

System of Farmers' Objectives - Basis to Formulate Strategies of Family Farms in Poland

Edward Majewski and Wojciech Ziétara

Abstract

Farming strategies as well as farm development decisions depend to a large extent on farmers objectives. The dominant in the hierarchy of objectives in a sampled group of Polish farmers are those which might be attributed to motives for actions "Development and growth" and "Security". Environmental objectives are ranked low, as well, as low is among farmer perception of environmental threats and ecological awareness is low among farmers. This might be a significant factor limiting farmers understanding for implementing more environmentally sustainable farming systems and practices.

Introduction

The second half of the 20th century is marked by a rapid transformation of agriculture and its environment. The technical and organisational progress supported by agricultural research and policies resulting in the intensification of production, have led to a significant increase in agricultural production, and in most developed countries even to oversupply. In this context, social concerns about the limited and excessively exploited natural resources and environment, are becoming more and more pronounced. Awareness of the growing threats underlined the idea of sustainable development, or more narrowly, of sustainable agriculture.

The attitude to agriculture and its tasks in the world is changing. The changes in the perceived role of agriculture, its relationship to the natural environment and further development, are reflected in Agenda 2000 (2), which contains a set of new proposals for social and agricultural policies in the agricultural sector.

The question arises whether the idea of sustainable development in Agriculture, with an emphasis on the environmental sustainability might be truly incorporated into Agricultural Policies and what farmers' response to the societal and policy pressures on farming systems changes will be.

It can be hypothesised that farmers response and their choice of farming strategy will be significantly affected by their pursued objectives and their awareness of real threats to natural environment posed by agricultural production and a need to implement environmentally sound farming systems.

In view of the above, a research project led by Dr. Edward Majewski was conducted in 1995-96 in order to define priority objectives and the importance of environmental concerns in a sample of private farms (8).

Results of the undertaken study on objectives of private farmers are presented in the paper.

Farming Objectives

The identification of farming objective(s) is one of the key decisions affecting the choice of farming strategy. Definitions of objectives found in literature tend to vary greatly, most in terms of their generality. Schmidt-Sudhof defines objectives as “wishes with respect to the future, which constitute basis to target final actions” (11). According to Bolesta-Kukulka, “the objectives of an organisation are a set of interrelated pursuits, aspirations, and intended effects characterised by different levels of generality” (4). Objectives tend to form a hierarchical structure. Further, the author claim that “ a process of uncovering interests and setting objectives of an organisation constitutes a game (negotiations) between different participants and elements.”

The issue of farming objectives on private family farms is closely linked with the development of a scientific discipline, called “farm management”. A. Thaer, a father of modern agriculture, and one the founders of farm management, defined a farming objective as achieving the maximum profit (10). F. Aereobe (1) presented a much broader view on farming objectives, indicating that they include the fulfilment of farmers’ and their families’ needs. Thus, financial means obtained from farming activities merely serve to realise the objectives, including non-economic pursuits, which are hardly measurable or not measurable at all. Aereobe elaborates that only means used to keep the farmer and his family are quantifiable. Spiritual needs (satisfaction, beauty, friendship) are much more difficult to measure. Further studies carried out by Maslow on human behaviour in economic activities, have led to the conclusion that the basic principle of human behaviour is to satisfy human needs. However, man does not always primarily seek to achieve maximum benefits. As indicated by the studies of Simon (9), people can be satisfied with achieving only a given level of satisfaction.

An intensive development of research of objectives of human activities, which took place in western Europe and the US, mostly focused on industrial and trading businesses (12). The results suggest that business people pursue a number of objectives at the same time. Thus, a traditional thesis that the main objective of entrepreneurial activities is to maximise profit, has lost its validity.

Studies on farming objectives have been fewer. Research carried out in Germany by Dorenkamp at the end of 60s, demonstrated an increasing role of security and “peaceful life” at the expense of profit (5). The study covered 91 farms, with farmers being requested to determine the priority amongst the following objectives: maximising profit, security of property and peaceful life. 57% of farmers indicated a security and securing the property and risk-free farming as their main objectives, whilst 11% farmers declared peaceful life as their main motivation.

Hinken (5) made up a broader list of objectives based on his study of horticultural farms. The list incorporates 13 objectives, including economic objectives (profit, assets), technical objectives (e.g. technical improvements) along with personal objectives (leisure, health, secure retirement). Interestingly, the research indicated at 17-18% frequency of economic, technical and financial objectives and 48% of farmers mentioning personal ones.

A similar study carried out in Poland by Zietara (11) covered 214 farmers and 103 farmer wives in two communities in Bialystok voivodship. 40% of the surveyed farmers declared "freedom in decision making" as their most important objective, whilst "farm modernisation" and "bringing up children" ranked second and third with 26% and 25% frequency respectively.

Women's hierarchy of objectives was different. Women mostly pointed at "modernisation of household" (45%) and "bringing up children" (43%) as their key objectives. Only 7% of farmers' wives perceived "farm modernisation" as their most crucial objective.

Research Methodology

The research was carried out by means of focused interviews in a random sample of 700 farms. Areas with special conditions for agriculture (mountains, areas threatened by heavy industry and big cities) have been excluded.

Gminas (local administration units) were selected on the strata basis, whilst farms in selected gminas were chosen at random. The random selection of farms was based upon a list of farms matching the following criteria:

- have marketable production and where farming is the key source of income;
- have more than 10 ha of agricultural land⁴⁰;
- have typical agricultural production (excluding special farms, such as fruit and vegetable, hops, herbs, industrial fattening, etc.)

Random numbers were generated by "RANDOM" function in the Excel spreadsheet. Finally, the sample analysed consisted of 655 farms (upon the verification of questionnaires).

The hierarchy of objectives was established on the basis of interviews with the farmers using a pair-wise ranking approach (McCracken, R. Kowalski). The farmers were confronted with a list of 25 objectives, out of which they were asked to choose ten most important ones. Afterwards, the farmers were requested to evaluate the importance of each of the top ten objectives by comparing them in pairs. In each pair the preferred objective scored one point, whilst the other got zero. In this way, each objective could score a maximum of nine points.

The final hierarchy of objectives was set in the following ways:

- a ratio of points obtained by each objective to the maximum number of points available in a given group or sample;

⁴⁰ The mean farm size in the sampled group was 24.5 ha, as compared with the average 7 ha for family farms in Poland.

- frequency of the objective appearing on the ten top list.

At first, the hierarchy of objectives was established for the total sample of 655 farms. Thereafter, the analysis was deepened by looking into hierarchies for different farm size, education and income levels.

Yet another stage of the analysis was to define primary objectives or in other words - farmers' motives. Four groups of motives were distinguished:

1. Development and growth
2. Security
3. Social and psychological
4. Environmental

To each of the above motives specific objectives from the original list of 25 were attributed.

Motive "***Development and Growth***" incorporated the following objectives:

1. Maximising farm income
2. Maximising yields
3. Farm modernisation (buildings, machines)
4. Increased use of fertilisers and pesticides
5. Farm enlargement
6. Introducing new farm activities
7. Participation in training
8. Drainage system
9. Undertaking non-agricultural activities

The following objectives were included under the heading "***Security***":

1. Maintaining the farm free of risk and debt
2. Independence
3. Securing the sales of farm produce

"***Social and Psychological***" motive encompassed the objectives below:

1. Having a modern house
2. Prestige and respect in local community
3. Bringing up children and assuring good future prospects for them
4. Social and political activity
5. More free time
6. Closer co-operation with other farmers

Finally, the *Environmental* motive covered:

1. Reduced use of fertilisers and pesticides
2. Planting a garden around the house
3. Agri-tourism
4. Conversion into organic farming
5. Planting a hedge
6. Planting trees
7. Building a sewage treatment plant

Research Results

Hierarchy of objectives in the whole sample population of surveyed farmers

Numerical data characterising the hierarchy of objectives of the whole sample is presented in Table 1. The top four objectives were the following:

1. Bringing up children and assuring them good future prospects
2. Securing the sales of farm produce
3. Security of keeping a farm free of debt and risk
4. Maximising farm income

Each of the above objectives was chosen by farmers of the whole list with more than 50% frequency.

It is worth emphasising that “maximising farm profit”, traditionally perceived as the key farmers’ objective, ranked only fourth most important. A definitely first rank was obtained by “bringing up children and assuring them good future prospects”. The fact that “securing the sales of farm produce” objective was rated second can be associated with transformation of the Polish economy and increasing competitiveness. However, on the list of top ten objectives this aim had the **greatest** of 92.2% (the highest value). Objectives classified between 11th and 25th positions can be considered of marginal significance.

The analysis of Table 1 also shows that most of the objectives are associated with “Development and Growth” motive. This group of objectives was mentioned by 40% of farmers. Objectives linked to “Security” and “Social and Psychological” motives were mentioned with 29% and 26% frequency. “Environmental” motives got the lowest score.

Table 1. Hierarchy of objectives in the sample of 655 family farms in Poland (1996)

No	Objectives	Total score (points)	Structure (%)	Selected of the list of 25 (%)	Frequency of appearance on the list of top 10 (%)
1.	Bringing up children and assuring good future prospects for them	4045	14.2	68.0	80.6
2.	Securing the sales of farm produce	3730	13.1	63.0	92.2
3.	Maintaining farm free of risk and debt	3556	12.4	60.0	89.8
4.	Maximising farm income	2944	10.3	50.0	82.7
5.	Farm modernisation (buildings, machines)	2553	8.9	43.0	82.0
6.	Maximising yields	2026	7.1	34.0	68.7
7.	Farm enlargement	1990	7.0	34.0	64.1
8.	Having a modern house	1674	5.9	28.0	62.4
9.	Independence	1118	3.9	19.0	50.2
10.	More free time	644	2.3	11.0	49.8
11.	Reduced use of fertilisers and pesticides	554	1.9	9.4	27.0
12.	Prestige and respect in local community	523	1.8	8.9	29.3
13.	Participation in training	509	1.8	8.6	35.3
14.	Closer co-operation with other farmers	484	1.7	8.2	30.7
15.	Introducing new farm activities	418	1.5	7.1	22.6
16.	Increased use of fertilisers and pesticides	334	1.2	5.7	18.3
17.	Building a sewage treatment plant	316	1.1	5.4	20.2
18.	Drainage system	284	1.0	4.8	14.2
19.	Undertaking non-agricultural activities	220	0.8	3.7	11.5
20.	Conversion into organic farming	188	0.6	3.2	9.3
21.	Planting trees	140	0.5	2.4	15.0
22.	Planting a garden around the house	125	0.4	2.1	8.5
23.	Social and political activity	71	0.2	1.2	5.8
24.	Planting a hedge	59	0.2	1.0	7.0
25.	Agri-tourism	45	0.2	0.8	3.7
	Total	28550	100	***	***

Table 1. (continued)

No	Objectives	Total score (points)	Structure (%)	Selected of the list of 25 (%)	Frequency of appearance on the list of top 10 (%)
Motives for actions					
1.	Development and growth	11278	40.0	*	41.0
2.	Security	8404	29.0	*	24.0
3.	Social and psychological	7441	26.0	*	26.0
4.	Environmental	1427	5.0	*	9.0

Farmers in different countries exhibit a different hierarchy of motives and objectives. In Poland, farmers' attitudes are particularly dominated by short-term objectives of economic security. This can be attributed to the fact that they are in difficult financial position. The degree of appreciation of objectives connected with natural environment and long-term sustainability is much lower.

The hierarchy of objectives was also defined for the following groups of farmers:

- by farm size: up to 15 ha; 15-20 ha; 20-30 ha; 30-50 ha; and above 50 ha of agricultural land;
- age groups: up to 30 years; 31-40 years; 41-50 years; above 50 years;
- according to education: primary; primary education + vocational courses; secondary; higher;
- according to personal income.

The structure of objectives in the above groups is similar to that of the whole population.

However, some differences have been identified. The youngest (up to 30 years) and the oldest (above 50 years) farmers classified "securing the sales of farm produce" as their primary objective. The objective "bringing up children and assuring them good future prospects" was ranked first by farmers of 31-40 and 41-50 years of age. Older farmers tended to perceive "Prestige and respect in local community" higher, whilst "More free time" objective cropped up mostly amongst younger farmers (up to 40 years of age).

Moreover, the analysis of motives indicates that farmers with lower education act slightly more often because of "Development and growth" motive. Farmers with secondary and vocational education tend to perceive "Social and psychological" motives stronger. However, the differences are slight.

No significant differences have been found out in groups of farms according to size and income.

Conclusions

The research leads to the following conclusions:

The pair-wise ranking method used to define the hierarchy of objectives has proven very useful. In contrast to traditional selection methods, this method encouraged real involvement of the farmers, making them make unambiguous decisions as to the importance of the objectives. Furthermore, it can be argued that the hierarchy of objectives are therefore characterised by a high level of objectivity.

In their economic activities farmers are driven by numerous objectives. Five of them should probably be emphasised here, as being mentioned by 40% farmers. Another five objectives have been pointed out by 10% farmers.

The hierarchy of objectives realised by the surveyed farmers is the following:

- bringing up children and providing them with good future prospects (68% occurrence);
- securing the sales of farm produce (63%)
- keeping the farm free of debt and risk (60%)
- maximising farm income (50%)
- farm modernisation (43%)

The most frequently mentioned objectives were those associated with “development and growth” motive (40%). Other significant motives were those of “security” (29%) and “social and psychological” (29%). The “environmental” motive has only cropped up very seldom (5%).

There is no clear significant distinction between objectives of farms differentiated according to various criteria. The hierarchy of objectives is shared irrespective of age, education and economic situation.

To wrap up, it should be said that the research results are significantly different from the commonly accepted opinions on the objectives of private farmers. Profit maximisation considered to be the key farmers’ objective has only been ranked fourth. Definitely the highest rate was achieved by the “bringing up children and assuring them good future prospects” objective. It is also a very important recommendation for social policy to enable its realisation, among others by improving primary and secondary schooling in rural areas and creating better educational opportunities for rural youth.

Attention should also be placed on the high rank of the “securing the sales of farm produce” and “keeping the farm free of risk and debt” objectives. It is a sign of worries as farmers have increasing problems with selling their farm produce at more and more competitive market. In fact they face a completely new situation, they have not come across under “the economy of shortages”

The objectives centred around “environmental” motives are located at the bottom of the list. Partial explanation of this fact is offered by research on farmer’s perception of environmental awareness carried out on the same sample of farmers.

It has been found that the perception of environmental problems is not widespread amongst farmers (Bagel, Bednarek, Majewski). Only 20% out of 655 surveyed farmers are estimated to be rather concerned. In general, the farmers did not perceive any particular need for pro-environmental measures on their farms. 30% of the farmers have stated clearly that they do not see any need to get involved in environmental matters. Furthermore, 61% of the farmers believe that agriculture does not harm the environment. Additionally, 61% of the surveyed farmers reported they had not observed any negative changes in their surroundings over the last few years. However, when asked about ideas to improve environmental standards on their farms, 70% of farmers came up with some suggestions, e.g. improved waste water management or crop protection management. Nevertheless, a more comprehensive approach to farm development with a significant environmental component is not dominant.

Generally poor appreciation of environmental concerns and weak farmers’ motivation to getting involved in pro-environmental activities can most likely be attributed to the fact that farmers are currently preoccupied with the financial and social security of their farms and families. Moreover, in many parts of Poland the natural environment is still very rich and the intensity of production is low.

On the whole, the above findings indicate that the adoption of more sustainable farming systems and methods with a large environmental component will be difficult. Additionally, farmers’ understanding of the EU CAP agri-environmental policies is likely to be poor. Therefore, in promoting environmentally sustainable farming strategies, there is a strong need to emphasise long-term economic benefits along with some health aspects. Surely, more insights into environmental issues and demonstrating the ways to integrate environmental components into farming practices will also enhance the adoption of more sustainable farming practices. Finally, growing environmental concerns among food consumers will also encourage farmers to include environmental aspects in their farm development strategies.

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