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# DIAGNOSTICS OF BUSINESS PROCESSES IN WINE-GROWING ENTERPRISES IN THE SOUTH-CENTRAL REGION

## ABSTRACT

Using the approach of Michael Porter (Porter, 1980) for the analysis and evaluation of business processes, the present study examines the principles according to which these processes are organized in the Bulgarian viticultural enterprises. The main objective of the research is to analyze the business processes in wine-growing enterprises and to assess their status.

Following Porter's model, viticulture enterprises are considered as economic entities that organize two groups of processes – core and auxiliary business processes. The organization of these processes is the subject of analysis. The aim is to determine which processes are primary and which are secondary and whether they correspond to the classic model advocated in the work of Michael Porter.

**KEYWORDS:** business processes, wineries, business model, inbound logistics, outbound logistics

**JEL:** E32, L66, O18

## INTRODUCTION

Winemaking is a business whose worldwide turnover exceeds more than 100 billion dollars per year (Borisov, Radev, Dimitrova, 2014). It is one of the oldest and most competitive industries on the old continent. It can be said that wine production is one of the emblems of Europe. Winemaking, like all other businesses, undergoes its own development and change. In the conditions of globalization in recent decades, the traditional producer Europe faces the competition of "new players" in the world market, namely Argentina, Australia, USA, South Africa, Chile and New Zealand (Borisov, 2015). These countries have been able to build large-scale production facilities and, through the use of new technologies and approaches, provide the market with high quality wine at decidedly low prices. Of course, aggressive competition has led to a change in the organization of the value chain on the old continent. Restructuring processes have been launched both at the macro level and at the country and wine region level in Europe. These processes are related to the change in the varietal composition of the vineyards and reorganization of the overall process of securing the production and supply of wine (Borisov and Radev, 2011). Wineries were forced under the competitive pressure of new players to rethink their place in the value chain and reorganize their business processes to enable them to remain competitive both on the domestic and foreign wine markets. as well as at the level of the country and wine-growing region in Europe. These processes are related to the change in the varietal composition of the vineyards and reorganization of the overall process of securing the production and supply of wine (Borisov and Radev, 2011). Wineries were forced

under the competitive pressure of new players to rethink their place in the value chain and reorganize their business processes to enable them to remain competitive both on the domestic and foreign wine markets. as well as at the level of the country and wine-growing region in Europe. These processes are related to the change in the varietal composition of the vineyards and reorganization of the overall process of securing the production and supply of wine (Borisov and Radev, 2011). Wineries were forced under the competitive pressure of new players to rethink their place in the value chain and reorganize their business processes to enable them to remain competitive both on the domestic and foreign wine markets.

## 1.METHODOLOGY

Using the approach of Michael Porter (Porter, 1980) for the analysis and evaluation of business processes, the present study examines the principles according to which these processes are organized in the Bulgarian viticultural enterprises. The main objective of the research is to analyze the business processes in wine-growing enterprises and to assess their status.

Following Porter's model (Porter, 1980), viticulture enterprises are considered as economic entities that organize two groups of processes – core and auxiliary business processes. The organization of these processes is the subject of analysis. The aim is to determine which processes are primary and which are secondary and whether they correspond to the classic model advocated in the work of Michael Porter (Porter, 1980). The analysis of business processes proceeds through the following stages:

- Data collection for diagnosing business processes in the winemaking enterprise. The main tool for data collection is the survey and personal interview with the owners and/or managers of the enterprise (Borisov, Stoeva, and Dirimanova (2021);
- Interpreting the data obtained, formulating findings and conclusions from the conducted field research. The purpose of this stage of the analysis is to identify the main groups of business processes, as well as the factors that determine their organization;

**Organization of the survey.** In order to implement the first stage of the analysis, a questionnaire test is also being developed. The survey has the following structure of questions:

Introductory part. In this part, the main reasons for surveying the managers of wine-growing enterprises, as well as the very purpose of the survey, are described. A brief annotation is given on the topic of the dissertation research and the need to involve the interested parties to clarify and study the processes taking place in the wine-growing enterprises;

Descriptive section. Included in this section are questions about the registration of the company under which the enterprise is managed; type of ownership and/or legal status of the enterprise; number of personnel employed in the enterprise; organizational and management structure of the enterprise; main sources of financing the enterprise's activity; the period of time during which the enterprise functions as a market unit; structure of the markets – internal/external, market segments in which the market is operated; sales volume and/or market share in the last 5 years; product assortment that the enterprise offers on the market;

Main section. The purpose of this section of questions is to gather information about the way business processes are organized in wine-growing enterprises. The questions included in the survey aim to gather information about: what are the main business processes that the enterprise organizes to deliver value to the client; who : what are the ancillary business processes that the enterprise organizes to deliver value to the customer; what are the main factors that determine the chosen organization of business processes; what business process control systems managers use; what tools and systems are used to identify, analysis and assessment of the achieved effects

of the chosen organization of business processes; what quantity and quality of labor resources are used to control business processes in the enterprise; how the future development of business processes in the enterprise is planned.

Final section. In this part of the survey, gratitude is expressed to the respondents, as well as additional questions are included, aimed at collecting additional information that can enrich the analysis and help to identify the critical factors in the organization of business processes. These questions are related to obtaining information about: what main sources for future development of the enterprise are planned to be used /what financial assistance has been received, what will be received in the future/; what is the attitude towards the future development of the enterprise and the effects it achieves.

## 2. FORMATION OF THE REPRESENTATIVE SEMPLLE.

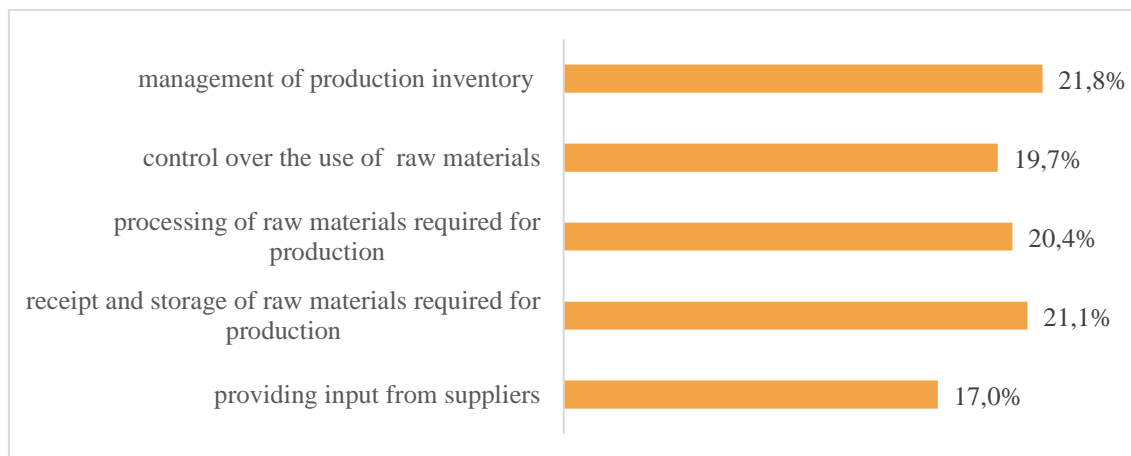
The register of the Chamber of Winemakers, Sofia, updated as of 07/21/2023, is used to form the general sample of investigated wine-growing enterprises. All registered enterprises at this time form the general sample. In the formation of the statistical sample, the method of the previously selected principle is used (Saykova, 2002). This principle is as follows - the representative sample includes all enterprises that are located in the South Central Planning Region of the Republic of Bulgaria. These enterprises must have their own vineyards and produce and market wine. The total number of surveyed enterprises must be no less than 33 in order to achieve statistical reliability when processing the received data.

In the next section of the questionnaire, questions aimed at gathering information about the main business processes are included - factors that determine them as well as their organization in practice in wine-growing enterprises. In this part of the dissertation, the graphic analysis of the received information is presented, as well as the main findings and conclusion regarding the investigated business processes.

## 3.RESULTS AND DISCUSSION

In Porter's model, the first business process to be analyzed in enterprises is "inbound logistics". This is a process whose purpose is to ensure the production needs of wine-growing enterprises. The figure below contains information about the main activities that are carried out within this business process by the 33 wineries studied.

**Figure 1.** Activities of the business process "Inbound logistics" performed by the wine-growing enterprises.



*Source: Own survey of 33 wineries, 2023*

According to the surveyed managers, independent activities that the enterprise manages and controls completely /autonomously/ in recent years is the management of the production inventory. Of all 33 enterprises, 21.8% define this activity as completely independent, which is provided entirely with its own funds and resources.

The reception and storage of the materials, raw materials and resources necessary for the production of products for the end customer is the next most important business activity within the researched business process - 21.1% of the surveyed enterprises declare this as a fact. In addition to the reception and storage of these elements, processing is also an important and autonomous activity carried out by enterprises - 20.4% of all surveyed managers state that this process is completely under their control and can be defined as fundamental in forming the value for the end customer.

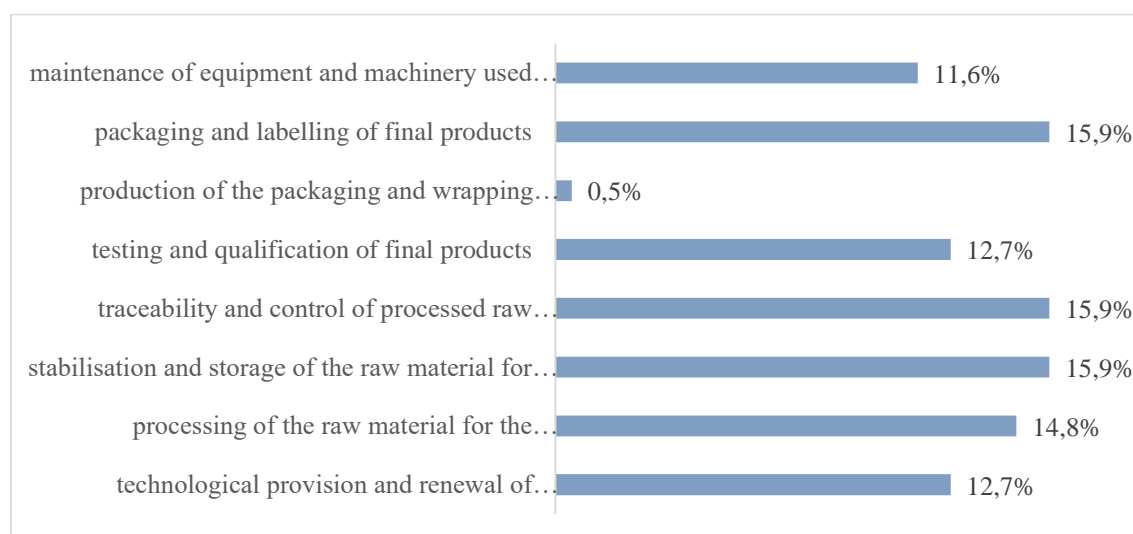
Another important business activity within the "inbound logistics" process is the quality control of the incoming raw materials of production, 19.7% of the surveyed enterprises state that this is an autonomous and main activity, the purpose of which is to ensure the target quality of the final product.

The next business process subject to analysis is "work operations". The results of the conducted research are shown in the figure below. Work operations are the main activities that ensure obtaining high value for the end user.

The data shows that the most important activities within the business process "work operations" are:

- The tracking and control of the processed raw material and the finished product (wine), respectively 15.9% of all 33 surveyed enterprises, recognize this activity as the main one;
- The stabilization and storage of the raw material for wine production is also a main activity, important and guaranteeing a high value of the product offered on the market, 15.9% of all enterprises state this as a fact;
- Packaging, labeling and storage of produce is also recognized as a core activity, fully under the control of managers, 15.9% of the total enterprises surveyed.

**Figure 2.** Activities of the business process "Working operations" performed by wine-growing enterprises.



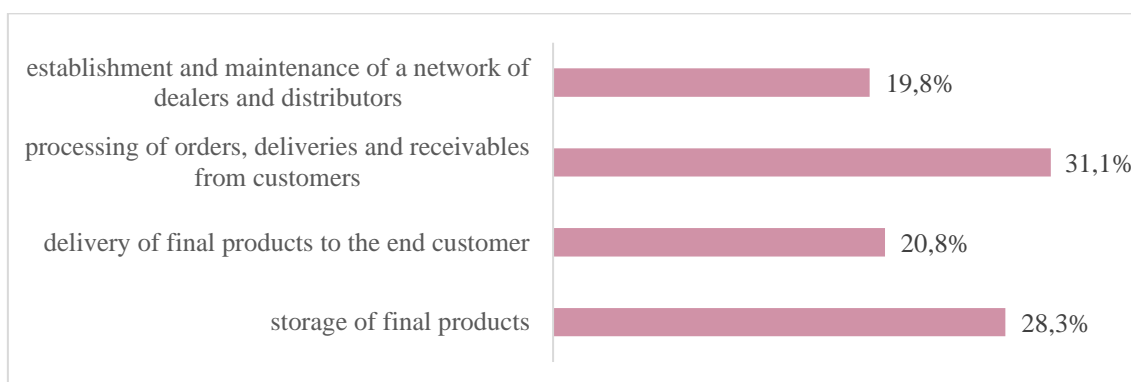
Source: Own survey of 33 wineries, 2023

At 0.5% of the surveyed enterprises, it is noticed that the production of packaging and packaging is an important activity and it is under the full control and ownership as a process of the managers. The low share of enterprises proves that the production of own packaging is not recognized as a core business process by the surveyed enterprises, it is an activity that has an auxiliary character, although it is important in the process of delivering value to the end customer.

Next is the "outbound logistics" business process, which is the subject of analysis. According to the obtained data, the activity of processing orders, deliveries and receivables from customers is the most important for the 33 studied wine-growing enterprises - 31.1% of the surveyed enterprises recognize this activity as critically important. This is an activity fully secured and controlled by the managers of the investigated enterprises. They also define it as extremely important in the formation of sales revenue and the profitability of those sales.

Another important process is the storage of finished products, 28.3% of surveyed enterprises recognize it as such. Bottled wine is easy to store and age, with some varieties a process is required to increase the value offered to the end customer. Reserve wines have a higher value/price and very often customers consume them as an investment product (ie a product that can be invested in and increases in value over time).

**Figure 3.** Activities of the business process "Outbound logistics" performed by wine-growing enterprises.



*Source: Own survey of 33 wineries, 2023*

Dispatch of bottling wine to the end customer is also a basic business process in the viticulture business in our country. In 20.8% of the enterprises surveyed, this activity is performed independently and is fully controlled by the managers of the viticulture enterprise. They believe that shipping is an important element of the overall offer and in this context full control over this business process is required.

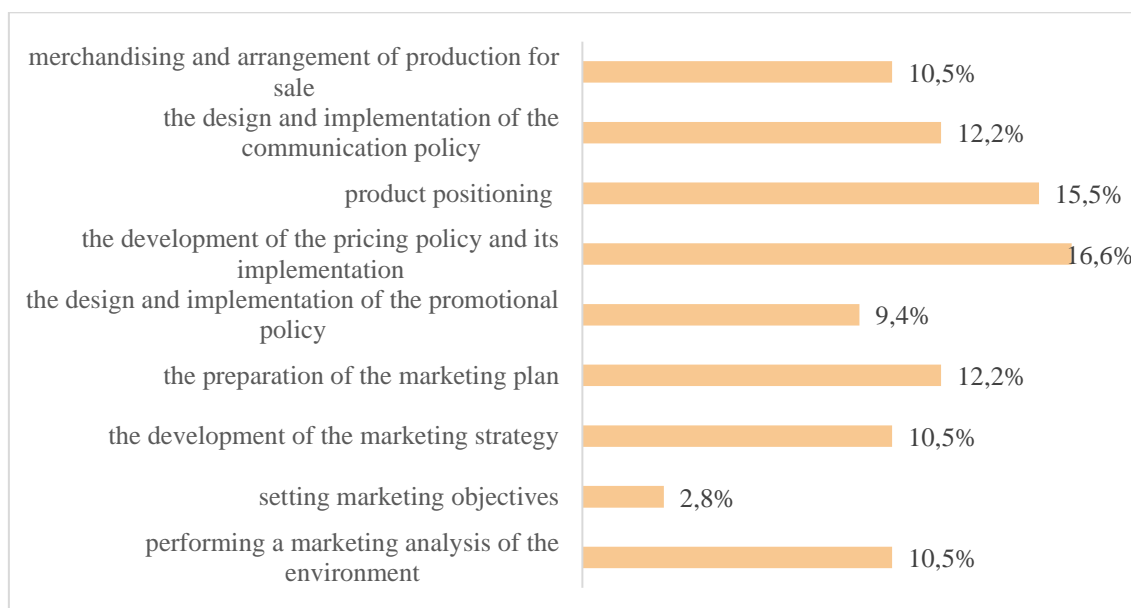
The next business process subject to analysis is the "Marketing" of wine-growing enterprises. According to Peter Drucker, marketing as a business process largely determines the effectiveness of a business enterprise. Any company that imposes the marketing approach as a comprehensive approach to managing business processes has the potential for competitive development. According to the conducted survey among the managers of the Bulgarian wine-growing enterprises, critical important basic business processes are:

- The preparation of the price policy of the enterprise, 16.6% of the surveyed managers recognize this activity as important in the overall management of marketing;
- The positioning of the produced wine is also a critical business process determining the effectiveness of company marketing. According to 15.5% of all surveyed managers, this

process is completely under their control and is extremely important for achieving market success;

- The preparation and implementation of a communication program is also a recognizable basic business process, 12.2% of the total respondents gave this answer in the survey card;
- The preparation of a marketing plan is also recognized as an important activity within the Marketing process, with 12.2% of the total surveyed managers stating this as a fact.

**Figure 3.** Activities of the business process "Marketing", performed by wine-growing enterprises.



*Source: Own survey of 33 wineries, 2023*

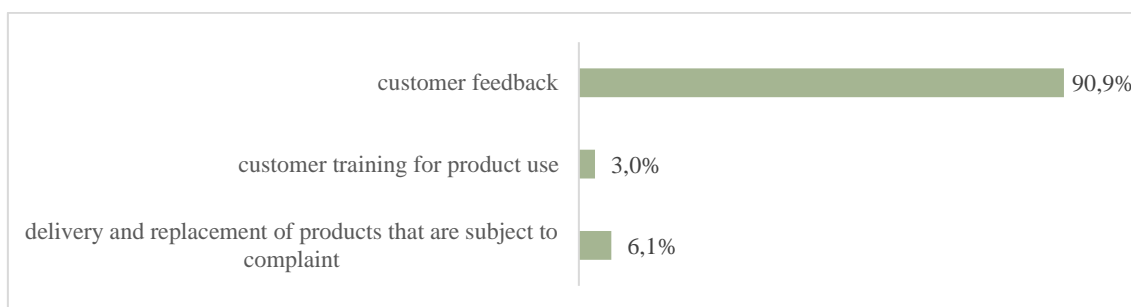
The most neglected activity is the compilation of marketing objectives - only 2.8% of the surveyed managers recognize this activity as the main one. According to them, marketing goals are not important and are not recognized as a strategic tool for managing business processes in the enterprise. The interviewed managers declare that they do not participate in the development of the marketing objectives, but only implement them, and therefore do not recognize them as important in the overall marketing management of the company. Marketing objectives are determined by the owners of the enterprise and/or by an external consultant who knows the needs of the market.

The preparation and implementation of the promotional program is also a neglected activity in the researched wine-growing enterprises, only 9.4% of the surveyed managers fully control and organize this activity. In most cases, an external consulting service is used in the formation of a program.

Next business process subject to analysis is "Customer Service". The data from the conducted survey regarding the state of this business process in wine-growing enterprises is given in the figure below. The data shows that customer feedback is an important core business process, 90.9% of surveyed enterprises recognize this process as critical and fundamental in creating value for the end customer.



**Figure 4.** Activities of the "Service" business process performed by the wine-growing enterprises.

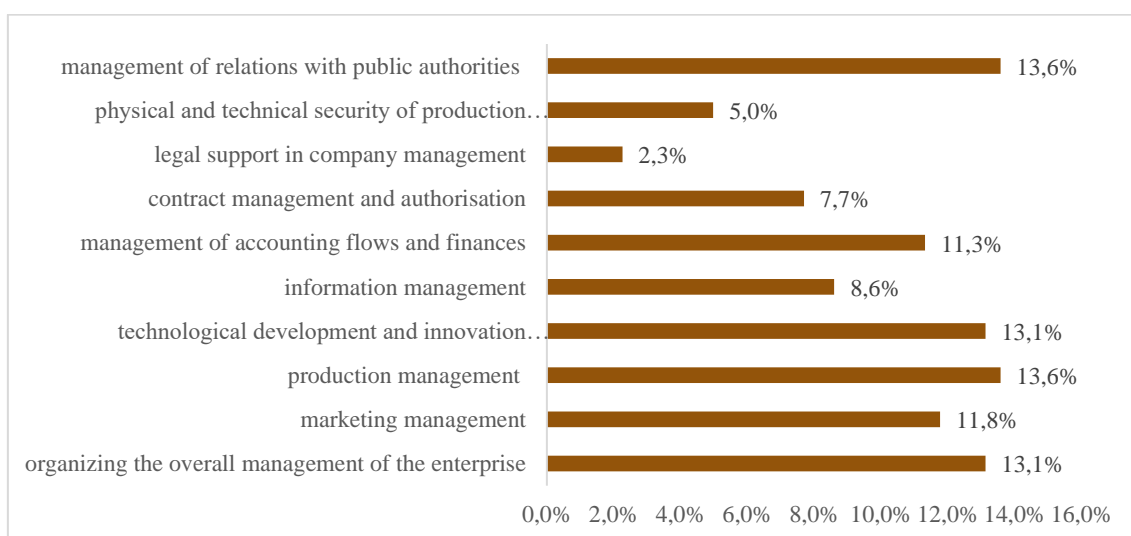


*Source: Own survey of 33 wineries, 2023*

The auxiliary processes for analyzed with the following module of questions included in the questionnaire/. Already during the first interviews, it is noticeable that the auxiliary processes in the studied wineries can be clearly defined and distinguished from the main business processes.

The figure below shows the distribution of the responses of the surveyed managers regarding the status of the supporting business process "Infrastructure". Graphical analysis covers the opinion of managers from 33 viticulture enterprises.

**Figure 5.** Activities of the "Infrastructure" business process performed by the wine-growing enterprises.

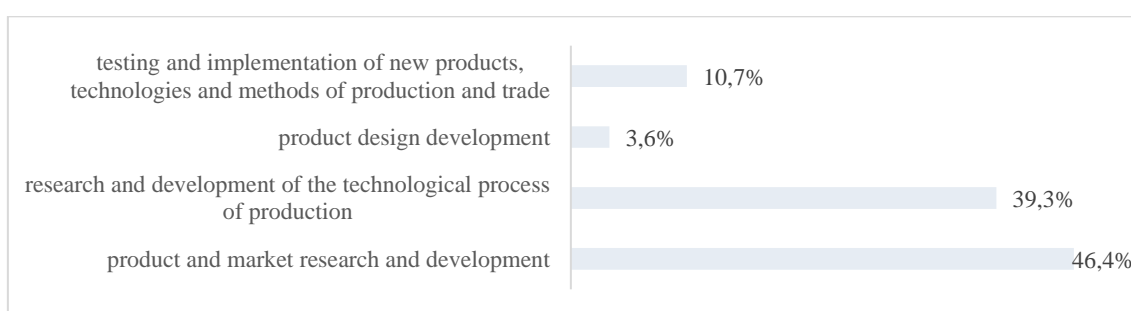


*Source: Own survey of 33 wineries, 2023*

According to the answers received, it is clear that the management of relations with the state authorities (13.6% of the total respondents) and the management of production (13.6% of the total respondents) are the most often recognizable as auxiliary business activities among the managers of viticulture wineries. Followed by activities such as management of technological development and innovation and organization of the integral management of the enterprise with a relative share of the answers received for both activities – 13.1% of the total. With the lowest weight in the organization of the auxiliary business activities in the "infrastructure" process are: legal support in the management of the enterprise - 2.3% of the total surveyed enterprises; physical and technical protection of production processes – 5% and management and sanctioning of the concluded contracts – 7.7% of the total enterprises surveyed.

The next phase of the analysis covers the activities within the Technology Development business process. The graphic analysis of the data shows that mainly two activities are defined as truly auxiliary within this business process, namely: - (1) research and development of products and markets - 46.4% of the total surveyed enterprises and (2)) research and development of the technological process – 39.3% of the total. According to the managers, the development of the technological process in the sector is carried out through effective cooperation with scientific organizations and universities, which are the main units supplying this type of business service/activity for the needs of wine cellars. Market research as well as product development is carried out in close cooperation with the next participants in the value chain, namely the traders and stores, from which end customers buy. These business structures carefully analyze the market and accordingly present estimates and identified market needs to the viticulture enterprises that must comply with them.

**Figure 6.** Activities of the business process "Technological development" carried out by wine-growing enterprises.



*Source: Own survey of 33 wineries, 2023*

The organization of supplies is the next business process subject to analysis. Data from a survey conducted regarding the status of this business process is presented in the figure below.

Within the research process, the trend clearly stands out wine-growing enterprises to provide with their own resources the activities of finding and negotiating the production resources - 84.6% of the surveyed enterprises declare this as a fact. The development of the supply network is carried out with own resources in a small part of the surveyed enterprises, only 15.4% of them state that they carry out this activity entirely independently. The data shows that the development of the distribution network is mainly carried out through strategic partnerships with other participants in the value chain.

**Figure 7.** Activities of the business process "Organize deliveries" carried out by wine-growing enterprises.



*Source: Own survey of 33 wineries, 2023*



## CONCLUSIONS

As a result of the conducted analysis, covering 33 wine-growing enterprises from the territory of the South Central region of Bulgaria, the following findings and conclusions can be formulated regarding the way of organization of business processes and the effects achieved by them:

- The majority of the investigated enterprises are small structures, i.e. business processes along the value chain are organized by small enterprises, which enables them to be flexible to market demands and quickly reorganize their business processes and models;
- Business processes are organized exclusively with own funds (66.7% of all surveyed enterprises use such a source). Which determines a strong dependence of the results on the success of the activity of previous years. The high levels of self-participation in the financing of business processes are primarily explained by the high interest rates on investment loans that banks grant for the needs of the industry;
- Business processes are mostly organized using functional and linear organizational-management structures. These structures make it possible to organize business processes quickly and adequately to market needs, so as to maintain the sustainable competitiveness of wine-growing enterprises;
- Business processes are organized in such a way that the produced product (value) first of all meets the requirements of external markets. These markets are defined as more attractive compared to the domestic market, i.e. make it possible to achieve a higher margin and, accordingly, profitability of the activity.

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## REFERENCES

- Borisov, P., Stoeva, T., Dirimanova V. (2021). Methodology for Assessing the Competitiveness of Agricultural enterprises. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 21, Issue 4, 2021 PRINT ISSN 2284-7995, E-ISSN 2285-3952, p. 81-88.
- Borisov, P. (2015). Impact of product strategy on market share. The case of Bulgarian wineries. Changes and perspectives in the rural areas and in the agriculture of Bulgaria, Poland and other EU Member States. Sofia, pp. 179-187
- Borisov, P., Radev, T. (2011). Regional analysis of specialization of vine growing in Bulgaria. Agricultural Economics and Management (Bulgaria), 2011/2, p. 31 - 39.
- Borisov, P., Radev, T., Dimitrova, D. (2014). Comparative advantages of EU Member States in Trade with Wine. Agricultural Economics and Management, (59), vol. 4/2014, Sofia, p. 71-76.
- Porter, ME "Competitive Strategy: Techniques for Analyzing Industries and Competitors". New York: Free Press, 1980. (Republished with a new introduction, 1998.)
- Saykova, Iv. A statistical study of dependencies. Economy, 2002. p.113