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SOURCES OF FORMING INDICATORS FOR MANAGERIAL REPORTING

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A *Sources of forming indicators for managerial reporting depending on management concepts – conventional or strategic – are analyzed. Approaches to establish reporting indicators, according to the Balanced Scorecard, which is recognized in domestic practice as a system of reporting on key performance indicators, are described.*

K *Managerial reporting, strategic reporting, balanced scorecard, key performance indicators.*

ДЖЕРЕЛА ФОРМУВАННЯ ПОКАЗНИКІВ УПРАВЛІНСЬКОЇ ЗВІТНОСТІ

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A *У статті проаналізовані джерела формування показників управлінської звітності, в залежності від застосованих концепцій менеджменту – традиційних чи стратегічних. Розкриті підходи до формування показників звітності у відповідності до збалансованої системи показників, що отримала визнання у вітчизняній практиці як система звітності за ключовими показниками ефективності діяльності.*

K *Управлінська звітність, стратегічна звітність, збалансована система показників, ключові показники ефективності.*

ИСТОЧНИКИ ФОРМИРОВАНИЯ ПОКАЗАТЕЛЕЙ УПРАВЛЕНЧЕСКОЙ ОТЧЕТНОСТИ

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A *В статье проанализированы источники формирования показателей управленческой отчетности в зависимости от используемых концепций менеджмента – традиционного или стратегического. Раскрыты подходы по формированию показателей отчетности, в соответствии со сбалансированной системой показателей, которая получила признание в отечественной практике как система отчетности по ключевым показателям эффективности деятельности.*

K *Управленческая отчетность, стратегическая отчетность, сбалансированная система показателей, ключевые показатели эффективности.*

Problem

Issues of the economic information sources impact on characteristic for performance management reporting are not sufficiently addressed in literature than other aspects of its formation. In addition, theoretical foundations of managerial accounting are not fully developed; many issues of its creation are not resolved. Composition of indicators is also important; it should include strategic management accounting in case of balanced scorecard.

Analysis of recent sources and publications

To write this paper the author used scientific works of domestic and foreign scientists and economists, whose analysis indicates insufficient development of general theoretical approaches to preparation of managerial reporting systems as economic indicators based on technologies – conventional or strategic.

Undeveloped parts of problem first and foremost are connected with characteristics of performance sources for traditional and strategic managerial accounting indicators.

Aim of study is to detect and characterize the sources of traditional and strategic managerial reporting indicators using balanced scorecard and reporting on key performance indicators.

Main research results

Multilateral flows forming information field of business activity for enterprises are most clearly traced in managerial reporting, unlike accounting, tax or statistical reporting. Cause-effect relationships in this form of reporting are reversible. Parameters for reports content are given by direction, and then the corresponding service prepares reports, based on which managers take their decisions.

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It is necessary to focus on content of managerial reporting parameters, and especially on its indicators, with their traditional sources of information from accounting and economic analysis, and in modern terms, for the strategic management purposes, there are other sources.

So scorecard for traditional managerial accounting in majority includes accounting and analytical parameters obtained from operational (technical), warehousing and pure bookkeeping accounting, and therefore primarily is financial in nature, although it uses both monetary and natural items.

Criticism for traditional managerial accounting, undertaken in recent years in domestic and foreign literature, aimed at retrospective nature of indicators that defines only internal environment of enterprise, doesn't take into account external environment – competition for managerial decisions. Indeed presence of only retrospective financial information reported significantly reduces its value for strategic decision-making [2, p. 15; 5, p. 23].

But system of financial performance indicators continues to be actively used in domestic models of strategic management at the latest and are designed for long-term period and include strategic objectives.

Strategic (prospective) management in national practice involves using the common indicators, designed for three to five years, with distribution of their values for current year and applies to: marketing (product characteristics, market research), manufacturing (define specific content of their types in terms of customer satisfaction), staffing (by competency); resourcing and financial plan and insurance risks (investment needs, financing, profitability, liquidity, etc.) of image (acquisition of new brands, etc.) [1, p. 76-77; 3, p. 46-48].

Since information on purpose of manufactured goods (works, services) defines content and structure of production, the same range of products consumers want. And information on general characteristics of products (services) market involves defining parameters: degree of market saturation, market size, general trend of demand for products (services) [12, p. 83].

Information regarding its competitiveness against other companies is as follows: sales growth in value and physical units of measurement, ratio of profit to cost of production (ROI), ratio of sales to average inventory value (turnover speed for goods); capacity utilization, ratio of sale to the average annual value of fixed and working capital; demands portfolio [9, p. 103].

Strategic management clarifies (details) tactical management area, where goal is narrower. So tactical management aimed at procurement of raw materials, production, marketing, financial issues during one year mainly on the basis of indicators of current plans, which include business plans, allowing according to management reports on their performance deviation to affect quickly the economic results of business [5, p. 46].

Main sections of business plans which form management reports on their performance include [1, p. 27, 9, p. 235]: organizational and technical development, marketing (marketing channels, advertising, pricing, sales incentives), production (production, production capacity, necessary equipment, production costs), logistics (necessary raw materials and suppliers materials, conditions of supply); staff and salaries (demand for personnel, wage system, average salary), capital construction and investment resources, social development staff, environmental protection, cost, profit, profitability, financial plans (balance sheet of assets and liabilities, balance income and expenses, cash flows).

Information on organizational and technical development of company includes the following parameters [3, p. 34]: level of technical equipment of labor (capital-labor, energy-labor), level of technology progressivity (structure from labor intensive processes, share new technology or labor intensive in terms of production, average age of applicable processes, utilization of raw materials), technical level of equipment (performance (capacity), reliability, durability, specific metal content, average lifetime, proportion of advanced types of equipment in total, proportion of technically and economically obsolete equipment in total amount), level of mechanization and automation of production (degree of coverage with works of mechanized labor, share of products volume produced by automated labor means).

Information on production is as follows [3, p. 76; 12 p. 98]: volume of production (services) and volume of sales (in quantity and value terms) characteristic of manufacturing departments, production program of workshops, general description of process lines and equipment jobs in shops, calculation of equipment, calculation of area shops, characterization of raw materials sources, intermediate products, etc., calculation for number of workers in production, production costs, including their division into fixed and variable.

System for tactical enterprise management is provided with two types of planning and reporting: current (technical and economic) and operational (operational calendar).

Planning and reporting, called current (feasibility) are integrated. It covers all major areas of business and characterized by technical and economic indicators for supply, production, marketing, organizational and technological development, training, payment, and also contains various financial indices [1, p. 39; 9, p. 228]. Operational (operational calendar) planning and reporting using economic indicators relating only to manufacture products and provides calendar linking for business processes running in structural divisions until job considering the sequence of production and its main parts, length of processing cycles and preparation (final production) and items of direct production costs (basic materials, electricity, tools, etc.) [9, p. 247].

Thus domestic accounting system fully provides enterprise management with information on results of tactical planning in current management reports on progress of key indicators: sales of goods (works, services) in monetary and physical terms, number of personnel, productivity, wage fund, and average wages, cost of sales, cost per unit of products, cost per 1 UAH of products, gross profit, income from sales, net income, return, profitability of production; terms of turnover for working capital.

These figures are complemented with calculated (analytical or evaluative) indicators of economic efficiency [12, p.146-154], which are provided in form of analytical reports, namely:

- General indicators of economic efficiency (level for meeting market needs, production cost per resource unit, cost per unit of commodity products, profit per unit of total costs, profitability, effect of using production unit);
- Human labor performance (labor input per unit of output, relative release of employees, rate of productivity growth, share of increase in output due to productivity growth, efficiency ratio of working time, saving wage fund, output per 1 UAH of wage fund);
- Indicators of fixed assets efficiency (capital returns on assets, capital intensity of production, profitability of fixed assets, capital returns on active part of fixed assets);
- Performance of material resources (material consumption products, material returns, utilization of the most important types of raw materials, fuel and power consumption per 1 UAH of net products, saving material costs, coefficient of extraction of useful components from raw materials);
- Performance of financial resources (working capital turnover ratio, duration of one turn for normalized working capital, relative release of working capital, specific investments, capital investments per unit of input capacity, ROI, payback period);
- Quality of production (economic effect of product improvement, proportion of products that meet the best international and domestic standards, etc.).

So source of traditional management accounting is the actual (historical) data processing and financial accounting (real) parameters, and parameters derived from analytical transformation of these indicators in their evaluation (abstract) parameters are primarily of a financial nature concerning performance of enterprise, and therefore is retrospective.

Scorecard of financial and non-financial indicators is introduced and used to implement strategic management abroad that have defined target value (standard), size of which depends on desired goals of competitive position in international markets.

The most common, progressive models today are Balanced Scorecard (BSC) [4, 6, 7, 8, 11].

So with the Balanced Scorecard system Norton and Kaplan argue that enterprise activities should be considered in four main areas (prospective) simultaneously: financial performance (finance), customer relationships and manufactured products (customers and products), internal processes (business processes) , staff and ability to develop (staff and resources) [6, 7].

Novelty of this system is to avoid using only financial indicators to measure enterprise performance, which must be no more than 20%, as stated in materials on its implementation [4, p. 86; 11, p. 124]. And economic indicators, like accounting system, because of their analytical interpretation (transformation in accounting estimates for tools of economic analysis), in our opinion, should be about half of all financial and non-financial indicators. As financial performance is result of non-financial indicators interaction, which are to be consistent (balanced) for causation factors acting on them.

Concept by Norton and Kaplan provides: companies targets with prospects for all of its activities are interrelated, and financial results in this act result with customers who form business income, internal processes, on one hand, satisfy customers and encourage them to increase business income, on the other hand, financial efficiency of internal processes is to ensure that shareholders want profits, but efficiency process depends on people who perform these processes and improve [6, 7]. This way interconnected four-tier system of key perspectives (dimensions) of company works.

Key indicators accounting for such prospects as finance is undoubtedly the accounting information processing, but such prospects as clients and products, business processes and staff are information function of marketing, sales, production, capital expenditures, personnel, and other technical services. Therefore, actual organization of key indicators achievement accounting highlighted in a separate accounting system that is only partially integrated into the traditional accounting system.

Calculation techniques for key indicators should be clear and transparent, and therefore introduction of calculating such as index card is recommended, which contains description of index contents, method of calculation, its representation frequency, standard size, source of information and manager, who is responsible for achieving results.

Regarding development of indicators, as practice shows they should not be over-detailed and to search control indicator (key) for each case. It was found that junior and mid-level management effectively controls no more than twenty parameters [2, p. 322; 8, p. 206]. Thus, selection of each indicator should be carried out carefully, selecting those that might be known, but setting those today which could be taken as a basis.

In domestic practice in recent years they used a system of key performance indicators that include various nonfinancial indicators related to achievement of various specific tasks and are used mainly to represent operational reporting in short period of time – day, week and consolidated per month.

Such reports include indicators that reveal critical factors for successful enterprise performance that are fundamental for development of financial indicators. These statements are prepared on a lower hierarchical control level over processes of supply, production, marketing, and although containing non-financial performance (usually several) that remain balanced and consistent with the enterprise strategy. These indicators include: orders received, shortage on orders delivery, percentage of failures and shortages, load equipment, number of units for returned products, etc. [2, p. 322-323].

Key performance indicators are used for measuring success of our strategy also, they focus on quality of individual process and results of this process [2, p. 324]. But although these figures are mainly non-financial or remain balanced between each other on basic functions or refer mainly to function of sales or do not correlate with overall development strategy of company. And that is why they can be attributed to a simple (elementary) balanced scorecard, introduced by Norton and Kaplan in 1992 to represent harmonic performance of enterprise.

But balanced scorecard – this is not just a set of financial and non-financial indicators of measured parameters of information about finances, customers, internal processes, staff, and strategic management, but a philosophy that requires the company to be considered as a single organism from building strategic development maps, introducing them to all hierarchical levels of management and implementation of necessary correction of the strategy implementation process.

For example, consider a group of non-financial key performance indicators for strategic perspective «clients and products» of higher hierarchical level and sources of their information provision (Table 1).

STRATEGIC OBJECTIVES, GOALS, METRICS, AND SOURCE OF SUPPORT AT THE HIGHEST HIERARCHICAL LEVEL (DEVELOPED BY AUTHOR)

Table 1

STRATEGIC OBJECTIVE (RESPONSIBLE)	STRATEGIC GOAL (AIM)	KEY INDICATOR	SOURCE
1	2	3	4
PERSPECTIVE: CUSTOMERS AND PRODUCTS			
Strengthening work with existing customers (Sales Director)	increase in revenue per customer	Ratio of sales (revenue) to number of clients	Accounting and economic analysis
		Products share on the market	Marketing
Assortment diversification (director of production)	Production assortment diversification	Number of nomenclature position on products	Accounting and economic analysis
Increased customer satisfaction rate (sales director)	Increased customer satisfaction rate	Index of total customer satisfaction	Marketing
Attracting new customers from existing market	Increasing the number of clients	Number of new customers	Accounting
Entering new regional markets	Regional Development	Number of new regions of presence	Marketing
Increased trade mark rate	Increased trade mark rate	Index of trademark rate	Marketing

So overall customer satisfaction index is the result of sales performance, which is calculated by marketing department (not accounting information), and consists of: the lost customers' index, customer loyalty index (repeated applications), index of customer complaints, frequency warranty which is considered by each component separately for sales department (middle hierarchical level). Also sales department features following non-financial performance indicators, where accounting can not be the source, they come only from sales department: number of processed orders during the period, time for order servicing, timely delivery (quality characteristics for sales process).

Thus strategic reporting on key performance indicators (balanced scorecard) is an information matrix, each cell of which provides economic information not only of accounting processing, but contains data from various functional departments of internal and external environment of enterprise, and thus is prospective.

Economic information provided by the Balanced Scorecard can be used for preparation of functional statements based on hierarchical management levels and frequency of its presentation: operative – for operative control of activities as weekly and monthly reports of responsibility centers of lower and middle levels in management hierarchy, current – to monitor implementation of strategy adopted as quarterly and annual reports of responsibility centers of secondary and higher hierarchical levels.

In the balanced scorecard (BSC) and control panel in the world, there are also other models of strategic management the business performance, purely financial in nature, such as economic value added (EVA), return on equity (ROE), model of the European Foundation for Quality Management (EFQM), performance prism and others [2, 5]. These models use economic indicators, calculations of which require additional special information received under accounting and analytical processing.

Choice in each company in favor of traditional approach of building management and accounting or reporting on Balanced Scorecard (key indicators of effectiveness) or financial performance of strategic accounting, will depend on level of culture and business.

Conclusions

Managerial reporting includes planning (regulatory, budgetary) and reached values, their absolute and relative deviations and explanation of variances. But components (type) of traditional and strategic managerial accounting indicators differs from each other by source of information provision (accounting or not accounting (data from various functional departments), which determines their financial and non-financial nature and retrospective or prospective usage.

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