

**INFORMATION AS AIDED FACTOR OF PRICE RISK
MANAGEMENT IN AGRICULTURE**

Magdalena Śmiglak-Krajewska, Anna Zielińska
Poznań University of Life Sciences

Abstract. The main goal of this paper was to examine the role of information, especially information of the price risk management methods among Polish farmers in the Wielkopolska Region. Primary data, in a form of a survey, was collected from 280 individual farms and 66 selected State Treasury Farms. Research was carried out in 2004-2005 in the Wielkopolska Region. Specific requirements were followed: a) arable land up, b) market scale production. The examined individual farms and State Treasury Farms were divided into three size groups: I, II, III. The results showed that Polish farmers have little knowledge of price risk management methods and their tools to protect themselves against price risk.

Key words: market information, risk management, quality standards, price, derivatives

INTRODUCTION

Risk is an irreversible factor of functioning of each enterprise in market economy. An entrepreneur always has to take under account and deal with risk, understood as the danger of not fulfilling the expectations. Risk in agriculture plays a crucial role. Moreover, risk is a complicated, because of the fact of too many small market players, and, on the other hand, because of unpredictability of economic and natural situations. Undertaken investments in agricultural production within annual production cycle do not guarantee covering costs and work out any gains or gains at an expected level. So that risk carries both positive and negative effects. Downsizing negative effects of economic risk is possible through introduced risk management methods. Risk management is a process which begins from the early intellectual concepts and ends up in running as business. In practice, there are administrative and non-administrative methods of man-

aging economic risk. Non-administrative methods include individual instruments of decreasing economic risk. Particularly it refers to price risk methods. In literature there are listed such methods as¹:

- differentiating of production and/or time of sales,
- horizontal and vertical producers' cooperatives
- instruments: forward, future contracts and options, offered by Commodity Exchange, which play enormous important role in price risk managing [Santana-Boado 2001],
- emergency funds which help decreasing economic risk, including price risk, offered by insurance companies

Planning a production and market information are crucial in running each business and risk management. Examined owners and farm leaders being aware of that fact, value information in each business process. The business information is the basis for production planning and assessment of potential economic risk.

A definition of business information is various according to the way of understanding (modeling) the reality. It must be admitted that the information is absolutely necessary in running a business [Co to jest informacja... 1999]. Business information determines behaviour of each entrepreneur. In economy the information has risen its importance and plays a role of a product: information is purchased and is included in the cost analyses. Dependable information as well as broad and fast access to it is the basis for proper function of free-market economy. Gaining the best available information is to entrepreneurs' interest. Market information provides the knowledge on many different quantities: consumption, production, import, export, inventory and products' prices [Sznajder et al. 1997]. In market economy each entrepreneur should have an access to information in order to properly assess the market situation. If the information is not accessible to everybody or it's expensive, markets start to slump [Levison 1992]. Market information and its proper flow is one of the most important factors of nowadays commodity turnover. More often information is acknowledged – among soil, labour and capital – as a crucial factor of the production [Zarządzanie przedsiębiorstwem... 1999]. Each farmer who runs a business has to undertake many rational decisions which are based on the market information. In accordance to continuous changes on the market farmers have to take the risk of each taken economic decision. The level of market risk depends at the level of accessible market information on market actions/activities [Figiel et al. 2001].

The fundamental role of running a business plays the production's planning. The examined owners and leaders of the individual farms confirmed the essential role of information in economic/market activities. The market information is the basic reason for the production planning and assessment of potential market risk. The aim of the presented data is to (1) define the role of market information in managing the risk in agriculture, (2) to state if the examined farmers have necessary market information, (3) to learn where from they receive it, (4) to find out if the received information used to manage the risk.

¹ More information in: Cordier [1988].

MATERIALS AND METHODS

Primary data come from a survey conducted on 280 individual farms and 66 selected State Treasury Farms in the Wielkopolska Region. The research was carried out in 2004/2005. The collected data was analysed and described with statistical methods. The survey covered farms in the Wielkopolska Region which fulfilled the requirements of a) arable land in the individual farms: I subgroup 15-9,99 ha, II 20-49,99 ha, III 50-100 ha, in the State Treasury Farms: I subgroup: 100-499 ha, II subgroup 500-999 ha, III subgroup more than 100 ha), b) implementation of the production diversity. The data is a part of a larger survey on identification of price risk managing tools in the Wielkopolska Region on wheat (2003/04) and meat (2004/05) market, conducted within the bilateral grant² between Poznań Agricultural University and Poznań University of Economics. The research results are included in the published book on "Economic conditions of using marketing tools stabilizing price and management of price risk in the Polish agriculture".

RESULTS

In this section are shown the results on: the main sources of market information among (a) 280 respondents from the examined individual farms (Fig. 1), and (b) respondents from State Treasury Farms (Fig. 2), Chosen factors (such as: internet, consulting agencies, own information, radio, advisory centers, next-door channels, agricultural press, TV, others) (Fig. 3), and (b) respondents from State Treasury Farms (Fig. 4), The source of market information on quality standards among (a) 280 respondents from the examined individual farms (Fig. 5) and (b) respondents from State Treasury Farms (Fig. 6). The survey results showed that the examined farmers are following news on the market in order to take rational economic/production decisions. Out of eight given sources of market information such as: TV, radio, informal exchange of information, consulting, papers reports, internet, industrial bulletins and own information, each respondent indicated few of them (Fig. 1-2). In the group of individual farms – divided into three categories – 78% responders from the I subgroup, 98% of the II subgroup and 96% of the III subgroup confirmed that they receive necessary market information from the TV programs, and from the industrial papers (I subgroup: 81%, II subgroup: 92%, III subgroup: 79%). Majority of the examined responders gain market information from informal, next-door channels (I and II subgroup: 66%, III subgroup: 35%) as well as from radio programs (I subgroup: 51%, II subgroup: 56%, III subgroup: 52%). From the bulletin papers take advantage 36% of examined farmers from the I subgroup, 54% of the II and 52% of the III subgroup. In less than 13% farmers gain market information from consulting agencies (I: 9%, II: 13% and III: 10%). The research showed that Internet is the least chosen instrument for getting market information (I: 6%, II: 13%, III: 10%).

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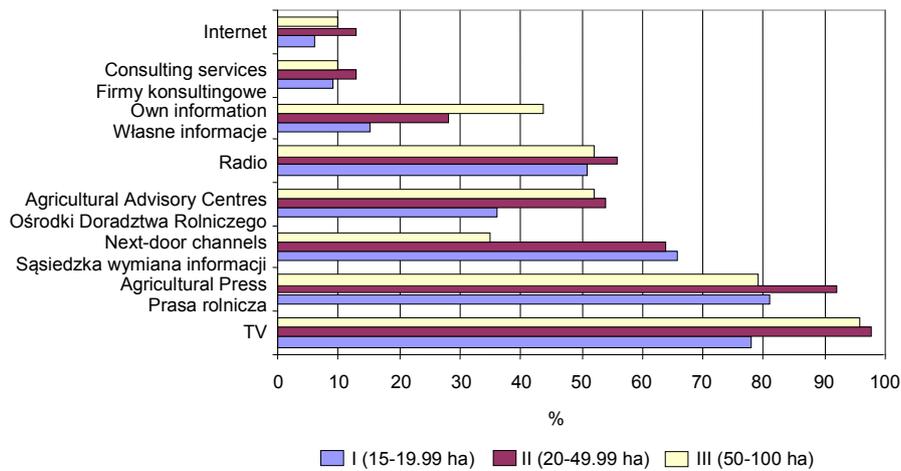


Fig. 1. Main source of market information used by individual farms according to area category

Source: own research.

Rys. 1. Główne źródła informacji rynkowej wykorzystywanej w gospodarstwach indywidualnych w zależności od grupy obszarowej

Źródło: badania własne.

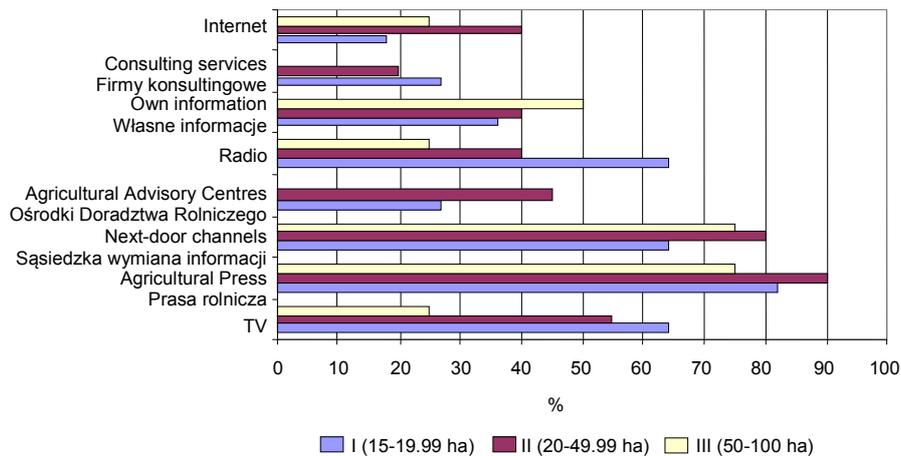


Fig. 2. Main source of market information used by State Treasury Farms according to area category

Source: own research.

Rys. 2. Główne źródła informacji rynkowej wykorzystywanej w gospodarstwach wielkoobszarowych w zależności od grupy obszarowej

Źródło: badania własne.

In the examined group of the State Treasury Farms responders gain necessary market information from industrial papers (I: 82%, II: 90%, III: 75%), and on the second place from informal, next-door channels (I: 64%, II: 80%, III: 75%). The responders from State Treasury Farms much more than responders from individual farms use Internet (I: 18%, II: 40%, III: 25%) and from consulting advisors (Fig. 1, 2).

On the basis of the carried out research it can be stated that all responder gain market information which gives them the possibility to take rational and proper business decisions. On the other hand, market information received from TV, radio and industrial bulletins are not the best solution because that information does not reflect specific business conditions of their region. That information comes from the whole country and is too general, whereas farmers should get very specific information from the region where they purchase means of production and sell their goods. The examined respondents of the State Treasury Farms which are modern and better equipped, more often use internet for market information.

Next issue raised in the questionnaire was to define what kind of market information the respondents need in order to take rational economic decisions (Fig. 3, 4). Almost all respondents from the individual farms (I: 90%, II: 100%, III: 96%) agreed on the necessity of getting the price information. The second most important factor turned out to be the information on market's requirements. 63% responders from the I and II subgroup and 52% of the responders from the III subgroup indicated on the importance of the information on products' quality. In the information on the technology were interested only 24,5% from the I subgroup, 34% from the II subgroup and 43% from the III subgroup. The information on new trends in the agricultural production gained the least importance (I: 9%, II: 34%, III: 17%).

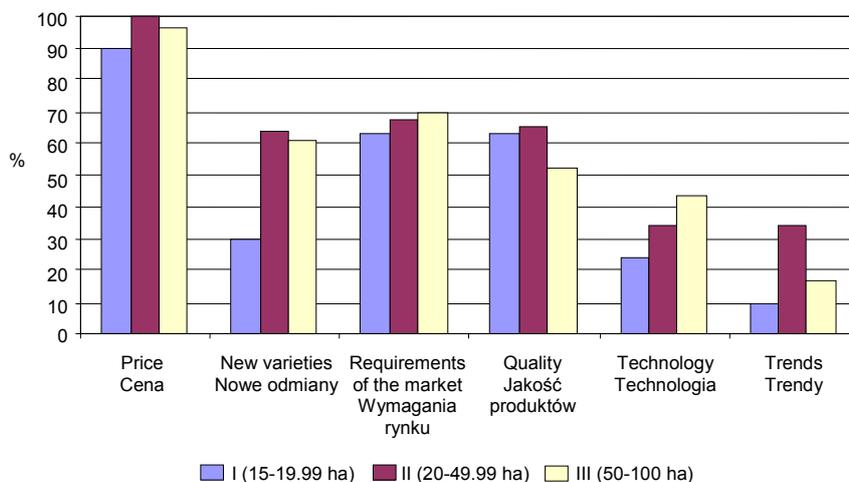


Fig. 3. Influence of specific factors on taking an economic decision from individual farms according to area category

Source: own research.

Rys. 3. Wpływ poszczególnych czynników na podejmowanie decyzji wykorzystywanych w gospodarstwach indywidualnych w zależności od grupy obszarowej
Źródło: badania własne.

Also farmers from leased farms as the most important factor indicated the information about price (100-499 ha: 91%, 500-999 ha: 85%, above 1000 ha: 75) and current requirements of the market (I group: 45%, II: 80%, III: 75%). Very important is also knowledge concerning product quality (I group: 55%, II: 70%, III: 75%), since more and more often customers pay attention not to price, but quality of the product offered. —A consumer is not only an addressee of food, he chooses and pays for: he is also the one, who suffers the consequences of food consumed” [Chabiera 1997]. New varieties and trends are less important than remaining kinds of information (Fig. 4).

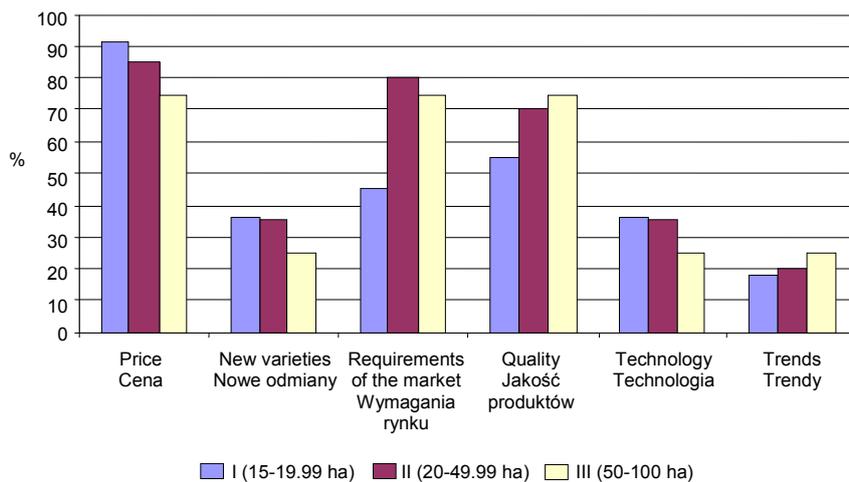


Fig. 4. Influence of chosen information factors on decision of running a business among respondents from the State Treasury Farms according to group area
Source: own research.

Rys. 4. Wpływ poszczególnych czynników na podejmowanie decyzji wykorzystywanych w gospodarstwach wielkoobszarowych w zależności od grupy obszarowej
Źródło: badania własne.

Summing up it could be stated that almost all farmers pointed out the price as the most important factor affecting their decision (Fig. 3, 4). The least important factor for those polled were new trends in agricultural production. Goods produced by farmers must meet requirements of the market, in respect of both quality and quantity of produced goods. Accession of Poland to the European Union means, among others, the necessity of adjustment to earlier established rules of common market organization. One important element of functioning of this market are common quality standards. The main purpose of its implementation was the adjustment of the production volume to demand and elimination of poor quality product from the market, creation of conditions for fair trade exchange, facilitation of stock exchange trade. Farmers are required to obey quality standards, and at the end, serves the improvement of production profitability. On the one hand, higher quality increases competitiveness as well as could result in higher prices for the goods produced.

Farmers were also asked whether goods produced on their farms are standardized in accordance with the EU norms and how they get the information about quality standards (Fig. 5, 6). The majority of those polled (from farms with the area from 15-19.99 ha: 54%, 20-49.99 ha: 80%, 50-100 ha: 80%) answered that the goods produced in on their farms are standardized in respect of quality and quantity. Respondents from individual farms take this information most often from the daily press, at the same time in group I: 57%, in group II: 62% and in group III: 70%, and also from specialist magazines. A little less farmers made use of Agricultural Advisory Centres (Fig. 5). The Internet, as an appropriate source of information about quality standards, was used only by 12% of those polled from farms with the area from 50 ha to 100 ha, 30% from farms 15 ha-19.99 ha, and the most, 48% of farmers from medium farms. The least popular source of information was radio (I group of farms: 21%, II: 48%, III: 22%).

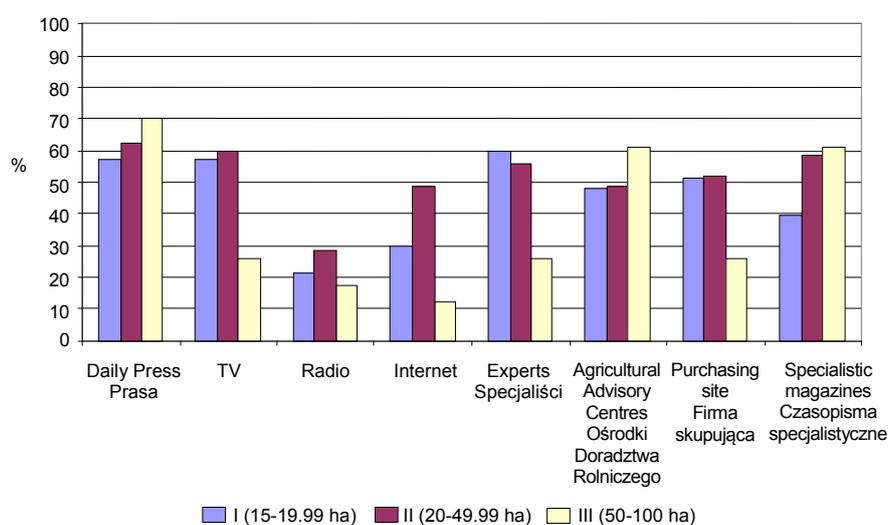


Fig. 5. Main source of information on quality standards used by individual farms according to group area

Source: own research.

Rys. 5. Źródła informacji na temat standardów jakościowych wykorzystywanych w gospodarstwach indywidualnych w zależności od grupy obszarowej

Źródło: badania własne.

Almost all farmers from leased farms (from farms of the area of 100-499 ha: 73%, 500-999 ha: 100% and above 1000 ha: 75%) produce goods, which meet market requirements. The most often they get information about standards (Fig. 6) from companies buying their goods and from the press. I group of farms: 73%, II group: 90% and III group: only 25% of those polled. Much less information they obtain from the TV, radio or Agricultural Advisory Centres (I group of farms: 36%, II: 35% and III: 50%).

Very often, in order to meet certain market requirements, farmers must show initiative in making changes in both farm structures and quality of goods produced. Almost all respondents from individual farms (farms from 15-19.99 ha: 81%, 20-49.99 ha: 96%,

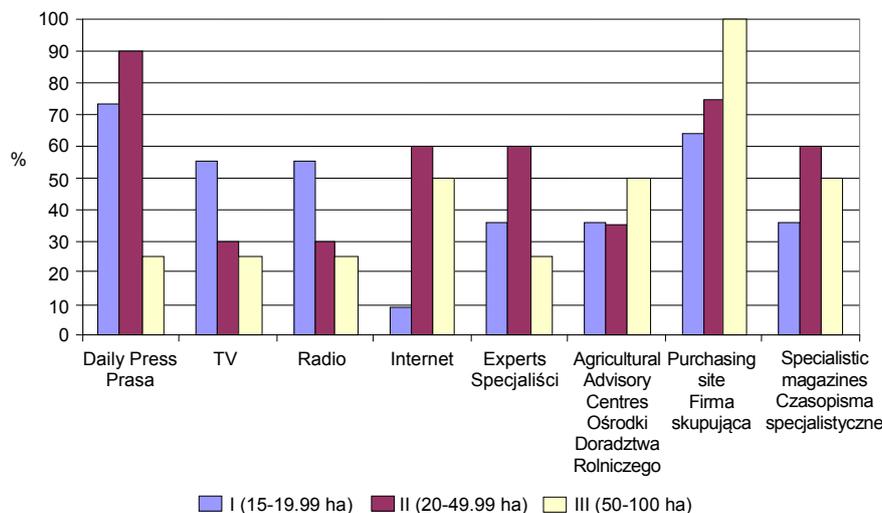


Fig. 6. The source of information on quality standards from the State Treasury Farms according to group area

Source: own research.

Rys. 6. Źródła informacji na temat standardów jakościowych wykorzystywanych w gospodarstwach wielkoobszarowych w zależności od grupy obszarowej

Źródło: badania własne.

50-100 ha: 96%) as well as from leased ones (100-499 ha: 73%, 500-999 ha: 85% and above 1000 ha: 100%) show their initiative making changes in organization of their farms. Most often they adjust their farms to market requirements through application of new varieties, technologies, promptness and correctness of all agricultural operations and product storage, as well as investments. Producers are aware that thanks to modernization their farms and adjusting their structure and production quality to the market requirements they can provide products of desired quality.

CONCLUSION

1. According to the carried research it can be stated that the most popular source of getting the market information among the questioned farmers was TV and newspapers (industry bulletins). The least were used modern mean of technology, such as: consulting agencies, internet and commodity exchange.

2. The examined farmers eager to have products of good quality although they lack in financial capital for the improvements. None of the examined farmers pointed out commodity exchange as the basic source of market information which plays the most significant role in defining products' classification standards and spread the market information for the use of market players.

3. The examined farmers do not possess the information on price risk managing methods.

4. Almost all respondents of the examined farmers (from the individual farms: I group: 90%, II: 100%, III: 96%; from leased farms I: 73%, II: 100% and III: 75%) pointed out the price as the most important factor affecting their decision. The least important factor were new trends in the agricultural production.

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INFORMACJA RYNKOWA JAKO CZYNNIK WSPOMAGAJĄCY ZARZĄDZANIE RYZYKIEM W AGROBIZNESIE

Streszczenie. Celem niniejszego artykułu było określenie roli informacji rynkowej, a w szczególności informacji na temat znajomości rynkowych metod zarządzania ryzykiem cenowym wśród badanych respondentów z 280 gospodarstw indywidualnych oraz 66 gospodarstw dzierzawionych przez Skarb Państwa. Badanie przeprowadzono w latach 2004-2005 w Wielkopolsce. W badaniach uwzględniono: a) wielkość gospodarstw – wszystkie badane gospodarstwa były podzielone na trzy kategorie wielkości, b) obszar zasiewów. Na podstawie przeprowadzonych badań można stwierdzić, że wielkopolscy producenci rolni dysponują niewielką wiedzą na temat zarządzania ryzykiem cenowym oraz metod jego ograniczania.

Słowa kluczowe: informacja rynkowa, zarządzanie ryzykiem, norma jakości, cena, instrumenty pochodne

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