# PRODUCT AND MARKET ORIENTATION OF HORTICULTURAL FARMS IN BULGARIA DURING THE YEARS LEADING TO EU ACCESSION – STUDIES IN THE PLOVDIV REGION

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## ABSTRACT

Agriculture/horticulture has traditionally been an important sector in the economy of Bulgaria. The paper outlines the structural changes in Bulgarian agriculture since 1989 and discusses the product and market orientation of the horticultural farms in the Plovdiv region of Bulgaria. This paper analyses how farm owners / managers with different sized farms evaluated 5 product/market strategic options: 'doing what you currently do but better', 'developing new horticultural products', 'developing new markets', 'developing new agricultural activities' and 'developing new non-agricultural activities'. The owners / managers identified; whether they perceived these options as feasible for their future development, the encouraging/discouraging factors and the outcomes they expected from their implementation. The small-scale farms (less than 2 ha) were mainly subsistence farms that were relying upon the farmer's experience to survive during the transition period. The second type of farm (2-10 ha) was 'transitional' farms and were working under pressure either for survival or expansion under the new EU related conditions. The third type of farm (over 10 ha) was more business orientated, aiming at business viability and trying to respond to the rapidly changing business environment in Bulgaria as they recognised that the EU accession would present new challenges and opportunities for the successful future development of their farm businesses.

**Keywords: horticultural farms, Ansoff strategic directions, farm development, Bulgarian agriculture, Plovdiv region**

## 1. INTRODUCTION

Agriculture has traditionally been an important sector in the economy of Bulgaria. In the last two decades, agriculture/horticulture has undergone dramatic changes due to the economic reform from a centrally planned economy to a free market economy, political conflicts between the governing parties, agricultural reform, inefficient governmental decisions, poor legislation, lack of capital for investment, the accession process towards the EU and joining the EU in 2007 [12,10,1].

The objective of this paper, which is based on a farm survey, is to examine the evaluation by horticultural farmers in the Plovdiv region of Bulgaria of five potential strategies for the survival/development of their businesses. The strategies evaluated were: 'doing what you currently do but better', 'developing new horticultural products', 'developing new markets', 'developing new agricultural activities' and 'developing new non-agricultural activities'. The paper also identifies the encouraging and discouraging factors and the outcome expected from each strategic option and demonstrates whether or not farmers with different sized farms evaluated these strategic options in different ways.

The paper is divided into the following sections. The next section reviews the agricultural/horticultural industry in Bulgaria. The methodology is described in section three, while the analysis of the data is reported in section four. The final section draws some conclusions about the product/market orientation and future development of the horticultural farms in the Plovdiv region of Bulgaria.

## 2. REVIEW OF AGRICULTURE IN BULGARIA

Agriculture has traditionally been an important sector in the economy of Bulgaria. The country enjoys good natural conditions for agriculture/horticulture such as the fertile soils which, combined with a mild continental climate, provide a diversity of production systems [12,2,1,11].

In 1989, the transition towards a 'free market' economy began in Bulgaria. Agricultural reform was characterised by the liquidation of the Agricultural Industrial Complexes (AICs), the development of a private sector, land restitution, privatization and price liberalisation. The agricultural industry was in a critical situation due to accumulated problems inherited from the period of Communism, the slow pace of reforms, lack of clear and consistent policies, reduced domestic demand and loss of the main export markets [9,7]. The farming structure that emerged after the liquidation of the AICs were a large number of private farms (average size about 1.5 ha producing mainly for self-consumption), private production co-operatives (average size of about 700 ha) and public partnerships [5,9,8,7,11]. The majority of these agricultural enterprises (individual farms and co-operatives) is still transitional and in need of improvement and consolidation in order to be able to operate under EU conditions [5,7,11]. Consequently, it is argued, [4,1], they do not have a strategic vision for their future development nor plans for product/market changes.

After 1997, a radical reform of agricultural began in Bulgaria. Land restitution was completed and a land market was established. Agricultural policies became more consistent with government long-term goals to develop an efficient, competitive and export-orientated agricultural sector and to improve the incomes of those working in agriculture (MAF, 2000). The Special Accession Programme for Agriculture and Rural Development (SAPARD) was introduced to prepare Bulgaria for the entry into the EU. In 2007 Bulgaria joined the EU and the impact of the CAP on Bulgarian agriculture and farm businesses is yet to be evaluated [9,13,3,7,11].

## 3. METHODOLOGY

This study, on which this paper is based, was one of the first to adopt a strategic approach to agriculture/horticulture in Bulgaria. It was also one of the first to focus on the horticultural industry in Bulgaria and was based on a sample of horticultural farms in the Plovdiv region one of the 28 regions of Bulgaria, situated in central-southern part of the country.

This research investigated the proposed product and market orientation strategies of horticultural farmers in the Plovdiv region of Bulgaria in the medium term (10 years). The Ansoff product/market matrix was used as a basis for the formulation of the five alternative strategic options proposed to the farmers for evaluation. The rationale behind this decision was that in the context of an emerging market economy the farmers have to be product and market oriented. In other words, they have to assess different issues such as the quality of their products in order to maintain existing market positions and/or gain new markets. SWOT, PEST, GAP analyses, benchmarking and scenario planning are concepts that were also adopted in this research in order to help the process of evaluating the proposed five product/market strategies.

The methodological approach was quantitative and the data was analysed using the Statistical Package for Social Sciences (SPSS). Purposive sampling was employed due to the lack of an accurate and up-to-date list of the agricultural/horticultural farms in the Plovdiv region in 2001. A total of 76 respondents were interviewed. The data

was collected using structured face-to-face interviews as this took account of both the farmers' lack of experience with research interviews and the innovative nature of this topic. Eight of the respondents intended to withdraw from agriculture/horticulture due to their advanced age or low competitive power and therefore are not included in the results presented.

A review of the literature had suggested that the size of the farm is a very important factor in farm business development. Farms in the sample were divided into the following groups: 'small' farms – less than 2 ha; 'medium size' farms – between 2 and 10 ha; and 'big' farms – more than 10 ha. Therefore for this paper the data was analysed to determine whether variations in farm size influenced their product and market orientation.

## 4. MAIN FINDINGS

The farm managers who wanted to continue with their horticultural business evaluated the five alternative strategic options that were based on the Ansoff product/ market matrix. They were:

- Strategy 1: Doing what you currently do but better
- Strategy 2: Developing new horticultural products
- Strategy 3: Developing new markets
- Strategy 4: Developing new supportive agricultural activities
- Strategy 5: Developing new supportive non-agricultural activities.

### 4.1 FEASIBILITY OF THE STRATEGIES

Strategy 1, 'doing what you currently do but better', was considered as feasible by the majority (over 75%) of the producers, regardless of their farm's size (Table 1). The interviewees intended to keep their existing products and markets but to produce better quality products or to increase the area of their current profitable crops. The relatively poor quality of Bulgarian agricultural production has been observed by both the OECD and SENTER [12,13].

Almost half of the interviewees (49%) perceived strategic option 2 of 'developing new horticultural products' as feasible (Table 1), with more than 70% of the 'small' farms wishing to introduce new, more profitable crops. The perceived most desirable new crops were perennial crops such as apricots, grapes and peaches. Both, the FAO and the OECD argued that perennial crops were profitable

Table 1: Feasibility of the five strategies 'relating to different types of farm

| | | SIZE OF FARMS | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | Small | | Medium | | Big | | | |
| *Strategy 1* | | Count | % | Count | % | Count | % | Count | % |
| Yes | | 11 | 79 | 41 | 98 | 9 | 75 | 61 | 90 |
| No | | 3 | 21 | 1 | 2 | 3 | 25 | 7 | 10 |
| | Total | 14 | 100 | 42 | 100 | 11 | 100 | 68 | 100 |
| *Strategy 2* | | | | | | | | | |
| Yes | | 10 | 71 | 19 | 45 | 4 | 33 | 33 | 49 |
| No | | 4 | 29 | 23 | 55 | 8 | 67 | 35 | 51 |
| | Total | 14 | 100 | 32 | 100 | 12 | 100 | 68 | 100 |
| *Strategy 3* | | | | | | | | | |
| Yes | | 6 | 43 | 21 | 50 | 3 | 25 | 30 | 44 |
| No | | 8 | 57 | 21 | 50 | 9 | 75 | 38 | 56 |
| | Total | 14 | 100 | 42 | 100 | 12 | 100 | 68 | 100 |
| *Strategy 4* | | | | | | | | | |
| Yes | | 5 | 36 | 18 | 43 | 3 | 25 | 26 | 38 |
| No | | 9 | 64 | 24 | 57 | 9 | 75 | 42 | 62 |
| | Total | 14 | 100 | 42 | 100 | 12 | 100 | 68 | 100 |
| *Strategy 5* | | | | | | | | | |
| Yes | | 2 | 14 | 13 | 31 | 5 | 42 | 20 | 29 |
| No | | 12 | 86 | 29 | 69 | 7 | 58 | 48 | 71 |
| | Total | 14 | 100 | 42 | 100 | 12 | 100 | 68 | 100 |

Table 2: The main factors encouraging the respondents to adopt one or more of the five proposed strategies in relation to farm size.

| Encouraging factors* | Strategy 1 | | | Strategy 2 | | | Strategy 3 | | | Strategy 4 | | | Strategy 5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S | M | B | S | M | B | S | M | B | S | M | B | S | M | B |
| | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| *Personal factors* | | | | | | | | | | | | | | | |
| Possession of knowledge and experience | 55 | 49 | 33 | 40 | 37 | | | | | 40 | 33 | 39 | 80 | 54 | 40 |
| No age limitations | | | | | | | | 33 | 67 | | | | | 31 | |
| Improved personal and financial security | 91 | 71 | 89 | | | | | | | 40 | 39 | | | | |
| *Business factors* | | | | | | | | | | | | | | | |
| Increased farm profit | | 49 | 67 | 80 | 63 | 50 | 83 | 71 | 67 | 40 | 42 | 42 | 60 | 85 | 60 |
| Increased cash flow | | | | 40 | | | 30 | | | | | | 40 | 31 | 60 |
| Reduced business risk | | | | | | | | | | 40 | | 33 | | | |
| Available machinery | | | | | | 50 | | | | | | | | | |
| *Economic factors* | | | | | | | | | | | | | | | |
| Available market demand | 27 | 39 | | 60 | 68 | 75 | 50 | 33 | 33 | 60 | 56 | 46 | | 39 | |
| Sufficient distribution system | | | | | | | | | | | 33 | 33 | 40 | | |
| Available market information | | | | | | | | 33 | 33 | | | | | | |

Note: S – 'small' farms; M – 'medium size' farm, B – 'big' farms
This table includes only the top few factors given by the respondents. Percentages are based on multiple response answers. They are the percentages of cases rather than responses therefore they do not sum to 100%

products in Bulgaria during the transition period [5,12]. However, post accession, becoming a member of the EU, new crop orientations is yet to be studied.

The results revealed that 75% of the farms investigated sold their production locally in the Plovdiv region. At the time of the survey one of the three wholesale markets in Bulgaria was located near Plovdiv this was arguably an advantage for the horticultural producers in the region [5,12]. The proximity of a major wholesale market may have contributed to strategy 3 'developing new markets' being seen as a feasible strategy for 44% of the respondents (Table 1). Half of the producers who perceived this strategy feasible intended to develop new national markets (Sofia, Black sea) while the other half emphasised more challenging targets such as gaining a new international market niche in the EU after accession.

During the survey it became apparent that the respondents were not very familiar with issues relating to farm diversification. About one third of the respondents, irrespective of their farm's size, considered strategic option 4, 'developing new agricultural activities', feasible for their businesses in the medium term (10 years) (Table 1). The respondents interpreted 'new agricultural activities' as cultivating herbs and / or oil-bearing crops or introducing husbandry.

Unrelated diversification, strategy 5, 'developing new non-agricultural activities' was not a popular strategic direction for the farmers interviewed. However, about 29% of them were more innovative and were encouraged to support product and market changes (Table 1) such as installing a small winery or agri-food processing unit. In regard to 'diversification', the findings of the survey demonstrate a clear preference for related diversification rather than unrelated diversification. Unrelated diversification was evaluated as an option that might be feasible in the longer term but not in the short to medium term.

## 4.2 ENCOURAGING FACTORS

Table 2 demonstrates that a range of personal, business and economic factors (having knowledge and experience, increased farm profit and available market demand) encouraged farmers to continue with their horticultural business and to introduce at least one of the five proposed alternative strategies. SENTER stated that one of the competitive advantages of Bulgarian agriculture is the fact that the farmers are well educated and experienced [13], which is also applicable to the farmers of the sample in the Plovdiv region. However, MAF argue that the farmers in Bulgaria lack business and commercial skills, suggesting that their education and knowledge was focused on technical as opposed to business related themes [11].

Table 2 reveals that those respondents who found 'doing what you currently do but better' (strategy 1) a feasible strategic option, regardless of farm size, did so because they saw this as likely to improve their personal and financial security in the rapidly changing business environment of Bulgaria in the early years of the 21st Century. Available market demand and farm profit encourage the farmers who wanted to develop new horticultural crops (strategy 2), irrespective of farm size. The only difference was that the 'big' farms identified as positive the availability of their own machinery.

Table 3: The principal anticipated outcomes from the five strategies relating to different types of farm

| Outcomes* | Strategy 1 | | | Strategy 2 | | | Strategy 3 | | | Strategy 4 | | | Strategy 5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S % | M % | B % | S % | M % | B % | S % | M % | B % | S % | M % | B % | S % | M % | B % |
| Increased business viability | 27 | 51 | 67 | 70 | 68 | 75 | 83 | 86 | 100 | 60 | 89 | 100 | 100 | 92 | 80 |
| Better quality of life | 100 | 83 | 67 | 80 | 63 | 75 | 83 | 71 | 33 | 80 | 78 | 67 | 100 | 69 | 60 |
| Better quality of products | 73 | 66 | 57 | 60 | 60 | 100 | 67 | 57 | 100 | 40 | 39 | 67 | 50 | 46 | 60 |
| Diversity of products | n/a | n/a | n/a | 40 | 32 | 0 | 17 | 5 | 0 | 60 | 17 | 0 | 0 | 31 | 20 |
| Diversity of markets | n/a | n/a | n/a | 50 | 79 | 50 | 50 | 81 | 67 | 60 | 78 | 33 | 50 | 62 | 60 |

Note: S – 'small' farms; M – 'medium size' farm, B – 'big' farms
Percentages are based on multiple response answers. They are the percentages of cases, therefore they do not sum to 100%

Ensuring farm profitability was the main driving force for developing new markets (strategy 3) according to the farmers / owners who found this strategy feasible. In relation to this option the respondents with farms over 2 ha emphasised their support for this option was due to the facts that they are young and have the ability to find the necessary market information in order to develop new markets. The respondents with 'big' farms also identified as positive the availability of credit as they have better opportunities to borrow from the banks compared to those with 'small' farms. They also anticipated that they would be eligible for financial support during and after the EU accession. The respondents who wished to develop new agricultural activities (strategy 4), irrespective of their farm's size, were encouraged by the perceived market demand. The positive evaluation of the innovative strategy of developing new non-agricultural activities (strategy 5), from the interviewees who whished to introduce it, was based on perceived levels of profit and cash flow combined with the available knowledge and experience. Those few farmers who intended to diversify their farm business could be classified as early adopters of innovative ideas and the results indicate that these individuals are drawn from farms of all sizes (Table 2).

## 4.3 EXPECTED OUTCOMES OF THE PROPOSED STRATEGIC OPTIONS

The farmers / owners who intended to introduce one or more of these strategic options expected to achieve some positive outcomes. The results (Table 3) revealed that the respondents with 'small' farms aimed to improve their quality of life in respect to ensure their financial security for survival during the difficult transition period. Those respondents with farms between 2-10 ha who were planning some production or market changes mainly expected a more viable business as an outcome, whereas those who cultivated more than 10 ha stressed on the importance of the quality of their products and their business viability.

Therefore, it can be concluded that the respondents with farms of less that 2 ha had prioritised their personal security and well-being and could be classified as 'lifestylers'. However, in a Bulgarian context, this would refer to security of their livelihood while in a Western context this would be interpreted as rejecting higher income opportunities in favour of a better life style. The respondents with 'medium' sized farms could be classified as 'flexible strategists' because they tried to respond to the rapidly changing environment in Bulgaria and to explore potential new market opportunities. The interviewees with 'big' farms were 'dedicated producers' as they were aiming at better quality production with careful planning. In summary and in many ways unsurprisingly, the farms of more than 2 ha were more market and business oriented and could potentially play a vital role in the economic development of the horticultural industry in the Plovdiv region.

## 4.4 DISCOURAGING FACTORS

Table 4 summarises the factors that discouraged the respondents from implementing one or more of the proposed five strategies. The results revealed that a wide range of external economic forces (market, import/export rules), together with the poor business performance of the farms, discouraged the farmers from introducing market and / or production changes.

There were some differences between the farms of different sizes in respect of the discouraging factors. The few interviewees (10%) who did not intend to continue with their current activities (strategy 1) gave business and economically related reasons (e.g. decreased profit, cash flow, obsolete machinery, poor credit systems. However, the respondents with farms of more than 10 ha that found strategy 1 not feasible were mainly discouraged by the increased business risk as well as the poor import/ export regulations prior to 2007. For example concerns were expressed about the illegal import of fruit from neighbouring countries such as Turkey and Macedonia.

Table 4: The main factors discouraging the respondents from adopting one or more of the five proposed strategies in relation to farm size.

| Discouraging Factors* | Strategy 1 | | | Strategy 2 | | | Strategy 3 | | | Strategy 4 | | | Strategy 5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S % | M % | B % | S % | M % | B % | S % | M % | B % | S % | M % | B % | S % | M % | B % |
| ***Personal factors*** | | | | | | | | | | | | | | | |
| Age limitations | 33 | | | 50 | | | 38 | | | | | | 33 | | |
| ***Business factors*** | | | | | | | | | | | | | | | |
| High business risk | | | **67** | 50 | 30 | 25 | | | | | | | | | 29 |
| Decreased farm profit | | 100 | 33 | | | | | | | 33 | 38 | 33 | | | |
| Decreased cash flow | | 100 | 33 | | | | | | | | | | 25 | 35 | 29 |
| High production costs | | | | 50 | 30 | 25 | | | | 33 | 33 | 33 | | | |
| Lack of or obsolete machinery | **37** | 100 | | | | | | | | | 33 | | | | |
| Lack of capital for investments | 33 | | | | | | | | | | | | **37** | **79** | **57** |
| ***Economic factors*** | | | | | | | | | | | | | | | |
| Lack of market demand | | | | | **57** | **50** | | 29 | | 33 | **58** | **44** | | | |
| Lack of subsidies | | | 33 | | | | | | | | | **44** | 25 | 35 | 71 |
| Unfavourable import regulations | | | 33 | | 35 | 25 | 38 | 29 | 33 | | | | | | |
| Unfavourable export regulations | | | 33 | | 30 | 38 | | 29 | 44 | | | | | | |
| Lack of advisory services | | | | | | | | | | | | 33 | 33 | 41 | 29 |
| Lack of market information | | | | | | | 38 | **72** | **56** | | | | | | |
| Lack of promotion | | | | | | | **63** | 62 | **56** | | | | | | |
| Poor credit system | 33 | | 33 | | | | | | | | | | | | |
| High level of bureaucracy | | | | | | | | | 22 | | | | | | |

Note: S – 'small' farms; M – 'medium size' farm, B – 'big' farms
This table includes only the top few factors given by the respondents. Percentages are based on multiple response answers. They are the percentages of cases rather than responses therefore they do not sum to 100%

The farmers who had 'small' production units did not find developing new horticultural crops (strategy 2) feasible due to the perceived high production costs and risks together with their advanced age. Whereas, the interviewees with farms of more than 2 ha were discouraged by market related factors (market demand, export/import regulations). The farmers in the sample, irrespective of the size of their farms, responded to the prospect of developing new markets (strategy 3) by suggesting that external factors such as lack of promotion, market information and general support from the Government (unfavourable import/export rules) discouraged such a business alternative. The issue of related diversification (strategy 4) was rejected by almost two thirds of the sample, regardless of the farm's size, due to lack of market demand and their own limited financial recourses. The respondents with 'big' farms also stated that they were not supported by the external economic environment, as there were no subsidies or efficient advisory services that could help them. A diversification activity such as combining agriculture/horticulture with animal husbandry was rejected by the farmers almost certainly due to the great financial and market difficulties reported by the farmers with a mixed farming system over the period 1989-1997 and recognised by MAF [9]. On the other hand, some authors argued that organic farming (an agri-related diversification activity) in Bulgaria could be profitable and export oriented during the accession process to the EU and after joining the EU [12,13,6]. However, only one respondent considered this as a feasible alternative. The producers, irrespective of their farm's size, were discouraged by introducing new non-agricultural activities (strategy 5) because of lack of capital for investments. Their own finances were limited and there were restricted sources for external financing and advisory (Table 4).

## 5. CONCLUSIONS

The fall of the Socialist regime in Bulgaria in 1989, the process of land restitution and the development of the private production units found the farmers unprepared for running commercial farms, as they did not have the skills to run businesses under the conditions of a free market economy. The political and economic situation in Bulgaria was unstable in 1990s and very dynamic after 1999 linked with the accession process to the EU. The volatile external business environment contributed significantly to the discouragement of the farmers in introducing business changes in terms of new products and new markets. Therefore, the farmers with different farm size chose to take 'safe' business decisions and run

traditional business with relatively modest improvements for the next 10 years. They hoped that joining the EU in 2007 would provide a stable and supportive environment for product and market transformations. Subsequently, they would be able to modernise their farms, expand their land size, introduce new products and step into the new EU markets.

The farms of different size within the sample in the Plovdiv region anticipated they would continue with their current business, as it was, in the medium term (10 years). The small-scale farms (less than 2 ha) were mainly subsistence farms that were relying on the farmer's experience to survive during the transition towards a free market economy and joining the EU. The second type of farm (2-10 ha) was 'transitional' and was working under pressure either for survival or expansion. The third type of farm (farms over 10 ha) was more business orientated, aiming at business viability and trying to respond to the rapidly changing business environment in Bulgaria. A MAF report indicates that the number of farms over 10 ha has been increasing slowly and will likely represent the future of farming in Bulgaria as a member of the EU [11].

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