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EVALUATION OF DIMENSIONS OF FARMER ATTITUDES IN PRINCIPAL COMPONENT ANALYSIS (PCA)¹

Key words: relations and attitudes of farmers implementing biodiversity processes, social capital, bond, relationship opportunism, PCA

ABSTRACT. The aim of the article was to identify leading relationship attitudes among farmers keeping animals of conservative breeds. The practical justification for the adopted analyses was to identify factors that foster desirable relations (attitudes) in agriculture based on ties. The research was conducted among 145 farms using an interview questionnaire in the poviats of three voivodships (Malopolskie, Podkarpackie, Lubelskie), where operations with livestock conservation breeds occurred. Collective selection was deliberate, meeting the criteria for the use of the extended diversity of breeds of farmed animals in 3 categories (cows, sheep and pigs). On the basis of the PCA test and analysis, 2 types of attitudes were selected: bonded and opportunistic. In the implemented accounts represented by farms according to three species of animals of conservative breeds, the opportunistic attitude was more prevalent than the prison attitude. The opportunism of pig and cattle breeders was particularly valued. In addition, the distribution of attitudes in groups was analysed, among others, due to the characteristics of farmers (age, sex, education and professional experience) and the presence of a successor on the farm. What was confirmed, among others, was the impact of a lack of professional experience of farmers on pro-bonding attitudes. In addition, in the groups, the distribution of attitudes was analysed, among others, according to the characteristics of farmers (age, gender, education, professional experience) and the presence of a successor on the farm. The influence of the lack of professional experience of farmers on relationship-oriented attitudes was confirmed. The younger generation of farmers may be more effective in implementing programmes of genetic biodiversity of farm animals. Small-scale farms, developed by better-educated farmers, with short work experience in agriculture and less experience in keeping animals of conservative breeds, prove to be developmental. The obtained results are illustrative of purposely selected objects, with restrictions, they can be related to the population of all Polish farms keeping animals of conservative breeds.

INTRODUCTION

Relationships between market players are currently considered a valuable resource. However, no company enters the market fully equipped with relationships. Relationships are created, transformed, and also fade away. Investigating relationships can provide valuable information on conditions that are conducive to the creation and maintenance

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of bonds between companies or that lead to risky (opportunistic) behaviour. In particular, model approaches to economically important relational phenomena, such as maintaining biodiversity, are being sought.

In agriculture, the study of inter-organizational relationships has little tradition. However, due to globalization (integration) processes, there already are results of studies (foreign and domestic) of clusters of agricultural producers referring to relations based on cooperation. Another challenge is the implementation of biodiversity policy, where integration processes based on effective relations are becoming particularly important. By obtaining funds, farmers engage in the breeding and production of animals of conservative breeds and produce raw materials valued by consumers (milk, meat). An attractive niche market appears, however, requiring² inter-organizational cooperation (producers, institutions and consumers). The importance of biodiversity processes calls for interdisciplinary research.

The main objective of this article was to identify the types of relationships created in the industry of producers of animals (cows, sheep and pigs) of conservative breeds based on principal components analysis (PCA). The auxiliary objectives were analyses in groups (by animal species and breeds, farmer characteristics, the time of conducting agricultural activity, farm size and prospects of succession of the farmer's profession), revealing conditions conducive to the creation of desired relations by farmers (opportunities and threats).

Relationships created by farmers are a manifestation of behaviour, attitudes and trust. In institutional economics, they can be estimated at transaction costs (KT), assuming that effective relationships are a source of greater income. However, due to a weakness of the KT counting methodology, behavioural theories related to attitudes and behaviours are omitted in explaining the profitability of creating relationships. Relationships contribute to the integration of farmers as they allow access to specific assets, technologies and reduce uncertainty for producers. The impulse to seek effective relationships is provided by growing quality requirements of customers [Den Ouden et al. 1996]. In particular, product differentiation regarding the attributes of production reliability such as animal welfare, food safety and environmental issues are considered to be a major factor in strengthening ties in the meat production chain. Birgit Schulze, Achim Spiller and Ludwig Theuvsen [Schulze et al. 2007] also point out the role of technology and organizational innovation in reducing KTs' transaction costs, which also suggests that formal agreements are not necessary to reduce transaction costs (and relationships are not necessarily based on formalization).

A review of other research reveals several threads that correspond to the topic (attitudes with relational background) of the article. For example, Phillip Waite and Paul Williams [2009] recognized the possibility of "transferring" the value of social capital from the three food clusters in South East Queensland (Australia) to SMEs of the environment. The authors confirmed the relationship between the effectiveness in establishing bonds and trust between cluster members and foreign companies and the value of the social capital of the cluster.

² Farmers need financial support and knowledge of how to act on the market in order not to lose the benefits of having a (valuable) raw material, desired by new customers, who are more aware and require a special service. Farmers are often unable to capitalise on the added value of raw material obtained from animals of conservative breeds (milk, meat, hides). This leads to a loss of value (of agricultural income) as a result of a lack of quality certificates, adequate communication and promotion.

The higher the value of social capital (KS), the more newly established are the ties and long-term relations on foreign markets, as reported by Waite & Williams [2009]. In the context of Polish agribusiness, cluster systems should be developed in order to intensify the flow of knowledge and capital between the links of the agri-food industry (agribusiness), including, in particular, small GUZHRZ (Holdings Keeping Breeding Animals of Conservation Breeds) farms, mainly involved in biodiversity processes.

The results of the German study by Birgit Schulze et al. [2007], on levels of trust in meat supply chains, are also interesting. The contractual arrangement (vertical) of cooperation between farmers and processors was less effective than the non-contractual arrangement (more loose), based more on trust than contracts. In Polish agriculture, there is a lack of contracting and the level of trust is not high. Therefore, it seems right to make all attempts to build trust in the area of agribusiness (especially between farmers), to use informal links in the absence of contracting. The institutional (contractual) building of market bonds is needed, but the “social tissue” rich in trust is more valuable development material.

Nowadays there are two scenarios implemented: intensive vertical coordination (American and Danish) and less integrated (Germany, the Netherlands, Belgium and France), as shown by the results of research of Carsten Traupe [2002], Cynthia Boston et al. [2004], Achim Spiller et al. [2005]. The reason for the emerging controversy over the effectiveness of integration is perceived by Ludwig Theuvsen and Thorsten Hollmann-Hespos [2005] in the preferences of meat consumers who underestimate, through their choices and purchases, the (pro-quality) practices undertaken in integrated food supply chains.

The analyses also point to the long-term profitability of pig markets with a low degree of vertical coordination (vertical contracting). Producers less integrated (formally by agreements) in meat supply chains have shown greater efficiency and profitability in market operations. It can be concluded that contracting agreements do not sufficiently protect a farmer’s production and economic interests. Contracting practices to date have been seen to be abusive, consisting of a loss of quality and a significant lack of confidence of farmers in their chain partners (e.g. slaughterhouses). Similar controversies on poultry cultivation contracts confirm the results of the study [Bijman et al. 2006]. In view of the situation described above, experts propose to apply the management system in supply chains by creating trust [Hansen et al. 2002, Batt, Rexha 2000], attitudes [Key, McBride 2003, Roe et al. 2004, Guo et al. 2005] and developing free entrepreneurship [Key 2005].

Behavioural factors are neglected in the transaction cost account, which leads to a number of negative consequences such as: limited rationality of farmer decisions and incomplete agreements [Nooteboom 2004]. Under these conditions, risks in food supply chains (agricultural raw materials) increase. Researchers report that the uncertainty that arises cannot only be limited by agreements (contracts). Trust becomes necessary as agreements based on the internal control of the chain increase the opportunism of contracting partners and paradoxically, instead of protecting, create the risk of, among others, losing the internal motivation to cooperate [Ghoshal, Moran 1996, Granovetter 1985, Frey, Jegen 2001]. Growing mistrust based on opportunism, as inter-organizational relationships develop, destroys trust [Nooteboom 2004].

RESEARCH METHODS

In order to identify the relationships and attitudes of farmers of the GUZHRZ, the results of a questionnaire survey (147 farms and about 30 institutions in 2017 in south-eastern Poland) were used, representing a population of registered breeders with conservative breeds of animals of three species of cows, sheep and pigs of south-eastern Poland (Malopolska, Podkarpackie, Lubelskie). The selection of farms was purposeful, meeting the criterion of ensuring the greatest diversity of breeds of breeding animals of 3 species (cows, sheep and pigs). In the selected three voivodships, all counties were qualified and, finally, the cities where farms with conservative breeds of livestock were present. The reference point in the selection of a farm was the population of counties at a municipal level. Attempts were made to contact the entire population of farms maintaining breeds of farmed animals of 3 species. Due to a lack of willingness and lack of farmer time (at a municipal level), around 5% of farms were eliminated. The rejected farms did not stand out due to demographic or profile features. Hence the sample of farms obtained, in which the research was carried out, was representative in relation to all farms with a similar profile (keeping livestock of conservative breeds). The group of entities cooperating with farms included: trade associations, Agricultural Advisory Centres, Commune Offices and other state institutions (ARiMR, Veterinary Inspectorate, BiP Zootechnics Institute in Balice). The starting point for the identification of the relationships between producers were the characteristics of the relationship. On the basis of a literature review, 8 characteristics defining the quality of relationships were selected: 1. Closeness, 2. Predictability, 3. Sociability, 4. Business, 5. Mistrust, 6. Honesty, 7. Deliberation, 8. Uncertainty. Farmers evaluated these characteristics on a scale of 1-5. It was assumed that the characteristics of the relationship (8 characteristics), created by farmers, are distributed around groups (characteristics). Using the Catella criterion, two components (a reduction of 8 variables to two) were distinguished, marked conventionally (as attitudes): 1. Bond and 2. Opportunism. In the first group, marked as „Bond”, there were positive terms (characteristics) of relationships such as: intimacy, predictability, sociability and honesty. In the second group, there was a group of characteristics that pose a threat to trust, contractually labelled „opportunism” (mistrust, deliberation and uncertainty). One characteristic of „business-orientation” was rejected from both criteria. The research question was to identify factors creating opportunities and threats for the development of positive relations between farmers of GUZHRZ farms.

In search of the relationship between the pro-bond and pro-opportunistic relationships, the analyses were carried out in groups according to the following criteria 1. Animal species (sheep, cows, pigs), 2. Animal breed, 3. Age of the farm, 4. Year of introduction of animals of conservative breeds, 5.-7. Education, age, sex, occurrence of the successor of the farmer running the farm, 8. Size (area) of the farm.

The practical rationale of the adopted analyses was to indicate factors which favour the desired relationships (attitudes) in agriculture based on bonds. The bonded nature of relationships is a valuable contribution of human capital of a KBE (Knowledge-Based Economy). The authors: Bożena Borkowska and Bożena Klimczak [1998] stress the need to shape the feedback between individual links on the basis of trust and risk-benefit sharing. Such a relationship leads to the appearance of additional synergy effects and, as a result, to

a competitive advantage. Inter-organizational relationships are understood as all forms of connections. These relationships have various forms: from direct market contacts to long-term contractual relationships. Relationships can be unconscious, non-committal and impermanent. And, on the contrary, they can take on the form of very close bonds [Tomski 2003].

RESULTS

ANALYSIS OF THE MAIN COMPONENTS (PCA) OF THE RELATIONSHIP SCALE

Principal component analysis (PCA) enables the identification of primary variables that have a large impact on individual main components and form a homogeneous group. The main component is the representative of this group. Subsequent components are mutually orthogonal (uncorrelated) and their number (k) is less or equal to the number of primary variables (p). Individual principal components are, therefore, a linear combination of primary variables. Each major component explains some part of the variability of primary variables. To sum up, the main applications of principal component analysis (PCA) are: the reduction of the number of variables, the detection of structure in relations between variables, the verification of detected regularities and relations, the classification of objects in new spaces defined by created factors.

In the case of relationships, many variables may determine their developmental character. On the basis of a literature review, referring to the characteristics of relations of contemporary enterprises, 8 antagonistic (opposite) characteristics were selected. For example, deliberation may arouse distrust, business-orientation and uncertainty. On the other hand, honesty and intimacy of relations generate predictability and sociability.

In this study, based on the Cattell criterion, two components were distinguished from eight characteristics of the relationship (Figure 1). The moment when the descending line goes into the horizontal one is the so called “end of the scree” (the end of screeching of information about primary variables from principal components). The components to the right of the end of the scree represent a negligible variance and mostly represent random noise (Figure 1).

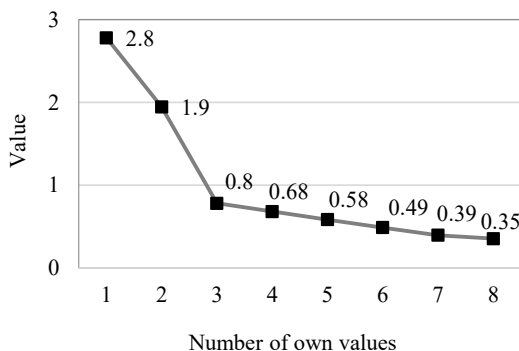


Figure 1. Figure of own values of the eight characteristics of the GUZHRZ relationship test

Source: own research

The development of the analysis presents the factor loadings for the eight variables assessing the quality of the relationship (Table 1). The analysis of the principal components identified two factors (dimensions), which were arbitrarily marked with names: 1. “Bond” and 2. “Opportunism” in GUZHRZ relationships (Table 1).

Table 1. Factor loadings* for GUZHRZ relationships' quality assessment variables

Specification	Factor 1	Factor 2
a. Intimacy	0.769804	0.109885
b. Predictability	0.760696	-0.173617
c. Sociability	0.710792	0.182395
d. Business-orientation	0.665025	0.148674
e. Mistrust	-0.012077	0.811019
f. Honesty	0.776687	-0.103682
g. Deliberation	0.013281	0.784884
h. Uncertainty	0.111150	0.779701

* the estimated loadings are > 0.70000

Source: own research

In the next step of PCA, an analysis of the reliability of the scale of the Bond and Opportunism was conducted (Tables 2 and 3). On the basis of the Alpha Cronbach test, the compatibility of the internal relationship evaluation test was estimated. The determined Alpha Cronbach value (0.79) confirmed the high reliability of the test (above 0.8). Tables 2 and 3 include the results of statistics accompanying the Alpha Cronbach test. The last two columns of Tables 2 and 3 define the value (usefulness) of the GUZHRZ relationship quality test questionnaire (which question from the relationship evaluation test will remain or be removed).

The next to last columns of the Tables 2 and 3 show the correlation between the assessment of the first characteristic of the relationship and the assessment of the whole (all characteristics), when e.g. the first question (row 1) is removed from the whole. By finding (in the next to last column) low correlations, bad "bond"/"opportunism" testing questions are marked (tables 2 and 3). As long as the value is lower than the total of Alpha Cronbach, there is a significance of the variable in the relationship quality test. In the cases studied (Tables 2 and 3), all questions received a lower Alpha than total Alpha, i.e. all questions were good (and no questions had to be removed).

Table 2. Summary of the statistics of scale reliability analysis* (Alfa Cronbacha) for bonds

Evaluation of the relationship on the scale of the bond (1-5)	Average when removed	Value when removed	Standard deviation when removed	Position minus total correlation	Alpha when removed
a. Intimacy	13.57586	10.34597	3.216515	0.578651	0.747896
b. Predictability	13.41724	9.98626	3.160104	0.559188	0.753696
c. Sociability	13.67931	10.58854	3.254003	0.500228	0.771789
d. Business-orientation	12.98621	10.20671	3.194794	0.597965	0.741797
f. Honesty	13.52759	9.35096	3.057935	0.611513	0.736316

* summary of the scale: average = 16.7966, standard deviation = 3.88484, N validity: 145, alpha cronbach: 0.790074, alpha standardized: 0.790873, average correlation between positions: 0.434209
Source: own research

Table 3. Summary of the statistics of scale reliability analysis* (Alpha Cronbach) for opportunism

Evaluation of the relationship on the scale of the opportunism (1-5)	Average when removed	Value when removed	Standard deviation when removed	Position minus total correlation	Alpha when removed
e. Mistrust	4.289655	2.964376	1.721736	0.5735531	0.5874917
g. Deliberation	4.131034	2.844899	1.686683	0.5249836	0.6464707
h. Uncertainty	4.200000	3.015172	1.736425	0.5168923	0.6538157

* summary of the scale: average = 6.31034, standard deviation = 2.41672, N validity: 145, alpha cronbach: 0.717909, alpha standardized: 0.719205, average correlation between positions: 0.461121
Source: own research

“Alpha when deleted” (last column of Tables 2 and 3) provides information on how much Alpha Cronbach would have been if the question had been deleted from the questionnaire. It is important that questions (a-f; Table 2) have an Alpha value lower than the total Alpha (for 8 questions; Cronbach’s Alpha = 0.79).

The realization of the auxiliary objectives of the article consisted of the analysis in classes according to accepted characteristics (farmer, farm). The adopted procedure was to indicate the conditions conducive to the creation of desired relationships (attitudes) (of the “bond” type), as well as to determine the conditions generating dangerous relationships resulting from opportunistic attitudes (risky relations). An exemplary detailed analysis in groups by species is presented in Table 4, and the remaining results of analogous group analyses are presented descriptively in Table 5.

In the relationships represented by farms, according to three species of animals of conservative breeds, the opportunistic (risky) attitude was more evident than the bonded one (Table 4). Opportunistic attitudes of pig and cattle breeders were particularly highly valued. On the other hand, puławska pig breeders were the only ones to highly evaluate the relationship between bond and opportunism. Both groups of characteristics of the relationship were highly valued, which indicates the diversification of the pig industry environment (→the need for training to strengthen bonds and weaken opportunistic tendencies). On the other hand, it is difficult for sheep farmers to be labelled opportunists or pro-bond, as both types of relationships were rated low, and none of them were significantly related to the animal species.

Table 4. Profiles of the average in the GUZHRZ classes of animal species for relationship dimensions (“Bond” and “Opportunism”)

Specification	Bond Average	Bond Important	Opportunism Average	Opportunism Important
Cattle	-0.023026736	52	0.242793214	52
Sheep	-0.057289568	74	-0.215532194	74
Pigs	0.286148332	19	0.174954487	19

Source: own research

Table 5. Evaluation of bonds and opportunism in relationships based on the characteristics of the surveyed farms

Specification	Bond	Opportunism
Sectors (animal species)	The pig breeders valued the bond as much as opportunism. The shepherders valued the bond low. Cattle breeders have acted in two ways, realizing cooperation in bonded and opportunistic relations	Pig and cow breeders highly valued opportunism. Sheep breeders valued opportunism low and cooperated only with "good" in terms of the bond relationships
Conservative breeds of animals	The breeders of the puławska pig and red-and-white cows highly valued the bond	The highest value was placed on the opportunism of sheep breeders: świniarska as well as red-and-white cows
Year of the establishment of the farm	Younger farms established after 2005 are looking for a bond in relationships	Older farms established before 1989 are looking for possibilities of opportunism in relationships
Year of introduction of conservation breeds	The farms keeping conservation breeds for the shortest time are looking for bonds in relationships and cooperation	The longer the breeding of conservative breeds was carried out, the more opportunistic they became
Education	The higher the education of the farmer, the greater the need for cooperation (bond)	The lower the education of the farmer, the greater the need for opportunism in his relations
Age of the farmer	The older the farmer, the greater the interest in cooperation (bond)	Opportunism was not dispersed linearly due to the age of the farmer. The greatest opportunism among farmers occurs between the ages of 30 and 50
Gender of the farm owner	Women were more focused on the bond in relationships	Men were more interested in opportunism
Successor on the farm	A lack of successor generates more of a search for bonds in relationships	The presence of a successor is conducive to opportunistic relationships of previous farm owners
Area of the farm	The smaller the farm, the greater the focus on bonds in relationships	The smaller the farm, the greater the opportunistic relationships

Source: own research

CONCLUSIONS

As the results of the research indicate, behavioural factors play an increasingly important role in explaining a manufacturer's economic decisions. The literature review (American, European experience) shows that market risks in agriculture are not fully constrained by contractual agreements. On the other hand, trust plays an important role, which, through entrepreneurial attitudes, influences farmer efficiency more. In view of these reports, the state of the relationship among producers who breed animals of conservative breeds (in the programme for the protection of animal genetic biodiversity) may be an indicator of the quality of social capital.

The applied relationship quality assessment test based on PCA analysis provides an initial diagnosis of social capital. Farmers realizing a programme for the protection of animals of conservative breeds create relationships based on opportunistic and bond attitudes. In the reliability tests of eight relationship characteristics, both principal factors (bond and opportunism) were positive with a slight advantage of bond characteristics. Additional analysis in the groups enabled to identify the threats and opportunities for the development of bond and opportunistic relationships.

Relationships may be threatened by the following characteristics and situations resulting from them: 1) the presence of conservative breeds of sheep (świniarka) and cattle (red-white), 2) the long term running of the farm and keeping animals of conservative breeds, 3) the lack of education of the farmer, 4) the gender of the owner (men are more opportunistic), 5) large area farms were prone to opportunistic attitudes in relationships. Farmer attitudes towards risk were investigated by Andres Picazo-Tadeo and Allan Wall [2011]. The authors similarly demonstrated the positive impact of a farmer's age on risky attitudes and (differently) the neutral impact of farmer education on the risky attitudes of rice producers. In turn, a farmer's possession of large capital and the consumption of fertilizers intensified the risky attitudes of farmers, and the impact of land resources and labour force on reducing risks. In turn, Philip Brown, Adam Daigneault, and Joshua Dawson [2019] showed that older farmers are less likely to adopt new technologies or change the way land is used. Young farmers are less risk averse, more influenced by social norms and less focused on finances. Also, the results of studies by Melissa van der Merwe et al. [2017] correspond with the results of this article. The cited authors showed, among others, a negative relationship between information sharing and the opportunistic behaviour of producers. The results show significant positive relationships between trust in the slaughterhouse and information shared, as well as between farmer networks and shared information. Melissa van der Merwe et al. [2017] recommend diversifying meat supply chains, by building stronger relationships based on trust and supporting farmer networks.

Factors (decisions, situations) for the development of the GUZHRZ farmer relationships (bonds) will thus be:

1. Training for breeders of świniarka sheep of opportunistic characteristics and breeders of puławska pig and red-and-white cows demonstrating ambivalent attitudes (bond-opportunistic). Their level of relationship quality should be monitored to prevent the accumulation of opportunistic attitudes.
2. The younger age of the farm and the short duration of the breeding of conservation breeds of animals. The message about integration training for the young generation of farmers should be strengthened.
3. A higher education of the farmer running the farm.
4. Female owner-managers more often predict pro-bond relationships.
5. The lack of a successor on a farm creates opportunities to seek bonds in farmer relationships, hence farms without successors are particularly open to pro-bond relationships.
6. Smaller farms more often created relationships based on bonds.

The comparison of opportunities and threats to the development of social capital among the GUZHRZ is a good indication of the development of smaller farms, without a successor, but better educated, with a short period of time spent working in agriculture and less experience in keeping animals of conservative breeds. The above mentioned features should be prerequisites in decisions on the allocation of funds (co-financing) for entities implementing biodiversity processes based on the keeping of conservation animal breeds.

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OCENA WYMIARÓW POSTAW ROLNIKÓW W ANALIZIE GŁÓWNYCH SKŁADOWYCH (PCA)

Słowa kluczowe: relacje i postawy rolników realizujących procesy bioróżnorodności, kapitał społeczny, więź, oportunizm relacji, PCA

ABSTRAKT

Celem artykułu jest identyfikacja wiodących postaw relacyjnych wśród rolników utrzymujących zwierzęta ras zachowawczych. Uzasadnieniem praktycznym przyjętych analiz było wskazanie czynników, sprzyjających pożądanym relacjom (postawom) w rolnictwie opartym na więzi. Badania przeprowadzono w 145 gospodarstwach z wykorzystaniem kwestionariusza wywiadu w powiatach trzech województw (małopolskiego, podkarpackiego i lubelskiego), w których występowały gospodarstwa z rasami zachowawczymi zwierząt gospodarskich. Dobór gospodarstw był celowy, spełniający kryterium zapewnienia największego zróżnicowania ras zwierząt hodowlanych 3 gatunków (krów, owiec i świń). Na podstawie testu i analizy PCA wyłoniono 2 typy postaw, tj. typ więzi i typ oportunistyczny. W realizowanych relacjach rolników reprezentujących gospodarstwa według trzech gatunków zwierząt ras zachowawczych, mocniej zaznaczyła się postawa oportunistyczna niż więziowa. Szczególnie wysoko cenili oportunizm hodowcy świń i bydła. Dodatkowo w grupach przeanalizowano rozkłady postaw, m.in. ze względu na cechy rolników (wiek, płeć, wykształcenie, doświadczenie zawodowe) i obecność następcy w gospodarstwie. Potwierdzono m.in. wpływ braku doświadczeń zawodowych rolników na postawy prowięziowe. Młodsze pokolenie rolników jest bardziej efektywne w realizacji programów bioróżnorodności genetycznej zwierząt gospodarskich. Rozwojowe okazały się mniejsze powierzchniowo gospodarstwa, prowadzone przez lepiej wykształconych rolników, o krótkim stażu pracy w rolnictwie i mniejszych doświadczeniach w utrzymywaniu zwierząt ras zachowawczych. Uzyskane wyniki są poglądowe dla dobranych celowo obiektów, z ograniczeniami można je odnosić do populacji wszystkich polskich gospodarstw utrzymujących zwierzęta ras zachowawczych.

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