Modelling the economic entity behaviour in the framework of the selected strategy

Abstract. The article deals with a competence approach to forming a business strategy. The authors have developed a comprehensive algorithm for modelling the behaviour of the economic entity with regard to all aspects of the relevant activities on the basis of the assessment system of parameters according to the triad principle in the framework of the selected strategy. They suggest a new vision of the concept of competence, usefulness and adaptability.

Keywords: Competency; Explicate Model; Strategy

JEL Classification: L20; L29

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1. Introduction

Under the conditions of unstable market environment, there is a need to develop a comprehensive algorithm for modelling the behaviour of the economic agent in the framework of the selected strategy and to provide an effective combination of tactics (specific tasks) for their further implementation.

2. Brief Literature Review

The theoretical and methodological framework of the research is based on the behavioural model of rational choice advanced by H. Simon (1978) [1], the classic model of the economic agent by A. Smith (1962) [2], the works by P. Kheyne (1991), D. Ariely (2012) [4], Ph. Kotler (2003) [5], V. P. Leshchuk [6] and V. I. Kovtun [7]. The relevant problems have been studied...
by contemporary foreign scholars such as Maryann P. Feldman (2014) [8], K. Walczyk, K. Kopczewska, J. Kudla (2015) [8] and L. Waltman, N. J. van Eck, R. Dekker, U. Kaymak, 2012 [10]. The studied works do not provide a comprehensive approach to defining a strategy, which would cover all aspects of the economic entity’s activities.

3. The purpose of the article is to identify adequate business strategy and model behaviour of the economic agent in its framework.

4. Results. To model the behaviour of the economic entity, let us develop a general algorithm in the form of the following tasks: 1) to identify alternative strategies and define the goal based on the development strategy; 2) to provide a clear ranking of all the competences with regard to their usefulness at particular stages of their development and adaptation to the external environment; 3) to determine effective combinations of tactics along with the peak and the risk stages.

It is expected that each strategy comprises modelling of the essences of several components (subsystems), the functioning of which correspond to different development stages, such as the emergence, rapid growth, moderate growth, stabilisation and contraction. Each of the components has related competencies, i.e. criteria which can be used to determine the ability of a subsystem to successfully perform in accordance with the main objectives of the enterprise. Thus, in the context of this article, it is proposed to view a competence as a behavioural characteristic which determines the ability of the enterprise to conduct its activities in the most effective way with regard to the consistency of the strategy chosen by the enterprise with its functional components.

The proposed assessment system including the assessment parameters based on the principles (standpoint) of self-regulation of the enterprise (management entity) the assessment parameters based on the principles of the sectoral regulatory authorities (management subject) underpinning and assessment parameters based on the principles of the body of public administration underpinning the self-regulation model can represent the theoretical basis related to the process of identification of the enterprise’s development strategy. The assessment system is expected to be based on to assessment of parameters of its performance. The proposed assessment system may be presented in the form of a triad (Figure 1).

Also, there is a concept of explication, which is interpreted as a disclosure of insidious phenomena through the variety of other occurrences. It may be assumed that the level

**Fig. 1: Assessment system of enterprise based on the triad principle**

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of usefulness and adaptability of the enterprise to changes in the external environment is implicitly manifested via the competencies, the assessment of which, according to the triad principle, makes it possible to create an explicable model of behaviour of the economic entity in the framework of the selected strategy (Figure 2).

Based on the proposed algorithm, we have developed a system of economic behaviour modelling, which makes it possible to determine combinations of tactics and devise a business strategy.

The research shows that a great number of Ukrainian companies working in the tourist business operate without any adopted or officially approved decisions (plans) which contribute to the development of well-defined strategies aimed to help the enterprise to model rational economic behaviour and achieve its objectives. Enterprises at the earlier stages of their development lack expertise and specialists who are able to address relevant problems. At the same time, companies that have reached the point of steady growth or stabilisation and progressed to the stage of internal coordination rely on intuition and their own experience when it comes to their strategic plan projections.

In respect to strategic planning of the development of tourism abroad, foreign scholars propose to apply a multipronged approach based on the assessment of vulnerable areas according to the following three criteria, which are spatial distribution of tourist places, the level of attractiveness and the number of visitors [17]. They also put accent on the model which helps to determine areas favourable for the development of tourism, which takes account of the attractiveness of the area with regard to particular segments of customer demand [18]. In their scientific works, Greek researchers suggest a new conceptual approach to the development of options for strategic influence on selected locations, which is based on the determination of conditions related to sustainability of those locations in terms of their throughput regarding monitoring of the balance in the ecosystem and numerous effects of tourism at the level of local development [19].

Having analysed strategic planning relevant to the activity of tourist companies both in Ukraine and abroad, we discovered that insufficient attention is paid to the issues related to modelling of economic behaviour in the framework of the selected strategy.

It is therefore necessary to develop and implement such a system making it possible to take into account the peak and the risk functional competencies at each of the development stages, to decide on the appropriate combination of tactics needed to implement the strategy, to provide the sustainability of data by using the assessment system based on the triad principle.

The testing of the explicable model of forming the behaviour of the economic entity was carried out on the example of the private company «TK Novyi Svit» (the New World Tourist Company). A preliminary estimate showed that the abovementioned company was at the stage of steady growth. Taking into account the activities of the economic entity, we ranked the marketing, financial, innovative investment, staffing and information security subsystems (functions) and their competencies as follows (Figure 3).
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The tactics of the marketing subsystem is based on tree parameters according to the triad principle, one of which is predominant and the other two are performing and controlling, respectively. Thus, the triad provides the sustainability of the combination of functional competencies (Figure 4).

As a result, we get the following combination (tactics) of the peak and the risk stages of the enterprise’s activity:

\[ T_1 = \{M3, M1, M5, M9, M4\} \]

Similarly, we can create tactics for other functions of the enterprise (Figure 5).

Thereafter, we rank functions of the three positions from the standpoint of usefulness and adaptation with regard to their development stage. The strategy of the enterprise is developed based on the predominant, performing, controlling parameters according to the triad principle, which makes it possible to maintain sustainability of combinations of factors relevant to each of the subsystems (Figure 6).

Based on the results of the calculations, we get the following S-strategy:

\[ S = \{T_{RM}, T_{R}, T_{RM}, T_{RM}, T_{RM}, T_{R}, T_{R}\} \]

where the first three parameters attribute to the peak stage of the enterprise development and the other three correspond to the risk stage (Figure 7).

The developed system implemented, we assessed the economic effect taking into account the parameters relevant to the peak and the risk stages in order to determine the effectiveness of the system (Table 2).

5. Conclusions. The proposed competence approach to the development of the enterprise strategy made it possible to consider its functions, identify their additional advantages via the aforementioned functional competencies and model the behaviour of the economic entity. The application of the assessment system based on the triad principle ensured the sustainability of the obtained data.

References

Fig. 7: Schematic representation of the strategy at the steady growth stage
Source: Compiled by the authors

<table>
<thead>
<tr>
<th>Subsystem</th>
<th>Indicator</th>
<th>Effect, %</th>
</tr>
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<tbody>
<tr>
<td>Financial</td>
<td>Sales volume</td>
<td>+7.2</td>
</tr>
<tr>
<td></td>
<td>Solvency</td>
<td>+5.6</td>
</tr>
<tr>
<td></td>
<td>Receivables</td>
<td>-3</td>
</tr>
<tr>
<td>Marketing</td>
<td>Share of the target market segment</td>
<td>+2.8</td>
</tr>
<tr>
<td></td>
<td>Business relationships with suppliers</td>
<td>+8.3</td>
</tr>
<tr>
<td></td>
<td>Customer focus</td>
<td>+7.4</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
<td>+2.3</td>
</tr>
<tr>
<td>Information security</td>
<td>Speed of data processing and transmission</td>
<td>+0.5</td>
</tr>
<tr>
<td></td>
<td>Introduction of intelligent systems of information</td>
<td>+1.3</td>
</tr>
<tr>
<td></td>
<td>Use of all means of communication</td>
<td>+0.9</td>
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<td></td>
<td>Information security</td>
<td>+3.2</td>
</tr>
<tr>
<td>Staffing</td>
<td>Delegation of authority</td>
<td>+0.8</td>
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<tr>
<td></td>
<td>Staff qualification</td>
<td>+1.8</td>
</tr>
<tr>
<td></td>
<td>Integration of actions and knowledge in different structures</td>
<td>+0.7</td>
</tr>
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<td></td>
<td>Ability to organise information</td>
<td>+1.4</td>
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Source: Compiled by the authors

References (in the language original)


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