

The Use of Accounting Engineering Elements in Strategic Accounting

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ABSTRACT

In the Russian Federation a working system for presenting accounting information, that will allow to use all existing reserves with the greatest efficiency, is vital for successful business operations. Nowadays, making important managerial decisions is impossible without external and internal information. The concept of strategic management accounting is the only way to systematize the acquired information about the basic parameters of the external and internal environment.

With the use of this type of accounting, the information about external factors in the macro-environment is generated within the monitoring system, with the results being taken into account when making decisions. The use of various methods and tools of strategic accounting, including accounting engineering tools, will enhance establishing all business processes and getting maximum result from financing and operating activities.

Keywords: *business entity, management accounting, strategic accounting, accounting financial reporting, accounting engineering*

1. INTRODUCTION

International practice has referred to strategic accounting since late 80's of the 20th century. Basing on the statement by K. Simmons and M. Bromwich, I. N. Bogataya claims that the above-mentioned scientists provide relatively complete and comprehensive definitions of strategic accounting. They focus on both information provision functions and analysis and planning.

It is worthy of note that R. Kaplan and D. Innz mention planning and information provision in their definitions [1]. Modern literature offers the information on great variety of strategic accounting areas. Accordingly, there is a number of concepts existing:

- strategic accounting is one of the sources of information in strategic corporate financial management;
- strategic accounting refers to a specific method of displaying accounting and financial problems in a company;
- historical strategic accounting developed from management accounting. Management accounting, in contrast to financial accounting, reflects not only hard facts of the company's business operations, but also prepares the basis for determining the development prospects. A large number of management accounting professionals term this stage strategic, predictive or prospective. The concept of strategic accounting refers to the system of bookkeeping, processing and presentation of

the information necessary for making the strategic managerial decisions by the corporate management;

- "the concept of organizing strategic accounting for innovations comprises the following types of strategic accounting: strategic financial accounting, strategic management accounting, strategic tax accounting, strategic cyber accounting" (Shchemelev A. N.) [2];

- strategic accounting represents an accounting system that includes management and financial accounting, corporate planning and external environment monitoring, thus allowing users to make strategic decisions."

The transition to market economy enables the revision of the existing basic models of carrying on business, and consequently, the corporate management system as a whole. This primarily applies to the companies that conduct their business, defining its future development. Establishing and implementing strategic accounting in the company, mainly aimed at providing managerial personnel with relevant information for making timely and efficient decisions, will allow evaluating the company as a whole property complex, its property growth and estimating the return on investment in development.

2. BASIC METHODS

As far as the strategic management accounting tools are concerned, they can be determined by various methods and methodologies, principles and actions of specific areas, for which the strategic management accounting system is

being developed. The system under consideration includes a wide range of tools, from traditional ones to modern engineering methods.

Accounting engineering tools (Fig.1) are implemented through various models:

- establishing a corporate management system (management, pro forma, strategic, immunization and other derivative balance sheets);
- business operations (using various management tools to diagnose the company's financial situation based on direct costing, standard costing, income and expenditure management systems, determining the best contractual schemes to minimize the taxation burden, monitoring balance sheet, etc.);
- in the financial performance management (management of accounting systems, surplus and functional derivative balance sheets, etc.)

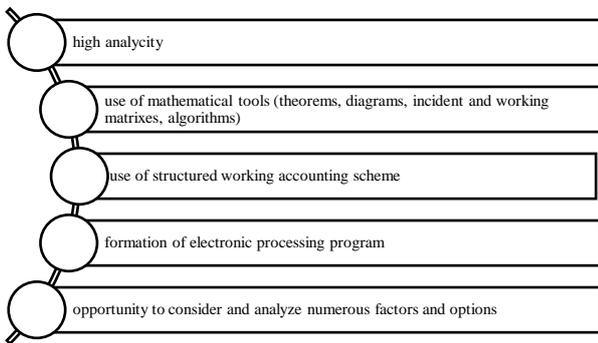


Figure 1 Characteristics of accounting engineering tools

Separate issues of accounting engineering were studied by E. A. Aksenova, N. A. Breslavtseva, G. E. Kroklicheva, E. V. Kuznetsova, D. V. Kurseev, N. T. Labyntsev, V. I. Tkach, P. E. Shumilin, and others.

The significance of improving the quality of the above-mentioned management accounting characteristics arises from the desire of companies to understand their current market situation, along with the possibility of achieving the most effective and sustainable development of all business processes. Cumulative cooperation is the only way leading to stability and sustainable performance of the company and certainty of possible prospects.

Today, with all processes being digitalized, it is important to increase the productivity of companies by applying scientific and technical innovations, improving management systems based on informational flows, and creating competitive advantages of the company's products. Thus, growth and improvement of these indicators will ensure the most stable development of the company, increase its influence on the factor market and allow it to be flexible in the conditions of globalization of processes and changes in external and internal factors.

Accounting engineering tools, in particular derivative balance sheets, are at the core of strategic accounting. When applied within an enterprise, these tools are used to manage raw materials potential, property, risks, financial soundness and flow of money, and to arrange the reserve system inspection and forecasting.

The following disadvantages of modern accounting can be identified [3]:

- low relevance of the information provided for managerial decision making;
- historicity of accounting financial reporting;
- distortions in the formation of accounting data when using the assumption principle;
- simultaneous application of various types of values (balance sheet, market or fair value) when forming accounting statements, which may cause a discrepancy in the final information vital for making managerial decisions;
- accounting policies inaccuracy in terms of the final financial performance pro forma;
- lack of information accumulation from the external environment;
- lack of interaction between financial and management accounting, and inconsistency in the selection of the indicators used to generate management reporting;
- lack of the selected strategy to regulate all business processes in the company;
- incorrectness or complete absence of management reporting for various business segments.

The above-stated disadvantages provide only inability to use the information generated in the accounting reporting to make effective and timely managerial decisions. Thuswise, the implementation of various management tools should be the top priority for a company, including accounting engineering tools.

Russian researchers, as well as their foreign colleagues, express dissatisfaction with the applied accounting reporting, formed in accordance with the Russian Accounting Standards. Professor A. N. Khorin reasonably observes: "Accounting reports drawn according to standard formats do not meet the enterprise management requirements and the formation of business cooperation. Balance sheet generalizations should be represented in such a context that, after using the appropriate analytical procedures, it would be possible to obtain an assessment significant for economic decision-makers" [4].

Being the main data source for management accounting, the information should be as detailed and versatile as possible. Such detailed accounting will enable the company to conduct strategic analysis in the context of various business processes (departments, responsibility centers, cost centers, types of activities, etc.), promptly identify existing deviations and monitor their activity. This system provides cooperation among all elements of operational, tactical and strategic accounting.

Undoubtedly, accounting represents the basis to form the accounting and analytical support for managerial decision-making. The relevance of existing various types of accounting (strategic, managerial, transactional, cyber, etc.) provides data analysis not only for past periods, but also forecasting future facts of the company's business activity in order to minimize the risk of performing different operations. Therefore, the use of tools, methods and methodological techniques of strategic management accounting will enhance the transformation of the

accounting reporting data into the necessary type and context.

3. RESULTS

Thus, the following factors, leading to the use of derivative balance sheets as a strategic accounting mechanism, can be identified:

- accounting balance sheet cannot reflect the assets and imputations real cost, and therefore, when it is drawn, various methods of embellishing and progress review are used, being unacceptable in modern business conditions that require obtaining real business property indicators. Drawing up derivative balance sheets facilitates the revelation of such devices and providing a significantly greater characteristic of property indicators. Derivative balance sheets can demonstrate the expected balances when making certain managerial decisions and their influence on the enterprise value; this method should be used in economic analysis within the company;
 - balance sheet indicators cannot form the basis for making managerial decisions, since they do not reflect reality. The balance sheet data represents outdated information, with the report being already considered obsolete on the day of signing by the manager and of the audit opinion. Consequently, it analyzes the hard facts of the company's business operations that will not facilitate the analysis of the current situation and may interfere with right decision-making;
 - accounting balance sheet cannot provide risk probability estimate and its consequences. Lack of risk assessment in a market economy can lead to enormous financial losses and to the company's subsequent winding up or bankruptcy. For reasonable business estimate each company must calculate the potential loss risks, both concerning the property and the dissatisfaction of its obligations;
 - the company's accounting reporting does not contain such an important factor as the external environment and the impact of its main components. The age of digitalization and increasing globalization leads to the need of reflecting and recording the impact of environmental factors on the company's property indicators;
 - with the existing forms of accounting reporting not reflecting data in the context of various strategic sectors (time fractals, investment horizons, etc.), companies have difficulties with conducting multi-option decision-making and implementing the plans outlined in the development strategy.
- A set of accounting engineering tools, as a mechanism for reflecting the strategy, enables determining the actual enterprise value.
- In order to overcome all the disadvantages inherent in modern accounting it is necessary to:
- use the strategic management accounting system;
 - ensure the timely reporting using digital technologies;
 - use both market and fair value;

- draw reports using a single concept of assets and liabilities valuation;
- use the influence of external macro-environment and internal micro-environment factors.

Every company's strategy begins with the city's, region's or country's market research, assessing possible threats and opportunities. SWOT analysis can be used to review the situation.

The name of this method comes from the words strengths – weaknesses – opportunities – threats, in Russian meaning: сила – слабости – возможности – угрозы. Figure 2 shows an intuitive diagram.

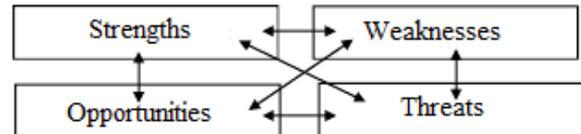


Figure 2 The essence of SWOT analysis

"In order to establish the connection of weaknesses and strengths with threats and opportunities of the market, it is necessary to analyze the combination of the most significant characteristics of the pharmaceutical enterprise and environmental factors, and further combination of less significant ones" [5].

Let us conduct a SWOT analysis on the example of the pharmaceutical market.

Based on the data in Table 1, it may be concluded that in order to improve the company's performance, maximizing the opportunities developed in the "Strength and Opportunities" (S&O) field is necessary, since they predetermine the company's competitive growth. Namely, the company's growth will lead to the increase in sales.

In the "Strength and Threats" field (S&T), the strategy considers overcoming the external threats using the strengths of the enterprise. To achieve success, the company needs to focus on the constant consumer demand for medicine and links with other companies represented in this market. This is the only way to compensate for the adverse external impact and minimize its possible influence on the company's operations. Developing new medicines is necessary to smooth the external threats in the market.

In the "Weaknesses and Opportunities" (W&O) field one can see that strengthening the weaknesses of the company through opportunities together with simultaneous prevention of the opportunities being used by competitors are necessary, since, if used by a competitor, the neglected external environment opportunity becomes a threat.

The adjustment of Russian standards and reporting forms to meet the international financial reporting standards for the purpose of international economic cooperation forces companies to report adequate information in financial statements.

Table 1 SWOT analysis matrix used in strategic accounting

Environment		External environment	
		Opportunities	Threats
		1. People arriving in the city and having need of exclusive medicine. 2. Increase in the number of partner firms (search for new drug suppliers). 3. Extension of the list of new medicines. 4. Relaxation of restrictive legislation.	1. Customers' financial insolvency. 2. Growing taxation burden. 3. New rival companies. 4. Changing needs of customers. 5. Development of alternative technologies and drug analogues.
Internal environment	Strengths 1. Use of the latest medicine. 2. Constant consumer demand for medicine. 3. High qualification of the workforce. 4. Sophisticated competitive activity. 5. Great variety of medicine.	S&O field - urbanization will increase the need for medicines; - increasing number of the city hospitals and outpatient clinics will also raise the need for medicines; - increasing number of partners and customers will create a favorable image and reputation.	S&T field - need for medicines even despite new rival companies opening; - need for medicines makes finding solvent purchasers still possible; - medicines can be sold to many customers simultaneously, even if other clients are likely to be insolvent
	Weaknesses 1. High rent; 2. High wear level of equipment; 3. Information about consumers is not analyzed; 4. Cash flow volatility following a long time of receivables turnover; 5. Lack of finance	W&O field - people flow, extension of business and advertising technologies development will enable the increase of customer base and image of the company - urbanization and advertising technologies development will gradually erase the boundaries of the center and country-side, thanks to the expansion of infrastructure;	W&T field - inconvenient location, small customer base, appearance of rival companies and lame image will inevitably lead to an outflow of some customers to competitors; - customers insolvency, not developed customer base, not formed image of the company and poor demographic situation in the city will lead to a decrease in profits and the number of purchasers.

With balance sheet being a static unit, it reflects the financial standing of the company only at a certain point in time. This does not meet the requirements of the principle of full reliability of the adequate information provided. To report such data and ensure the reliability of the indicators reflected in the accounting financial statements, the system of constructing a zero-derivative balance sheet can be used.

A zero balance sheet is a system of zeroing, hypothetical retirement and disposal of assets and debt extinguishment, resulting in the asset being represented by free cash resources (or losses), while the liability is represented by net liabilities or negative capital.

Breslavtseva N. A. defines the zero balance as follows: "The system accounting and auditing process of managing economic processes based on determining the global financial performance and property value of an institutional unit at a certain point in the present, past and future, based on the use of the continuance principle".

Zero balance sheets were studied by many foreign economists (Y. Betge, K. Drury, T. Limperg, J.F. Marshall, and others) and Russian ones (A.D. Sheremet, Ya. V. Sokolov, V. I. Tkach, G. E. Kroklicheva, I. N. Bogataya, V. G. Getman, etc.) [6].

The zero balance method is based on the "fictitious winding up" principle, described by Professor Jacques Richard as follows: "At regular intervals, an asset recognition and evaluation are conducted, assuming their fictitious sale.

The objective of zero balance is restricted to obtaining the information for managing three categories of processes: financial flows, profitability and financial performance, property.

A zero balance can be drawn in various valuations, such as: market, balance sheet and fair. The following risks are important to be considered: loss of assets, changes in tax charge and deduction using deemed disposition transactions, early repayment of obligations, exchange currency alignment or fluctuating prices adjustment.

When drawing up a zero derivative balance sheet, the following principles of zero posting should be taken into consideration:

- the entries are posted in the valuation defined for decision-making;
- source accounting balance sheet is subject to adjustment based on contra entries;
- importance of the degree of asset liquidity at the moment of their disposal;

- unaccounted assets and liabilities are recorded, depending on the level of requirements;
- losses are recorded.

If a shortage of sources occurs, retained earnings of previous years, the ones of the financial year, capital reserves, added and authorized capitals are sequentially used. However, it is worthy of note that zero derivative balance sheets are drawn in 3 stages in the following sequence:

- creating an analytical data sheet;
- preparing zero transactions account book;
- drawing the final report.

The data obtained from the zero balance sheet allows the organization to:

- evaluate the company's development prospects;
- implement the necessary economic decisions, develop a behavioral strategy and tactics for the market through the obtained enterprise valuations based on zero balance sheets;
- provide an estimate of net assets for effective management of property, financial flows, and global financial performance;
- provide an enterprise valuations during the operational review;
- provide an enterprise valuations during the survival proceedings.

4. CONCLUSION

Basing on the information obtained from strategic accounting, one can get the overall view of the current situation in the company and the impact of internal and external factors on it. This data particularly allows defining the organization's mission and developing options for the necessary strategy with regard to the strategic objectives.

The use of various strategic management accounting tools and methods will enable managers to obtain timely information on all business processes in the company, thereby finding the areas of growth, early identification of which will allow them to achieve positive financial results more effectively.

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