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Marketing Strategies as a Part of Crisis Management of Enterprises

Abstract. The paper considers aspects of marketing strategy formation as a component of crisis management by an enterprise. It constructs a tree of objectives for the formation of a strategic set for crisis management by the enterprise. The algorithm of choice for marketing strategies for agricultural enterprises is developed. Finally, a methodical approach to determine efficiency of a marketing strategic set and calculate the extent of its performance for the purpose of defining measures for crisis management by the enterprise is offered.

Key words: crisis management of enterprise, marketing strategy, effectiveness, marketing strategic set, objectives tree, general purpose, indicator «the performance of marketing strategic set», the absolute market share, the relative market share, price, goods, market, demand

Introduction

Today, most enterprises have concluded that in current circumstances it is better to take measures to prevent a crisis than to deal with its consequences. One element of crisis management is the proper use of the tools of marketing. Marketing strategies are flexible and provide for the search of new effective ways of dealing with a crisis, even if there are minor financial costs. Therefore, the formation of the marketing strategy has important significance to further the process of its implementation, since even the most effective and most successfully chosen marketing strategy does not always have the expected result, especially if, at the time of its implementation, certain difficulties arise. In this case, the enterprise has to timely detect shortcomings in implementation as part of the marketing strategy, and strategic set, and to establish the necessity of their adjustments, i.e.: either partial change of a marketing strategy, or detecting the need for the formation of a new strategic set. It is possible to determine the calculating indicators of the effectiveness of marketing strategies and to identify the degree of performance for a marketing strategic set. This has determined the relevance of the study.

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Analysis of recent research and publications

In scientific literature considerable attention is given to the issue of crisis management, in particular the formation of marketing strategies and evaluation of their effectiveness. The results of these studies are reflected in the writings of such Ukrainian and foreign scholars as: Albert M., Ansoff I., Armstrong G., Assel G., Bagiev G., Dei D., Garkavenko S., Hedouri F., Hotho S., Kotler F., Kudenko N., Lamben J., Lydovska O., Mcdonald M., Meskon M, Mitroff I., Pauchant C., Pollard D., Porter M., Saunders J., Shershneva Z., Tanase D., Wong V., etc.

At the same time, individual questions of formation and implementation of marketing strategies, methodical and organizational approaches to the development of indicators for the effectiveness of marketing strategies and the establishment of the need for adjustments under the conditions of crisis management for an enterprise require further study and improvement.

The purpose: Consider aspects of marketing strategy formation as part of crisis management of an enterprise and offer methodological approaches to determine its effectiveness.

Results: In every country, in any society, agriculture is a vital sector of the national economy, since it affects the needs of almost everyone. Today more than 80 % of consumption is formed at the expense of agriculture production. Therefore, it is the primary condition for the existence of mankind.

However, agriculture in Ukraine is particularly important because it is one of the largest sectors of the country's economy. This is evidenced by a number of important macroeconomic parameters. The most important among them is the share of agriculture in gross domestic product of the state (8% as of 2014). In addition, it is worth noting that many agricultural enterprises of Ukraine are unprofitable (Fig. 1).

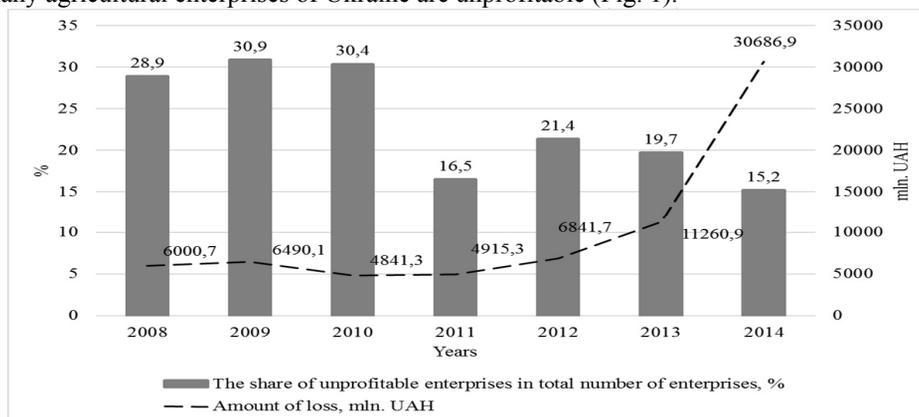


Fig. 1. The dynamics of the number of unprofitable enterprises in agriculture of Ukraine and the amount of their damages

Source: built according to the State statistics service of Ukraine.

According to the data of Fig. 1, the share of unprofitable enterprises in the total number of enterprises in 2014 significantly decreased compared to 2008 and amounted to 15,2 %. However, the amount of losses in recent years in agricultural enterprises has

increased significantly: from 6000,7 mln. UAH in 2008 to 30686,9 mln. UAH in 2014. Ukraine's agricultural enterprises will require immediate crisis measures to prevent their bankruptcy.

In-depth studies were conducted in the field of vegetable growing, as it has always been and remains an important branch of agriculture, in which a significant role is played by greenhouses because they can provide the population with vitamins throughout the year. According to the results of the study, as of 2014 Ukraine had 4,5 thsd. ha of greenhouses, in which gross vegetables amounted to 491,1 thsd. tons, which is much less than in other countries. For example, the area of greenhouses in China is 36,5 thsd. ha, Turkey – 10 thsd. ha, Russia – 7,1 thsd. ha; in Western Europe, almost 300 thsd. ha: including in Spain – 18,5 thsd. ha, Italy – 17 thsd. ha, Netherlands – 10,4 thsd. ha, France – 7,3 thsd. ha [Magazine “Plantator” 2012].

The study found that in Ukraine, more than half of the total number of greenhouses are located on farms which have three times lower crop capacity than agricultural enterprises. Figure 2 shows the dynamics of the production, realization and consumption for vegetables grown in greenhouses of Ukraine from 1990 to 2014.

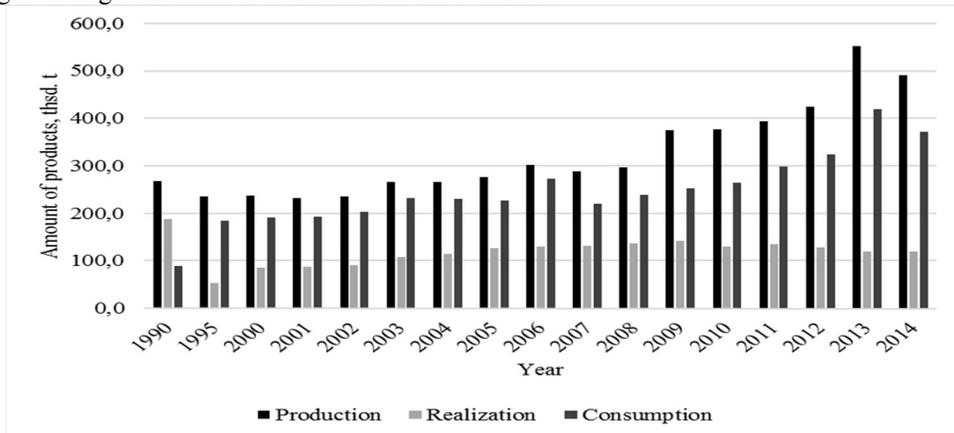


Fig. 2. The dynamics of production, realization of vegetables grown in greenhouses and their consumption by Ukrainians

Source: built according to the State statistics service of Ukraine.

As the data in Figure 2 show, the realization of vegetables from 1990 to 2014 is considerably lower than their production. However, this not evidence of damage to a significant share of the production, but is due to the presence of a large number of self-processing plants in large greenhouses. Fig. 2 was drawn from materials taken from the State statistics service of Ukraine, so, perhaps, inauspicious data on realization of the vegetables grown in greenhouses, is the result of indicators of realization processing appearing in statistical reporting as the realization of products of industrial production.

It also draws attention to the fact that the consumption of vegetables grown in greenhouses from 1990 to 2014 is greater than their realization. This is due to the presence of a large number of greenhouses in local households which manufactured products for their own needs, as well consuming imported vegetables. If such vegetables have a lower cost than domestic products, they are more competitive, which strengthens the position of

foreign enterprises in the Ukrainian agrarian market. In turn, the lack of full-fledged marketing strategies in agricultural enterprises makes it difficult to counteract this influence, to differentiate realization channels and get maximum profits from their business activities.

However, the production of vegetables grown in greenhouses by Ukrainian enterprises is unable to fully satisfy the needs of consumers. Therefore, the shortage of vegetables grown in greenhouses in the off-season exists primarily due to imports. It should be noted that for six years, imports such as tomatoes and cucumbers in Ukraine significantly increased. This is due to the fact that the prices of imported vegetables are substantially lower than the prices of domestic products, as well as the fact that Ukrainian greenhouses do not produce enough to satisfy domestic demand. This once again confirms the need for an increase in the cultivation of tomatoes and cucumbers Ukrainian enterprises.

In a study using economic-statistical methods, the expected level of factors that affect the prices of greenhouse production was calculated. This helped forecast the prices of vegetable grown in greenhouses on the Ukrainian and world markets until 2018 (Fig. 3).

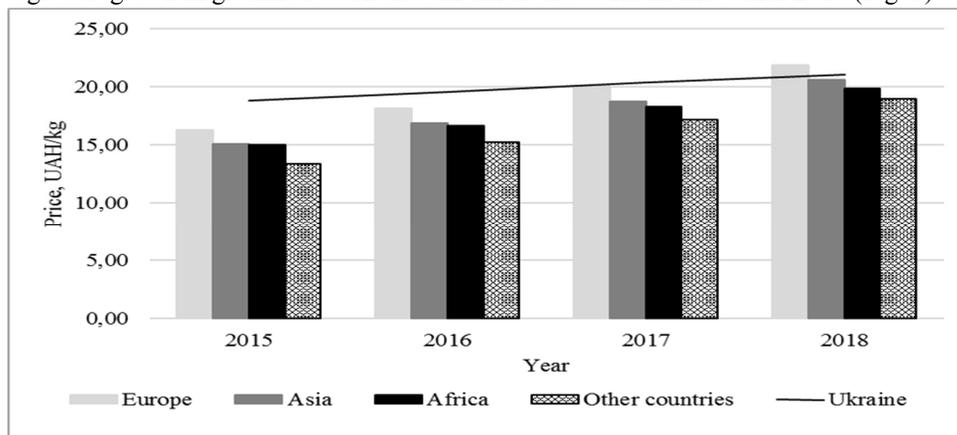


Fig. 3. A comparison of the forecast import price on tomatoes with the price on the Ukrainian market

Source: authors' research.

As can be seen from Fig. 3, the forecasted realization prices for tomatoes, both globally and in Ukraine, will grow annually. The lowest purchase price for tomatoes throughout the forecast period is expected to come from other countries. Prices will be slightly higher in Asia and Africa. Moreover, the price in these countries on the import of tomatoes over the four forecasted years is almost on the same level. High value realization price will be reached in Europe. However, it should be noted that the highest purchase price for tomatoes during the whole forecast period will remain in Ukraine, and only in 2017 will European prices be comparable with Ukraine's, and in 2018 will be slightly lower (21,06 UAH/kg realization price in Ukraine, 21,84 UAH/kg in European countries).

A similar situation is observed on comparing forecast import prices of cucumbers with prices in Ukraine. The lowest purchase price for cucumbers throughout the test period will be in the countries of Africa. Moreover, it decreases annually. Somewhat higher realization price for imported cucumbers is observed in European countries with annual growth, and high purchase price will be in Asia. The highest forecast price realization of cucumbers, as

with tomatoes, during the investigated period will remain in Ukraine, which will increase from 18,51 UAH/kg in 2015 to 22,09 UAH/kg in 2018.

Thus, the forecast prices of imported tomatoes and cucumbers are much lower than the price of Ukrainian domestic producers. Due to the fact that Ukrainian greenhouses grow not enough products to meet the needs of the population in winter, Ukraine is forced to buy imported vegetables. Since the price for them is lower, then the implementation of such products allows domestic sellers get bigger profits. If such a trend is expected in the future, then the Ukrainian market would be flooded with vegetables from Turkey, Spain, Poland and Egypt, and domestic greenhouses in general risk disappearing. To prevent this situation, Ukraine build its own production of vegetable grown in greenhouses and implement legislative restrictions on the import of such products. In addition, as practice has shown, an effective method would be the use of a variety of import taxes and duties, which would serve to equalize Ukrainian and import prices on the market, and could also help replenish the state budget.

According to the research, Ukrainian state-owned greenhouses are unprofitable. In addition, the level of losses every year increases. Unlike state-run enterprises, private enterprises are profitable. However, in recent years, the profits in these enterprises decrease every year. In order to prevent a crisis situation, and possible bankruptcy, greenhouses, especially state-owned ones, need to have a timely and rational system of crisis measures for balancing their financial and economic situation and reducing the impact of imported goods on domestic markets.

Crisis management takes into account two essential features of the crisis, namely the effects of physical and symbolic focus, not only on the reaction, but also on prevention and training [Tanase 2012]. It can be concluded that just as with individuals, some organizations, be they economic, social, political, military or otherwise, including their «top management» are subject to or can be the subject of crises more than others. In the literature these organizations, their managers and management organizations were called «port crisis» [Pauchant, Mitroff 1995]. Similarly, to «the talisman model» these port managers by their management activities are causing crises, disasters. There are of course organizations that have taken all measures to avoid being affected by major crises that are able to manage and administrate those crises that occur despite preventive means, such organizations and managers being called preventive managers [McDonald 2009]. Moreover, Pollard and Hotho suggested that scenario planning should be included as a part of crisis management plan. Scenario planning is essential when developing a Strategic Crisis Management Plan and an Executable Crisis Management Action Plan. It is important to integrate crisis management into the strategic management of organizations because both depend on innovative and intuitive strategies which are also required in order for organizations to survive and flourish [Pollard, Hotho 2006].

To ensure the effective activity of any enterprise, especially in the conditions of a crisis situation, it is necessary to clearly define the purpose of its functioning. To achieve this purpose, it is appropriate to develop a number of objectives and under-objectives, that is, to build the so-called "tree of objectives". The "tree of objectives" is a visual graphic image showing affiliation and relationship objectives, demonstrating the distribution of the overall (general) purpose or mission in under-objectives tasks and individual action. "The tree of objectives" can be defined as the target framework of an organization, phenomena or activity [Shershneva 2004]. By this tree, a company has the ability to more efficiently and quickly achieve its main purpose while considering all opportunities and threats.

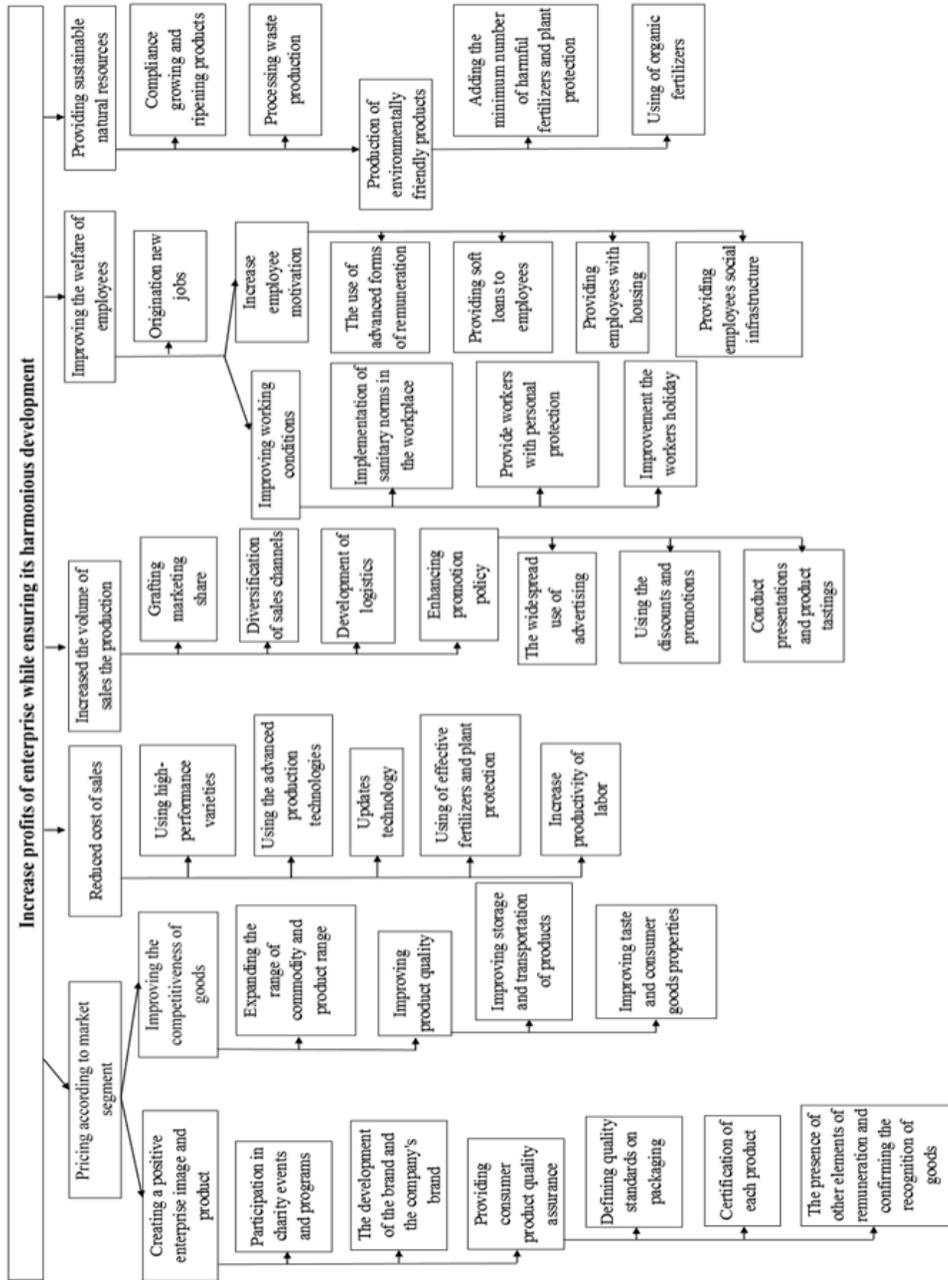


Fig. 4. The structure of "the tree of objectives" for creating a marketing strategic set for greenhouses

Source: authors' research.

The course of research was conducted on the basis of study materials for greenhouses (in-depth research was conducted on materials from State Enterprise "Scientific-Research Agrocomplex "Pushcha-Vodytsia", PJSC "Complex "Teplychnyi" and PRAE "Uman Hothouse Complex") within the crisis management proposed objectives tree to further the formation of marketing strategic set (Fig. 4). The general purpose is chosen to increase profits of enterprises while ensuring their harmonious development. The objectives of the first level include: increasing revenue and reducing the costs. The implementation of the objectives of the first level is ensured by the implementation of the objectives of the second level, namely increasing the incomes of greenhouses is made possible by raising the prices of production and increasing sales volume growth. The main objective of reducing the cost is to lower the cost per unit of production. In accordance with the objectives of the second level may be due to the realization of the objectives of the third level.

It should be noted that in many writings on the theory of marketing, much attention is paid to the choice of marketing strategy. Today, the following approaches are used the most widely:

- the approach is based on the matrix and I. Ansoffa "product–market" [Ansoff 1989];
- the matrix "Boston Consulting Group" [Kudenko 1998];
- the matrix "Mc Kinsey – General Electric" [Lamben 1996];
- the program is built on the impact of market strategy for profit (PIMS) [Assel 1999];
- the strategic Porter's model [Porter 1980];
- the matrix of balance the life cycles of strategic business units [Mescon, Albert, Hedouri 2000].

However, the above approaches were developed by Western scientists and, as revealed by the research, cannot be used as effectively by Ukrainian enterprises. Therefore, on this basis, we have developed the algorithm for choosing marketing strategies, which, in our opinion, are more adapted to the Ukrainian conditions (Fig. 5).

The essence of this algorithm lies in choosing the strategy depending on the impact of one or another factor. Factors of influence on the marketing strategies were merged into three large groups, which directly affect the enterprise: goods, consumer and demand. Other factors influence it indirectly. Marketing strategies were taken by the classification of S. Garkavenko [Garkavenko 2004], as this classification is the most common in Ukraine.

In our view, the choice of one or another marketing strategy should begin with a definition of what the enterprise produces, or will produce, i.e. with the goods (Fig. 5).

According to the proposed algorithm for mono-product production, and depending on the group of consumer oriented goods, there is emitted the strategy of trading specialization and one-segment concentration. For the strategy of trading specialization, it is typical manufacturing by enterprise for one of the products for different groups of consumers, while the one-segment concentration provides orientation on one, rather narrow group of consumers.

These strategies are generally branded mono-product strategies, which, in turn, based on the impact of a factor are more specific. So, depending on whether the selected product is new on the market or not, and also targeting it to a new group of consumers, or on an existing group, they are divided into strategies of conglomerate (pure) diversification, product development, maintenance the market positions and market development.

As evidenced by Fig. 5, strategy of conglomerate (pure) diversification is aimed at production of absolutely new goods for an entirely new group of consumers. According to the proposed algorithm of choosing the marketing strategy, the presence of seasonal demand for

the product is characterized by the application of strategies of maintaining the market positions and market development. The strategy of synchro-marketing helps overcome any lack.

The result of the application of this strategy (as well as supportive marketing) is achieved by using a no-trading differentiation, which is divided into service and image.

It should be noted that the service differentiation provides a higher level of service than in the firms-competitors, while image is aimed at ensuring the commitment of consumers through the creation of a positive image of the manufacturer (stability of the enterprise, participation in charity events, etc.). Therefore, the proposed algorithm of choosing the marketing strategy, in our opinion, is the best when choosing one or another set of marketing strategies for agricultural enterprises in the conditions of crisis management, because, on the one hand, it takes into account the main factors which affect their marketing activities, and on the another – it is fairly simple to use.

Table 1. Indicators of the effectiveness of marketing strategic set

Type of the strategies	Indicator of the effectiveness	The formula
Basic	The average annual rate of change in the absolute market share of enterprise	$\overline{MS} = \sqrt[n-1]{\frac{MS_n}{MS_0}}, \quad (1)$ <p>where \overline{MS} – the average annual rate of change in the absolute market share; MS_n – final level dynamics of the absolute market share, %; MS_0 – entry-level dynamics of the absolute market share, %; n – number of dynamic levels, years.</p>
Competitive	The average annual rate of change in the relative market share of enterprise	$\overline{RMS} = \sqrt[n-1]{\frac{RMS_n}{RMS_0}}, \quad (2)$ <p>where \overline{RMS} – the average annual rate of change in the relative market share; RMS_n – final level dynamics of the relative market share, %; RMS_0 – entry-level dynamics of the relative market share, %; n – number of dynamic levels, years.</p>
Price	The average annual rate of change in the price of the implementation per unit	$\overline{P} = \sqrt[n-1]{\frac{P_n}{P_0}}, \quad (3)$ <p>where \overline{P} – the average annual rate of change in the price of the implementation; P_n – final level dynamics of the price of the implementation per unit, UAH/kg; P_0 – entry-level dynamics of the price of the implementation per unit, UAH/kg; n – number of dynamic levels, years.</p>
Commodity	The average annual rate of change in the volume of sales production	$\overline{Q} = \sqrt[n-1]{\frac{Q_n}{Q_0}}, \quad (4)$ <p>where \overline{Q} – the average annual rate of change in the volume of sales; Q_n – final level dynamics in the volume of sales the production, t; Q_0 – entry-level dynamics in the volume of sales the production, t; n – number of dynamic levels, years.</p>

Source: authors' research.

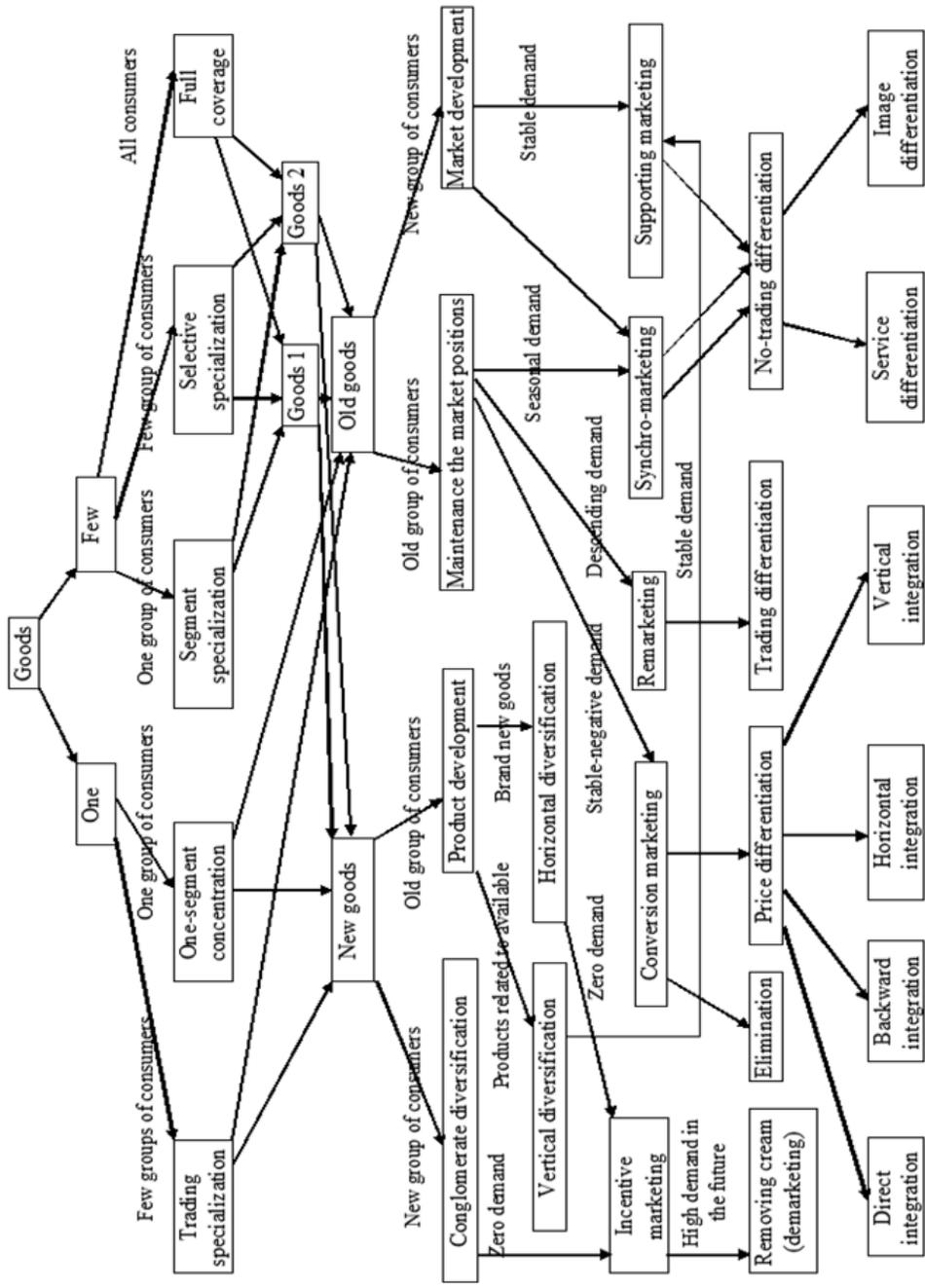


Fig. 5. The algorithm of choosing the marketing strategy

Source: authors' research.

Acceptance and monitoring of the implementation of the decision to change the strategic set under the conditions of crisis management is impossible without measuring the effectiveness of marketing strategies. Since the implementation of a strategic set requires significant financial cost, information on the extent of implementation of the objectives is important.

At present, there is no single methodological approach to determine the effectiveness of a marketing strategy. In Ukrainian practice, two methods are used: by the degree of achievement of the stated objectives and the ratio of the effect of marketing activities to the costs of its implementation [Bagiev 2007; Lidovska 2008].

The lack of a universal indicator of extent of the performance of the strategic set, in our view, creates a number of problems for the management of the enterprise, which will provide definitive evaluation of existing strategies, develop amendments to them, if necessary, or to refuse the implementation of realization strategic set while preventing a crisis situation of the enterprise. In Table 1 follow the most relevant, in our view, indicators of the effectiveness of marketing strategies for their groups.

The universal indicator of the extent of the performance of the strategic set is proposed to determine how the ratio, expressed as a percentage, is obtained as the product of the indicators of effectiveness for all group strategies (Formula (5)).

$$E = \sqrt[4]{\overline{MS} \times \overline{RMS} \times \overline{P} \times \overline{Q}} \times 100\% \quad (5)$$

where E – the extent of performance of the marketing strategic set, %.

While this formula can simplify, since relative market share is determined by taking into account the absolute, and the volume of products – taking into account the price of the implementation (Formula (6) – (7)):

$$\overline{RMS} = \sqrt[n-1]{\frac{RMS_n}{RMS_0}} = \sqrt[n-1]{\frac{MS_n}{MS_0}} \times \sqrt[n-1]{\frac{MSC_0}{MSC_n}} \quad (6)$$

$$\overline{Q} = \sqrt[n-1]{\frac{Q_n}{Q_0}} = \sqrt[n-1]{\frac{P_0}{P_n}} \times \sqrt[n-1]{\frac{D_n}{D_0}} \quad (7)$$

where: MSC_0 – entry-level dynamics of the market share of the nearest competitor, %;

MSC_n – final level dynamics of the market share of the nearest competitor, %;

D_0 – entry-level dynamics of sales revenue, thsd. UAH;

D_n – final level dynamics of sales revenue, thsd. UAH.

The final formula (8) for the calculation of the extent of performance of the marketing strategic set has the next form:

$$E = \sqrt[4(n-1)]{\frac{MS_n^2 \times MSC_0 \times D_n}{MS_0^2 \times MSC_n \times D_0}} \times 100\% \quad (8)$$

Thus, to calculate the extent of performance of the marketing strategic set requires only the information about the market share of the enterprise, market share of its nearest

competitor and the value of the sales revenue of products, which makes this method very easy to use.

In the course of study the following scale values were formed of the indicator of the extent of performance of the marketing strategic set (Table 2). If necessary, the partial adjustment of the strategic set is needed in deciding which strategy should be used, and which are acceptable and well implemented. It is easy to identify, then totaling the indicators of the effectiveness (see Table 1) separately for each group of strategies. If the value of the indicator for a certain type of strategy is the smallest, then this strategy will need to be adjusted, and vice versa – in the largest, the strategy does not require adjustment.

Table 2. Scale values to assess the extent of performance of the marketing strategic set

The recommended value of the extent of performance of the strategic set, %	Assessment of the performance of the strategic set
$E \leq 50$	Strategic set is not executed and requires radical revision
$50 < E < 75$	Strategic set performed in part, requires editing of individual groups of strategies
$75 \leq E < 100$	Strategic set selected right, but there are some problems in its implementation stage
$E \geq 100$	Strategic set selected right, its implementation is in full

Source: authors' research.

The technique has been applied in the study of greenhouses. As evidenced by the results of the study, in State Enterprise "Scientific-Research Agrocomplex "Pushcha-Vodytsia" only the pricing strategy was fully implemented (the extent of performance $\geq 100\%$), while basic, competitive and commodity strategies need adjustment due to inability their implement in this enterprise. In PJSC "Complex "Teplychnyi" all marketing strategies are fully implemented, PRAE "Uman Hothouse Complex" has the greatest extent of performance of the marketing strategic set, which is indicated by a lack of demand for its correction.

Thus, the proposed mechanism for assessing the extent of performance of the marketing strategic set is quite suitable for application in practice at the enterprises of different specialization and ownership, bringing quite accurate result. It is easy to understand and use, especially in a crisis, and may also contribute to the provision of competitiveness of enterprises.

Conclusions

Modern conditions of the functioning of Ukrainian agricultural enterprises require amendments to the standard management approaches, including making appropriate corrections regarding the use of effective instruments of crisis management, among them the important place that is taken by the development and implementation of marketing strategies. Well-chosen marketing strategies help the enterprise fully exploit to their advantage the opportunities of a changing external environment and minimize the impact of its threat. In addition, the enterprises that have a clearly defined marketing strategy, to a certain extent are immune from the risk of making wrong decisions in the course of their activities. However, as revealed by the research, approaches to the choice of marketing strategies offered by foreign scientists, are fairly complex for application to Ukrainian

enterprises at the time of the formation of strategic set, and some of them are even impossible to use because of the lack of special programs and databases in the agricultural enterprises. Therefore, the proposed algorithm of choosing the marketing strategy is available to be applied in practice for Ukrainian enterprises, especially in the conditions of crisis management, and gives the possibility to form a complete marketing strategy.

No less an important value in crisis management of enterprises is taken by the efficiency of realization of the strategic marketing set. The results of practical application of the methodological approach to determine the extent of performance of the marketing strategic set in the analysis of the effectiveness of the marketing strategies of the investigated greenhouses, the appropriateness of its use, as it allows the combination of a simple calculation of statistically significant results, and identifies the reserves of increased efficiency of the marketing strategic set by using the adjustment of existing or new strategies depending on the value of the indicator. Also, this approach allows us to precisely identify specific shortcomings of strategic set, which enables us to adjust the strategies whose effectiveness are low, and not to reject the strategic set in general.

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