Iryna I. Kryshtopa[1]

ACHIEVEMENT OF SYNERGY EFFECT FROM THE INTEGRATED USAGE OF INSTRUMENTS OF STRATEGIC ACCOUNTING ON THE EXAMPLE OF AB-COSTING

The article presents the academic views on the issue of integrated usage of strategic accounting instruments and gives propositions on solving this problem at national industrial enterprises. In particular, the author has shown the possibility of achieving a synergy effect from the integrated usage of such instruments of the strategic accounting as EVA-analysis, AB-costing and DEA-analysis. The algorithm for constructing of the proposed model has been also developed.
Keywords: *strategic accounting; synergy effect; EVA-analysis; AB-costing; DEA-analysis.*

Ірина І. Криштопа

ДОСЯГНЕННЯ ЕФЕКТУ СИНЕРГІЇ ВІД ІНТЕГРОВАНОГО ВИКОРИСТАННЯ ІНСТРУМЕНТІВ СТРАТЕГІЧНОГО ОБЛІКУ НА ПРИКЛАДІ АВ-КОСТИНГУ

У статті досліджено погляди науковців на проблему інтегрованого використання інструментів стратегічного обліку та надано рекомендації щодо вирішення даного питання на вітчизняних промислових підприємствах. Доведено можливість досягнення ефекту синергії від змішаного використання таких інструментів стратегічного обліку як EVA-аналіз, АВ-костинг і DEA-аналіз. Розроблено алгоритм побудови запропонованої моделі.
Ключові слова: *стратегічний облік; синергетичний ефект; EVA-аналіз; АВ-костинг; DEA-аналіз.*
Літ. 12.

Ирина И. Криштопа

ДОСТИЖЕНИЕ ЭФФЕКТА СИНЕРГИИ ОТ ИНТЕГРИРОВАННОГО ИСПОЛЬЗОВАНИЯ ИНСТРУМЕНТОВ СТРАТЕГИЧЕСКОГО УЧЕТА НА ПРИМЕРЕ АВ-КОСТИНГА

В статье исследованы взгляды ученых на проблему интегрированного использования инструментов стратегического учета и даны рекомендации в части решения данного вопроса на отечественных промышленных предприятиях. Доказана возможность достижения эффекта синергии от смешанного использования таких инструментов стратегического учета как EVA-анализ, АВ-костинг и DEA-анализ. Разработан алгоритм построения предложенной модели.
Ключевые слова: *стратегический учет; синергетический эффект; EVA-анализ; АВ-костинг; DEA-анализ.*

Problem statement. Integration of Ukraine into the global economic community caused the necessity for implementation of strategic management paradigm into the practice of national industrial enterprises and creation of the accounting system which would be relevant for such purposes and objectives. Among the directions of solving this problem the author should name the application of the strategic accounting instruments at Ukrainian industrial enterprises. That is why the research of integrated usage of instruments of strategic accounting (as one of the methods of reducing their weaknesses and strengthening benefits) is of a particular relevance.

[1] Kryvyi Rih National University, Ukraine.

Literature review. It should be noticed that a rather limited number of scholars paid their attention to the solution of theoretical and methodological problems of integrated usage of strategic accounting instruments. Among them the author must mention such scholars as W.-C. Lin and C.-F. Liu (2010), V. Zozulya (2001a, 2001b), J. Kantor and S. Maital (1999), D. Kuchta, S. Zabek and M. Urban (2011), O. Nikolaeva and O. Alekseeva (2003), N. Roztocki and K. LaScola Needy (1999), I. Ushanov (2010), T. Huynh, G. Gong and A. Nguyen (2013), A. Shaikan (2009). But there are problems that still remain unsolved. In particular, specific features of Ukrainian business environment caused the need to figure out the best way of this approach application at industrial enterprises.

Definition of the target problem for the analysis. The goal of the article is to create the model that will help the effective management of Ukrainian industrial enterprises under the conditions of increased globalization due to the synergy effect from the integrated usage of instruments of strategic accounting.

For the achievement of the goal next problems must be solved:

- to study the existing approaches of scholars to the problem of integrated usage of instruments of strategic accounting;
- to give recommendations on the problem of integrated usage of instruments of strategic accounting at national industrial enterprises that are parts of a holding.

Methodology and key research findings. Achievement of the synergy effect from the integrated usage of strategic accounting instruments should be investigated on the example of AB-costing. It can be explained by the prevalence of this method at industrial enterprises. AB-costing is a two-tiered process of cost allocation. At the first level all resources are allocated to activities. At the second level activity costs are allocated to products. This approach helps to determine the correct amount of costs for every activity, connected with production and every single product. But inspite of positive aspects of AB-costing, this instrument of strategic accounting has a number of limitations. This situation has a negative influence on the process of production of information for managerial decision-making. Among the most significant limitations of this instrument scholars usually name:

- difficulties with determination of correct cost drivers;
- lack of information to understand the influence of key business processes on the volume of costs;
- impossibility of predicting the amount of added value for investors (Dann, 2000).

In order to avoid the negative impact of these aspects on the efficiency of decision-making, the researchers at the Department of Industrial Engineering, University of Pittsburgh (USA) have developed a model ABC+EVA. This approach allows achieving the synergy effect in cost management and creating a value added for investors. This can be achieved by focusing of AB-costing on the optimal allocation of operating costs and concentrating of EVA on the cost of capital and evaluation of created economic value added. In this case the distribution of capital value is made to the objects of cost allocation. This approach helps to figure out the amount of costs for every activity connected with the process of product creation and for every single product as well (Roztocki and LaScola Needy, 1999).

The definition of capital to operating ratio helps to find out the necessity of implementation of ABC+EVA model into enterprises practice. It is reasonable to implement this model at enterprises if this ratio is equal to 0.1 or higher. It is not reasonable to implement this model if the ratio point is less than 0.1 (Roztocki and LaScola Needy, 1999)

In the author's opinion, this approach focuses on management needs of those enterprises which have traditional organizational forms. But the implementation of this model into practice of holdings, which include several similar industrial enterprises, is rather controversial. Current practice shows that even despite the normal level of parameters of this model, the competitive position of chosen industrial enterprise can be the worst in comparison with other industrial enterprises of a holding. It means that the model ABC+EVA do not produce information on the efficiency of investigated industrial enterprise (including the types of its activities) in comparison to other industrial enterprises that are parts of a holding. This approach does not let managers of this enterprise make reasonable strategic decisions. In order to avoid this shortcoming the author proposes to add DEA-analysis (which includes a measurement of the efficiency of economic system of homogeneous objects) to this model.

This approach will help management of industrial enterprises to:

- get information on the quantitative performance indicators of industrial enterprises, which are parts of a holding in comparison to other industrial enterprises;
- figure out main reasons for ineffective work of this industrial enterprise;
- find out those industrial enterprises of a holding, which have the best practice of functioning;
- avoid the trap of cross-subsidization, which is rather common at national industrial enterprises.

The author recommends using the methodology of construction of model ABC+EVA as the basis for the algorithm for constructing the proposed model ABC+EVA+DEA. Thereafter, this model must be added with the stages of DEA. According to this, algorithm for constructing the proposed model ABC+EVA+DEA has the following steps:

- analysis of financial information of industrial enterprise;
- identification of the main activities carried out at industrial enterprise;
- determination of full operating costs for each of the selected activities;
- selection of optimal cost drivers for each activity and determination of their quantitative values;
- calculation of a specific rate of cost driver for each activity;
- calculation of operating costs for the selected item of cost accounting;
- determination of capital cost for each type of work and group of products (or separate products);
- implementation of cluster analysis in order to organize objects (industrial enterprises of the holding) in relatively homogeneous groups, which will be used for the needs of DEA-analysis;
- implementation of DEA-analysis within every cluster group and every industrial enterprise which is a part of the cluster group.

Conclusions and prospects for further research. Based on the results of the research of approaches of prominent scholars and economists to the problem of a

synergy effect achievement from the integrated usage of instruments of strategic accounting, the author developed a model of ABC+EVA+DEA. It will help to allocate the cost of capital on the objects of cost allocation, to identify the amount of expenditure for each activity or a product correctly and to calculate quantitative performance indicators of industrial enterprises of a holding in comparison with each other. This approach will help managers to adopt reasonable strategic decisions in order to choose the best way of further development of any industrial enterprise, which is a part of a holding, and a whole holding as well.

References:

Данн Ф. ABC на практике, 2000 // www.consulting.ru.

Зозуля В. EVA: новый взгляд на старые вещи // Управление компанией.– 2001.– №3 // management.web-standart.net.

Зозуля В. EVA-ABC: Одним выстрелом – двух зайцев // Рынок капитала.– 2001.– №4 // www.management.com.ua.

Николаева О.Е., Алексеева О.В. Стратегический управленческий учет: Науч.-метод. издание. – М., 2003. – 304 с.

Ушанов И.Г. Основные направления интеграции моделей EVA, BSC и технологий ABC // edu.tltsu.ru.

Шайкан А.В. Бухгалтерський облік у прийнятті управлінських стратегічних рішень: Монографія. – К.: КНЕУ, 2009. – 303 с.

Huynh, T., Gong, G., Nguyen, A. (2013). Integrating activity-based costing with economic value added // article.sciencepublishinggroup.com.

Kantor, J., Maital, S. (1999). Measuring Efficiency by Product Group: Integrating DEA with Activity-Based Accounting in a Large Mideast Bank // deazone.com.

Kuchta1, D., Zabek, S., Urban, M. (2011). Proposed merger of DEA and ABC methods in accounting for the costing of higher education // www.icesal.org.

Lin, W.-C., Liu, C.-F. (2010). Financial Statement Analysis and Activity-Based Costing Analysis for Shipping Industry: A Data Envelopment Analysis Approach // www.easts.info.

Roztocki, N., LaScola Needy, K. (1999). Integrating activity based costing and economic value added in manufacturing // www.logistics.tuc.gr.

The Role of ABC In Key Account Management, Armstrong Laing Group. April 2002 // www.armstronglaing.com.

Стаття надійшла до редакції 14.10.2013.