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Editorial board address: Budapest, Kossuth Lajos utca 84,1204
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SALES COST ANALYSIS AS A DIRECTION OF EFFICIENCY EVALUATION SALES ACTIVITIES AND ITS IMPROVEMENT

Tomchuk O.

PhD, Associate Professor, Associate Professor of analysis and statistics Department Vinnitsia National Agrarian University, Ukraine

Abstract

In the article methodical approaches of analysis of charges are considered on a sale and directions of estimation of efficiency by sale activity, the criteria of estimation of efficiency of sale activity are selected, certainly the stages of leadthrough of analysis. Problems are described organizationally methodical to character of analysis of charges on a sale. The stages of analysis of charges of sale activity and indexes of analysis of structure and efficiency of charges of sale activity are offered. Grounded, that on agricultural enterprises for determination of general organizationally methodical aspects it follows to develop and assert «Statute about the order of leadthrough of economic analysis of charges of sale activity». A dynamics, composition and structure of charges, is analysed on a sale and change of their efficiency. The basic sending of decline of level of charges is selected to the sale in agricultural enterprises.

Keywords: analysis, charges on a sale, efficiency, improvement, enterprise, dynamics.

Raising of problem. There must be the stopped up strategy of his development in basis of activity of any enterprise. In the conditions of drastic global alternations the problem of agricultural production distribution topically considerably. The state of ductings of transporting of products, gap-fillingness of sale network, communicative potential of partners, all more noticeable influence on the degree of satisfaction of consumer demand, competitiveness of products, efficiency of production.

Presently optimization of sale activity is important reserve of strengthening of positions of agricultural producer at the market, by the necessary condition of increase of volumes of realization and increase of efficiency of sale. Sale activity helps ob"ednati effort of agricultural enterprises, enterprises of processing industry and trade, not only during realization of products but also during determination of character and scales of its production, ways of profitable employment of industrial capacity enterprises, determination of mutually beneficial terms of advancement of products, taking into account maximal satisfaction of necessities of buyers. Economic processes are impossible without the proper analysis of charges on a sale, as analytical information is determining for the ground of administrative decisions and monitoring of their implementation.

Analysis of researches and publications. The theoretical and practical aspects of analysis of sale of products (commodities, works, services) and charges, related to him on different enterprises, are lighted up in labours of domestic and foreign scientists-economists: R. Alborova, N. Gavrishko, A. Glena, V. Deriya, Dzh. Evansa, V. Evdoschak, A. Kozachenko, M. Kulinich, O. Lukan, I. Polischuk, G. Savickoy, V. Savchuka, O. Tomchuk, T. Shtuchka, L. Yurkivska and other research workers. Doing justice scientific works, it should be noted that for today researches in relation to the analysis of sale of products there are a bit on agricultural enterprises. Developments of new approaches need in the improvement of theory and practice of analysis of sale activity, in fact a far of the outlined problems is the article of scientific discussions and remains until now unsolved.

Formulation of aims of the article. A research purpose is consideration of theoretical principles and applied aspects of analysis of sale activity of enterprise for the increase of efficiency of him sale policy.

Exposition of basic material of research. At the terms of strengthening of competitive activity on the domestic markets of commodities and services the subjects of menage realize a requirement in the active leadthrough of sale measures. In this connection the actual is become by the increase of efficiency of both

every separate sale measure and sale activity of enterprise, on the whole.

Before to pass to subsequent illumination of indexes of efficiency of sale activity, it costs to specify determination of efficiency. In the general understanding under a concept «efficiency» it follows to understand correlation of result of any activity to the charges borne on it. Applying this determination to the sale measures, it is possible to formulate, that efficiency of sale activity is a betweenness by results, got from the leadthrough of marketings measures (market, advertising, sales promotion, research and others like that) and by charges on their realization.

Select a few determinations of economic efficiency of sale activity – it [7]:

- relative various (on all stages of process of sale)
 result which answers the ultimate and intermediate goals of realization of sale activity;
- a relation of effect (to the result) is from the leadthrough of sale activity to all charges which accompany this process;
- the impact of costs associated and with sales tion activities that can be assessed as a result expressed in kind (real or intangible) or value (price) forms in the cost of all necessary resources (material, technical, human and other) for the organization and implementation of sales activities.

Under the results of sale activity it follows to understand the increase of demand, bringing in of new users, level of loyalty to the enterprise (to the brand), degree of satisfaction of necessities of users, volumes of sale of products, degree of knowledge, relative part at the market, profit from realization and others like that.

Interesting is approach which foresees the leadthrough of estimation of result of sale in long - and to short-term periods. In accordance with the analysis of sale activity in a short-term period efficiency is measured indexes which characterize profits and volumes of realization of products, in long-term – by indexes, related to the brand (loyalty, knowledge, perception of brand, and others like that) [5, p. 41].

Thus, the results of analysis of scientific works testify that most researchers one of directions of analysis of sale activity select the estimation of sale charges. To our opinion, exactly an analysis of charges is base approach of estimation of efficiency of sale activity, as in the conditions of financial crisis managers are interested in the receipt of information on that, how financial resources outlay on sale measures influence on end-point of activity of subject of menage.

The analysis of sales costs should also provide management of agricultural enterprises with information on the efficiency of resource allocation, ie how much and in which areas of sales you need to invest to maximize the profitability of economic activity.

The vast majority of practitioners believe that the effect of sales activities is manifested in increased sales or profits of the enterprise. Therefore, in their opinion, sales efficiency should be calculated using economic and statistical methods as the ratio of sales costs to sales results - sales or profits.

Thus, in agricultural enterprises for the ground of necessity of planning of charges on sale measures in the future service of sale must prove guidance efficiency of the borne charges of sale activity in previous periods.

The conducted researches certify that without regard to all carefully thought out aspects of strategy of development of sale at the domestic market, the clear failings and problems appear in his planning and realization, in particular:

- unawareness of expedience of leadthrough of systematic researches of intermediate and eventual efficiency of sale measures guidance;
- insufficient level of qualification of adsmiths in a sales department, insolvency to conduct the complex analysis of the systems of strategy of sale;
- if such analysis and conducted, he has, as a rule, only formal character, mainly at high-quality level, without application of mathematical and statistical methods.

Uses of methods, which are taken to the construction ekonomiko- mathematical models, and also cross-correlation regressive, variation and factor analysis allows more exactly to walk up to the estimation of efficiency of sale activity and charges on its leadthrough. Therefore at the analysis of efficiency of both sale charges and sale activity, it is on the whole necessary to apply ekonomiko-mathematical methods and models.

The research shows that despite all the wellthought-out aspects of the sales development strategy in the domestic market, in its planning and implementation there are clear shortcomings and problems, in particular:

- management's lack of awareness of the feasibility of conducting systematic studies of intermediate and final effectiveness of sales activities;
- insufficient level of qualification of advertising specialists in the sales department, inability to conduct a comprehensive systematic analysis of sales strategy;
- if such an analysis is carried out, it is usually only formal in nature, mainly at the qualitative level, without the use of mathematical and statistical methods.

Given the above, we consider it necessary to analyze the effectiveness of sales activities in the following areas of evaluation:

- to efficiency of charges of sale activity after a commodity, price, sale and of communication policy, and also charges, borne on maintenance of sales department in their correlation to the incomes and volumes of realization of products on an enterprise;
- sale activity after the functions of sale (analytical, production, sale, management function) and generalized indexes (profitability, turn of commodity supplies, solvency of enterprise, and others like that);
- to efficiency of uneconomical indexes which substantially influence on effectiveness of entrepreneurial activity. To the uneconomical indexes of sale take: quality of products by comparison to competitors, knowledge of users, competitiveness of products, image of enterprise, lost buyers, amount of new buyers, loyalty of users to the trade mark and others like that.

The important methodical aspect of realization of analysis of charges of sale on an enterprise is development of sequence of his leadthrough (Fig. 1).

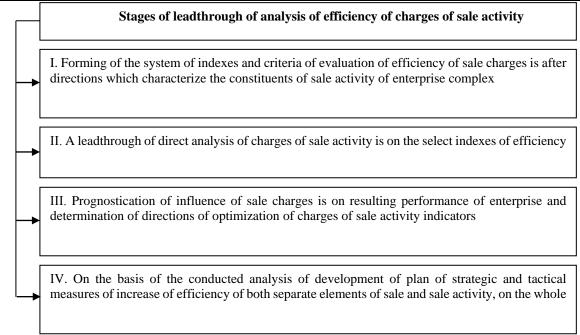


Figure 1. Algorithm of leadthrough of analysis of efficiency of charges of sale activity of enterprise Source: [8, 10]

Thus, leadthrough of analysis of efficiency on basic directions of estimation of charges of sale activity with the use of ekonomiko mathematical methods with an expressly certain algorithm will allow effectively to organize a sale on an enterprise, to estimate attained end-point of sale activity (income, part at the market, volume of realization and others like that), and also accept effective administrative decisions in relation to realization of sale activity of enterprise on the whole.

The near-term stage of leadthrough of analysis of efficiency of sale activity of enterprise is forming of the

system of indexes, as planning analytical procedures it is necessary expressly to determine that it is exactly needed to estimate and what results from it will get.

A number of indexes, which characterize efficiency of forming of charges on a sale enterprises which are resulted in a table 1., is in practice used.

As see from the resulted table, most indexes of efficiency of sale activity settle accounts by correlation of charges on a sale and administrative charges, operating charges, results of activity.

Table 1

Indexes of efficiency of forming of charges are on the sale of enterprise

Indexes of	terricinety of forming of charges are on the sale of enterpri	130
Indexes	Method of calculation	Economic mainte- nance of index
1	2	3
Coefficient of cost-capacity of general economic man- agement and sales	ad min istrativeexp enses + sellinqexp enses operating costs	What specific gravity of permanent charges is in operating charges
A coefficient of coverage of charges is on a sale	<u>Netprofit</u> sellinqexp enses	How much net income is 1 UAH sales costs
A coefficient of payback ratio	sellinqexp enses Netprofit	What are the selling costs of the company to receive 1 UAH. net income
A coefficient of cost of sales activities of the enterprise	sellinqexp enses operating cos ts	What is the share of marketing costs in operating costs
A coefficient of loading of charges is on a sale	operatinqcosts sellinqexp enses	The level of load on operating costs per 1 UAH sales costs
A coefficient of coordination is in correlation of operating charges and charges on a sale	operatinqcosts – sellinqexp enses sellinqexp enses	How many operating costs form 1 UAH of sales costs

A coefficient of coordination of charges on a sale in correlation in operating charges	sellinqexp enses operatinqcos ts – sellinqexp enses	The level of the ratio of sales costs per 1 UAH. operating costs
Coefficient of cost of sales activities at fixed costs	$\frac{\textit{sellinq} exp \textit{ enses}}{\textit{ad } min \textit{ istrative} exp \textit{ enses} + \textit{sellinq} exp \textit{ enses}}$	What is the share of marketing costs in fixed costs
Coefficient the ratio of sales costs and administrative costs	sellinqexp enses ad min istrativeexp enses	The level of the ratio of sales costs per 1 UAH. administrative costs

Source: [20]

Therefore in the system of complex analysis of sale activity an estimation of efficiency of charges on a sale is base and comes forward the necessary condition of maintenance of competitiveness of agricultural enterprises (Fig. 2).

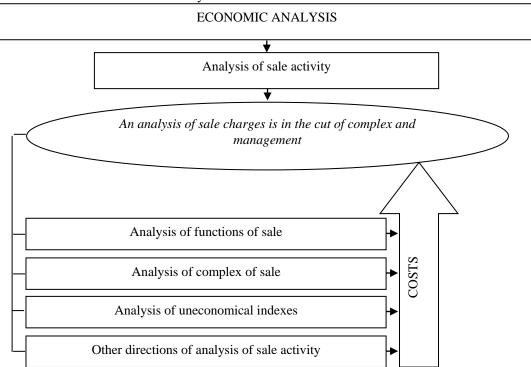


Figure 2. Estimation of sale charges as base direction of economic analysis of sale activity Source: [8]

For today select two going near the estimation of efficiency of sale on an enterprise. The first from which foresees measuring of level of achievement of the put sale aims, second is correlation of effectiveness of sale activity to the charges on its leadthrough [1].

S. Shkaraban and E. Poznakhivsky one of objects of sale activity select charges on a sale. In particular, authors mark that «in market conditions a necessity is become by introduction of break-down of sale expenses. In particular, the authors note that "in market conditions it is necessary to introduce the analysis of sales costs. Such an analysis makes it possible to assess the effectiveness of various sales factors, and it must be carried out constantly" [25, p. 96].

O. Schur and G. Korets mark the necessity of analysis of efficiency of charges on a sale, as it will allow to ground expedience of financing of the concrete sale programs, prevent financial losses and reduce financial risks [27, p. 337].

One of directions of estimation of results of realization of sale activity there is an analysis of charges of service of sale. In particular, charges on sale

researches, publicity activity, providing of work of site of enterprise, it is et cetera necessary to correlate a sale with the indexes of volume, market capacities for the estimation of efficiency of outlaying resources the financial results of commercial activity of enterprise [18].

T. Shtuchka believes that the analysis of the ratio "sales costs - sales volume" allows to avoid significant overspending to achieve sales goals [26].

Opposite is opinion of O. Seleznevoy, which considers «. that payment of sale activity in the volume of sale of enterprise expecting is impossible practically. Therefore to apply principle of estimation of efficiency of sale activity as correlation of charges on a sale to the volume of sale of commodities, works, services, not expediently» [18, p. 57]. V. Filonov marks that in the con-

ditions of market, it is impossible to expect effectiveness selling off as simple correlation of income to the charges, generally accepted are approaches of evaluation of investments in a sale, but not charges [24, p. 223].

T. Burova and O. Burova believe that "the final results of the enterprise in addition to sales are influenced by other components of the potential of the enterprise management, personnel, production capacity, finance, and therefore such an assessment is simplified and not very accurate" [2, p. 20].

Yu. Petrunya suggests for the estimation of efficiency of management of enterprises sale activity to use such system of indexes, as:

- growth of volume of sale;
- growth of profit is from realization;
- change of level of profitability of sale;
- determination of mean value of indexes of efficiency of realization of products [12].

The main question of analysis of efficiency of charges on a sale is insolvency to delimit influence of sale measures from other internal factors on end-point of activity of enterprise.

Determining the cost of marketing activities is quite challenging because [26]:

- charges on a sale provide the process of realization of products;
- charges on a sale have investment character and can bring profits in future periods;
- byudzhetuvannya of charges on a sale is possible at development of the proper budgets (sale researches, of communication policy and others like that).

Yu. Melenchuk identifies the following group of objective factors complicate the assessment of cost-effectiveness of sales activities [9]:

- nonlinearity of sales processes, which causes the absence of direct causal links;
- discrepancy between the period of costs (T_1) and the period of the effect of sales measures (T_2) ;
- the complexity of applying quantitative methods in sales.

Analysis of scientific sources allows us to conclude that to assess the effectiveness of sales activities, including marketing costs is quite difficult, and in some cases impossible.

The main problems of assessing the effectiveness of marketing costs are:

- inability to identify the effect of sales activities;
- the complexity of assessing the effectiveness of marketing activities in the long run;
- most indicators of sales efficiency can not be financially expressed.

Despite some difficulties in calculating the effect of sales costs, today there are scientific developments regarding the analysis of these costs. In particular, the assessment of the cost effectiveness of sales programs can be carried out according to the formula [5, p. 42]:

$$E_{md} = \frac{\Delta \Pr}{Vm}, \qquad (1)$$

де $Pr = Ve-Vb \ Vm = Ic + Iv$

Pr - increase in sales of goods and services;

Vm - total sales costs;

Ve - the volume of goods and services sold at the end of the period;

Vb - the volume of sold goods and services at the beginning of the period;

Ic - material costs of sales;

Iv - the salary fund of managers.

An important indicator of the effectiveness of sales costs, which is referred to by most scientists, is the rate of return on marketing investment ROMI (Return on marketing investment). Profitability of marketing investments is calculated in the form of formulas (2) and (3) [6]:

$$ROMI = \frac{IRAM \times P}{MS},\tag{2}$$

where IRAM - additional income attributable to marketing;

MS - sales costs;

P - profit.

$$ROMI = \frac{R \times P}{MS},\tag{3}$$

where P is profitability, %;

R - revenue.

Estimating the cost of sales using this indicator is a priority, but is accompanied by certain difficulties. The main of which, according to A. Gavrilenko and T. Gavrilko are [4, p. 51]:

- difficulties in determining the overall effect of marketing investments, which are due to the need in addition to current to take into account future purchases and customer service costs;
- unpredictable consumer behavior in conditions of rapid market volatility;
- when the company uses several channels at the same time to inform consumers, the process of calculating the profitability of individual marketing investments is accompanied by difficulties.

Despite the problems calculating the efficiency of investment in sales Peninsula measures this figure to evaluate the result of expended funds for marketing OVU activities and efficiently generate sales Peninsula budgets.

Today there are many ways to calculate the ROMI indicator, in particular Paul W. Ferris and other foreign authors propose to calculate this indicator using the following formula [11, p. 407]:

$$ROMI = \frac{\Delta P * P - SC}{SC},$$
 (4)

where ROMI - return on sales;

 ΔP - profit growth provided by sales measures (gr. units);

P - share of profit (%);

SC - sales costs (gr. units).

The first step in calculating the ROMI is to determine the increase in sales volume due to sales activities. If we consider, that Y_0 - sales at zero cost to sales, Y_1 - volume of sales in the costs of sales at X_1 and Y_2 - Sales in the costs of sales at X_2 , the difference between X_1 and X_2 is the sum

of sales costs, the effectiveness of which should be evaluated (costs of advertising campaigns, exhibitions, etc.) [11, p. 409].

Paul W. Ferris, Neil T. Bandle and others offer other indicators for assessing the cost-effectiveness of sales activities (Table 2).

Table 2

Indicators for assessing the cost effectiveness of sales activities

<u>№</u> p/p	Indicator and calculation formula	The economic content of the index
1	2	3
1	Coefficient of profitability of additional costs of sales = $(Y_2 - Y_1) / (X_2 - X_1)$	The additional income earned through additional investments in sales is related to the amount of sales ovyh investment
2	Income provided sales ovoyu activity = Y_2 - Y_1	Increase in sales due to total sales costs
3	Coefficient of profitability of the general budget sales $y = (Y_2 - Y_1) / (X_2)$	Revenue generated by sales ovyh measures relates to the value of sales ovoho budget
4	Return on investment in marketing (ROMI) = $[(Y_2 - Y_0) \times Profit \text{ share } (\%) - X_2] / X_2$	Additional net gross profit from all sales activities is related to the amount of costs for its implementation
5	Return on additional investment in marketing (ROIMI) = $[(Y_2 - Y_1) \times Share of profit (\%) - (X_2 - X_1)] / (X_2 - X_1)$	Additional net gross profit from additional selling expenses is related to the amount of additional selling expenses
6	ROI marketing through media influence (MEROMI) = estimated cost of media effects - Cost of sales campaign / Expenses for marketing campaign	Revenue generated by sales ovyh activities conducted through the media, is related to the cost of sales OVU campaign, sponsorship or sales promotion

Source: [8, 11]

When calculating the ROMI indicator, it should be remembered that its negative value indicates the unprofitability of marketing activities and to carry them out in the future is impractical.

Today in agricultural enterprises little attention is paid to sales activities. Limited financial resources and the lack of a comprehensive assessment of the effectiveness of sales activities leads to a reduction in sales budgets and reduced profitability of the enterprise as a whole. Therefore, despite the complexity of the analysis of the cost- effectiveness of sales activities, in market conditions it is necessary to control the level of costs and the formation of optimal sales budgets.

Thus, summarizing the above, we can conclude that the main direction of assessing sales activities is to analyze the cost- effectiveness of its implementation. The first stage of the implementation of analytical procedures is to determine the organizational and methodological aspects of the analysis of the costs of sales activities in agricultural enterprises.

An important aspect of the organization and methodology of economic analysis is its regulatory support. Today in Ukraine a number of regulations have been developed regarding the economic analysis, the main majority of which is devoted to the analysis of the financial and economic condition of the enterprise [13, 14].

These legal acts provide methods of analysis of economic activity and generally accepted indicators for assessing the financial condition of the enterprise. The analysis of the costs of sales activities is not considered, so it can be argued that the methodological support of analytical procedures for assessing the effectiveness of sales costs at the state level is missing. In this case, agricultural enterprises must independently organize and develop a methodology for estimating marketing costs.

As practice shows, today agricultural enterprises have problems of organizational and methodological nature, in particular:

- insignificant attention of the company's management to the analysis of sales costs;
- lack of practice of analysis of sales costs by external analysts;
- insufficient organization of the analysis of costs for sales on their own;
- the lack of a comprehensive methodology for economic analysis of sales costs;
 - insufficiently qualified level of analytical staff.

These problems are due to the fact that the analysis of sales costs in agricultural enterprises is not thorough, and if it is carried out, it is formal in nature and, thus, does not provide management with the necessary information to optimize sales costs.

As marked higher, the analysis of charges on a sale can be conducted own forces or external analysts. L. Yurkivska substantiates the need to analyze the sales activities of a combined analytical working group consisting of employees and analysts of the consulting company [28, p. 72].

The services of consulting or outsourcing firms require additional resources, so in order to save money and the ability to analyze sales costs, as part of the study, we focused on the implementation of this analysis on their own - financial analysts or economists.

First of all, it should be noted that the method of analysis of the costs of sales activities in agricultural enterprises has not been developed either in theoretical or in practical terms.

It is expedient to carry out the analysis of expenses of sales activity according to a complex and management of sales, namely an estimation:

- costs of sales activities;

- costs of product policy;
- costs of pricing policy;
- costs of sales of communications;
- costs of sales management.

The primary organizational and methodological principles of cost analysis of sales activities are to determine the main stages and directions of its implementation. The main stages of the analysis of sales costs are organizational, analytical and final, the characteristics of which are shown in Fig. 3.

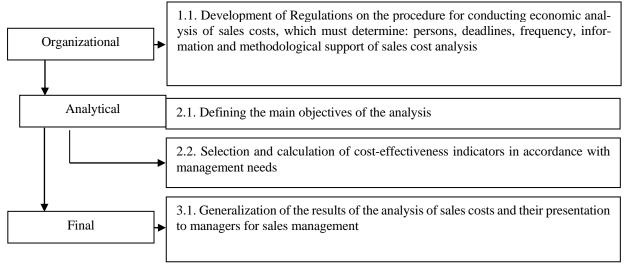


Figure 3. Stages of cost analysis of sales activities

Source: suggested by the author

At the first stage of the analysis, it is necessary to determine the main aspects of the organization of analytical procedures for estimating the cost of sales. We believe that agricultural enterprises to identify common organizational - methodical aspects should develop and approve "Regulations on the procedure for conducting an economic analysis of sales costs", the structure of which is shown in Table 3.

The analytical stage includes the definition of a system of indicators of cost- effectiveness of sales activities, methods of their calculation and direct analysis of sales costs.

At the final step is to summarize the results of the analysis and to develop practical recommendations for cost optimization marketing activities of the enterprise.

Table 3 Structure "Regulations on the procedure for conducting an economic analysis of sales costs"

	Structure "Regulations on the procedure for conducting an economic analysis of sales costs"				
№ p/p	Section name	Contents of the section			
1	Terms	Outlining the purpose and main tasks of sales cost analysis			
2	The subjects of the analysis of costs of sales				
3	Terms of analysis	The terms and frequency of analysis are determined. Evaluation of the effective- ness of sales costs should be carried out systematically (every month, quarter, half-year and year) and at the request of managers for the needs of operational management of sales activities			
4	Information support	Disclosure of external and internal sources of sales cost analysis . The main internal sources are financial and management accounting data			
5	Development of a unified system of indicators for the analysis of sales costs				
6	Registration of results of the analysis of ex- penses for sale	Based on the results of the analysis of sales costs, the data is summarized and conclusions are formed on the effectiveness of the costs incurred for sales activities.			

Source: developed by the author

An important organizational aspect of the analysis of sales costs is its information support and documentation of analytical procedures. The main sources of analysis of the costs of sales activities are internal documents of financial and management accounting (Table 4).

The analysis of the costs of sales activities should also be carried out in the dynamics. Trend analysis provides the ability to track spending with consideration of time to study the relative growth rate and the growth rate sales costs for several periods up to the level of the base period.

Table 4

Sources of information support cost analysis sales activities

№ p/p	Documents	Sources		
1	Initial documents	Delivery contracts, consignment notes, money documents, travel letters, employment agreements, timesheets, invoices for internal movement of tangible assets, advance reports and supporting documents of expenses incurred by the accountable person, order (instruction) of the head of the enterprise to participate in the exhibition, fair participation agreement, fair participation report, etc.		
2	Data of synthetic and analytical accounts of accounting	alytical accounts of serving the finished product", 933 "Transport costs, 934 "Transaction costs		
3	Registers of financial and management ac- counting	Statement of analytical accounting of sales costs on account 93 and its sub-accounts (f. № 5.9 sg), Statement of management accounting of sales costs in terms of products		
4	Financial and Form № 2 "Statement of financial performance (Statement of comprehend management reporting income)", Report on the costs of marketing activities			
5	Other sources of information	Sales budgets, certificates of accounting and department sales, analysis data conducted in previous ones periods, etc.		

Source: generalized by the author for [111] accomplice

Let's analyze the composition and structure of sales costs in the State Enterprise "Artemida" IC NAAS of Ukraine for 2017-2019 in table 5.

Analysis and evaluation of sales costs

Table 5

	2017		2018 2019		Deviation,				
Expense items	amount, thousand UAH	%	amount, thousand UAH	%	amount, thousand UAH	%	+,-	%	points in the structure
1	2	3	4	5	6	7	8	9	10
Packaging materials	4	6,1	7	4,9	5	3,8	1	25	- 2,3
Pay	16	24,6	40	28,4	36	27,3	20	125	2,7
Advertising	7	10,8	10	7,1	9	6,8	2	28,6	- 4
Resale preparation of goods	4	6,1	7	4,9	4	3	1	-	- 3,1
Business trip of employees	11	16,9	27	19,1	19	14,4	8	72,7	- 2,5
Maintenance of fixed assets	7	10,8	15	10,7	18	13,6	11	157,1	2,8
Transportation	4	6,1	9	6,4	10	7,6	6	150	1,5
Other expenses	12	18,6	26	18,5	31	23,5	19	158	4,9
At once	65	100	141	100	132	100	67	103,1	X

^{*} Source: formed on the basis of financial statements of the State Enterprise DG "Artemida" IC NAAS of Ukraine for 2017-2019

These tables show an increase in sales costs compared to 2017 by 67 thousand UAH. and a decrease of UAH 9,000. relative to 2018. At the same time, according to the articles on advertising and transportation

costs, the costs increased. In the structure of sales costs, the largest share is occupied by wages.

The most important aspect of the analysis of sales costs is the calculation of their efficiency (table 6).

Table 6 The efficiency of the formation of sales costs in the SE DG "Artemida" IC NAAS of Ukraine for 2017-2019 , thousand UAH

Indicators	2017	2018	2019	Deviation, +,-
1	2	3	4	5
1. The cost ratio of total gift management and product sales	1,753	2,562	3,015	1,262
2. Coverage ratio	152	69,68	94,07	- 57,93
3. Payback ratio	0,006	0,014	0,011	0,005
4. Cost of sales activities of the enterprise	0,148	0,406	0,394	0,246
5. Sales cost factor	6,738	2,461	2,538	- 4,2
6. Coefficient of coordination in the ratio operating costs and marketing costs	5,738	1,461	1,538	- 4,2
7. Coefficient of coordination of sales costs in ratio in operating costs	0,174	0,684	0,650	0,476
8. Coefficient of cost of sales activities at fixed costs	0,085	0,159	0,131	0,046
9. Coefficient of coordination in the ratio marketing costs and administrative costs	0,092	0,175	0,150	0,058

^{*} Source: formed on the basis of financial statements of the State Enterprise DG "Artemida" IC NAAS of Ukraine for 2017-2019

These tables show that in SE DG "Artemida" IC NAAS of Ukraine in connection with the increase in 2019 net income from sales of products (works, services) and gross output, the ratio of sales costs decreased by 57.93 points.

In connection with the increase in sales costs in 2019 by 67 thousand UAH, respectively, there was an increase in such coefficients as payback costs, cost of sales activities of the enterprise, coordination of sales costs in the ratio of operating costs, cost of sales activities at fixed costs and coordination in the ratio of sales costs and administrative costs by 0.005 points; 0.246 points; 0.476 points; 0.046 points and 0.058 points.

Positive changes were made in reducing the load factor of sales costs by 4.2 points; coordination ratio in the ratio of operating costs and marketing costs - 4.2 points.

Thus, it can be argued that SE DG "Artemida" IC NAAS of Ukraine for the study period is more effective in the formation of marketing costs.

Analytical accounting data is used to analyze sales costs by cost items. For each article identify absolute and relative deviations from the plan and base period and their causes. The peculiarity is that they do not relate to the cost of products (works, services), but are the costs of a certain analyzed period and affect the final financial result of the company. Determinant in the estimates of these costs is their elasticity to changes in financial results

Thus, the analysis of the efficiency of sales costs according to the given organizational and methodological approach and taking into account the areas of savings will allow to rationally manage sales costs and carry out effective business activities in general.

Methodological support for the analysis of sales costs, as noted above, involves the development of a comprehensive system of indicators of efficiency of sales costs and the algorithm for their calculation. To assess the structure and cost effectiveness of sales activities, we consider it appropriate to differentiate these costs in accordance with the sales complex.

N. Ryzhikova and O. Nakisko proposes to assess the level of costs of sales activities of agricultural enterprises to conduct analytical indicators, which can be conditionally combined into groups (table 7) [17].

Table 7
Characteristics group analytical indicators of cost sales activities

	Characteristics group analytical indicators of cost sales activities					
№ p/p	25Group figures	Calculation formula	Economic content			
1	2	3	4			
1	Group of cost coverage ratios	Sales revenue / Sales costs in general or in terms of sales complex	Characterizes how many products account for 1.0 UAH. costs			
2	Group of cost re- covery ratios	Overall cost of sales of or complex in terms of sales in / Proceeds from realization	It characterizes what costs should venture to produce 1.0 USD. products			
3	Group of cost coefficients	In sales costs in general or in terms of complex sales in / Total costs * 100%	Characterizes the share of a certain type of sales costs in the total cost			
4	Group of profitability indicators	Financial results / B ytraty marketing in general or in the context of a complex sales of 100%	Characterizes how much profit is 1.0 UAH. a certain type of cost			

Source: [17, p. 167]

- S. Usyk also proposes to evaluate the cost effectiveness of sales activities in terms of product, price, sales and communication policies using a system of indicators [23, p. 35-36]:
- individual indicators that characterize the effectiveness of certain aspects of sales activities;
- group indicators, which are determined by the generalization of individual indicators within the leading components of the sales complex;
- integrated indicator, which is calculated by summarizing group indicators and allows you to assess the

effectiveness of sales activities of the enterprise as a whole.

I. Polishchuk in her work [15] proposed an approach to quantifying the actual effectiveness of sales activities, based on determining the effect of marketing on sales, which is modeled by sales curves.

The proposed indicators analyzing the structure and cost efficiency sales ovoyi activities are presented in Table 8.

We consider it appropriate to analyze the effectiveness of sales activities by comparing the main indicators, in particular, the financial result before tax, net

Table 8

Indicators of the analysis of the structure and cost-effectiveness of sales Activities

№ p/p	Indicators	Indicators Calculation formula		
P/P	General performance	analysis cost sales ovoyi activities		
1	Share of sales costs in total costs (%)	In ytraty nazbut / total cost of the enterprise × 100 %		
2	Efficiency costs of sales	Increase in sales or profit due to sales activities / Sales costs		
3	Share of sales management expenses in the total sales expenses (%)	Sales management costs / Total sales costs × 100 %		
		s of sales cost analysis		
4	The share of sales in the total aggregate sales ovyh expenditure (%)	The marketing expenses / total sales ovyh cost × 100 %		
5	Sales cost efficiency indicator	Increase in sales or profit due to sales activities / Sales costs		
	Indicators of cost	analysis of sales product policy		
6	Share of commodity policy costs in total sales costs (%)	Commodity policy costs / Total sales costs × 100 %		
7	Cost-effectiveness indicator of product policy	Increase in sales or profit due to product policy / Costs of product policy		
	Indicators of cost	analysis of sales pricing policy		
8	The share of pricing policy costs in total sales costs (%)	Pricing policy costs / Total sales costs × 100 %		
9	Cost-effectiveness indicator of pricing policy	Increase in sales or profit due to pricing policy / Cost of pricing policy		
Indicators of cost analysis of sales communication policy				
10	The share of sales Peninsula Communications in total aggregate sales expenditure (%)	The cost of sales Peninsula Communications / Total amount of sales cost \times 100 $\%$		
11	Cost-effectiveness indicator of communication policy	Increase sales or profit at the expense of sales communications / Expenses on sales Peninsula Communications		

Source: [17, p. 167; 23]

income, balance sheet currency and selling expenses.

$$T_{FR} > T_{chd} > T_{VB} > T_{VZ}, \tag{5}$$

where T_{FR} - the growth rate of the financial result before tax;

 T_{chd} - growth rate of net income;

 T_{VB} - the growth rate of the balance sheet currency;

 T_{VZ} - the growth rate of sales costs.

Adherence to this inequality indicates that investment in sales has led to increased production, increased sales, which in general led to an increase in the financial result before tax and increase the efficiency of use of assets by reducing costs. Moreover, the growth rate of sales costs should not exceed the growth rate of all other indicators, then there is an increase in production and sales, which generally leads to maximizing the pre-tax financial result.

It should be noted that the vast majority of approaches proposed in the scientific literature to assess the cost-effectiveness of the enterprise and, in particular, those already discussed in this article, are inapplicable in the practice of analyzing the sales system in the vast majority of Ukrainian enterprises. That is, advanced and quite successful Western and domestic methods can not find their practical application due to the following limitations:

- the absence in the organizational structure of the vast majority of enterprises sales departments. If such structural subdivisions are present at the enterprise, then their functions are most often connected with the organization of sales processes, formation of a distribution network, development of measures for promotion of production on the market and drawing up of the corresponding reporting. In other words, the range of real

problems that are solved by specialists of such departments often differs significantly from the classical idea of sales, its tasks and functions;

- lack of awareness of the feasibility and lack of competence of relevant specialists to conduct an indepth systematic analysis of the effectiveness of the sales system at the enterprise in terms of individual components of sales policy using appropriate economic and mathematical tools and modern management systems;
- unregulated at the regulatory level of the processes of analytical and synthetic accounting of sales costs at the enterprise. In other words, if such data are available at enterprises, they are in the registers of financial rather than management accounting and do not serve the purpose of in-depth analysis of the organization of formation and implementation of sales strategy of the enterprise;
- the indicators recommended for analysis and mentioned above cannot be calculated due to the lack of an appropriate information base in agricultural enterprises.

Taking into account such considerations, we have proposed our own scientific and methodological approach to solving the problem of analyzing the cost of sales of enterprises on the basis of available information base

We believe that when wires or studies to analyze the effectiveness of cost of sales to use these indicators:

- net income from sales of products;
- gross profit;
- sales costs;
- financial results from operating activities;
- net profit (loss).

Preliminarily, all data must be translated in comparison with the price, taking into account the actual (current) prices and the inflation index.

In the course of the analysis it was suggested that the cost of sales is a factor variable that determines the patterns of change in the values of the resulting indicators of financial and economic activities of the enterprise, such as net income from sales, gross profit, financial results from operating activities and net profit). In other words, the following notation is introduced:

 Y_1 - net income from sales;

 Y_2 - gross profit;

 Y_3 - financial results from operating activities;

 Y_4 - net profit (loss);

X - costs of sales activities.

We assume that these regularities can be adequately approximated by one of the following forms of analytical dependences, namely: linear, power, exponential, logarithmic and polynomial of different degrees.

In case of impossibility of carrying out of adequate approximation to the specified forms of analytical dependences, carrying out of procedure of mechanical

smoothing of a number by means of a method of a fluid average was offered.

To neutralize the effect of anomalous levels of the series on the model equation, the smoothing interval m = 3 was chosen and the smoothed levels were calculated by formula (6):

$$\overline{y_t} = \frac{y_{t-1} + y_t + y_{t+1}}{3} \tag{6}$$

Moreover, in order not to lose the first and last levels, their smoothing is carried out according to formulas (7):

L. Volonteer said that t in this way is lost first and last elements of the sample [3, p. 47].

We believe that to assess, analyze and forecast trends in the efficiency of spending on sales activities need to use trend models, which are based on the calculated values of profitability of marketing costs for 12 reporting quarters. In turn, the return on marketing spend should rozrahov uvaty as a share of dividing the net income (loss) for expenditure on sales.

Before constructing trend models, the initial information must be pre-smoothed by the fluid average method.

O. Lukan emphasizes that based on the data of the analysis of the impact of sales costs on the performance of enterprises, it is advisable to focus on cost savings in sales activities.

Reducing the level of costs involves a continuous and interconnected process of budgeting, accounting and analysis of sales costs.

Budgeting is carried out in order to determine the level and structure of costs in accordance with the sales complex.

Accounting is the observation, identification and registration of the facts of the resources (material, tube, financial) for the implementation of sales activities.

The analysis involves the assessment of the level of structure and efficiency impact cost of sales for the results atyvni indicators of financial and economic activities [8].

N. Terentyeva and O. Cherep note that from the standpoint of strategic management, achieving competitive advantage in sales is mainly ensured by the right strategy for managing the sales potential of the enterprise, as the effectiveness of sales of agricultural enterprises depends on the company's ability to increase and actively use its marketing, information and management capabilities potential [25].

The basis for strategy development management marketing potential of the enterprise is the level of use as all the supply potential, and its separate subsystems, allowing to determine the degree initiate strategic changes for each subsystem. The system of marketing strategies for sales management should be divided into seven groups of strategies (Fig. 4) [21].



Fig. 4. The system of marketing strategies for sales management

Source: [21]

In this case, O. Tomchuk notes that business management marketing strategies for enterprises should be developed on the basis of strategic analysis conducted using the matrices LB / BC and BpeN / BRM [21].

The information provided in the form N 2 "Statement of financial performance (Statement of comprehensive income)" is provided in general form. To present detailed information on the cost structure of marketing activities of the enterprise N. Pravdyuk proposes to provide detailed information on the costs of advertising campaigns and other marketing activities in the form N 5 "Notes to the annual financial statements" (section V "Income and expenses", series 640-680). Providing such information in the report will analyze the dynamics of changes in marketing costs of the enterprise, the structure of individual groups of costs in the total cost of marketing activities and assess the effectiveness and efficiency of marketing strategy by the business entity, the level of achieving target parameters [16, p. 112].

The author notes that in today's business environment, accompanied by growing uncertainty and risk, the development of marketing strategy is one of the important prerequisites for successful business and minimizing the risks of external and internal environment, as it provides insight into how to explore market opportunities. selection of target markets, how to form an effective pricing and sales policy, how to develop an effective marketing mix and successfully implement marketing activities. However, for that the marketing strategy reflects the real capabilities of the enterprise to achieve the specified target parameters of activity, its development and implementation should be correlated with complete, reliable and timely information support, the basis of which is formed by the accounting system of the enterprise [16, p. 112].

Thus, according to the results of the study, the main directions of reducing the level of marketing costs in agricultural enterprises are:

- elimination of unproductive costs of sales activities;
- optimization of labor costs by improving the skills of sales staff;

- organization of logistics system related to sales;
- acquisition of new or modernization of old vehicles intended for sale;
- introduction of marketing innovations in pricing and product policy;
- use of the latest sales communication channels, including Social Media

Marketing (SMM);

- reducing the level of management costs for sales;
- an effective system of cost analysis sales activities.

Conclusions. Thus, the analysis of modern scientific sources revealed that the concept of sales efficiency is a systemic, multi-criteria concept and requires analysis, consideration and planning of indicators that characterize the effectiveness of management from different positions - from the position of seller, buyer, executor (directly to the personnel of sales department), manufacturer (production staff), top management of the enterprise and market infrastructure, as the implementation of contractual obligations to sell products has a number of positive effects and opens up additional opportunities for all participants. However, it should be noted that the methodological principles of assessing the effectiveness of sales of agricultural enterprises in conditions of significant uncertainty of external factors in Ukraine are insufficiently studied, which causes difficulties in assessing the effectiveness of sales in the real sector of the economy.

Analysis of the dynamics of sales costs shows a trend of changes in the efficiency of sales costs. This approach will contribute to the formation of sufficiently detailed analytical information on the cost of sales, as a basis for operational, tactical (current) and strategic analysis of the effectiveness of marketing activities of the enterprise.

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