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## **RESEARCH OF CORRELATION OTHER INCOME AND RELATED EXPENSES OF INDUSTRIAL ENTERPRISES**

It was grounded the practicability of isolation of other business income as a separate element in the general structure of the company. The national and international accounting standards were considered. The dependence of other income of industrial enterprises of machine-building related costs were investigated.

**Keywords:** other income of the company, related costs, analysis of financial statements, accounting standards, correlation and regression analysis.

**Statement of the problem.** Operation of any business entity, regardless of its operations and ownership in the conditions of market relations is determined by its ability to create a necessary and sufficient amount of revenue and profit. For decision making, forecasting and planning of operational, tactical and strategic activities necessary to carry out a comprehensive analysis of assets, liabilities and equity of the entity. As an important component analysis of other income has an important place in the system of comprehensive economic analysis, because it assessed the extent to which the ultimate objective of the entity.

**Analysis of recent research and cover of earlier unresolved parts of the general problem.** Contribution in study the characteristics of the analysis of business income did domestic and foreign scientists such as A.V. Krasnousov, S.M. Masaiev, M.H. Dorrel, V.S. Marcyn, V.V. Bocharov, T.H. Kaminska, E.S. Hendryksen and others. However, most known methods of financial statement analysis and financial condition of the company rarely considered separately other income of the enterprise without the inclusion of part of the income from operating, financing or investing activities and does not take into account the relationship of other income related expenses. This approach corresponds to the Statement (standard) of accounting (further – S (S) A) of Ukraine, but put a stay

realization of analysis of international accounting standards (further – IAS) and greatly complicates the process of accounting prescribed by International Financial Reporting Standards (further – IFRS). In this case it is impossible to argue about the analysis of financial condition of the company to the fullest.

**The aim of the article.** The aim of this work is to study the space of income received by firms from other activities in the overall structure of the enterprise, linking such income with related expenses, construction and analysis of mentioned dependence.

**The main material.** According to IAS in the analysis of financial statements and the financial condition of the company much attention is paid to other income, which will appear as a paragraph in the report «of comprehensive income» in accordance with IFRS. IAS 18 «Income» defines income as the gross inflow of economic benefits during the period arising in the course of ordinary activities of an entity when equity increases as a result of income rather than capital contributions from members. [1] According the related costs are those costs that the company incurred in connection with obtaining a certain income.

In IAS 1 «Presentation of Financial Statements» mentioned that other comprehensive income includes items of income or expense

(including reclassification adjustments) that are not recognized in profit or loss as required or permitted other IFRS.

As mentioned in [2], assessing financial performance of the company it is advisable to investigate the relationship between costs, volume of production and profit. This allows to define the required level of utilization of productive capacity at which the profitability of the company assured.

Every company should clearly understand the purpose of the analysis of income and determine the list of tasks to allow goals. List of indicators that should be subject to scrutiny established at the same time. The purpose of income analysis is to estimate the revenue outcomes of the company, learning the basic causes of changes in the dynamics and comparisons with similar companies in the region, with those of competing firms. It is also important reveal reserves to increase earnings in the analysis (loss coverage), increase profitability and to identify specific actions for the future.

It should examine the composition of the balance sheet profit in the analysis process, the structure and dynamics of its changes under the influence of various factors. The main part of income the company receives from the sale of products and services. It is studied the dynamics of the plan profit from the sale of goods (works, services) during the analysis and identifies factors changing its size. Income from the sale depends on the enterprise as a

whole from the following factors: the volume of sales, its structure, cost and average selling price level.

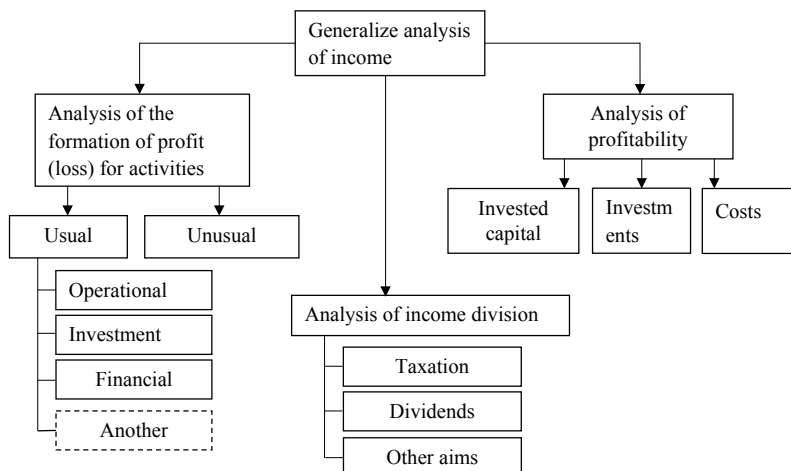
The plan income achievement depend largely on income activities not related to the sale of goods (other income). This return on equity in joint ventures, income from rental of land and fixed assets, received and paid penalties, fines and penalties, losses from natural disasters and others. The analysis is reduced mainly to study the dynamics and causes of losses and gains obtained in each case. Losses from the payment of penalties arising from violations of certain services agreements with other companies, organizations and institutions. Analyzing the reasons set defaults apply measures to prevent mistakes [3].

Pic. 1 shows a general model for the analysis of income from the enterprise [3], according to S (S) A of Ukraine. Separate block in pic. 1 the authors proposed to consider other activities as a source of profit (loss) corresponding to IAS and simplifies analysis for IFRS reporting.

As noted author [4] at present stage all national S (S) A is largely based on IAS. Despite the fact that between them there is a consistency that is that certain standards have the same goal, purpose, common names, and some even correspond to the numbers. They are not identical.

Positive sides of IFRS for entities that prepare financial statements and for external users is:

- the ability to obtain the necessary information for decision making;



**Pic. 1. General revenue model analysis of the company activity**

- ensuring the comparability of the reporting of other organizations, regardless of the country of which they are and what area doing business;
- the ability to attract foreign investment and loans, as well as access to foreign markets;
- prestige, providing greater confidence among potential partners;
- greater reliability of information in many cases;
- transparency of information provided by compliance with the rules of assembly, as well as numerous explanatory reporting.

Thus, the benefits of the financial statements according to international standards and they are really compelling to most users of the financial statements. IFRS can be regarded as an instrument of economic globalization and the world economy. In this regard the value of IFRS is important not only for foreign but also to domestic investors as well confirming the need and usefulness of the implementation of IFRS and comply methodological approaches to the analysis of financial statements and assess the financial condition of companies for all sectors of economy of Ukraine.

Any production process of the company is built on an economic basis and aims to generate income and profit. That is why raises the question of establishing the relationship between economic functions of economic activity according to the specific activity (investment, operational or financial) and relevant articles and pidstatey income and expenses of such activities. It is shown the correlation functions involved in economic activities of industrial enterprises in Table 1 [5].

Listed in the table 1 functions to isolate revenues from each of the articles (operational, financial, investment) that can be formed in a separate group of other income. Businesses which acting in accordance with IAS are statements in accordance with IFRS or plan to audit global leader through expansion of its activities receiving financial support from international companies etc. It is need to form a group of other income in the total structure income.

Another important aspect of the analysis of other business income is to assess due to other income-related expenses that can determine the effectiveness of those costs. Consider using correlation and regression analysis to study

the dependence of other income of industrial enterprises by related expenses example of the engineering industry OSC «Kharkiv transport equipment plant». The use of this analysis was considered in [6] for quantify the indirect influence business costs on the profitability of the company. Thus for abstracting the values of absolute figures, the relationship between them is close enough and determined the volume of the first stage was defined relationship between the level of commercial expenses to net income and net income margin for multiple trading businesses which are investigated.

In other income of researched companies include 11 articles. The most profitable are «Cargo work», «Electricity», «Trade», «Public catering», «Forwarding work», «Material and technical support» and «Other support activities».

It was calculated correlation coefficient between other income over 11 articles and related expenses in the period from 2010 to 2012 to investigate the connection density (table 2).

Results of correlation analysis showed the close direct relationship between income and other related costs (correlation coefficients are high). In this case, we consider rational to build correlation-regression model for the enterprise to establish the nature of the study of addiction.

Get the regression equation in the form

$$y = 0,904x + 89455,084, \quad (1)$$

where  $y$  – total other income of the company for the period, UAH;

$x$  – total costs of other income received during the period, UAH.

Get meaning of the coefficients of correlation and determination (0.948 and 0.899, respectively) indicate about high degree of adequacy of the model.

**Conclusions and propositions.** Other income of the enterprise which is an important step in the analysis and preparation of financial statements according to international standards do not emit a separate item in the analysis of financial condition and financial reporting industry on national accounting standards today. It is advisable to consider other business income as a separate component of the total income of the company.

It was posed that between other income and related expenses there is tight correlation (in

Table 1

**Correlation of the functions which involved in the economic activities of industrial enterprises**

Income / Cost	Type of activity	Income articles / cost	Income subarticles / cost	Function	
Income	Investment	Income and expenses from disposal of other assets	Income and expenses related to the disposal of other assets	Other income	
		Income and expenses from disposal of main assets	Income and expenses related to the sale of main assets		
	Operating	Taxes and fees	Taxes and fees	Other taxes and fees	Payment of taxes
			Other income	Other income	Other income
		Realization of works and services	Agency reward	Agency reward	Agency reward
			Realization of permit	Realization of permit	Permit in the territory
			Realization of other service	Realization of other service	Other income
			Здача в оренду майна	Здача в оренду майна	Оренда
		Energy resources and utility payments	Energy resources and utility payments	Return costs	
	Realization of goods				
	Financial	Using of income	Using of income	Result of inventory	Other income
		Exchange differences			
		Breach of contract conditions	Breach of contract conditions	Fines, penalties, recovery for breach of contract conditions	
		Interest on loans, loans, deposits, bills	Interest on loans, loans, deposits, bills	Interest receivable and payment	Interest receivable and payment
		RKO and other banking services	RKO and other banking services	RKO and other banking services	Bank services
	Fines, penalties	Fines, penalties	Fines, penalties, recovery		
Cost	Investment	Revenues and expenses on disposals	Income and expenses related to the disposal of other assets	Other cost	
		Income and expenses from disposal of main assets	Income and expenses related to the sale of main assets		
	Operating	Amortization	Amortization of NMA	Amortization	

Table 2

**Meaning coefficient of correlation between other income and related expenses of the enterprise for 2010-2013 years**

Index	2010 (year)	2011 (quarter)				2012 (quarter)			
		I	II	III	IV	I	II	III	IV
Coefficient of correlation, %	99,2	99,7	99,1	98,5	97,7	99,1	96,6	96,0	97,7

terms of the investigated companies – direct). In order to plan the level of other income in respect of costs incurred in the paper is based analytical model such dependence. Such information improves the efficiency of making decision. This is a necessary condition of the company in the international markets and attracting foreign capital.

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