

THESES OF DOCTORAL (PhD) DISSERTATION

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**STRATEGY TYPES OF AGRICULTURAL HOLDINGS IN
THE NORTHERN GREAT PLAIN REGION**

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1. INTRODUCTION, OBJECTIVES AND HYPOTHESES OF THE DISSERTATION

Strategy is the key to the future. No future can be built without developing and planning a strategy.

From the 50s' onwards and later in a limited market economy, it was not necessary to develop an independent strategy. After 1990, the situation changed. Market economy had brought forth the importance of strategic thinking; the need for planning and developing a strategy increased in agriculture as well. The agricultural property structure of the country underwent significant changes due to the restitution beginning in 1991. The rearrangement of ownership and restructuring of production could be observed primarily in the agricultural sector. Before the end of Communism, large scale farms were typical, whereas after the regime change, fragmentation could be observed. Due to the distribution among new owners, 3.5 million of the 6.5 million hectares of agricultural land and forest was split into holdings with an average size of a little more than three hectares.

Relevance and objectives of the essay

The subject of this dissertation is the strategy types of agricultural holdings in the Northern Great Plain Region. The social and economic policy significance of the subject of the research is confirmed by its scientific relevance. The Northern Great Plain Region is essentially a critical area of Hungary; therefore the fundamental goal of the agricultural holdings operating in the region is to achieve a higher level of income using the available means of production and labour force.

However, the existence of a strategy is essential for adapting to the ever-changing environment in a way that is successful on the long-term as well.

When developing strategies for an agricultural holding, basically the same aspects are taken into consideration as in the case of other businesses.

However, the unique features exhibited by agriculture leave their mark on agricultural strategy as well.

Is there a suitable method that can take all of them into account and make businesses operating in the agricultural sector successful by resolving its inherent contradictions?

STRATEGY TYPES OF AGRICULTURAL HOLDINGS IN THE NORTHERN GREAT PLAIN REGION

After all, strategy means the timely initiation of changes that may increase the chances of long-term success.

The main objectives of this essay are as follows:

- Study the extent of uncertainty experienced by agricultural holdings in the Northern Great Plain Region as a result of the accession;
- Analyse how they evaluate changes resulting from the EU accession in terms of the effectiveness of their operation;
- Explore the process of strategy development in the studied area;
- Summarise and evaluate the opinions, preparedness and experiences of the responding managers regarding the accession based on primary data from a questionnaire;
- Provide a summary of the financial, profitability, and efficiency features of the holdings.

From the above list of objectives, the following hypotheses need to be addressed:

Hypothesis 1 (H1)–The accession had a positive effect on the agricultural holdings of the region; in particular, the financial and property statuses improved after the accession.

Hypothesis 2 (H2)The holdings in the North Great Plain Region have been operating following a strategy established in advance or developed during the process.

Hypothesis 3 (H3)–The profitability indices of the holdings in the surveyed region show an increase.

2. MATERIALS AND METHODS

Besides the examination of scientific literature, the dissertation was also based on individual research. During secondary research, the author used data from existing databases - Central Statistical Office (CSO), Research Institute of Agricultural Economics (AERI). Primary research consisted of processing the information obtained directly from the surveyed population through in-depth interview surveys.

Secondary research and applied methods

The research consisted of processing the data obtained from the Research Institute of Agricultural Economics regarding the Northern Great Plain Region.

The population was comprised of the 200 farms among all holdings participating in the pilot farm scheme (598 pieces), which provided data throughout the entire study period, that is in all (surveyed) years. This filtering aimed to eliminate the distorting effect caused by the replacement of the holdings supplying data.

Primarily, efficiency and profitability indices were generated, applicable for the evaluation of financial and property status of the holdings.

The author refrained from differentiating the examined holdings based on their form of ownership, as the data received from the Institute of Agricultural Research was processed to focus primarily on the region.

The author made no distinction neither between individual and corporate farms nor between farm types (production orientations), although data on the Hungarian pilot farm scheme could have provided the opportunity for that.

Applied methods of primary research

The aim of the in depth interviews was to outline the factors affecting the effectiveness of farms in the region engaged mostly in cultivation of cash crops.

The main criteria for selecting the farms were as follows:

- a) they have to play a dominant role either regionally or in their microenvironment,

- b) they have to be able to provide real data and the required accurate records to ensure representativeness.

It should be noted that of the 13 holdings asked, there were eight, which actually met the requirements. Three of the holdings are still engaged in cultivation of cash crops today and five of them in mixed agricultural production. The remaining five choose not to disclose their data quoting economic interests.

Subjects of the survey were the economic size of holdings, studying the expectations in connection with the EU accession, and evaluation of the subsequent positive and negative effects.

From the point of view of strategy development, it was important to examine the vision of the specific farm, as well as its chances to achieve and opportunities to implement this vision.

3. INDIVIDUAL RESEARCH AND ITS RESULTS

3.1. Study of indices suitable for the analysing the financial status of pilot farms operating in the Northern Great Plain Region

As the first step of secondary research, those indices were processed, which were considered suitable for the analysis of the financial status of pilot farms operating in the Northern Great Plain Region.

The author considered property status, profitability and efficiency indices to most closely meet the requirements. We also considered it important to examine the equity ratio in relation to the total resources of the holding, the balance sheet profit to equity ratio and finally, the proportion of grants in relation to equity as well.

With respect to the changes in financial status indices, it is to be mentioned that equity ratio within the financial structure (resource structure) slightly but steadily increased.

In the course of calculating the available financial status indices, it was established that the equity ratio in relation to the total resources of the surveyed holdings improved and likewise, the balance sheet profit to equity ratio, and more so, the proportion of (non-refundable) grants in relation to equity showed improvement.

According to the development of the profitability indices of the agricultural holdings operating in the region, the values of ROS indices tended to exceed those of ROE indices after the accession to the European Union, which means that sales revenue from net sales did not reach the levels of the value of the equity. Overall, the profitability indices do not show a clear positive trend.

While analysing the efficiency indices, it could be observed that subsequent to the accession, the slight expansion of sales opportunities slowed down the deterioration of values of the resource efficiency and equity efficiency indices. Growth rate of resource efficiency was significantly higher in relation to sales revenue in the surveyed period.

The results of efficiency indices did not improve after the accession, to the extent that could have been expected. When examining Gross Value Added, an important factor of the holding's effectiveness is how the "new value production" ability of the holding develops. This is expressed by production value indices. Key production indices are gross production value, gross value added and net production value. Comparing the changes of gross production value and gross value added relative to each other, the increase in gross value added was significantly higher than the gross production value, and the net value added exceeded the values of the former two indices.

3.2. Development of certain economic indices in sole proprietor farm pilot farms operating in the Northern Great Plain Region

The database was based on the questionnaire results and data gained from the Pilot Farm Accountancy Data Network (FADN) used by the Institute of Agricultural Research.

From among all sole proprietor farms participating in the pilot farm scheme (471 farms) that provided data over the entire period under survey, 173 farms were included in the sample.

By narrowing the database further, the author examined 87 farms out of the 173 farms, the production orientation of which did not change during the years under survey.

The analysis primarily included the features and development of Standard Production Values, size class and viability of holdings.

During the research, emphasis was laid on the eight production orientations, which occurred during the surveyed period in the 87 farms that had not changed their production orientation. Baseline characteristics of the samples were evaluated after simple statistical average tests. The trend function, which describes the process the best, allowed for observing the development of farm viability over time. In the case of three out of the eight production orientations included in the survey (specialised in cereals, oilseeds or protein crops, specialised milk production and specialised fruit cultivation), it was confirmed that the holdings following this production orientations have proportionately higher standard production values than holdings following a different orientation. This is true even if all 87 holdings studied are included in the 173 holdings.

By not changing their orientation, of production, they could work more effectively in the period under survey.

3.3. Examination of strategic priorities of small- and medium-sized holdings of the Northern Great Plain Region

For this examination, data and results of a research carried out by the Szent István University in 2009 were used. The sample was composed of small- and medium-sized holdings with a production activity. A total of 107 holdings were included in the research.

The study found that on average, profitability was achieved by the majority of small holdings, where a strategy was formulated in the minds of the managers and they contribute to the holding's operation following this strategy. The orientation of the farms reflected the basic philosophy of the holdings, which the strategy of the holdings was aligned to.

The strategy development process of small holdings is also important to be considered. It was clear from the answers that a strategy can be defined "partly as a fixed plan and partly as a plan evolving in the course of the operation" of the holdings.

However, 46% per cent of the respondents made decisions about the future of the company "in their mind".

Another approach is how the habits related to strategy creation developed in individual holdings. The number of farms that did not consider keeping written records of their strategy a relevant priority is significant.

To sum it up, the definition of strategy that says „it is an idea existing in the minds of the entrepreneurs” represented a rate of 46%. Regarding preparation in this context, 38% developed their operative activities along a concept existing „in the mind” of the entrepreneur.

3.4. Surveying the strategies of agricultural holdings in the Northern Great Plain Region through in depth interviews

Primary research data was collected from the agricultural holdings of the Northern Great Plain Region. It is important that the surveyed population was composed of farms that were able to provide real data and the necessary accurate records to ensure representativeness.

Due to the small sample size, the results presented in the survey primarily serve informational purposes.

The survey included a total of eight farms, 4 of which can be found in Hajdu-Bihar, 1 in Jász-Nagykun-Szolnok, and 3 in Szabolcs-Szatmár-Bereg County. As much as possible, the author visited holdings near their residence. One of these operates in the form of sole proprietor farm, 7 as partnerships. The one operating as a sole proprietor farm carries out activities as self-employed. The surveyed farms grow to sell in a ratio of more than 90%.

The compiled questionnaire was divided into several chapters/parts.

In questions regarding land use, the author primarily asked about the possibilities for changes in land size. The farmers could choose to mark multiple answers as true.

From among the eight farms, 42% of the respondents stated that they do not intend to change land size in the future, 33% intends to buy land, and 25% wishes to increase their land size with rented lands.

The next part of the survey addressed the future development of the farms. In particular, emphasis was laid on how the managers see the future of their holdings in terms of possible improvements. Do they have opportunity or sufficient equity to allow development? Do they plan to make a progress in relation to their farms?

45% of respondents see the greatest potential in purchasing machinery. Is it possible that this is the result of the advantageous grants available for this purpose?!

When contemplating the future of agriculture, it was important to examine - either in terms of strategy development or in terms of access to grants - how the respondents feel about the future of agriculture and what we can expect in 10 years from the present. The answers were interesting:

- “by selling the food industry, food products made from Hungarian ingredients have disappeared from the market; if this process could be reversed, the Hungarian agriculture would develop to a great extent”;
- “a constant decline can be expected, the largest and smallest ones probably survive, but the evolution of the future largely depends on the fate of the support system”;
- “in the past, the Hungarian agriculture was leaning towards a more extensive farming, but now we have to solve industrial-scale production”
- “no development can be expected; technology will improve, the number of employees will decrease”;
- “agriculture will play a decisive role, and hopefully growth and technological development will take place in the coming years”.

Business expectations regarding the European Union accession and the effects of the accession

In this series of questions, the author sought answers to how Hungary's accession to the EU had influenced the operation and viability of farms. What business preparations had been made in the years before the accession?

a) What was the level of uncertainty experienced in relation to the accession?

More than half of the respondents (62.5%) thought that there had been no uncertainty, while 37.5% felt that they had been insecure about the accession of Hungary to the European Union. They felt that they had not got what they expected and that far fewer options were available after the accession, than to older members. It must be noted that, unfortunately, the respondents did not seek information about the functioning of the internal market, despite having had the opportunity to do so.

As of today, we have the same support system as the founding members.

b) Did the accession to the European Union improve the situation of the Hungarian agriculture?

75% of the surveyed managers believe that the accession improved the situation of the Hungarian agriculture; however, 25% gave a negative answer.

In their opinion, production decreased and the accession had disadvantages instead of advantages.

c) How do you evaluate the changes caused by the accession in terms of the effective operation of the company?

When we considered the holdings instead of personal opinions, we got a different picture of Hungary's accession. (In the context of the research, by "personal opinions" the author means the observations expressed by the surveyed managers, whereas by "opinion of the holding" the author means the standpoint put into words by the employees working on the holdings.)

The managers measure the viability of their holdings against the accession. A respondent said "without the accession, my company would not exist today". Others stated that more support opportunities became available. The SAPARD and ARDOP programmes were successful; the respondents were able to exploit them in order to develop their holdings.

The rest of the respondents experienced a narrowing of the market and resented the emergence of multinationals, which had a great impact on the market presence of their holdings.

d) What effect did the accession have on the financial and market position of the holding?

“Grant opportunities were a significant financial help. They required constant attention and continuous development, both mental and professional. However, it can be observed that as a result of the grants, the prices of all equipment, spare parts, energy, seeds and fertilisers have increased as well”.

The process of strategy development

When analysing the questionnaires prepared for the survey, the author studied the strategy followed by the surveyed holdings.

In this series of questions, respondents chose from the following 6 strategy types:

- withdrawal strategy
- defensive strategy,
- stability strategy
- growth strategy,
- attack strategy
- survival strategy.

50% of respondents had been pursuing growth strategy in the recent past and they planned to continue to do so. In addition to studying the strategy followed by the holdings, it is important how the EU accession affected the business strategy according to the managers.

93% of respondents experienced a positive effect. The support budget increased, they had more opportunities than before. However, the remaining 7% did not observe a connection between the strategy they pursued and the accession of Hungary to the European Union.

The managers surveyed believed that a modern, successful company has to commit to a particular strategy. They need a well-defined vision of the future and to achieve this, the exact steps need to be laid out as well.

4. ANSWERS TO THE HYPOTHESES

Examining the hypotheses formulated at the beginning of the research, the answers to them can be composed as follows:

- **hypothesis H1** was in part confirmed, since the positive effects of the accession are not clear, the expectations of agricultural holdings in the Northern Great Plain Region in relation to the accession proved to be exaggerated. The accession to the European Union had a negative effect on the financial and property status of some of the Hungarian agricultural holdings; therefore, the fact that the EU accession resulted in improvement of the financial situation of the studied holdings is not confirmed;
- **hypothesis H2** was confirmed to a limited extent, as the proportion of the holdings that define strategy as a “positive vision existing in the minds of their manager” and set up their strategy accordingly, is significantly high. It is not obvious for the studied holdings to have a certain part of the strategy in writing and have another part developed during the process. This is also the reason for the fact, that the author did not find any established strategies during the primary research;
- **hypothesis H3** was confirmed, since based on the development of the profitability indices of the holdings operating in the region, it was proved that the ROS indices had successively exceeded the ROE indices in the post-accession years. This means that the net sales revenue did not even reach the levels of the value of the equity.

5. NEW AND NOVEL SCIENTIFIC RESULTS

1. It was the first time that a complex analysis of the subject was conducted based on a more comprehensive empirical (in-depth interview) survey among agricultural holdings in the Northern Great Plain Region with respect to the period after the EU accession of Hungary. The essay recorded the opinions of the managers regarding the accession to the European Union, and the distribution of their preparedness and experiences.
2. A representative analysis of the profitability of the agricultural holdings of the Northern Great Plain.
3. The findings show that the positive effects of the EU accession are not clear, the expectations of the agricultural holdings in the Northern Great Plain Region proved to be exaggerated in connection with the accession.
4. With the help of the analysis of financial and property status, the essay highlighted the situation of the studied holdings. It can be concluded that the equity ratio in relation to the total resources of the holdings improved and likewise, the balance sheet profit to equity ratio, and more so, the proportion of (non-refundable) grants in relation to equity showed improvement.
5. The essay summarised the strategies pursued by the surveyed agricultural holdings. It can be demonstrated that the majority of the surveyed managers remained committed to their followed strategy in the period following our accession to the European Union.

6. LIST OF PUBLICATIONS ON THE SUBJECT OF THE DISSERTATION

Peer-reviewed publications in scientific journals:

Kis G. – Alvincz J. (2011): Mezőgazdasági vállalatok stratégia típusai, *Acta Agronomica Óváriensis*, Volume 53, Issue 2, Mosonmagyaróvár

Kis G. – Koltai J. – Kacz K. (2014): Egyes ökonómiai mutatószámok alakulása az Észak-alföldi Régióban működő tesztüzemi egyéni gazdaságoknál, *Acta Agronomica Óváriensis*. Publication pending.

Foreign language scientific publications in a peer-reviewed specialist journal:

Kis G. – Kacz K. (2014): Analysis of Agricultural Holdings of the Visegrad Four in the Post-Accession Period, *Acta Regionalia et Environmentalica*. Publication pending.

Lecture in Hungarian:

Kis G. (2013): Az egyéni gazdaságok helyzete az Észak-alföldi Régióban, „Hensch Árpád nyomdokain” a Gazdálkodásban publikált PhD hallgatók és kutatók III. Országos Tudományos Konferenciája, Mosonmagyaróvár, 2013. 04. 25., Conference Proceedings