

# Conceptual provisions for optimization of a business type at the industry level

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**Abstract**—The article deals with the problem of optimizing the characteristics of an enterprise's business at the industry level. An approach to identifying efficient and unpromising businesses is described. The methodology for optimizing the profitable business market strategy in accordance with the stage of the life cycle is presented. Additionally, we have formulated conceptual provisions for choosing the most profitable business instead of the unpromising one.

**Keywords**—business optimization, strategies, interests of the producer and consumer, indicators, life cycle.

## I. INTRODUCTION

Whether the systems and processes of management are optimal largely depends on the specialization of the type of business in the sought-after product line of goods and services. In the modern knowledge economy, the main factors of production are various forms of intellectual capital: that of an individual human, structural, client [5, 7] Intellectual factors of production accelerate the improvement of businesses, intensify production processes, and aggravate the competition in markets and between markets. Successful implementation of such processes is insufficient only from the standpoint of the presence of intellectual factors of production that use their competence and professional potential in choosing businesses. These processes become optimization ones only when using economically sound approaches, techniques and methods that allow for a reasonable choice of businesses in the industry. We are basing the actualization of the problem of optimizing the choice and correction of businesses of economic entities on this fact.

The purpose of this work is to study the processes of optimization of the choice and correction of the type of business within the industry. This goal determined the tasks solved in the work:

- to determine the approach to identifying efficient and unpromising businesses;
- to develop a methodology for optimizing a profitable business market strategy according to the stage of the life cycle;
- to formulate conceptual cases for choosing the most profitable business instead of an unpromising one.

## II. METHODS

### 1. Identification of efficient and unpromising businesses:

Optimization can be focused on improving the characteristics of an existing business, or on choosing the best option for a new business, if the existing one is clearly unpromising.

Let us consider the process of identifying businesses that are profitable or unpromising for production. Unpromising businesses are unprofitable or yield little profit. The demand for their products is declining. When identifying profitable product-market combinations of the assortment of the enterprise, it is necessary to take into account the different interest in their implementation. Similarly, one can speak of a different interest in the purchase of respective goods and services by consumers.

An enterprise can significantly increase the profitability (interest) of production by reducing the output of low-profit products. It is advisable to utilize the Pareto principle of 20/80. In accordance with the ratio of 20/80, products that are outside the 20% of the range of the most effective products that are giving 80% of the profits can be classified as unprofitable. First of all, it is advisable to stop the production of unpromising 30% of the product range, the profitability of which is unlikely. The business, all of which products ended up being unpromising, must be replaced by implementing a strategy for updating the specialization of the business type. Here, by the term "product" we mean a product or a service produced for a specific target segment, or a specific assortment sold to a set of target consumers of business products. We need to take into account that an estimate of 20% of the product range that gives the company the greatest amount of profit is approximate. In practice, this estimate may be 15%, or 25%, and so on. Those businesses whose products turned out to be highly profitable, are promising, and need to be developed by updating products and expanding the market, implementing strategies for updating the life cycles of product-market combinations. Mainly, generalized criteria for assessing the interests of the producer and the consumer depend on a number of particular criteria, the indicators of which are taken into account according to the significance of their influence.

When solving a specific business optimization problem, it is necessary to identify a list of evaluation criteria that should be taken into account in the particular situation. According to the indicators of private performance criteria, we need to define the criteria to indicate the interests of the producer and the consumer for each of the businesses. Elements of the product line of a business for which both generalized criterion indicators will be preferred for development. If it turns out that one of the criterion indicators of business

interest is  $\geq 0.8$ , and the other is  $< 0.8$ , then we need to consider the possibility of raising the interest of the other party.

This approach also makes it possible to find an effective replacement of the business specialization, all of whose product-market combinations turned out to be in the field of unpromising 30% of the corporation's product range. In this case, an analysis focused on the 20/80 ratio should be used to search for an effective range of a promising business in the new direction of our enterprise, instead of a direction that has lost its relevance. As a result, part of our assets will be redistributed to the leading industry in the most relevant area.

Let us consider strategies for optimizing the characteristics of efficient and hopeless businesses. The strategy of updating the life cycle of a product-market combination of a business is aimed at optimizing the characteristics of our profitable business. This strategy should be implemented upon completion of the growth stage of the product that is produced and sold to a specific segment of the consumer group. From the beginning of the maturity stage, the market of this segment group starts growing more and more slowly, however, profits can significantly increase due to the curtailing of competition for a product that is not promising for implementation, but is very beneficial for continued production. Upon completion of the initial product growth stage, the life cycle update will be accompanied by the fact that the previous product moves to the maturity stage, and the continuation of the initial product growth stage will correspond to the new product. The updated product component of the business will confirm the high attractiveness of our brand both for "lovers of the new" that are purchasing the updated avant-garde product, and for "mass consumers" that are purchasing even the former product, but from the most fashionable manufacturer. It is advisable to carry out the strategy of updating the business specialization if it is unpromising due to the unprofitableness of all its product-market combinations. In this case, the production resources of the former business are reoriented to the new most promising activity type.

The strategy of updating the business specialization involves solving the following set of tasks:

- to identify a set of products of the corporation that are unpromising for the production;
- to identify a business, all of whose products ended up being unpromising for production;
- to choose for the relevant business the most profitable folding strategy of "harvesting", "liquidation", or their composition;
- to release the assets engaged in an unpromising business;
- to choose a prospective business that is at the initial growth stage and has the maximum rate of market expansion in the industry;
- to refine the forecast of the adequacy of the time remaining until the completion of the growth stage to move the promising business into the leading position;

- if the time is insufficient for the creation of the leading business, we need to review another specialization;
- if the prognosis states that the successful process of creating a leading product line is likely, we will implement this business on the basis of released assets. In the process of implementing market-based business strategies, it is necessary to make corrections in them that help optimize businesses. Let us consider the methodology for solving this problem.

2. Optimization of the market strategy according to the life cycle stage:

In the process of optimizing the activities of the enterprise, taking into account the life cycles of businesses and products, we need to consider the implemented market strategies of activity, which are focused on increasing production volumes.

I. Ansoff proposed the following four market activity strategies [3]:

1. The initial market penetration strategy, which is characterized by the desire of the company in every way to boost the sales of products in the developed market, thus maximizing the efficiency of its structural and client capital. In this case, actions are made to increase the volume of products shipped to existing customers, or to new customers of the same segment who have learned about it, and they liked it. For example, the strategy of market penetration in the hotel industry, restaurant business, tourist complex and such involves the implementation of activities that contribute to the formation of preferences of the target segment to our products and services in particular, as well as increasing the frequency and quantity of their acquisition by our target consumers.

2. The market development strategy is focused on increasing the sales of existing goods and services thanks to the development of new markets. It is implemented on the basis of improving the client capital of the enterprise. For example, a company that produces buses is developing a new target segment in the African market, a hotel and restaurant chain, as well as a brewery, can master the Central Asian market of the CIS countries.

3. The strategy of introducing a new product in the previously developed market can be implemented based on the improvement of the structural intellectual capital of the enterprise. For example, a tourism company can venture into a resort business, a restaurant can introduce a new colorful national cuisine, a TV maker can master the production of intercoms. A natural consequence of the strategy of a new product will be further penetration into the markets that have been previously developed. We recommend to go through the cycle of strategies (penetration, market development, new product development) again and again, expanding the target market more and more.

4. The strategy of full production diversification is focused on expanding sales of new products and services in new target markets. For example, a tourism enterprise can organize a complex of business events in countries in which it had not previously worked, and a chemical enterprise can open a new plant for the production of medicines.

Diversification strategy involves the mobilization and development of all components of the intellectual capital of the enterprise, thus it is more expensive and risky than the other three. This strategy should be considered a consequence of the accumulated free assets of the enterprise, requiring effective use. The transition from one market strategy to the other involves the correction of the boundaries of the market, or product of a business, or both. The consequence of this is the correction of the marketing strategy, which determines the instrumental complex according to the target market.

The result is a mutual coordination of the market strategy of the business, the stage of the life cycle of its product and the corresponding marketing complex. At various stages of the life cycle, consumer interest in the products is different, resulting in a change in the volume of their sales. At the stage of product entry into the market, the sales volume of newly developed products grows slowly. If the manufacturer manages to interest the consumer with its products, then the growth stage begins, which is characterized by an intensive growth in sales volume. This stage is characterized by positive values of the first and second derivatives of the sales volume over time. However, at some point in time, consumers begin to show less interest in these products. The stage of product maturity begins, when the sales volume is still growing, but not that intensively. That is, the second derivative gets negative. At this point, it is advisable to start working on updating the life cycle. Its purpose will be to update products and to increase the target consumer's interest in them. If the product is not updated, the consumer's interest in it will begin to fall sharply. The first and second derivatives of the sales volume over time will become negative. The decline phase will begin. The above aspects of the life cycle [15] should be considered when implementing market-based business strategies and product-market combinations. At the stage of entering the market and the stage of growth, a market strategy of market penetration is implemented (see strategy 1). In this case, the task is to actively position the product and increase the market share at the expense of competitors. Of particular interest is the work with the most profitable for us consumers.

In order to determine the boundaries of this special segment, it is advisable to use the Pareto principle with the addition of Sherdin 80/20/30 [4].

According to the 80/20/30 ratio, after securing the 20% of the target market, it will be worthwhile to change the market strategy of activities, moving towards the development of the market (see strategy 2) by promoting our products to new geographical, demographic, psychographic, and behavioral segments of consumers of our products. Market development strategy will be relevant until the end of the growth stage. It can be consequently extended to a number of attractive segments. Although, it should be borne in mind that the service of 30% of the least preferred consumers can cause significant losses. At the completion of the growth stage, the life cycle of the product should be updated. To do this, it is necessary to clarify the boundaries of the associated segment of consumers of our products that emerged during the implementation of the first and second market strategies.

The information about the associated segment is further used to specify the customer values that will be implemented

in the product that is oriented on the strategy of introducing a new product or service (see strategy 3). This product is further positioned on the entire associated target segment. Further, the considered cycle is repeated taking into account the current changes in the segment boundaries and, accordingly, the product, price policy, promotion policy, sales, etc. The updated product will have to confirm our leading position in market share and growth rates. At the same time, the product, the market growth rate of which has begun to decline, will continue to be produced.

If a decision is made to diversify the enterprise's activities (see strategy 4), we should choose from a set of business alternatives that satisfy the following conditions: the steepness of its life-cycle schedule at the growth stage is the highest compared to alternate ones; its products are at the growth stage; forecasted estimates of the duration of the unfinished part of the growth stage indicate that there is enough time to transfer the business we organize to the leading position in terms of market share and growth rates.

### III. RESULTS

Conceptual provisions for choosing the most profitable business:

The choice of specialization of our business should be made in compliance with the principle of symmetry of interests of the owner of the assets invested in the business and consumers of its potential products. The products of a business must be objectively required and desired by the target consumer, as well as interesting and most beneficial for the manufacturer. It is advisable to evaluate the effectiveness of choosing a promising business specialization by a vector in the coordinate space: preferences (for the owner of invested assets) of a particular business specialization in the chosen industry; preferences (for enterprises of the industry and consumers of products) of the appearance of a business in which assets are invested. The interest of the owner of the assets invested in the business generally depends on a number of factors [9,10], the weight of which will be determined to a significant extent by the characteristics of the industry, the intellectual capital of the staff, the structural capital of the organization, the client capital of established partnerships, and such. The preference of investing assets in a business (the interest of the owner of the assets) is advisable to evaluate taking into account the following indicators:

- low entry barriers to the industry due to the interest of its enterprises in our potential products.
- large size of the growing market of our potential products.
- compliance of the chosen business specialization with the intellectual capital of the personnel, the structural capital of the organization, the client capital of the existing partnerships, and the intellectual capital of the intraorganizational management [5].

It is advisable to evaluate the interest of enterprises in the industry and the market for consumers of business products in which assets are invested (the interest of participants in the industry market) taking into account the following indicators:

- set of developed sources of competitive advantages necessary for the organized business obtained by the owner of the assets invested in the industry;
- demand for potential business output by industry enterprises;
- operational experience (of the owner of the invested assets) in terms of working with products included in the assortment of the selected business;
- high growth rate of the market for the range of products of a selected business. Preferred businesses are characterized by the high interest of the owner of the assets to invest in the development of the relevant industry target market as well as the high interest of the participants of this market in the arrival of an investor with the necessary economic potential for the industry.

#### IV. CONCLUSION

The orientation of the business entity to scientifically-based conceptual provisions, methods and approaches to identifying businesses ensures effective business practice and its optimization. The consequence of this is the optimal use of investor's resources in the industry. Both owners of invested assets and consumers of potential business products are interested in the introduction of the developed intellectual capital. According to the conceptual views, the attractive types of businesses correspond to markets that should be large, with growth prospects, providing a high return on equity capital to an enterprise working on them, etc. At the same time, an economic entity must have competitive advantages in the production, promotion, and sale of products of the target market. This is possible in the case of adequacy of the production process, organizational structure, financial resources, and the experience of an economic entity with the characteristics of the market; the presence of a set of developed sources of competitive advantages used in the manufacture of products for the market of interest.

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