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IDENTIFICATION OF PRIORITY AREAS OF STRATEGIC CHANGES AT DOMESTIC ENTERPRISES

The paper considers the current parameters of strategic changes that form the basic strategy of enterprise transformation. Based on the authors' economic and mathematical model the key parameters of change strategy are optimized. Methodological approach to calculating the economic value added as the objective function of this model is improved. Identification of relevant parameters of strategic changes is implemented for 20 enterprises of Donetsk city and Donetsk region.

Keywords: strategic changes; expected economic value added; Donetsk.

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ІДЕНТИФІКАЦІЯ АКТУАЛЬНИХ НАПРЯМІВ СТРАТЕГІЧНИХ ЗМІН НА ВІТЧИЗНЯНИХ ПІДПРИЄМСТВАХ

У статті обґрунтовано актуальні параметри стратегічних змін, які формують базову стратегію перетворень підприємства. На основі авторської економіко-математичної моделі проведено оптимізацію ключових параметрів базової стратегії змін підприємства. Удосконалено методологічний підхід до розрахунку економічної доданої вартості як цільової функції зазначеної моделі. Здійснено ідентифікацію актуальних напрямів стратегічних змін для 20 підприємств м. Донецька та області.

Ключові слова: стратегічні зміни; очікувана економічна додана вартість; Донецьк.

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ИДЕНТИФИКАЦИЯ АКТУАЛЬНЫХ НАПРАВЛЕНИЙ СТРАТЕГИЧЕСКИХ ИЗМЕНЕНИЙ НА ОТЕЧЕСТВЕННЫХ ПРЕДПРИЯТИЯХ

В статье обоснованы актуальные параметры стратегических изменений, которые формируют базовую стратегию преобразований предприятия. На основе авторской экономико-математической модели проведена оптимизация ключевых параметров базовой стратегии изменений. Усовершенствован методологический подход к расчету экономической добавленной стоимости как целевой функции указанной модели. Осуществлена идентификация актуальных направлений стратегических изменений для 20 предприятий г. Донецка и области.

Ключевые слова: стратегические изменения; ожидаемая экономическая добавленная стоимость; Донецк.

Introduction. The conceptual understanding of strategic change management considers it appropriate to form the criterion of strategic stability. This strategic stability as an integrative quality of enterprises is defined as the ability to maintain their integrity and function under conditions close to equilibrium for at least one cycle of the industry or market sector technology under conditions of constantly destabilizing influence of the environment. Thus, here we justify the basic strategy changes, and therefore the most relevant areas of reforms that should be introduced at an enterprise; the priority attention should be given to determining the integrated measure that most fully reflects strategic stability.

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Recent research and publications analysis. Past researches in this area indicate almost complete agreement of the opinions of many scientists on the lack of use in today's net profit, sales revenue and derived indicators of profitability. The main explanation for this is that the defined performance indicators do not take into account the dynamic nature of the influence of important external macro and micro-factors of strategic stability. In particular, it is impossible not to note and take into account the undeniable impact of financial and stock markets in the strategic stability of the enterprise, as well as the existing level of riskiness and potential of industrial markets and technologies which interact with the enterprise. According to the majority of scientists, for instance, I. Ivashkovska (2012), evaluating the effectiveness of sales strategies, and thus the strategic changes, the criterion of economic value added is the cornerstone of financial analytical model of contemporary enterprise. Feasibility of using this index as a criterion for strategic management effectiveness is proved in the works of T. Copeland (2005), A. Damodaran (2004), K. Ferris (2003), N. Mykhaylytska (2008), V. Neudachin (2011), V. Porohnya and V. Los (2005), U. Sharp et al. (2001) and others. Thus, the most thorough and comprehensive change management criteria, which reflect the level of enterprise support of strategic stability, offered is the economic value added (*EVA*).

Unresolved issues. *EVA* has a complex internal structure, as in the formation of net operating income and in terms of weighted average cost of capital. Variations of scientific discourse demonstrate methodological approaches to the calculation of the weighted average cost of capital. Justification tools calculate the weighted average cost of capital, which is taken into account in the calculation of economic value added, especially for the invested components (involved) of capital.

The research objective is to determine the relevant parameters of change for Ukrainian enterprises, based on the methodological approach to calculating *EVA* as the objective function of the model of change strategy.

Key research findings. Despite prevailing definition of this parameter as a key to assessing the effectiveness of changes, the researchers emphasize the ambiguity and imperfection of the theoretical and methodological tools for calculating *EVA*.

The total formalized logic for determining the economic value added is presented as follows:

$$EVA = NOPAT - WACC \times CE, \quad (1)$$

where *NOPAT* – net operating profit after taxes; *WACC* – weighted average cost of capital; *CE* – amount invested (involved) capital.

The above formula shows that the rate of *EVA* has a complex internal structure, as in the formation of net operating income and in terms of weighted average cost of capital.

In our view, the most correct determination of *EVA* is the use of the term "capital involved". It is determined as the sum of equity enterprises that invested in real functioning (involved in primary and secondary business processes) fixed and circulating assets of the enterprise and debt capital invested in a real functioning fixed and circulating assets for a fee. This means that the portions of debt that is formed from the sources that do not have a clearly defined fee for use (for example, payables to suppliers) when calculating the total capital involved is not included. In most cases the involved capital value is calculated based only on the balance sheet indicators.

Prudent calculations of economic value added should be available for additional analytics that will set the volume involved in primary and secondary business processes.

Thus, the general approach to determining the weighted average cost of capital involved is clearly defined and has the following form:

$$WACC = \frac{(BK_3 \times BBK_3 + (1-r) \times PK_3 \times BPK_3)}{BK_3 + PK_3}, \quad (2)$$

where BK_3 – property involved asset; BBK_3 – cost of equity; PK_3 – debt involved capital; BPK_3 – the cost of debt capital involved; r – effective income tax rate.

If the method of determining the value of paid debt is sufficiently standardized and generally accepted, the method of determining the cost of equity does not provide a unified approach and is more complex, always attracting the attention of many scientists. S. Salostei (2011) notes, that in most cases the cost of own capital involved or to equate the expected shareholder return or return on equity. However, consider the data approach quite correct is unfair because it does not include the market value of money and main business risks. For this purpose, when calculating the cost of own capital involved we propose to use the pricing model of long-term assets. According to this model, important elements of calculating the cost of equity is the risk-free rate of return and specific coefficient characterizing the risk of investment in this area of activity. In the analysis of the recent national studies I. Shkura (2010) has shown that there are at least 5 benchmarks of determining risk-free rate of return on equity that lies in equating it to the interest rate on deposits of most solid banks in Ukraine; interest rates on bonds of external Ukrainian state loan; the interest rate on bonds of domestic Ukrainian government loan; the interest rate corresponding to the average return on stocks at the stock market; the interest rate of National bank of Ukraine. In our view, these approaches are somehow related to conditional risk-free rate of return, as in the current economic trends, none of them completely can predict income that can be obtained with the minimum probability of default.

As the banking sector during the economic recession is not entirely reliable, and cost of equity calculations are made in the national currency, conventionally risk-free rate of return on equity is selected the rate on domestic Ukrainian government loan. According to the forecasts of financial analysts in 2014–2015 it will hold at the 14.25–15.15% level.

Certain complications in the calculations of market return on equity is caused by another element of evaluation. Foreign practice identifies this figure as the average yield of stocks at the stock market. Since the development of the stock market does not give full reasons for the effective use of the indicator of quoted domestic shares, the value of this index is equal to the average return on equity for the period of the enterprise existence. Actual values calculated this way may be less than the weighted average cost of debt and lower than the average rates on deposits of domestic banks. In this situation, the expected market rate of return in this study may be equal to the average interest on bank loans used by enterprises.

Based on the previous studies, it is revealed that the choice of the basic change strategies and the identification of relevant parameters to make strategic changes are guided by the criterion of maximizing the strategic firmness of enterprise. In this case, as the key economic indicator that reflects the company's ability to provide stable

operations and development of strategic perspective, as already mentioned, the economic value added (EVA) has been chosen. This parameter determines how many times net operating income exceeds the weighted average cost of the capital involved.

Parameters that are optimized for the task of selecting basic strategy changes, are proposed to be established in two areas: substantive and process. Substantive context of changes will be presented in 3 crucial ways: 1. The coverage level of business processes that will be transformed (low, medium and high); 2. The level of fundamental transformation of business processes (low, medium and high); 3. The level of innovation policy changes (low, semiradical and radical). Process context changes are proposed to define the following 3 parameters: 1. The response time on changes in the external and (or) internal environment (reactive, synchronous, proactive); 2. The way of changes realization (evolutional, reasonable, revolution); 3. The urgency to implement change (term, mid-term, non-urgent).

Economic and mathematical model of key parameters optimization within the change strategy has the objective function, which reflects the expected economic value added, depending on the options outlined as 6 transformations.








This model implies that the system of constraints, which allows the possible states of the system and options correspond to each state of the system. To ensure the stability of strategic indicators that form part of the model constraints are grouped in 5 blocks: a block that characterizes the financial indicators of strategic stability under the conditions of global access to resources; power that characterizes technological indicators of strategic firmness under the conditions reducing the life cycle of production and promoting technologies; power that characterizes the social indicators of strategic firmness under the conditions of increased importance of intellectual assets in the total assets; block, which characterizes the client strategic indicators of firmness under the conditions of increased individual customer requirements for products; block, which characterizes business indicators of strategic firmness under the conditions of integration processes. Due to the large number of output parameters and the optimized parameters, it is considered that the basic strategy changes at an enterprise is a combinatorial problem of large scale. To reduce the dimensionality of the problem, its solution is performed at the stage of initial data and the formalization of tasks and as a result, is reduced to the problem of dynamic programming. Identification of relevant parameters of strategic changes, based on the proposed methodology, is implemented for 20 enterprises of Donetsk city and Donetsk region. Note that the selected enterprises within key business processes all perform commercial activity.

Enterprises were grouped into clusters by the factors such as the stage of the life cycle (growth, maturity including institutional stabilization, management improvements, knowledge management, including degradation of falling into trap organizational) and the level of integration processes (the number of structural units of an enterprise in its vertical or horizontal integration).

In the deepening conditions of globalization, mergers of industries and reduction of life cycle for the enterprises the following features should be considered as the most appropriate. Among the studied firms 7 clusters were identified (Table 1).

The results showed that the most innovative changes that require system reconfiguration of basic business processes are only mature and growing enterprises with a high level of integration processes (Figure 1).

Table 1. The investigated enterprises by clusters, developed by the authors

Number of cluster and pictogram	Name of the cluster	Enterprise name	The share of enterprises cluster in the total number of enterprises, %
1 	Mature enterprises with high level of integration processes	1. CJSC «Konti» 2. CJSC «APK-Invest»	10
2 	Mature enterprises with an average level of integration processes	3. CJSC «DBKK» 4. Ltd «HTZ» 5. CJSC «Henkyles» 6. CJSC «AVF»	20
3 	Mature enterprises with low levels of integration processes	7. Ltd «Fito» 8. CJSC «Vinter» 9. Ltd «Harvest» 10. NPO «Dorniks» 11. Ltd «Intpro»	25
4 	Growing enterprises with high levels of integration processes	12. Ltd «Donetsk Industrial and Construction Company»	5
5 	Growing enterprises with an average level of integration processes	13. Ltd «DP» 14. Ltd «Sarepra-Alfa» 15. Ltd «DIK»	15
6 	Enterprises in the process of degradation or organizational traps and have an average level of integration processes	16. Ltd VKF «Oniks»	5
7 	Enterprises that are in the process of degradation or organizational traps and have a low level of integration processes	17. Ltd «Bliss» 18. CJSC «Azob» 19. Ltd «Strim» 20. Ltd «Tehprom»	20
Total	7 clusters	20 enterprises	100

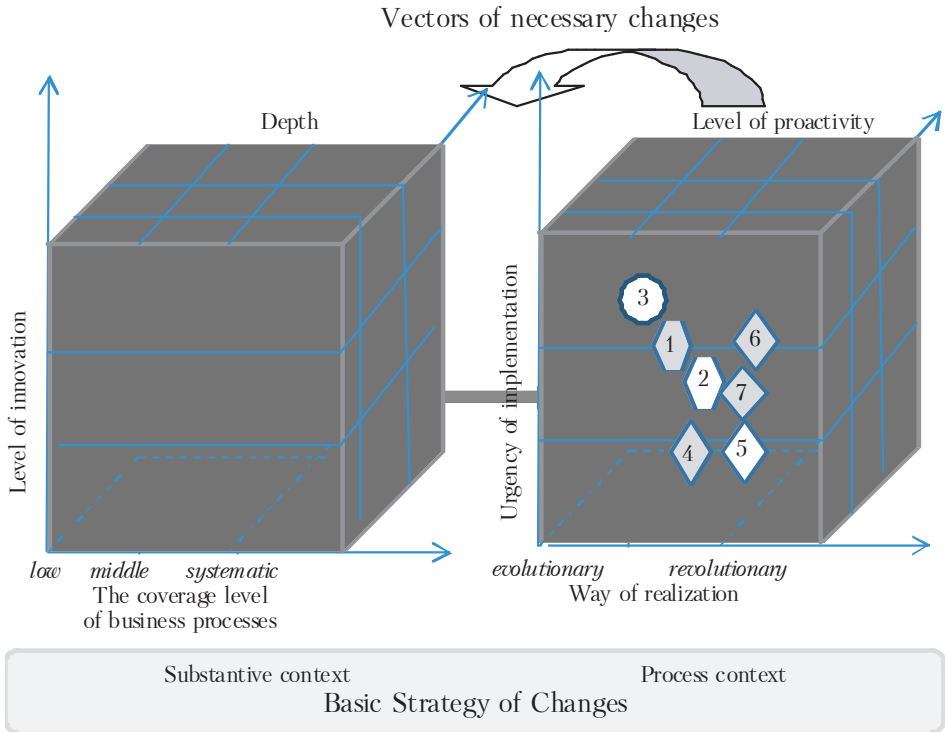


Figure 1. Identification of priority areas for strategic changes at the clustered enterprises, developed by the authors

Conclusions. The most systematic and indepth transformations are required by mature enterprises with low levels of integration and degraded enterprises. However, only mature companies will be able to implement urgent proactive elements in the coming transformation in the near future. Degrading enterprises, regardless the current integration practices, should also implement urgent changes, quite revolutionary ones, but taking into account the existing constraints.

The study shows that the least urgent strategic changes are needed by growing enterprises with high and medium levels of integration. This is because the general and competitive strategy of enterprises is flexible and well decomposed for the next period of operation. So, urgent transformation for the selected activities and financial flows at the aforementioned enterprises is not required.

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КНИЖКОВИЙ СВІТ

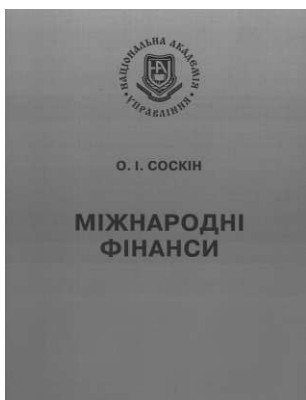


СУЧАСНА ЕКОНОМІЧНА ТА ЮРИДИЧНА ОСВІТА
ПРЕСТИЖНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД
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У посібнику розкриті основні положення, сутність, механізми та функції міжнародних фінансів, розвиток та сучасний стан світової валютної системи та міжнародних фінансових ринків; проаналізовані сучасні тенденції у сфері міжнародних фінансів. Посібник сформовано відповідно до вимог Болонського процесу. Видання містить комплексні тестові завдання, питання для самоконтролю, глосарій. У посібнику знайшли відображення актуальні сучасні дослідження у сфері міжнародних фінансів, матеріали фахових періодичних видань «Актуальні проблеми економіки», «Економічний часопис – XXI» та інших.

Посібник призначено для студентів та аспірантів економічних спеціальностей, а також тих, кому цікаво сформулювати власне розуміння проблематики міжнародних фінансів.