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Marketing Provision Of Realization Of Entrepreneurship Potential As The Basis Of Enterprise's Competitiveness

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Abstract— The importance of marketing support for the effective realization of entrepreneurial potential and increasing the competitiveness of the enterprise has been proved. The functions of marketing in management of production and marketing activity of the enterprise are defined. The scientific and methodological approach to the estimation of the effectiveness of marketing support of the management of entrepreneurial potential is offered. The example of light industry enterprises of the Khmelnytsky region illustrates the method of calculating integral indicators of economic efficiency. The types of interaction of the basic elements that shape the competitiveness of the enterprise are substantiated and their optimal variant is established.

Keywords— potential, entrepreneurial potential, marketing, competitiveness, enterprise, management, efficiency, development.

I. INTRODUCTION

Introduction. In the current conditions of integration and globalization of economic changes, the priority of each country is the development of entrepreneurial potential and the entry into the world market of competitive goods and services, the export of which will contribute to the development of the domestic economy and the well-being of the population.

II. STATEMENT OF THE PROBLEM

Formulation of the problem. Ukraine's exit from the socio-economic crisis, the reform of national production and its future economic growth are only possible if the principles of marketing management are implemented to realize the potential of producers. This approach helps to take into account the needs for production of products for domestic and foreign sales, harmonization of export opportunities and needs of imports, providing for the production of competitive products. and, accordingly, the competitiveness of the country and individual enterprises [2].

Among the most famous foreign scientists who have investigated the role of marketing and the peculiarities of the use of marketing technologies in the context of business globalization, we should mention T. Ambler, D. Brian, J. Daniels, S. Hollens, J. Daly, F. Cateor, G. Armstrong, W. Wong, F. Kotler, M. Porter, P. Jaisten, D. Hassi and others. [1]. Among the national authors are the works of A. Voychak, O. Vinogradova, O. Kanishchenko, A. Romyantsev, A. Starostina, T. Tsygankova.

The issue of using marketing tools to increase the competitiveness of entrepreneurial potential has not been given sufficient attention. The justification of the theory and methodology of managing the potential of industrial enterprises on the principles of marketing is fragmentary. There is a lack of marketing models to ensure the effectiveness of managing the entrepreneurial potential and increase its competitiveness by aligning business competencies of marketing and business executives and synchronizing marketing and business processes by enhancing business activity.

The purpose of this work is to determine the basic principles of marketing support for the realization of entrepreneurial potential as a basis for improving the competitiveness of a modern enterprise.

III. RESULTS

Formation, effective realization and competitiveness of the potential of commodity producers in the conditions of market economy of Ukraine depends not only on their internal economic activity, but on how they adapt to changes of the external environment. The importance of the effectiveness of the use of marketing management tools is increasing. Managing marketing functions is difficult enough, even if the marketer has to deal only with the controlled variables of the marketing complex. The current market situation is much more complicated. The company operates in a complex marketing environment. The processes of globalization and international integration are exacerbated by the uncontrollable factors that businesses

often have to adapt to. As you know, the micro-environment of the enterprise includes a range of stakeholders: buyers, suppliers, competitors, partners, contact audiences and government bodies. These are the entities with which it constantly and directly interacts. Relationships between the enterprise and the micro-environment are equal - both can affect and influence the enterprise.

Marketing as a scientific and practical theory of management of production and marketing activities involves the fulfillment of a number of functions: 1) analytical: market, consumer, commodity structure studies; production: organization of production of new goods, introduction of new technologies, quality management and competitiveness of products; 2) marketing: organization of the system of movement of goods, service, formation of demand and stimulation of sales, realization of purposeful commodity and price policy; 3) management and control: organization of strategic and operational planning at the enterprise, information support, organization of communication and marketing control system [1].

Integration processes, entry of enterprises into the international market aggravate the problems of competition, increase the requirements for the organization of their activities. In these circumstances, you can work successfully only by applying modern management methods, including marketing principles.

Intensification of international cooperation of economic entities and strengthening of influence of marketing management on their activity, on realization of potential are modern directions of business development. Management of entrepreneurial potential by the principles of marketing - is a system of organization of activity of the enterprise, which helps to optimize the functional connection of production goals and current needs of consumers, reconciling personal interests in all spheres of economic life - production, intermediary, consumption. In this way, the indicators of entrepreneurial activity are optimized - profit, profitability, information, technical and resource support, wages and more. Marketing management strengthens the link between supply and demand and is a kind of guarantee that manufactured products, after all stages of the production process, will find demand from the consumer.

Managing the potential of an enterprise based on marketing principles and evaluating its performance is a difficult task. It has to deal with many uncontrollable variables of the complex marketing environment in which the enterprise operates. The environment, on the one hand, provides opportunities and, on the other, poses threats. The enterprise should carefully and continuously analyze the environment in order to avoid threats and realize opportunities in a timely manner. In addition, marketing management influences different areas of the enterprise and to evaluate its results is quite difficult.

The authors of this study substantiated the methodology for evaluating the effectiveness of marketing support for entrepreneurial potential management. The developed methodological approach includes the following steps:

1) Formation of a system of partial indicators of quantitative evaluation of the effectiveness of marketing support and their impact on the areas of potential realization: financial, production, marketing.

First of all, it is necessary to carry out a correlation analysis between all selected indicators without dividing them into components (financial, production, marketing). According to the results of repeated correlation analysis, factor analysis is conducted, which will allow to correctly divide the indicators into groups and to define their main features.

2) Allocation of indicators by impact groups and determining their main features by factor analysis.

To evaluate, all indicators within individual spheres must be transformed into separate integral indicators:

$$I_n = \sum p_j \times x_{norm_i} \quad (1)$$

where: p - is the weight of the i -th indicator;

x_{norm_i} - norms and - normalized value of the i -th indicator;

j - is the number of factors.

3) Determining the benchmarks of each partial performance measurement index and calculating partial integral indicators.

4) Determination of dynamics of values of integral indicators, their tendencies and level of correspondence to standard parameters, comparative analysis.

5) Determination of the overall integral indicator based on the assessment of "developmental level"

Using the "level of development" formula, the individual integral indicators should be integrated into one common:

$$I = 1 - \frac{\sqrt{\sum (x_i - x_{stan})^2}}{x + 3\delta} \quad (2)$$

where x_i , x , x_{stan} - standard - respectively actual, average and reference value of the indicator;

δ - standard deviation.

6) Joining - tree clustering classification of marketing activities for group visualization.

7) Classification of marketing measures by the method of K-means for their classification in the fields of activity of enterprises. Thus, all metrics are grouped together (clusters).

8) The discriminant analysis verifies the correctness of the distribution and, if necessary, adjusts to obtain a confidence of close to 100%.

9) Description of the obtained groups (clusters) using the fuzzy set theory classifier because of the results of the average and partial indicators of the integral general indicator ("development level") and individual integral indicators for each group as well as for the enterprise as a whole.

10) Formulation of target complex programs of marketing support of realization of entrepreneurial potential and spheres of activity of the enterprise.

11) Choosing the best alternative to implement marketing support within the capabilities and limitations of the analyzed company with the help of the Expert Shoise program.

For further analysis, it is necessary to consider the correlation between the obtained indicators. The baseline data is a table of normalized activity data of 9 analyzed light industry enterprises in the period from 2015 to 2018. According to the results of repeated correlation analysis, the correlation between indicators for all spheres of influence was checked.

The correlation matrix of variables was analyzed using the principal component method. Three factors were identified. These factors were converted using the varimax method. Factors were interpreted for variables that are directly related to him and which are most closely related to him. The factors resulting from the varimax conversion should account for at least 64% of the total (total) variance.

The Statistica computer program has a Scree plot criterion. In order to determine the number of factors that will be investigated when conducting factor analysis, it is advisable to analyze the characteristics of the "plot" (Scree plot). A fragment of the resulting "plot" studies is presented in Figure 1.

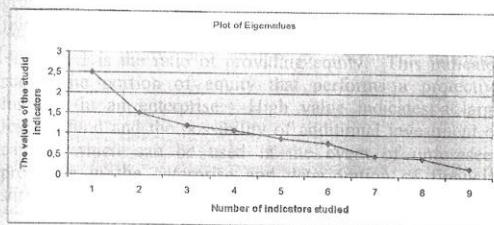


Fig. 1. Scree plot - "plot" to determine the number of factors for evaluating the effectiveness of marketing support for the realization of entrepreneurial potential

Based on the characteristics of the "plot" in determining the number of factors, we can conclude that the study of 3 factors is optimal. The results of this distribution are shown in Table 1.

Factor analysis shows that the 8 most important indicators are those that have the greatest impact. The first group includes the following 4 indicators that characterize financial activity and management apparatus:

1) x 1 is the ratio of providing equity. This indicator shows the portion of equity that performs a protective function in an enterprise. High value indicates a large reserve fund and the possibility of additional investment of capital, which can be used in the event of unforeseen processes in the enterprise and deterioration of financial sustainability;

2) x 9 - the ratio of current receivables and payables. The value of the indicator indicates the ability to pay suppliers, employees and other creditors at the expense of debtors within the studied year. The recommended value is one. In case it is more than one, it should be said that there is a significant diversion of the financial resources of the enterprise to the debtors, which reduces the ability to meet its short-term obligations. If the indicator is less than one, the enterprise is able to finance accounts receivable and part of other assets at the expense of accounts payable;

3) x 29 - Financial Stability Ratio allows you to specify what portion of assets is financed by long-term sources of financing - equity and long-term borrowed financial

resources. The high value of the indicator indicates a low level of risk of loss of solvency and good prospects of functioning of the enterprise;

TABLE I. IMAGE OF THE STATISTICA FACTOR ANALYSIS PROGRAM

| Variable | Marked loadings are > 0.400000 | | |
|----------|--------------------------------|-----------|-----------|
| x1 | 0.786178 | 0.454559 | 0.483364 |
| x2 | 0.156963 | 0.007592 | 0.029011 |
| x5 | 0.317648 | 0.765055 | 0.007050 |
| x9 | -0.684534 | -0.356807 | -0.393897 |
| x12 | 0.448474 | 0.422368 | 0.823331 |
| x14 | 0.572620 | 0.794469 | 0.322525 |
| x22 | 0.574425 | 0.460600 | 0.871488 |
| x29 | 0.776351 | 0.196972 | 0.179506 |
| x39 | -0.724500 | -0.558102 | -0.223320 |
| Prp.Totl | 0.381818 | 0.215032 | 0.179506 |

4) x 39 - the period of the financial cycle means the period of turnover of funds of the enterprise. The downward trend is a positive trend, however, if the value is below zero, it indicates that there is insufficient amount of cash resources to settle with creditors on time.

The second factor included two indicators: 1) x 5 - asset mobility ratio and 2) x 14 - coverage ratio of stocks.

The first indicates the ratio of current and current assets of the enterprise. As in the case of some of the previous indicators, the high value of asset mobility is characteristic of enterprises in the trade and financial sector, while in most industrial enterprises the share of non-current assets is high. The second indicator indicates how much inventory is provided by regulatory sources of inventory financing. The positive trend is the increase in the value of this factor. Both indicators characterize manufacturing activity (including purchasing and working with suppliers).

The third factor included: 1) x 12 - maneuverability of one's own working capital, indicating which part of one's own working capital is in cash (a high value indicates the ability to quickly meet its short-term liabilities at the expense of equity) and 2) x 22 - the coefficient of profitability (or profitability of sales), which shows the availability of the enterprise's ability to reproduce and expand production and characterize the profitability of the enterprise. Both indicators affect the performance of marketing activities of enterprises.

Therefore, it is advisable to name the first factor "Financial", the second - "Production", and the third - "Sales". All of them collectively describe 77.64% of the variance (Table 2).

TABLE II. IMAGE OF THE STATISTICA FACTOR ANALYSIS PROGRAM

| Value | Eigenvalue | % Total variance | Cumulative Eigenvalue | Cumulative |
|-------|------------|------------------|-----------------------|------------|
| 1 | 2.536361 | 38.18179 | 2.536361 | 38.18179 |
| 2 | 1.485288 | 21.50320 | 4.021649 | 59.68499 |
| 3 | 1.165553 | 17.95059 | 5.187202 | 77.63557 |

To determine the weight of the impact of each of the factors on the performance of enterprises as a whole, we apply the obtained weighting factors for factor analysis (Table 3).

Therefore, it is advisable to name the first factor "Financial", the second - "Production", and the third - "Sales".

All of them collectively describe 77.64% of the variance (Figure 2).

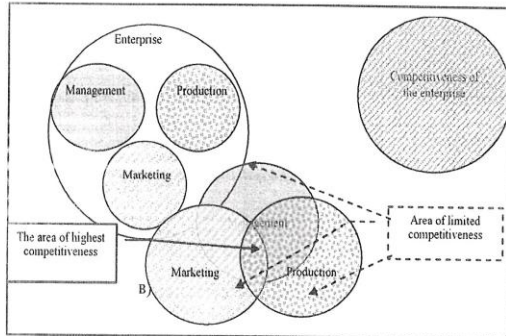


Fig. 2. Options for interaction of the basic elements that make up the competitiveness of the enterprise

TABLE III. RESULTS OF CALCULATION OF WEIGHT INDICATORS

| Indicators | Factors | | | max load | Weight (p) |
|------------|-----------|------------|--------|----------|------------|
| | Financial | Industrial | Sales | | |
| x1 | 0,786 | 0,455 | 0,483 | 1,724 | 0,271 |
| x5 | 0,318 | 0,765 | 0,007 | 1,090 | 0,171 |
| x9 | -0,685 | -0,357 | -0,394 | -1,435 | -0,225 |
| x12 | 0,448 | 0,422 | 0,823 | 1,694 | 0,266 |
| x14 | 0,573 | 0,794 | 0,323 | 1,690 | 0,265 |
| x22 | 0,574 | 0,461 | 0,871 | 1,907 | 0,299 |
| x29 | 0,776 | 0,197 | 0,233 | 1,206 | 0,189 |
| x39 | -0,725 | -0,558 | -0,223 | -1,506 | -0,236 |
| | | | | 6,369 | 1,000 |

For the description and classification of enterprises, it is advisable to reduce all indicators by factor to separate integral indicators (formula 1). For discriminant analysis, it is necessary to interpret three integral indicators into one common one using the formula "development level" (formula 2).

Table 4 summarizes the results of calculations according to formulas (1) and (2) and presents the dynamics of values of integral indicators of economic efficiency of realizing the potential of light industry enterprises under the condition of intensification of marketing support in 2015 - 2018.

Interpreting the obtained results, it should be noted that despite the complex modern financial and economic conditions of enterprises, increased competition, saturation of the market with cheap and not always quality imported products, subject to intensification of marketing efforts, subjects of the external environment (namely: regular consumers, distributors (investors, investors) remain loyal to the products of Ukrainian enterprises. Active marketing activities enable the company to retain and expand its market share by benefiting from the use of the brand and forming a positive image.

Thus, market positions will depend on how effectively the management, marketing and production activities will interact. On the other hand, the success of realizing entrepreneurial potential directly determines the competitiveness of the enterprise (Table 2). Shown in Fig. 2b variant of full interaction of components, characterizes the result when the maximum competitiveness of the enterprise is reached. However, in practice, the integration of the components of the enterprise competitive system is most common (Fig. 2 c).

TABLE IV. FRAGMENT OF INTEGRAL INDICATORS OF ECONOMIC EFFICIENCY OF REALIZATION OF ENTREPRENEURIAL POTENTIAL OF ENTERPRISES OF LIGHT INDUSTRY OF KHMELNITSKY REGION

| Enterprise | Conditional marking | 2013 | 2014 | 2015 | 2016 |
|-----------------------------|---------------------|--------|--------|--------|--------|
| Khmelnitsk-legprom-Plus LLC | I | 0,7017 | 0,6842 | 0,8138 | 0,6993 |
| | I _r | 0,1279 | 0,1459 | 0,1617 | 0,1484 |
| | I _i | 0,1789 | 0,1693 | 0,2349 | 0,1124 |
| | I _s | 0,3495 | 0,3210 | 0,5381 | 0,4789 |
| and so on | | | | | |

It is on the level of marketing support and interaction of the spheres of realization of entrepreneurial potential that the level of competitiveness of an industrial enterprise depends.

In summary, we can conclude that the effectiveness of realizing entrepreneurial potential depends significantly on the level of marketing support. The competitiveness of the enterprise, the ability to obtain and retain advantages in the market are formed by optimal interaction of production, marketing and management.

IV. CONCLUSION

The competitiveness of domestic industrial enterprises does not always meet the current challenges of the national economy. The efficiency and competitiveness of enterprises depends on the level of marketing activity. That is why the effectiveness of marketing support is the object of evaluation and optimization in the process of managing business potential.

Improving the efficiency of enterprise competitiveness management on the basis of formation and effective management of marketing support requires considerable efforts both from the owners of the enterprises and management and from the state bodies of management, regarding the regulatory regulation of marketing activity. Increasing the effectiveness of marketing efforts should be a business priority. Marketing activities should be used as a methodological basis and a tool for ensuring the market competitiveness of an enterprise and developing its entrepreneurial potential.

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Construction of Economic Models of Ensuring Ukraine's Energy Resources Economy

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Abstract— The paper presents and formalizes the deterministic economic models of providing Ukrainian economy with energy resources in the conditions of globalization, in particular for electricity and natural gas. It has been found out that the economy of Ukraine is characterized by a shortage of energy resources, which is covered by imports, obsolete and physically depreciated production facilities, imperfect economic and financial mechanisms that determine the low level of use of fuel and energy resources (FER) and energy security. The system of functional models of individual determinants, criteria, components and common indicators of energy security of the Ukrainian economy is considered, which takes into account the influence and interaction between individual hierarchical levels of energy security, for stress testing of critical threats and quantitative and qualitative assessment of the energy security of Ukraine's economy while substantiating and evaluating energy policy measures.

Keywords— energy resources, provision, national economy, economic model, energy security.

I. INTRODUCTION

The economy of Ukraine is characterized by a predominance of energy-intensive industries, a shortage of energy resources that is covered by imports, obsolete and physically deprived production facilities, and the imperfection of economic and financial mechanisms that determine the low level of use of fuel and energy resources (FER) and energy security. Ensuring energy security of the Ukrainian economy has become particularly relevant due to the critical dependence on the import of fuel and energy resources from the Russian Federation. Accordingly, the problem of determining the impact of threats caused by changes in the geopolitical situation, on the level of energy security in Ukraine is updating [9].

Studies on energy security mainly addresses problems caused by high energy intensity of production, dependence on oil and gas imports, and the ineffectiveness of the energy market infrastructure, as well as the introduction of up-to-date technology and energy saving as the basis for structural changes and strengthening of the country's economic security [1].

Considerable attention is paid to the study of problems related to the assessment and risk management of energy markets, which are followed by energy poverty, energy dependence, energy intensity of industrial production. [16].

Access to affordable and efficient energy is a fundamental human right and an imperative for human development. Energy policy usually refers to the technical, economic and social aspects for successful energy purchasing and energy provision. Today many scientists pay attention to the interrelationship of this policy with environmental safety and development. Lack of environmental aspects will lead not only to deterioration of the environment, but also lag in the development and achievement of the goals of sustainable development [8].

II. THEORETICAL BASIS

In recent years, energy security has become one of the most pressing political issues for the countries of Central and Eastern Europe [4]. Europe's energy vulnerability deteriorated due to the Russian-Ukrainian conflict, which further aggravated the concerns of the governments of these countries regarding the interruption in the supply of energy from Russia. These fears are entirely justified, as Europe, unlike the United States and Canada, does not have its own large reserves of energy resources and is forced to import them. [10].

These threats can be overcome or reduced only due to the systemic reformation of the energy sector, changing the direction of the energy policy of diversifying sources of energy supply. A number of authors believe that Iran (after abolishing sanctions) and the Caucasus are reliable energy suppliers to Europe and are able to reduce energy dependence on Russia [2].

An important direction in reducing the threats to energy security is the integration of Ukraine's energy infrastructure into the European energy area through the regional energy platform of Central and Eastern Europe (based on the Visegrad Group (V4)), which develops a number of projects with the financial support of the European Commission and aims to reduce the vulnerability of the countries of the region to energy supplies from the East, increasing energy security through the synergy of the efforts of the participating countries. Integration of Ukraine into the European gas market and reducing bilateral Russian-Ukrainian dependence will ease concerns about regional energy security in Eastern Europe [13].

Justification of effective and efficient management decisions and reforms requires the accuracy not only of the relative quantitative assessment of the level of energy security and the impact of separate threats, but of absolute

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