

СЕКЦИЯ 2
ИНФОРМАЦИОННОЕ ОБЕСПЕЧЕНИЕ И СИСТЕМНЫЕ МЕТОДЫ
В ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ АПК

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ADJUSTING NATIONAL ACCOUNTING STANDARDS IN COMPLIANCE WITH INTERNATIONAL STANDARDS IN UZBEKISTAN

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Ключевые слова: актив, балансовая стоимость, нематериальный актив, исследование, разработка, амортизация, финансовая отчетность, переоценка, срок полезного использования, стоимость, корреляция, регрессия, анализ.

Key words: asset, book value, intangible asset, research, development, amortization, financial reporting, revaluation, useful economic life, fair value, correlation, regression, analysis.

Аннотация: Статья посвящена корреляционному анализу, проведенному для оценки влияния переоценки нематериальных активов на их первоначальную, амортизируемую и остаточную стоимость. В свою очередь, также проанализировано влияние переоценки нематериальных активов на долгосрочные активы и совокупные активы предприятий.

Summary: The article is devoted to the correlation analysis carried out to assess the impact of the revaluation of intangible assets on their initial, depreciable and residual value. In turn, the impact of the revaluation of intangible assets on long-term assets and total assets of enterprises is also analyzed.

Introduction. Currently ongoing the process of globalization requires particular attention to the creation of intangible assets based on new knowledge and technologies, their targeted and efficient use. Nowadays the growth rates of the intangible asset market account for over 10 % per year (in China – 23 %, in the USA and Russia – 5 % and in France – 2 %). For example, as a result of the issuance of more than 1 billion patented objects, which constitute the basis of intangible assets, digital platforms and services for the efficient management of intangible assets have been introduced. According to statistics, the total assets

of companies in developed economies amounted to more than 90.0 trillion USD and out of this amount 47.8 trillion USD (52.6 %) are represented by tangible assets and 42.2 trillion USD (47.4 %) of intellectual property falls on the share of intellectual property rights. Therefore, it is crucially important to make effective use of the experience of international accounting practices in the national economy in the assessment of intangible assets created in all countries, organization of their accounting, calculation of their depreciation and the disclosure of information in financial statements.

Main part. This part of the article is dedicated to the correlation analysis, which has been made to assess the impact of the revaluation of intangible assets on their initial, depreciable and residual value. In turn, the impact of revaluation of intangible assets on long-term assets and total assets of enterprises has been analyzed as well. For this purpose, the following two tables are used as a source of data based on the balance sheets of a total of 10 objects selected for the research [2].

1. Assessing the impact of revaluation of intangible assets on initial their cost (at the beginning of the reporting period)

A factor analysis has been performed to assess the effect of the revaluation model on intangible assets on their initial and residual values when applying the revaluation model in compliance with the requirements of international financial reporting standards. As a result, the following scientific conclusions can be drawn from the data at the beginning and end of the reporting period, i.e., the analytical data show that the correlation coefficient accounts for: $r = 0.996$. This means that there is a very strong and correct relationship between the factor and the outcome, and that the factor's effect on the outcome is that the coefficient of determination is $r^2 = 0.992$.

It is also important to note that the structured model is statistically significant: $F = 6,66428E-10$.

<i>Regression statistics</i>	
Several R	0,996046162
R- squared	0,992107956
Normalized R-squared	0,880996845
Standard error	3406497,832
Observation	10

F significance
6,66428E-10

It is possible to make a general conclusion, that an increase in the value of an intangible asset as a result of a revaluation raises its effect on its initial value and can be considered a positive situation.

2. *Assessing the impact of revaluation of intangible assets on their cost (at the end of the reporting period)*

The rate of revaluation of intangible assets relative to the initial value at the end of the reporting period, i.e. the correlation coefficient accounted for $r = 0.997$. This means that there is a very strong direct correlation between factor and outcome. In addition, it is possible to observe that the resulting effect of the revaluation factor is statistically significant for a structured model with 99.4%.

<i>Regression statistics</i>	
Several R	0,99725
R- squared	0,994508
Normalized R-squared	0,883397
Standard error	2831746
Observation	10

<i>F significance</i>	
	1,55942E-10

Significance level in this analytical data amounts to: $F = 1,55942E-10$, the model is statistically significant.

3. *Assessing the impact of revaluation of intangible assets on their depreciable amount (at the beginning of the reporting period)*

When assessing its impact on the amortization value of the intangible as set revaluation model, the correlation coefficient at the beginning of the period constituted $r = 0.78$. This shows the average and correct relationship between the cost of revaluation of intangible assets and the depreciable amount.

<i>Regression statistics</i>	
Several R	0,786681301
R- squared	0,618867469
Normalized R-squared	0,507756358
Standard error	2034689,659
Observation	10

<i>F significance</i>	
	0,005069476

The impact of the factor on the result accounts for 61.88%. We can see that this model is statistically significant. The coefficient, achieved as a result, shows that it is smaller than the norm: significance: $F = 0,005069476$ or < 0.005 .

4. *Assessing the impact of revaluation of intangible assets on their depreciable amount (at the end of the reporting period)*

If we assess the value of intangible assets after revaluation, we see that there is a strong correlation between the factor and the result, with a correlation coefficient $r = 0.99$.

<i>Regression statistics</i>	
Several R	0,990227357
R- squared	0,980550219
Normalized R-squared	0,869439108
Standard error	2831746,276
Observation	10

<i>F significance</i>	
	2,4814E-08

This constitutes the basis for our conclusion that proves a direct connection. This is because the effect of the factor on the outcome amounts to 98 %. Hence, the model is statistically significant.

Conclusion. The following conclusions can be made in reliance upon the results of research made on the basis of the model of adjustment and revaluation of intangible assets accounting, in particular, adjusting national accounting standard in compliance with with the requirements of International Financial Reporting Standards:

first, the aim of National Accounting Standard 7 “Intangible Assets” and its composition should be adjusted in compliance with the requirements of international standards, namely, IFRS 38;

second, it is recommended to consolidate (join) NAS “Intangible Assets” and NAS 11 “Expenditures on research and development”, currently acting in our country, and bring them into a single standard in accordance with international standards;

third, in order to obtain accurate information on intangible assets, annual revaluation indices should be published (for facilities which useful economic life is expected to increase);

forth, according to the revaluation model, the results of revaluation of intangible assets should be reflected directly in the capital of enterprises, i.e. in the account “Retained earnings”;

fith, correlation and regression analysis of the results of revaluating intangible assets enables to assess their initial value, amortization, long-term assets and the degree of dependence on total assets.

Reference

1. Resolution of the President of the Republic of Uzbekistan №PR-4611 “On additional measures to transition to International Financial Reporting Standards” dated February 24, 2020.
2. Rizaev, N.K. “Methodology of organizing accounting and financial analysis of intellectual property”, dissertation claiming for the scientific degree of the Doctor of Sciences, 2019.

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ECONOMIC AND MATHEMATICAL MODELING IN ECONOMETRICS

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Ключевые слова: эконометрика; математическая экономика; статистическая модель; экономическое моделирование; модель спроса и предложений; регрессионные модели, модели временных рядов с детерминированными тенденциями и системы одновременных уравнений.

Keywords: econometrics; mathematical economics; statistical model; economic modeling; supply and demand model; regression models, time series models with deterministic trends and systems of simultaneous equations.

Аннотация: В данной статье в качестве примера уравнения регрессии рассмотрена модель спроса на определенный товар в зависимости от его цены и прибыли. При этом особый интерес представляют модели линейной регрессии. В моделях временных рядов особый интерес представляют модели тренда (устойчивых изменений показателей на протяжении длительного периода времени) и сезонные модели, характеризующие устойчивые колебания уровней индикаторов.

Summary: In this article a model of demand for a certain product depending on its prices and profits describe as an example of a regression equation. In the process, of particular interest are linear regression models. In time series models of special interest are models for the trend (steady variations of the indicators over a long period of time) and seasonal models characterizing stable oscillations of the indicator levels.