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## **ANALYSIS OF SELECTED ACCOMMODATION CONDITIONS AT AGRITOURISM FARMS BASED ON THE METHOD OF CLASSIFICATION TREES**

### **Summary**

A comparative analysis, using the classification tree method, of typically agritourism and agriculturally inactive farms has been conducted in this paper. An interview questionnaire, carried out on 78 farms, has been applied as a research tool.

According to the research, typically agritourism farms evaluated the quality of their own services more positively. However, these factors did not influence the improvement of offer standards. Perhaps they had to invest more often in the development of farms rather than focus on improving the sanitary and hygiene infrastructure. The residential buildings may have not been adapted to undergo redevelopment in that respect.

Agriculturally inactive households rarely broadened their knowledge in order to improve accommodation conditions. They had higher standards regardless of the level of hosts' qualifications. Presumably, hosts who focus mainly on agritourism are more likely to improve accommodation conditions. They basically do not have to pay expenses that would be incurred by agricultural activity.

The application of the classification tree method has allowed to observe that high self-evaluation of services provided does not always have to result in better sanitary equipment of rooms or possession of living rooms. The method has made it possible to present the examined factors in a simple graphical manner, thus allowing to notice differences between typically agritourism farms and agriculturally inactive farms.

**Key words:** agritourism, accommodation conditions, classification trees

## **INTRODUCTION**

In order to secure their position in the competitive market of tourism services, agritourism farms need to continually improve their services. They prepare offer packages depending on their material resources. As pointed out by Rapacz [2004], high quality should be the essential attribute of the product offered to customers. Given contemporary markets, striving for improvement is a necessity. Basic services serve a crucial role in the initial stage of starting agritourism business. They need to be designed both to meet constantly rising expectations of tourists and to be able to compete with similar services at a local, regional or national level.

### **THE SCOPE AND METHOD OF THE STUDY**

The aim of this paper is to analyse selected factors regarding accommodation conditions (sanitary facilities in rooms, shared sanitary facilities, living rooms) as well as self-evaluation and qualifications to manage an agritourism enterprise. Therefore the classification tree method, which has been used recently, has been adopted. In principle, it was developed in the eighties. A particularly noteworthy publication was the one of Breiman et al. [1984]. The method has been used to classify cases or objects according to classes of the quality dependent variable on the basis of the assessment of one or more explanatory variables (predictors). In all stages all predictors are analysed and the one which ensures the most effective division of the node into most homogeneous sub-sets is chosen [Łapczyński, 2003].

The analysis based on the classification-tree method aims to predict or explain responses (reactions) encoded in the quality dependent variable; therefore, the techniques used in this module have much in common with the techniques used in more traditional methods of discriminant analysis, cluster analysis, nonparametric statistics, and nonlinear estimation. The flexibility of the classification tree analysis makes it very attractive, but this does not mean that it is recommended to use it instead of traditional methods. If stricter theoretical requirements and assumptions concerning the distributions required by traditional methods are fulfilled, then these methods should be used. However, the classification tree method is an unsurpassed exploratory technique, and can be the last resort when traditional methods fail.

The subjective character of the final solution is the weakness of the method and it results from the lack of unambiguous assessment criteria for the quality of the tree obtained. Nevertheless, they can be easily graphically represented, which makes them easier to interpret than purely numerical results.

The research was conducted in the Kujawsko-Pomorskie province. It was carried out in 14 counties which, according to the typology of municipalities

suggested by Iwicki [1998], were classified as low value areas in terms of natural environment. An interview questionnaire was used as a research tool in 78 households. On the basis of research assumptions, service providers were asked three questions. The first one concerned accommodation conditions offered to guests. Three out of 16 possible choices were focused on (bathrooms and toilets in rooms, shared bathrooms and toilets in hallways, living rooms – TV rooms). The second question referred to the necessary qualifications, obtained by hosts to run agritourism business (courses and training organised by the Agricultural Advisory Centre, municipality office, agritourism association, agency, foundation or other entity; reading professional textbooks and guides, using the experience of other agritourism farm owners). The last question regarded the assessment of the quality of services provided by agritourism hosts as compared with other households. The respondents were supposed to assess whether they provide very good, good, medium or low value services. They were also given the possibility to indicate that they were unable to assess it.

The study was exhaustive, that is all farms involved in agritourism business on the area were taken into consideration.

## **RESULTS AND DISCUSSION**

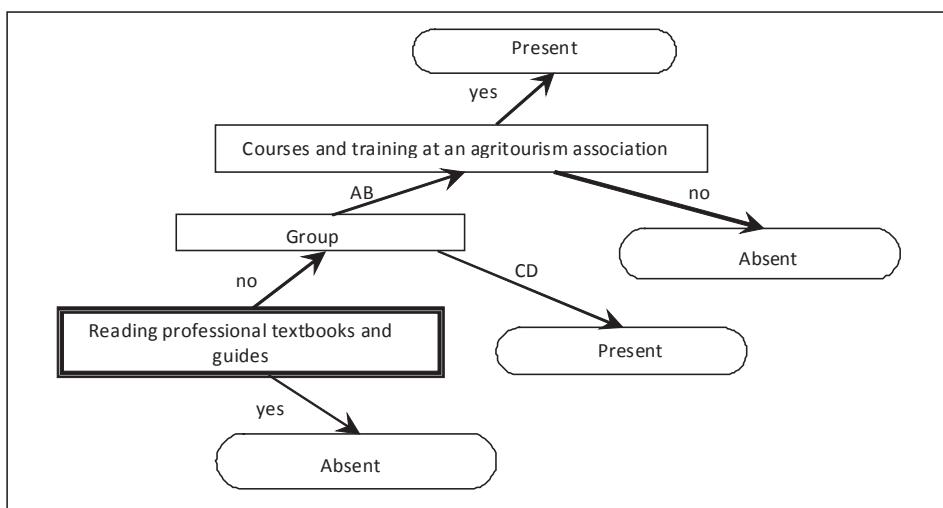
An important issue that will be the starting point for the analysis of research findings is the position of agritourism in the contemporary countryside. According to Sikora [2001], agritourism has become less connected to agriculture and the business has increasingly been undertaken by people who have nothing to do with farming. The tendency to resign from farming production has also been observed by the authors of the paper. The transformations have also been noticed by Marx et al. [2001], claiming that farming production sometimes complements the benefits incurred by agritourism activity and sometimes farmers rely solely on tourism services and non-agricultural sources as their source of income. Since the regularities observed emerged over the course of research, analyses of the results will be based on the division of agricultural farms according to their activity (agricultural or non-agricultural). This will facilitate better interpretation of the collected material and possible perception of differences between offers.

Of all households examined two groups marked as AB and CD were identified. The first (AB) group consisted of 56 units involved in a typical agritourism activity. The second (CD) group was comprised of 22 units which had lost distinct agricultural characteristics. Distinguishing features of agritourism farms have been widely described in the paper of Cichowska [2008].

Our own research has shown that farmers willingly participate in training, comprising nearly 90% of all individuals engaged in agritourism. The same opinion was expressed in the works of Warzocha [2003] and Kutkowska [2003].

Drzewiecki [2002] remarks that since the 1960s, that is from the beginnings of agritourism, hosts' living quarters have had low or even primitive standards, especially sanitary facilities. Contemporary development of this activity has involved gradual improvement of accommodation facility standards in terms of sanitation and living conditions. Special attention has been paid to make sure that guest-only sanitary equipment has high standards and rented rooms are equipped with sanitary units as well. Examples of improving accommodation conditions in quarters, including modernization of sanitary facilities have been described in works of Dziechciarz [2005], Serocka and Broniec [2005], Woźniczko and Mikuta [2005].

As rooms equipped with sanitary facilities have become a necessary requirement (it is worth mentioning that 50% of respondents mentioned this type of investment as part of their plans for the future) the classification-tree method has been used to determine if the tendency had been influenced by hosts' qualifications and whether guests shared sanitary units or each room was equipped with a separate one (Figure 1).

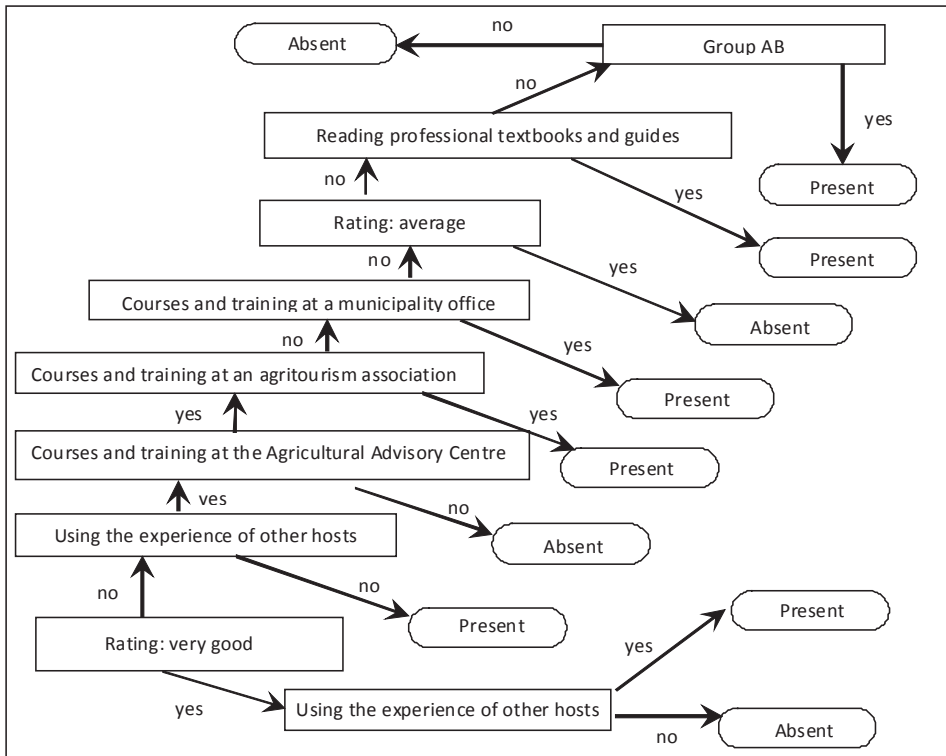


**Figure 1.** Impact of hosts' qualifications on the equipment (rooms with bathrooms and toilets). The classification-tree method

As far as room sanitary facilities are concerned, both group AB and CD were hardly influenced by publications, while participation in training organised by the agritourism association made an impact on some of them.

Figures 2 and 3 suggest that qualification upgrading facilitated decisions regarding the above-mentioned facilities, it did not always have a direct impact though. Higher self-evaluation and qualifications of at least one individual

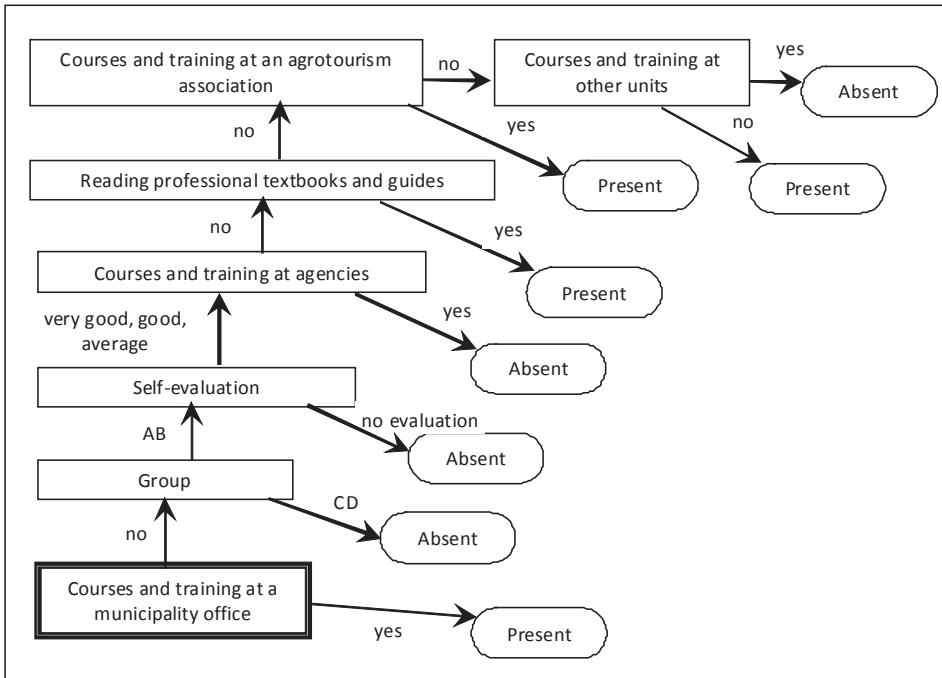
resulted in offers comprising living rooms. The absence of self-evaluation or training did not have such influence (Figure 3). In the case of shared sanitary facilities for visitors, various responses were given. Both qualified and unqualified hosts establish them, however majority of them occurs in households demonstrating high self-evaluation (Figure 2).



**Figure 2.** Impact of hosts' qualifications on the equipment (shared bathrooms and toilets in hallways). The classification-tree method

Thus, a conclusion can be drawn that skills developed by owners influence the tendency to improve the quality of services provided. Even though the service providers are most likely to rely on the aid received from the Agricultural Advisory Centre (86.4%), the institution appears to occupy a role of secondary importance in view of issues discussed in the paper. Hosts from group AB were more willing to participate in the process of self-evaluation and consult professional advisors, however this activity did not always influence their decisions regarding the equipment of living rooms and guest-only sanitary units. More rooms with sanitary facilities were observed in group CD (62%) and consistently more shared units were found in group AB (58%). As far as living

rooms (shared by guests) are concerned, the largest number of them occurred in households belonging to group AB (63%).



**Figure 3.** Impact of hosts' qualifications on the equipment (living room – TV room). Classification-tree method

Of all 78 owners, 55.1% of them had living rooms (TV rooms), 76.9% of individuals questioned possessed shared sanitary facilities in hallways and 32.1% of respondents had bathrooms and toilets in their rooms. Also Krupińska [2005], Gurgul [2005], Batorski [2003], Warzocha et al. [2003], Ciesielska [2001], Baliński and Sikorska-Wolak [2001] observed a small percentage of households with separate sanitary units. They were mostly shared by visitors. Gurgul [2005] also identified farms offering 1 bathroom available for 2 rooms. Equal numbers of rooms with and without sanitary facilities were identified by Balińska and Sikorska-Wolak [2001].

All the factors discussed in the paper seem to be of significant importance because low sanitary standards of residential buildings in some villages, though possible to change for the better, as Drzewiecki [2002] remarks, still need to be improved. Sanitary conditions attract special attention of holiday-makers. The most essential issue is to ensure that these facilities are available only for tourists [Warzocha et al. 2003]. Nevertheless, regardless of household standards,

hosts should use the best skills and as much enthusiasm and empathy as possible to meet the expectations of guests and make their stay pleasant [Sikorska and Kajszczyk 2001].

## CONCLUSIONS

Although households involved in a typical agritourism activity improved their qualifications more frequently and evaluated the quality of their own services more highly than agriculturally inactive farms, these factors did not improve the standards of offers provided. Perhaps they had to focus on the investment in the development of their farms rather than devote their attention to the improvement of sanitary and hygiene infrastructure. The residential buildings may have not been adapted to undergo redevelopment in that respect.

Agriculturally inactive households rarely broadened their knowledge in order to improve accommodation conditions. They had higher standards regardless of the level of hosts' qualifications. Presumably, hosts who focus mainly on agritourism are more likely to improve accommodation conditions. They basically do not have to pay expenses that would be incurred by agricultural activity.

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