

THE IMPLEMENTATION OF VARIABLE COSTING IN THE MANAGEMENT OF PROFITABILITY OF SALES IN TRADE COMPANIES

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Abstract

The aims of the paper are twofold: first, to present selected approaches to the construction of an income statement based on variable costing, which evolved towards the preparation of a tool for multidimensional measurement and an analysis of profitability of sales; second, to discuss the possibility of using it in trade companies. The paper is composed of the following parts:

- 1) The first part contains a presentation of the general rules of construction of financial result accounts on the basis of variable costing, providing the basis of preparing multitask contribution income statements in various entities;
- 2) The second part is devoted to the general assumptions concerning the activity in trade companies, which should be observed in the creation of the information needed for the segment profitability reporting according to the rules of variable costing;
- 3) In the third part, one proposes a report on customer profitability and basic financial ratios, which are related to it, are defined. The financial ratios can be used to conduct an analysis of profitability of sales in a trade company. This approach uses the evaluation of profitability made by taking into account the size and structure of sales and it includes the costs related to customer service.
- 4) In the last parts, the conclusions are made on the basis of the discussion presented in the paper.

The methodology of the contribution income statement on the basis of variable costing enables its implementation in various branches of business, including trading activity, due to universal rules used for its creation. However, constructing a profitability report requires individual assumptions,

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which take into consideration the specific character of a given trade company and its information needs.

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INTRODUCTION

In modern enterprises, one observes an increase of the importance of the role of managerial accountancy and IT systems in management, both at the strategic and operational levels. According to R. Patterson (2008, p. 168), “management accounting concentrates mainly on the sources and trends of revenues, costs and financial results, aiming to reflect the economic reality of an enterprise” (own translation). The decisions made on the basis of the information from the system of managerial accounting require implementing in it various time horizons and certain tools for the needs of operational and strategic management. In management accounting, the reports on the return on sales are important: they facilitate the introduction of adequate sales strategies. These reports comprise the information on revenues, costs and financial results. In order to create them, in many enterprises the absorption costing approach is implemented. Reporting is limited to the presentation of the information prepared for the external needs according to the variants of preparing a profit and loss account required by the regulations of the Polish balanced law or the International Financial Reporting Standards. Adopting a broad approach to profitability of sales involves using management accounting methods, especially a developed system of variable costing. On its basis, it is possible to prepare multi-profile analyses of profitability based on the margin for covering the fixed costs and generating operational profits.

The aims of the paper are to present selected approaches to the construction of an income statement based on variable costing, which evolved towards the preparation of a tool for multidimensional measurement and an analysis of profitability of sales, as well as to discuss the possibility of using it in trade companies.

In the present paper, the research methodology is based on comprehensive studies of the literature and

the deduction method. The intention of the author is to show that the methodology of the contribution income statement on the basis of variable costing enables its implementation in various branches of business, including trading activity, due to the universal rules used for its creation. The proposed reporting format can be a universal system of the presentation of information for the needs of sales profitability management in trade enterprises, where customers are the object of revenues, costs and financial results.

THE CONTRIBUTION INCOME STATEMENT BASED ON VARIABLE COSTING

Cost accounting and the contribution income statement are considered to be important elements of the information system of an enterprise. As a result of the critical approach to absorption costing, which is obligatory in modern financial reporting, the system of variable costing has developed. This system is oriented towards the needs of current management and it is used for preparing management reports on the profitability of the conducted activity. These reports contain financial information regarding the income, costs and financial results of the enterprise. In the standard form, the financial result of an operational activity is determined according to the internal organizational units of the enterprise and the products sold.

In variable costing, operational activity costs are classified according to their reaction to the changes of the extent of the enterprise activity. The costs are divided into two groups: variable costs and fixed costs. The profitability of an enterprise is evaluated on the basis of contribution margin. The total contribution margin, i.e. a difference from the sales income and variable costs of the products sold, should cover the fixed costs of the enterprise and bring the assumed profit.

In the literature on the discussed issues, the structure

of short-term income statements tends to include the information on production companies. These problems are widely discussed in many books on management accounting [cf. Jarugowa, 1986; Sobańska, 1997; Jarugowa, Nowak & Szychta, 1997; Sobańska, 2002; Sojak, 2003; Wnuk-Pel, 2006; Sobańska, 2009; Pielaszek, 2010; Jaruga, Kabalski & Szychta, 2010; Nowak & Wierzbiński, 2010; Czubakowska, Gabrusewicz & Nowak, 2014; Nita, 2014].

The practical implementation of a multi-step and multi-block statement of profit and loss for decision-making aims in various production companies and services is presented in the journal *Controlling i Rachunkowość Zarządcza* [e.g. Ossowski, 2012; Próchnicki, 2013; Próchnicki, 2014]. The short-term steering of results and contribution margin accounting in trade companies has been discussed by fewer scholars. Its implementation in trade companies are presented by Sierpińska, Niedbała (Sierpińska & Niedbała, 2003), G. Lew (Lew, 2004) and M. Łada (Łada, 2013).

Table 1 shows the main assumptions adopted for determining the profit on sales on the basis of the variable costing system and contribution margin for covering fixed costs and profit, in comparison with the absorption costing system.

In a one-level contribution income statement, the output variable is sales income, from which variable cost of production sold is deducted, and variable non-production costs, for example, selling costs. The difference, which is determined in such a way, is called *contribution margin*. R. Patterson calls the difference between revenues

and variable manufacturing costs *contribution from production*. The production margin, from which variable non-manufacturing costs are subtracted, is “contribution from operations” (Patterson, 2008). The contribution margin achieved by the entity covers fixed period costs, and the remaining part constitutes return on sales. The advantage of variable costing is the possibility of immediate evidence demonstrating the influence of the fixed costs on the financial result, which is not possible if absorption costing is used.

With the development of variable costing, there were improvements on the reports prepared for decision-making purposes and one determined the measurements of the results on the basis of the next levels of contribution margin depending on various ranges of fixed costs and scopes of enterprise activity. The contribution margin was considered to be the more adequate measurement than profit because of its properties: the margin is not affected by imperfect methods of fixed costs accounting and it can be calculated for various segments of enterprise activity. The contribution margin has also drawbacks which consist in difficulties related to proper distinguishing between fixed and variable costs (Michalak, 2008).

In the literature, scholars present different variants of the contribution income statement based on variable costing. In order to achieve a better insight into the structure of costs and results, the approach to reporting on profitability presented in this paper was extended vertically and horizontally. The reports in the horizontal layout were improved by distinguishing differentiated cost objects in the enterprise (called *segments*), while in the

Table 1: The model of presentation of the profit on sales according to the assumptions of absorption costing and variable costing

Absorption costing	Variable costing
Sales revenue	Sales revenue
- cost of goods sold	- variable costs: production cost of the sold products and non-manufacturing costs
Gross margin	Contribution margin
- Selling costs	- Fixed costs: production costs and non-manufacturing costs
- Overhead costs	
Result on sale (Profit or loss on sale)	Result on sale (Profit or loss on sale)
Production resource evaluation at the level of cost of production (fixed indirect production costs capitalized as inventory)	Production resource evaluation at the level of variable production cost
Profit is function of both sales volume and production volume	Profit is function of sales volume only

Source: Own research

vertical layout – by conducting a detailed division of fixed and variable costs as well as calculating the subsequent levels of margin for covering them (as many various levels of gross margin as the cost objects analyzed) (Jaruga, Nowak & Szychta, 1999).

In two-level variable costing, the division of fixed costs into fixed costs per particular products and general fixed costs was used. Moreover, there are subsequent levels of contribution margin. On the basis of the contribution margin, it is possible to make a ranking list of products and to choose those which bring more profits. First, the first-degree margin is determined as a difference between revenues from sale of goods and variable costs of production sold. This level of the margin is the contribution to all fixed costs and profit. It also provides the information on the products which ensure the highest growth of margins. The second-degree margin either confirms the profitability or it may change the list of the most profitable products, since covering individual fixed costs per product was included. The contribution margin according to product, calculated in this way, is added, the fixed costs for the reporting period are subtracted and the outcome is the sales result.

The further division of fixed costs into subgroups (called also “blocks” or “segments”) resulted in the creation of more contribution margin levels for covering them and the report is called a *multi-level* or *multi-block contribution income statement*. Its implementation requires generating multidimensional information, which enables the analysis and evaluation of the financial results of each distinguished segment and their influence on the total result of an enterprise. First, the surplus of income over the variable costs covered within the segment (also treated as controlled costs), then one subtracts from the surplus the fixed costs which can be allocated directly to a given segment. The sum of the margins of segments constitutes the contribution to covering the fixed costs related to the operation of the whole enterprise as well as generating profit. It should be emphasized that in economics, the possibilities of a wide implementation of this conception increase thanks to the growth of the scope of computer processing of accounting data as well as the possibilities of the software used to process such information.

In multi-level and multi-block profitability accounts the difference is determined between the revenue from sale of goods and subsequently included variable costs

of the production of the goods sold (direct and indirect production costs) and variable non-manufacturing costs, then a detailed division of indirect fixed costs into various groups is conducted. The most commonly distinguished groups are the following: individual costs related to particular products, fixed costs of groups of products, fixed costs of responsibility centers, fixed costs of activity areas and fixed costs related to managing an enterprise (the costs for the whole enterprise). At the same time, one determines further levels of margin for covering them, which enables evaluation of partial results of selling given products and their groups, evaluating the management of particular responsibility centers, activity areas, as well as evaluating the total operational financial result for the whole entity.

The segment reporting based on the conception of variable costing and margin for covering fixed costs is an important informational tool of responsibility accounting in the broad sense of the word (Hellich & Klonowska, 2002; Jaruga et al., 2010). It facilitates a comprehensive evaluation of the achievements of responsibility centers, their efficiency and contribution to the chain of values of an organization as a whole. In internal reporting, one emphasizes the issue of allocating fixed costs to particular responsibility centers and determining the degree of their controllability. It is usually assumed that variable costs are controllable and fixed costs related to the internal entity may be both controllable and non-controllable. The decentralized enterprises, in which responsibility accounting is used and which are prepared segment reports, use various approaches to accounting indirect costs for the needs of responsibility accounting; there are also various arguments for accounting and non-accounting them (For a more detailed discussion see: Nita, 2014; Nita, 2015).

According to A. Piosik (2006), a multi-level contribution income statement can foster planning and controlling of financial liquidity by separating the fixed costs incurring expenditure from the costs not resulting in expenditure in a short period of time; moreover, it can be adapted to determine residual profit, which involves extending the groups of costs with the costs of capital and the costs of taxing the income generated by profit responsibility centers. Presenting the German conceptions in the area of integration of cost accounting with the processes of long-term management, I. Sobańska (1998) discussed the possibility of the integration of product

life cycle accounting with the multi-level system of fixed costs covering account. According to this conception, more positions of variable and fixed costs (expenditures for research and development, for marketing as well as the costs of the postproduction phrase) increased: 1) the number of levels of determining the financial result as gross margin to eight; 2) the possibilities of this statement in the area of explaining the influence of the costs of marketing function, research and development incurred during the phases of the product life cycle (pre-production and production), on the realization efficiency of decisions on the production program and on the financial result.

New factors determining success of economic organizations influenced the development of new trends in modern management accounting. In order to monitor profitability, new solutions were introduced – focusing on selling criteria, leading to distinguishing revenues, costs and financial results in the following dimensions: clients, market outlet or distribution channels, and combining the reports on the profitability of customers according to the rules of variable costing with the methodology of Activity-Based Costing (ABC) (Jaruga et al., 1999; Wnuk-Pel, 2006; Nita, 2008; Łada, 2011).

The analysis of the profitability of customers requires allocating the revenues and costs of a given period to particular segments of customers and then calculating margins as results of differences between customer profits and distinguished categories of customer costs. According to A. A. Jaruga (Jaruga, Kabalski & Szycha, 2010), the multi-layer combining of income with costs of varied relations to the changes in the volume and structure of sales was used in the long-term planning process of future performance as well as in the developed variants of Activity-Based Costing.

The ABC model involves collecting information on the incurred costs according to activities in the organization, not according to organizational structural units. Adopting clients or groups of customers as cost objects enables analysis of the result realized in the dimension of particular purchasers or their groups as well as answering the following questions: Which customers are most profitable and why? Which customers are non-profitable at present and why? Which of them create the biggest possibilities of increase in a profitable way?

In conclusion, the income statement based on variable costing is a tool which provides information which is useful for managers when taking adequate economic

decisions which are oriented on the maximization of income. The generated information is necessary for operational management and it can be used for elaborating on the details of strategic activities. The aim of this statement is to improve the steering of profitability in various dimensions, depending on the adopted criteria of segments distinguished as well as to enhance the management of revenues and costs of the enterprise. This statement shows the influence of various factors on the financial results of the enterprise, demonstrating the most profitable and critical areas of enterprise activity. It is useful both in production enterprises and in trade companies. Firms should use such a profile of profitability evaluation which will facilitate the implementation of adequate selling strategies.

REPORTING THE SALES PROFITABILITY WITH THE INCLUSION OF SPECIFICS OF THE TRADE COMPANY ACTIVITY

Every business activity is composed of a definite set of business procedures. Generally speaking, one can say that production enterprise activity consists in manufacturing goods. The basic activity of a trade company consists in commodity circulation, i.e. purchasing goods in order to resell them. The next steps of the operational cycle of a trade unit comprise: 1) the activities related to the movement of goods from the producers to the final purchasers; conducting such activities requires the movement of goods, storage, preparing of deliveries of the goods and trade throughput as well as 2) conducting the activities necessary for the continuity of the transactional process, such as, for instance, purchase and sales transaction service, the analysis of purchasing and selling markets. The following factors influence the amount of operational profit:

- 1) the amount of goods sold,
- 2) purchase-related costs, such as: purchase costs and the price of the purchase of the goods sold,
- 3) the costs related to physical distribution and conducting the commodity circulation, such as storage costs, the managements of stocks, the maintenance of trade units,
- 4) the selling costs, for example, marketing costs, promotion costs, the costs of transportation of the products to the client; the costs resulting from the deferment of the payment date,

5) administrative costs and management costs.

The trade companies operate in similar environments, however, they differ in the place in the distribution process and the scale of activity, location of selling points, the size of single transactions, the assortment of goods and services offered, the degree of organizational structure complication. Creating models of reports on profitability is not identical in all the enterprises, since it should be adjusted to the activity profile of a given business entity as well as the information needs of decision makers. Trade companies may adopt various approaches to determining the financial results. Considering the possibility of the implementation of the block reporting (Nita, 2014, p. 185-196), in which one uses the universal rules of multi-level covering of fixed and variable costs, the following general assumptions should be taken into account:

1) determining the range of income and costs included in the analysis as well as defining the analyzed period. The general analysis of profitability tends to be conducted for the purpose of current reporting and taking operational decisions; therefore, it can concern a short period. According to the information needs of an enterprise, the report may be prepared for the period of a month or a year, as well as for that of a quarter or semi-year. It usually includes the income and operational costs. Accounting may also include the incomes and non-operational costs. In this system, the financial net (net profit or net loss) result may be the last result level,

2) indicating the segments, which set the arrangement of information in the process of reporting on profitability and the kinds of calculated contribution margins. It should be emphasized that the development of the information technology implementations is a factor fostering a simultaneous implementation of various profiles. The enterprises creating reports choose the criteria of distinguishing reporting segments. The division of incomes, costs and results according to the organizational structure of the enterprise and sales structure should be one of the key profile of grouping information,

3) determining the possibility of measurement of incomes and costs for indicated segments: one should relate the required information to the record limitations as well as to the possibility of allocating incomes and costs to the distinguished segments,

4) completing the report with the profitability coefficients, which will facilitate the interpretation of the results and the formulation of the recommendations for the improvements introduced in the organization.

In order to show the differentiation of profitability in many perspectives, reporting for the needs of a trade company in the segment approach should include the following aspects:

Firstly, the position of an enterprise in the distribution process (adopting the criterion of distinguishing segments in the cross-section of distribution channels) and the distinguished responsibility centers (adopting the criterion of distinguishing segments according to organizational units). The adoption of these criteria contribute to the importance of the role of the division into the units operating on the wholesale trade level, with a further division into distinguished responsibility centers (according to the wholesale points), the units operating at the retail trade level (according to the retail points) as well as the on-line trade. The division is important in big decentralized enterprises conducting varied trade activity (mixed enterprises: wholesale-retail or retail-wholesale), which is due to a different structure of receivers in the wholesale and retail trades, the way of serving clients and the tools of promotion used. A simultaneous inclusion of these criteria allows for answering the questions of in which way the activity object influences the profits and in which way the profits are allocated to particular responsibility centers which constitute the enterprise. It also enables evaluation of their contribution to covering the general and administrative costs and selling costs of the enterprise as a whole.

Secondly, the criterion of geographical activity area should be used: the division into domestic trade and foreign trade as well as the markets on which trade activity is conducted (local, regional, national and international markets) in order to assign the results to the geographical area, in which the trade company conducts its activity. The information regarding this aspect is important in the case of defining the geographical directions of development and the choice of the most attractive markets;

Thirdly, one should include the profile of customers, who are treated as objects of the assignment of incomes, costs and financial results. Most frequently, the wholesale trade companies sell goods to other enterprises so that the products could be resold or used for the needs of business activity. They can serve different entities: retail trade units, service companies, institutions and other economic organizations as well as industrial companies, while retail trade companies serve individual customers. Such enterprises sell goods and services directly to the

final consumer for personal use, not commercial use, as well as to other customers, for instance, small enterprises. Therefore, the presentation of the data according to this criterion shows the market orientation, facilitates the identification of the profile of a profitable and non-profitable client, and the concentration of the cooperation with profitable and strategic segments of clients.

Fourthly, another important criterion of grouping information for the reporting needs is the offer of the products sold according to concrete assortment positions, assortment groups of products, goods groups and branches. Thanks to its implementation, one can conduct an in-depth analysis of the financial results on the basis of the subsequent levels of contribution margin assigned respectively to the given classification of goods sold (from concrete goods position up to the goods branch). More and more frequently, the offered assortment is composed of the products from many branches grouped according to the kind of the need which is met (Sławińska, 2008). That is why it is possible to adopt the kind of the need met as a criterion of distinguishing segments. As a result, the analysis of profitability determines which assortments should be considered as basic, constituting the main object of sales, which ones as supplemental, comprising the goods from other branches or goods groups, completing the purchase. Distinguishing seasonal assortment, sold in a strictly defined period, is also important.

Fifthly, one should ensure the integration of the income statement with the life cycle of the products sold, so that the report could provide the information on the gross margin in particular phases of their life cycle. It is important to properly manage the offer of goods in combination with the product life cycle phases. The life cycle of a product can be defined as the course of the selling process of a given product on the market. It is important to determine in which phases of market sales the product is or will be in the future. Most frequently, one uses the following statuses related to the life cycle of a product: novelty, launching, standard, sale, withdrawn. It enables managing the goods from the moment of beginning of the selling activities till their withdrawal from sales. In the maturity phase, the products may generate high income and margins, while the launching phase involves significant costs (e.g. promotion costs, price changes) at a small amount of sales, which generates lower income, often not covering the expenses, and, as a result, the enterprise has losses. The management of profitability

requires a careful observation of the phase of life cycle of the goods sold, searching for products, which will be “providers of tomorrow”. The duration of the phases may differ. The enterprise which can better manage the offer, fast launch and withdraw products from its offer as well as manage the phases of these products has better chances of surviving (Owsiankowski, 2014). The above presented criteria of distinguishing reporting segments may constitute the basis of the creation of separate reports or they may interpenetrate and shape the scope of reports in the area of sales profitability. A reliable IT system is necessary to support such management. In the literature, it is emphasized that the allocation of income to the distinguished segments does not pose problems, but proper allocation of activity costs requires the adoption of many assumptions (Nita, 2015). In order to avoid the difficulties, one should clearly identify each cost with a given object, which is a direct cause of the creation of the cost. Ordering the cost objects ought to be related to the hierarchical structure of the decision-making process, which is conditioned by the fact that the individual costs of the object occupying a higher position in the hierarchy become the shared costs for the objects at a lower level.

In conclusion, reporting on profitability on the basis of the contribution income statement involves choosing the profiles analyzed while creating the reports. The information which is generated facilitates not only solving decision-making problems related to conducting the current trade activity (for instance, the differentiation of the prices of the goods, the decisions regarding the conditions of sales, the choice of the marketing tools, for example, discounts policy, forms and means of promotion), but also making strategic managerial decisions concerning:

- 1) the development of activity object: deciding whether the activity will be conducted at the wholesale or retail level,
- 2) the choice of the degree of internationalization of the activity: making the decision whether the activity will be conducted within the area of one country, region or city or simultaneously in many countries,
- 3) the choice of kinds of trade units, which constitute the basis of the trade activity conducted,
- 4) the choice of the basic assortment and pricing framework policy, which is important in the process of building the brand on the market and marking out the most significant clients, with whom permanent relations

**Table 2: An example of a report for the analysis and evaluation of the profitability
of a trade company in terms of selling markets, clients and the offer of goods**

Selling market	Poland					Czech Republic				Other countries					Total
	Wholesalers		Retail chains			Wholesalers		Retail chains		Wholesalers			Retail chains		
Name of customers	A1	A2	B1	B2	B3	C1	C2	D1	D2	E1	E2	E3	F1	F2	
Group of goods	Z	Y	Z	Y	Z	Y	Z	Y	Z	Z	Y	Z	Y	Z	
1. Net revenue from the sales of the goods															
- According to the price list	2 500	1 500	1 800	1 100	500	800	400	500	300	120	250	230	180	220	10 400
- (-) Discounts	125	75	90	55	25	40	20	25	15	6	13	12	9	11	520
Revised revenue	2 375	1 425	1 710	1 045	475	760	380	475	285	114	238	219	171	209	9 880
2. (-) Variable costs of good sold	750	450	540	330	150	240	120	150	90	36	75	69	54	66	3 120
3. (-) Costs of the processes of service of particular customers	133	70	92	78	17	33	23	27	17	23	28	17	18	15	591
- Variable	110	60	80	70	12	28	18	23	14	15	18	12	14	10	484
- Fixed	23	10	12	8	5	5	5	4	3	8	10	5	4	5	107
4. Margin 1 according to customer	1 492	905	1 078	637	308	487	237	298	178	55	135	133	99	128	6 169
5. Customer profitability ratio	63%	64%	63%	61%	65%	64%	62%	63%	62%	48%	57%	61%	58%	61%	62%
6. Sum of margins 1 according to clients	2 397		2 023			724		476		322			227		6 169
7. (-) Costs of service of groups of customers	900		550			220		140		100			88		1 998
8. Margin 2 according to group of customers	1 497		1 473			504		336		222			139		4 171
9. Profitability ratio according to groups of customers	39%		46%			44%		44%		39%			37%		42%
10. Sum of margins 2 according to groups of customers			2 970					840					361		4 171
11. (-) Costs of sales processing on a given market			500					220					150		870
12. Margin 3 according to the selling markets			2 470					620					211		3 301
13. Profitability ratio according to selling markets			35%					33%					22%		33%
14. Sum of margins 3 according to selling markets								3 301							3 301
15. (-) Fixed costs of the enterprise								290							290
16. Profit on sales								3 011							3 011
17. Enterprise sales profitability ratio								30%							30%

Source: Own research

should be built,

5) the evaluation whether it is possible to resign from a given segment of activity.

MULTI-LEVEL REPORTING ON THE PROFITABILITY OF A CUSTOMER IN A TRADE COMPANY – AN EXEMPLARY APPROACH

According to M. Łada (2011, p. 124) “the profitability of a customer is a very broad notion, comprising many methods of measurements of the influence of the relations with clients on the financial situation of the organization” (own translation). As one of the areas of research on the profitability of an enterprise, the analysis of the profitability of clients can be conducted on the basis of the data prepared according to the solutions characteristic of variable costing (Sojak, 2015). The client profitability is the resultant of the relations of the income from the sale of goods and costs incurred in order to earn it. The costs comprise the cost of purchase of the goods and the costs related to their sales. Trade companies focus on building long-term relations with customers, which fosters the interest in the customer profitability and the methods of its measurement. Table 2 shows an example of the structure of a multi-level sales profitability report, which includes the allocation of the income, costs and results to four segments related to customers, to whom the offer of the trade enterprise is addressed. The comparisons of revenue streams and costs ensures the determination and analysis of the operational result in terms of goods sold, groups of goods, particular customers, groups of customers and selling markers. The implementation of this tool involves creating a detailed structure of income from the sale of the goods, corresponding variable and fixed costs as well as their relation to a given segment.

In the above example, the basis of distinguishing the income centers, costs and results comprises selling markets, groups of clients and individual clients. Determining the income from sale of goods and their groups is the starting point of determining further levels of the operational financial result. As for the enterprise, revenue streams are an external category, because they are the result of the activity of clients on the market. Additionally, the report provides more detailed information on the discounts used. Trade companies widely use discounts, therefore, while calculating the profit, one should take into account the amount of the price reductions according to the causes of

their being granted. At the same time, discount and price decisions belong to the most difficult ones due to their direct influence on the clients. The aim of the discounts is to persuade clients to purchase goods, to increase sales, to consolidate good trade relations with customers. The following kinds of discounts can be distinguished: functional discounts, given to clients for doing certain tasks related to sale (e.g. transporting stock), quantity discount given for the volume of purchase (they should encourage clients to buy bigger quantities of goods), loyalty discount given to regular customers for “faithfulness” to the seller and temporary discounts given because of the seller’s preferred moment of purchase. As for the evaluation of customer profitability, the starting point is the analysis of the volume of sale, the discounts given and their influence on the revised revenue. The information on this subject is implemented in designing the discount system, perceived as a tool of conscious influencing the clients’ behavior and motivating to change the level of service or change the structure of the purchased assortment of products. It is very important to analyze the structure of the sale of goods and their groups. The high rank of the structure from sales is conditioned by the following factors (Gabrusewicz, 2007):

- 1) the diversification of assortment structure of sales is an important factor of the increase of sales volume,
- 2) the differentiation of the sales structure is a relevant source of improving the financial results of an enterprise,
- 3) the complex character of the sales structure is an important factor of market and financial safety of an enterprise.

In order to evaluate the increase of the sales volume, it is necessary to determine the ratios of sales dynamics, which enable the conducting of a quick evaluation of changes of sales volume in time, a comparison with costs dynamics as well as a comparison with the sales dynamics of other enterprises. Every sale increase, on the assumption that it is profitable, leads to strengthening of the enterprise position on the market and to improving the financial results. Analyzing the sales dynamics in space allows for evaluating the achievements of the enterprise from the cooperation of customers and on a given market.

The realized trade margin is the difference between the income, from which the discounts have been subtracted, and the value of goods sold. According to the above model of determining the sales result, one includes

an increasingly wider range of fixed costs and settles the contribution margin realized at these levels:

1) 1st-level margin according to customers, which constitutes the difference between the revised sales income and the costs of the goods sold and the individual variable and fixed costs of individual customer service. This result comprises all costs related to a given client (variable and fixed), it constitutes the measurement of profitability of particular customers and simultaneously it contributes to covering the remaining fixed costs incurred at the further levels as well as to making a profit from sales,

2) 2nd-level margin according to the groups of customers constitutes the surplus of the sum of the 1st-level margins over the fixed costs of the process of customers groups service. It is considered to be the criterion of the evaluation of the sales profitability according to groups of customers,

3) 3rd-level margin according to selling markets is the difference between the sum of 2nd-level margins according to groups of customers and costs of sale processing activity on a given market. The margin is treated as a measurement of sales profitability according to individual markets,

4) the sum of contribution margins according to the markets, from which the fixed costs of the whole

enterprise (those of management and administration) are subtracted, is the sales operational result.

The profitability ratios, presented in Table 3, complete the outturn account. The contribution margin ratio is a relative measurement of sales according to clients, groups of clients, markets and totally, for the enterprise as a whole. It is important to know the trade margin potential, to compare the realized margins to the planned contribution margins according to the adopted criteria. This information is used for price activities, budgeting and controlling income, costs and results according to customers.

In conclusion, it should be emphasized that concrete solutions regarding the evaluation of profitability of clients of a trade company should be adjusted to its specifics and informational needs. The optimization of the financial result of an enterprise depends on efficient modeling of the portfolio of the goods sold and the level of the incurred costs. The identification and allocation of the costs to particular clients enables ordering them from the most to the least profitable. The concept of costs hierarchy enables determination of the profitability at various levels of the trade company activity structure. In the presented example, it allows for determining the profitability at the following levels: client, groups of clients, selling markets, and enterprise.

Table 3: The categories of ratios of sales profitability

Categories of ratios	Ratio calculation formula	Factors influencing profitability
1. Sales profitability ratio according to clients	1st-level margin according to clients / revised sales revenue according to clients	Kinds of goods sold, selling prices, selling process and discounts subtracted from revenue, variable costs of a particular client service (e.g. the costs of goods delivery to the client, the volume of orders, the realization of clients' special requests, the costs of promotion, marketing and advertising, the costs of granting trade credit), individual fixed costs (the costs of operation of a given client's customer service department).
2. Sales profitability ratio according to groups of clients	2nd-level margin according to groups of clients / revised sales revenues according to groups of clients	The costs of service and relation with groups of clients (e.g. representatives' visits, the costs of promotion and advertising).
3. Sales profitability ratio according to selling markets	3rd-level margin according to selling markets / revised sales revenue according to selling markets	The costs of the maintenance of regional branch office, advertising in a given distribution channel, participation in fairs.
4. Total sales profitability ratio for the whole company	Sales results / revised sales revenue to whole company	Activities related to the development of the company as a whole: advertising and promotion of the whole organization.

Source: Own research based on Table 2

CONCLUSIONS

The discussion presented in the paper, which focused on the construction of multi-task profitability accounts on the basis of variable costing, its role and range of the presentation of the information on income, costs and financial results, leads to the following conclusions:

1) a multi-level and multi-block contribution income statement on the basis of variable costing was designed as a tool supporting the operational management. The account is production-oriented, however, it can be adopted to the needs of a concrete enterprise, not only a production company. The name of this account suggests an important role of two categories: costs and financial results. Yet, it should be stressed that the starting point are the sales revenues, which are a secondary category in this model, and to which one should pay more attention and which requires an extension by, for instance, such elements as the discounts used and phases of life cycle of the goods sold,

2) the traditional structures of the contribution income statement did not include the complex character of conducting activity. Mainly, this account reflected the profitability of individual products and their groups as well as the profitability of inner units, including the inner organizational structure of the enterprise and the units distinguished in it. The modern profitability reports are complemented with the information resulting from the additional criteria of distinguishing segments from the area of the relations with customers. The profitability analysis includes the profile of: customers, groups of customers, distribution channels, and selling markets,

3) the methodology of the contribution income statement on the basis of the variable costing enables

its implementation in various branches of business, including trading activity, due to the universal rules used for its creation. However, constructing a profitability report requires individual assumptions, which take into consideration the specific character of a given trade company and its information needs. A very important aspect is to adequately distinguish in the analytical accounting record the information on income and costs depending on the criteria used in reporting on profitability. In literature, while discussing constructing internal reports, one stresses mainly problems with a proper allocation of costs to the distinguished activity segments, since the allocation of income seldom constitutes a problem,

4) the usefulness of reporting on the basis of variable costing results from the possibility of flexible choice and combination of individual objects (representing an important aspect of activity), to which income, costs and results are allocated. It gives an analytical view on the profitability of a trade company, observed from different perspectives. Properly selected financial ratios constitute an important tool, completing and supporting profitability management. One of their main advantages is the easy implementation in the processes of planning, controlling and analyzing the deviations,

5) due to the flexible choice of objects, for which one can collect basic result data, the presented example of a multi-level profitability account of a trade company constitutes one of its possible constructions. The advantages of the implementation of this account are as follows: firstly, the analysis and evaluation of profitability of the cooperation with individual clients and their groups as well as according to the selling markets; secondly, the attention is focused on the product offer influencing the client's value for an enterprise.

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