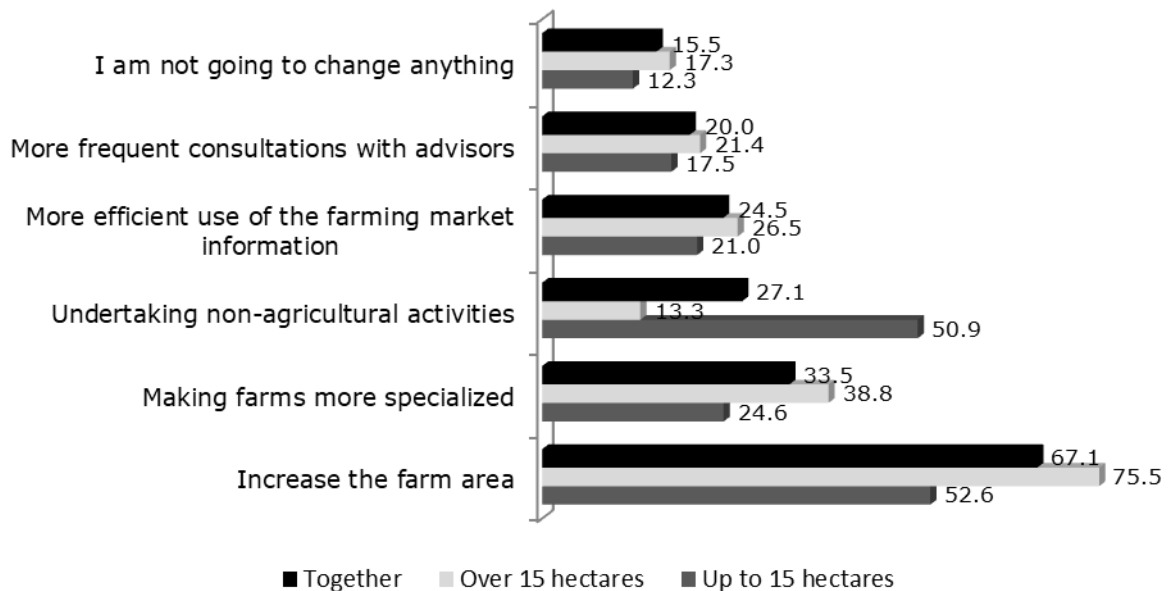


Source: author's calculations based on research

Fig. 2. Farmers' opinions regarding opportunities to increase profits generated by their farms ( %)

The analysis of potential ventures aimed at improving the financial condition of the respondents' farms proved quite interesting (Figure 3). The majority of the farmers (67.1 %) hoped to increase the area of their farms and buy more land, which would help them to increase their production and thus lower the cost of individual products. These answers prove the existence of a phenomenon known as the "greed of land" among the Polish farmers. Regrettably, average prices of land have been increasing steadily, and buying arable land remains costly (Srednie ceny ..., 2017). The soaring prices are fuelled by the growing demand on one hand, and the owners' reluctance to sell either parts or the whole of their land on the other. Surprisingly, even when production becomes limited or it has ceased altogether, land is not transferred between farmers because the owners are not willing to part with it. The reasons for such behaviour may be purely economic (acquiring income from land) or other (sentimental, emotional, social). The mere fact of owning the land, irrespective of whether it is used for farming production or not, makes farmers eligible for different financial subsidies. These benefits often provide the income which exceeds profits from farming production, rendering the latter economically unviable and, understandably, discourage farmers from selling their land (Wojewodzic T., 2017). What is more, farmers are often bonded to their profession and the farm, which has been passed on in their families from generation to generation. Clearly, the land presents sentimental value to them, which was emphasized by the respondents who, during the interviews, referred to their farms using the term "fatherland". Making farms more specialized was the second most popular idea aimed at improving farms' economic situation (33.5 %). The respondents admitted that finding alternative sources of income is especially vital when profits from farming production become insufficient (Kalinowski S., 2016; Osmani F., et al., 2013). They mentioned undertaking non-agricultural activities (27.1 %), making more efficient use of the farming market information (24.5 %), and more frequent counselling provided by the agriculture advisory centres (20.0 %) as potential remedies which might alleviate the unfavourable economic situation of their farms. Having said that, 15.5 % of the respondents claimed that they did not want to change their current situation in the near future. When analysing the answers regarding the improvement of the economic situation of their farms, one can observe a number of significant differences between the two groups of respondents (Figure 3, Table 1). The students from the bigger farms were willing to expand the size of their farms, increase the farms'

specialization, make more efficient use of the farming market information, as well as benefit from the counselling provided by the agriculture advisory centres more often than their colleagues from the smaller farms. At the same time, the respondents from the smaller farms more often considered starting a non-farming job as a complementary activity parallel to farming. Understandably, smaller farms have smaller production potential, which forces the farmers who run them to pursue non-farming occupations in order to increase their earnings.



\*Total exceeds 100 % due to multiple correct answers

Source: author's calculations based on research

Fig. 3. Farmers' intentions to increase the potential of their farms in order to generate additional profits (%)

## Conclusions

- 1) The study proved that almost half of the respondents were not satisfied with the income generated by their farms, and one-third of the group did not have a clear opinion in the matter.
- 2) The majority of the dissatisfied respondents were farmers who managed smaller farms, which proves that the area of a farm determines its development potential and, consequently, the amount of satisfactory income obtained from farming production.
- 3) Despite the fact that only one-third of the polled admitted that they saw the potential to increase their profits, nevertheless the vast majority of all the respondents declared the willingness to pursue activities aimed at improving their economic situation. The most popular ideas intended to bring additional income were increasing the size of the farms' arable land, and making the production more specialized. Other popular ideas included: finding an additional non-farming occupation, making better use of the farming market information or more frequent use of the counselling provided by the agricultural advisory centres.
- 4) It should be emphasized that those interested in pursuing additional non-farming activities were mainly the farmers who managed smaller farms. Having little or no real prospects of increasing their production output, they opted for diversification of activities as the additional source of income.
- 5) Without a doubt, such a task requires one not only to recognize a business opportunity but to pursue the additional venture with skill and competence. This is why the assistance of various institutions is essential in order to provide the necessary support for rural areas, one which can

guarantee their multidimensional development and allow them to embrace new non-farming functions. This will not be possible without further financial support which will help farmers to diversify their activities, and provide them with the necessary information and counselling.

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