Approaches to the Organization of International Accounting in Russian Enterprises

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Abstract – **The article discusses current issues of transformation of accounting information in accordance with international financial reporting standards (IFRS). This study is primarily aimed at developing approaches that determine the need for Russian enterprises to provide accounting information comparable at the international level. The authors analyze methods of transferring data from the Russian Accounting Standard (RAS) to IFRS. The methods used to form financial statements in accordance with IFRS are discussed. The issues of the application of these methods, as well as their advantages and disadvantages, are discussed. The author's approach to the selection of the optimal method of transformation is proposed taking into account the individual needs of organizations.**

Keywords – **IFRS, RAS, reporting transformation, consolidated reporting, international accounting, parallel accounting method, translation method.**

1. Introduction

The global trend towards unification of the standards for the formation of financial statements affects the accounting and preparation of financial

statements of Russian enterprises in terms of methodology and practical application, more and more adapting them to generally accepted standards. However, despite the ongoing convergence between Russian and international standards, today there is still a large gap in the principles of accounting and reporting.

The existing system of principles for the formation of domestic financial statements does not properly support the reliability of the indicators formed in it, while reducing the potential useful use of the information received. The principles of international accounting are aimed at generating reports used by a wide range of users. This reporting is able to satisfy the needs of all users, while the reporting of Russian accounting is aimed more at meeting the needs of fiscal authorities. Therefore, in Russia, organizations are increasingly thinking about the need to convert reporting indicators of Russian accounting into financial statements that comply with the principles of IFRS.

International principles for the preparation of financial statements facilitate the entry of domestic enterprises into the international market, increasing the ability to attract foreign investors, potential partners and counterparties by increasing the transparency of reporting. Many owners use international reporting as a tool for making effective management decisions.

In addition to external factors, there are requirements for the legislation of the Russian Federation obligating companies according to the Law № 208-FZ of July 27, 2010 to form consolidated financial statements (CFS) [1]. Such reporting is compiled on the basis of the principles of international accounting. At the same time, enterprises obliged to provide CFS are not exempt from reporting obligations in accordance with the provisions of the Russian Accounting Law (Article 3, Clause 3 of the Federal Law of № 208-FZ of July 27, 2010).

Under the current conditions, it is worth emphasizing the need to systematize approaches to organizing international accounting at Russian enterprises. Companies that choose to apply international accounting standards for the first time often face a number of problems. Varieties of methods for transforming financial statements described in modern literature, variety of accounting systems that can be used to transform and compile final forms of financial reports and need for automation of processes are fragmented in various sources, which makes it difficult for companies to make decisions on accounting based on international principles.

Despite the existence of many factors that influence the appropriateness of preparing financial statements by Russian enterprises in accordance with IFRS and the problems that significantly complicate the implementation of international accounting standards at domestic enterprises, the number of organizations introducing IFRS into their accounting increases every year.

In accordance with this, there is a question regarding the methods which are used by enterprises to prepare financial statements in IFRS system.

The analysis of modern literature, devoted to the transformation of financial statements, showed a variety of ways of generating international financial statements [2], [3]. Among the authors of articles and manuals there is still no common practice of using clear definitions of various methods and no consensus on the number of alternative ways of reporting according to international accounting standards [4]. This disagreement in opinion is due to a variety of factors subjectively determined: accounting policy of the organization, peculiarities of accounting for the economic activities of each company, process of compiling financial statements and even organizational structure of the company [5].

2. Materials and Methods

Currently, there are many ways to transfer the data of RAS to IFRS, but at the same time, all these methods come down to three main ones: transformation, combine and parallel accounting (Figure 1).
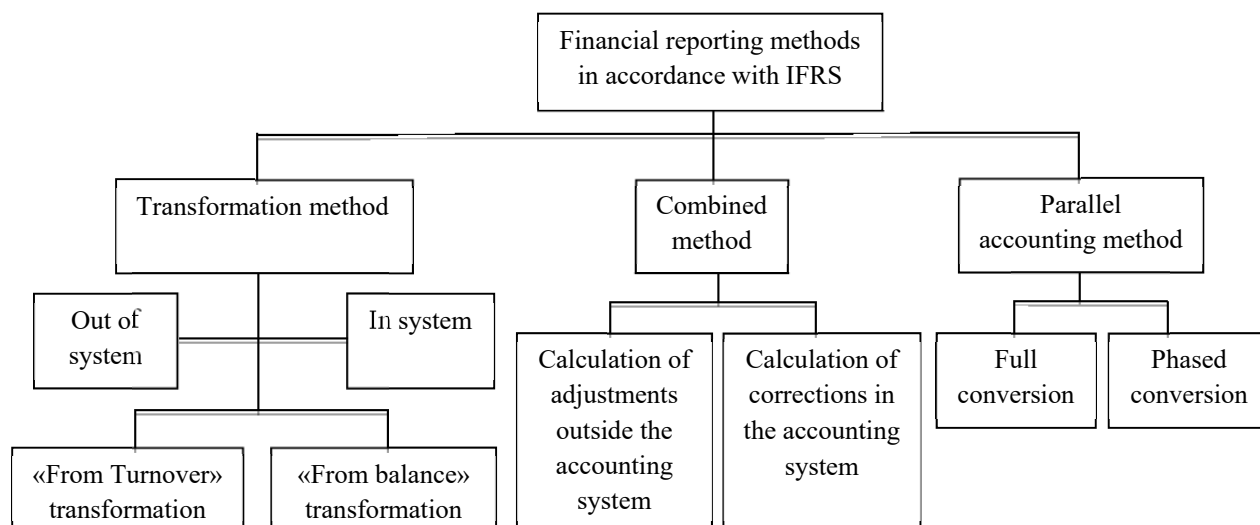

Figure 1. Methods for preparing financial statements in accordance with IFRS

Reporting transformation is the process of transferring accounting data compiled in accordance with national accounting regulations into a system of compliance with IFRS [6], [7]. The procedure is carried out by changing the initial credentials and transforming reporting items. The transformation of RAS statements to IFRS ones is carried out on ready-made RAS statements and additional data, such as balance sheet and cost indicators by analyst. Additionally, the procedure of reflecting transformational adjustments and reflecting additional transactions is carried out in order to bring

the value of assets, liabilities and capital to book value in accordance with international standards. Given the work already done to bring national standards closer to international standards, some companies may not need additional adjustments. A universal transformation process suitable for a wide range of organizations does not exist [8], [9]. Different initial data of companies, differences in accounting policies, good accounting practices, etc. affect the organization of the transformation procedure. The generalized transformation process is presented in the Figure 2.
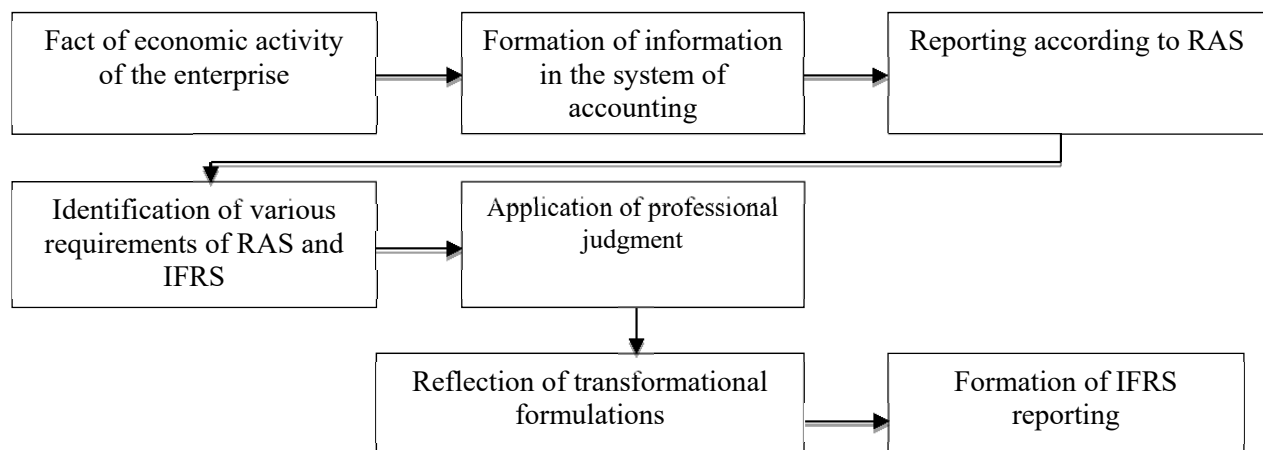
Figure 2. Process of reporting under IFRS transformation method

Reporting in accordance with the standards of IFRS using the transformation method is the least expensive of the considered methods. The cheapness of the transformation is due to the lack of the need for the introduction of additional specialized software. This method is suitable for small organizations [7].

Obtaining financial statements through data transformation most often occurs through Access or Excel.

There is no unified transformation methodology; an individual step-by-step algorithm will be developed for each organization, but modern Russian literature describes many approaches that can be taken as a basis.

An example of two main approaches to the formation of international reporting through transformation is:

1. "From Turnover" method;
2. "From Balance" method.

The first approach is based on the transfer of data from the trial balance of national accounting, compiled according to the IFRS chart of accounts. Transformational and reclassifying adjustments are made immediately on the indicators of trial balance of IFRS. Then, on the basis of the received turnover balance sheet IFRS, international financial statements are prepared [11], [12].

Distinctive features of the described method are as follows:

1. Process is subject to partial automation, for example, in terms of uploading data to IFRS accounts;
2. Transformation and reclassification can be reflected not only by the upper level of accounts, but also by analyst, which will make it possible to formulate the data of the sections of assets and liabilities in more detail.
3. Ability to reflect adjustments by making changes at the level of data transfer from the trial balance of RAS to the trial balance of IFRS.

The negative aspects of the described method include:

1. The need to develop an individual chart of accounts of IFRS, on the basis of which the turnover balance sheet of IFRS will be formed;
2. It is possible to carry out some transformational adjustments only with the help of calculation tables, which will also need to be developed separately or using the appropriate settings in a specialized accounting program.

Transformation on the basis of another "From Balance" method is based on shifting the data of financial statements prepared according to RAS to indicators of similar IFRS forms [13].

The positive aspects of the described method are:

1. An easy option of partial automation of transformation, both at the level of spreadsheets and at the level of the accounting system of the organization. The peculiarity is that regardless the accounting software product, financial statements are prepared in accordance with the regulated form;
2. A significant reduction in labor and time resources due to the lack of a step for the transformation of trial balance indicators and the formation of financial statements based on the indicators obtained;
3. There is no need to draw up a detailed chart of accounts of IFRS;
4. Simplicity in reflecting adjustments, because the data obtained are displayed directly on the lines of the balance sheet.

The negative aspects of the method include:

1. Difficulty in generating transcripts for reporting due to the lack of adjustments at the analyst level;
2. Emergence of additional transformational and reclassifying adjustments due to the lack of direct mapping (compliance map and rules) of RAS reporting to IFRS reporting.

The choice of transformation reporting approaches depends on many aspects. For example, if a company decided to choose a transformation method as a method of generating international reporting, while planning to make reports on a regular basis, it is preferable for this company to make small financial investments to develop a chart of accounts and partially automate the transformation and use "From Turnover" method [14], [15].

If the company's need for transformation is one-time, or the transformation is carried out by an independent consulting organization, in this case, it is more advisable for the company to choose the "From Balance" method [16].

Systematic information on the transformation of reporting is presented in the Table 1.

Table 1. Description and features of the use of the transformation method

Transformation method	Description of transformation method	Features of use

Transformation outside the accounting system	▪ Transformation is carried out on the basis of the forms of Russian financial statements, the data of which are transferred to the corresponding reporting forms in accordance with IFRS and then the adjustments are made at the level of reporting lines in accordance with IFRS;
	▪ Selected method does not use transactions according to the data of analytical accounting and does not form the movement of accounts in the context of analytical accounting;
	▪ Preparation of explanations for reporting when choosing this method is difficult;
	▪ Preparation of financial statements using the external transformation model is most often carried out by third-party specialists;
	▪ Transformation is carried out manually by transferring the data of the trial balance of RAS indicators to the trial balance of IFRS and provides for:
	  ○ development of a set plan for IFRS;
	  ○ development of spreadsheet add-in for partial automation of transformation and subsequent reporting collection based on the indicators of the trial balance of IFRS.
		Used by small companies as a short-term and low-cost solution to the task of reporting in accordance with IFRS
		
		Used by small companies planning regular preparation of international reporting, but not ready for significant financial costs.

Transformation within the accounting system	▪ Transformation is carried out in an automated mode and provides for:
	  ○ development of a chart of accounts in accordance with IFRS;
	  ○ consolidation of the rules for transferring data from trial balance of RAS to trial balance of IFRS
	▪ Special module is used, which reflects corrections for automatic and manual transformation;
	▪ Data from trial balance of RAS is transferred to trial balance according to IFRS accounts, which subsequently reflect transformational transactions, based on the received trial balance of IFRS, financial statements are prepared in accordance with IFRS.
		Used when the company is ready to develop an information system architecture for the purposes of something

Companies that have made the decision to prepare international financial statements for the first time need to study the "Model for transforming financial statements of RAS into International Accounting Standards (IAS)", developed by Carana Corporation in implementing the main objectives of the project

"Accounting Reform in Russia" [17]. Generalized approach to the transformation of financial statements in accordance with the Carana Corporation model is presented in the Table 2 [18], [19].

Table 2. Transformation of financial statements in accordance with the Carana Corporation model

Transformation form of financial statements	Features of the application of the financial statement transformation form
Complete transformation	If necessary, transformational and reclassification adjustments are made; No adjustments reflecting the effects of hyperinflation; Financial performance is not translated into foreign currency.
Complete transformation with hyperinflation	Includes full transformation adjustments; Additionally, adjustments are made to reflect changes in the purchasing power of money; Financial performance is not transferred into foreign currency.
Complete transformation taking into account the requirements for translation of indicators in foreign currency	Adjusts two previous approaches; In addition, adjustments are made to convert to stable foreign currency in order to be able to compare them with similar foreign companies or to consolidate with a foreign parent company.

The transformation sequence, broken down into stages, is the most structured and sequentially presented in the Figure 3.

In our opinion, this scheme is most systematized in terms of the approach of reporting using the transformation method
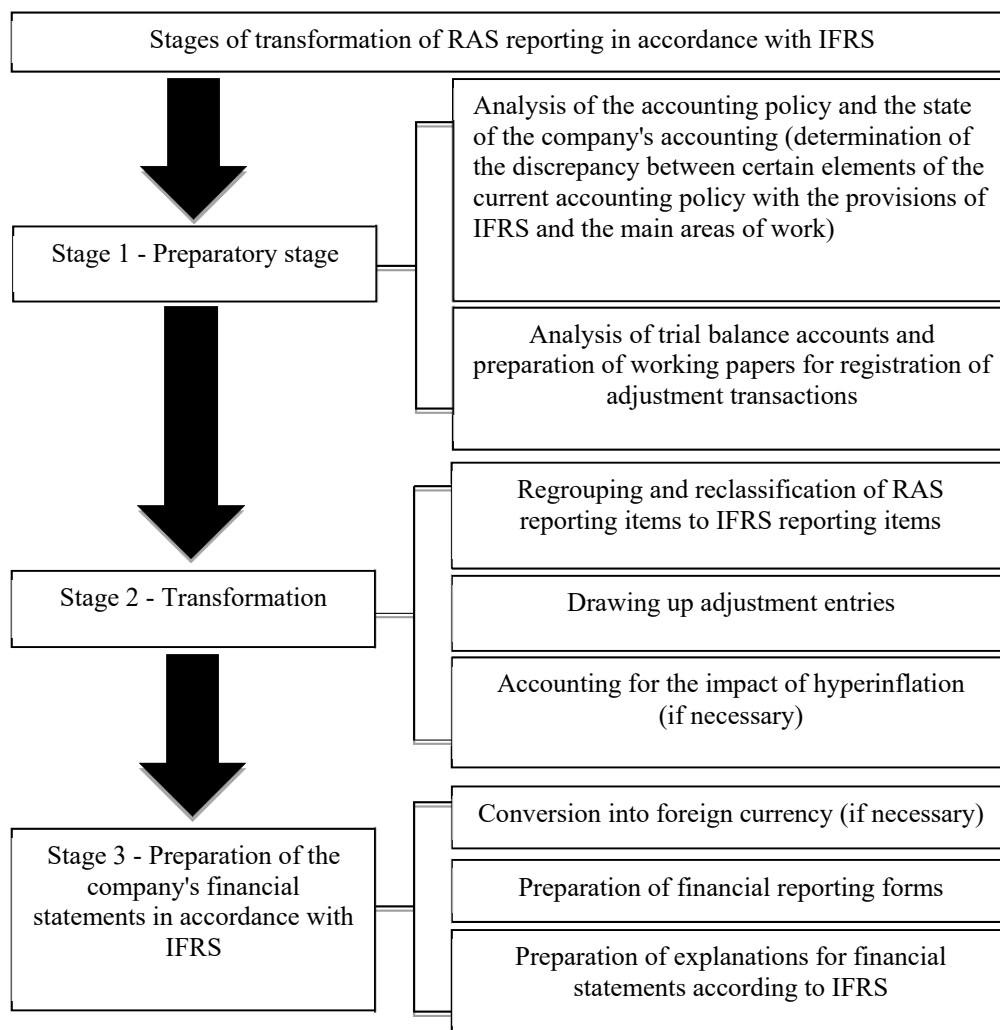

Figure 3. Stages of transformation of RAS statements to IFRS statements

The advantage of transformation over other methods of compiling international reporting are the following indicators:

- low level of labor costs;
- lack of need for significant financial investments;
- speed of implementation of the method;
- significant economic advantages over other methods;
- simplicity in training.

In the context of the organization's needs, the company should resort to the parallel accounting method procedures to generate regular with a high degree of accuracy and the ability to detail financial information in accordance with the principles of IFRS, as well as take into account the potential for the formation of managerial analytical reports.

The conversion method involves parallel accounting simultaneously in two accounting systems, built on the principles of RAS and IFRS. Another option involves the availability of specialized software that allows generating two types of financial statements in accordance with national accounting standards and in accordance with IFRS [20].

The use of certain software products allows the parallel formation of two types of documents in two accounting systems at the same time by entering information that reflects the fact of the financial and economic activities of the enterprise.

The introduction of parallel accounting requires the company to have significant financial outflows in terms of acquiring specialized programs, developing a methodology and model for accounting, internal organization of accounting, etc. Subsequently, with competently configured processes, only maintenance and a small adjustment will be required in case of changes in the legislation or accounting policies of the organization. The generalized process of reporting using the conversion method is presented in the Figure 4.
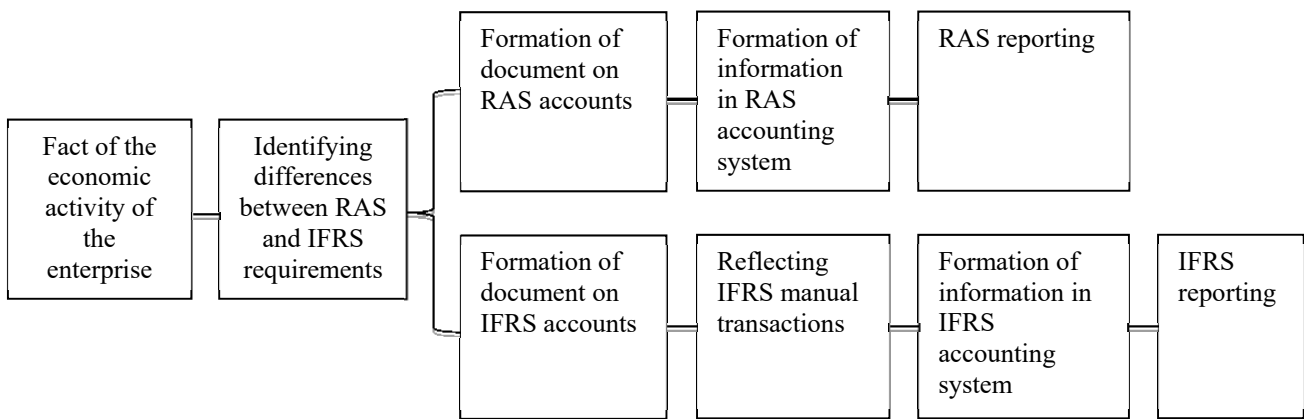
Figure 4. IFRS reporting process using parallel accounting

Parallel accounting can be carried out by organizations in the following ways:

▪ method of phased conversion;
▪ method of complete conversion.

Phased conversion is typical for companies that have partially implemented accounting automation. The automation process in this case occurs sequentially from one accounting area to another. For those areas that are not yet automated at a certain stage, it is necessary to make manual adjustments [21].

Complete conversion, on the contrary, is possible with full automation of parallel accounting in the organization. Having fully adjusted the processes of parallel accounting, the company has the ability to generate a complete package of financial statements in accordance with RAS and IFRS.

We can consider the features of the application of the translation method. It involves filling in separately allocated international accounting registers, based on specially developed rules for compliance of Russian accounting accounts with a new, also newly developed, IFRS chart of accounts. data mapping, and also by making transformational and reclassifying entries in the IFRS accounting system or calculated separately, based on specially built algorithms. It is worth noting that the conversion of data whose accounting in the Russian system differs significantly from the principles of international reporting (for example, accounting of fixed assets and intangible assets (intangible assets)) can be carried out using parallel accounting.

Unlike the transformation method, the translation method allows seeing the transactions that form the indicators of the financial statements of IFRS. The translation method differs from the parallel accounting method in terms of implementation costs, since there is no need to develop procedures for filling in each primary document [10].

However, the process of introducing translation is quite laborious, due to the need to refine an existing or introduce a new system that allows direct transmission of data from Russian accounts to accounting accounts developed in accordance with IFRS principles. In our opinion, it has received the least attention in the specialized literature.

The analysis of the above methods, with which the process of reporting in accordance with the principles of IFRS can occur, helped to identify the advantages and disadvantages of each one. It also helped to develop a methodology for choosing the optimal transformation method, taking into account the individual needs of organizations. However, it is worth noting that the reliability of the information obtained as a result of the information depends to a greater extent on the qualifications and knowledge of the employee who is carrying out the transformation. But given that the activities of many companies have their own specifics, it is more expedient to involve internal employees of the organization in the process of preparing financial statements in accordance with IFRS principles.

3. Experimental Part

For organizations that have decided to generate international financial statements, it is very important to correctly determine the most optimal way for them to transform data. Depending on whether the organization will transform the reporting, keep parallel records or broadcast data based on the results of the period, the further work plan for the preparation of reports in accordance with international standards depends.

During the study, a number of criteria were identified that, according to the authors, are the most universal:

▪ Accuracy of the data. Depending on the objectives of reporting in accordance with IFRS, company management may decide to have assumptions. For example, when choosing a transformation method, the error in the financial

reporting indicators can be very high, since only the so-called material items are corrected in its process and a lot of value and professional judgment are used (various accruals without primary documents, amount of impairment of assets, determination of fair value in the absence of liquid market for this type of asset, etc.).

- Formation time. This indicator directly depends on the amount of manual labor involved in the chosen method of transformation.
- Flexibility of the formation period. Based on the goals of preparing financial statements, company management determines how often reporting will be compiled according to international standards.
- Labor costs. This indicator describes the company's willingness to allocate labor resources for reporting.
- Cost of implementation. The main factor of this indicator is the financial resources allocated for the adjustment of the reporting system in accordance with IFRS. It is influenced by many factors such as: structure of the enterprise, type of activity, goals of reporting, software used for accounting in accordance with RAS in an enterprise, etc.
- Implementation period. It shows how much the company is ready for long-term serious projects or reporting is one-time.
- Sensitivity to executor change. Determines how much the system should be self-sufficient with a certain level of IT support. For example, a change of specialist in IFRS when using the transformation method can significantly change

financial reporting indicators, since this method is based on the professional judgment of the specialist.
- Control of turnover indicators. It adjusts the degree of detail required.
- Ease of automation. It shows the company's need for process automation. When choosing a transformation method, automation may be minimal at the level of creating Excel. When choosing a parallel accounting method, on the contrary, automation is necessary.
- Based on these criteria, in order to determine the best way to generate financial statements in accordance with international standards, a concept for selecting a method was developed.

The correspondence of the selected criteria to the transformation methods is given in the Table 3. The unit corresponds to the lowest criterion in the selected method, the triple to the largest. So, for example, the indicator "flexibility of the formation period" has the smallest indicator by the method of transformation, since IFRS reporting when choosing this method can be generated only after reporting according to RAS; it has an average indicator corresponding to the translation method, since the formation period directly depends on the broadcast settings; it has the highest rate using the parallel accounting method, since the selected method maintains independent accounting in accordance with IFRS, which makes it possible to generate reports regardless of the availability of financial statements under RAS.

Table 3. Compliance of the selected criteria with the transformation methods

Transformation method selection criteria / Transformation method	Accuracy	Formation time	Formation flexibility	Labor costs	Cost	Implementation period	Sensitivity to executor change	Turnover control	Ease of automation
Transformation	1	1	1	3	3	3	1	1	3
Translation	2	2	2	2	2	2	2	2	2
Parallel accounting	3	3	3	1	1	1	3	3	1

Using the built-in Excel functionality, conditional formatting using a three-color scale, colors are assigned to various indicators of the correspondence table, where red is the lowest indicator, yellow is the average indicator, and green is the highest indicator.

Using the method of pairwise comparison (it is a statistical technique), which is a more sophisticated method of ranking works, we obtained interval scales of perceptual qualities in visualization applications [10]. This allowed us to determine confidence intervals and critical values for differences. This technique requires comparing each criterion as a whole with each of the remaining ones. If one of the criteria is considered to be of greater value than the one with which it is compared, it receives two points;

if it is considered less important, it receives one point. For each criterion, accumulated points are summarized and a rating is compiled. Next, the average indicator of each criterion is calculated, and using the built-in Excel functionality, a color marker is assigned to each average indicator (in accordance with the three-color scale selected earlier).

In the compliance table, the criteria are ranked in descending order (Table 4). The average score for each criterion is substituted into the table of correspondence of the criteria to the transformation methods. The criterion index should be indicated by the line of the method to which the color marker corresponds.

Table 4. Matrix of pairwise comparison

Transformation method selection criteria / Transformation method	Accuracy	Formation time	Formation flexibility	Labor costs	Cost	Implementation period	Sensitivity to executor change	Turnover control	Ease of automation	Total points	Average value
Accuracy										0	0.0
Formation time										0	0.0
Formation flexibility										0	0.0
Labor costs										0	0.0
Cost										0	0.0
Implementation period										0	0.0
Sensitivity to executor change										0	0.0
Turnover control										0	0.0
Ease of automation										0	0.0

4. Results

With a view to the need to present internationally comparable accounting information and the application of IFRS, we have developed procedures for the transition of a Russian company to the formation of consolidated international reporting.

Gentilin Group (the name was changed for confidentiality purposes) consists of the parent company Gentilin LLC, as well as its subsidiaries and controlled companies. The main activity is the development and provision of cloud services. The activities are conducted exclusively in the Russian Federation. Gentilin Group includes such activities as the development of services in the field of digital technology, as well as the sale of network equipment. Gentilin management plans to develop its foreign economic activity, both on the scale of the existing business, and with a possible expansion of the spectrum of operations in the future, including attracting external financing.

As a part of the strategy under review, the parent organization of the Group decided to analyze the transition to the preparation of consolidated financial statements, taking into account the application of the principles of preparation of international reporting. The main step in preparing a business plan for the transition to the formation of consolidated financial statements was to resolve the issue of the ratio of the costs of preparing financial statements in accordance with IFRS and the potential benefits of its preparation. The authors developed an algorithm for the transition to reporting in accordance with IFRS, and together with the Group's financial director, a draft report was prepared containing an initial assessment of the project cost.

Preparation of a financial reporting pro forma saved time by working with fewer reporting comparative dates, periods and disclosures. During the pro forma audit, the company agreed with the auditors on accounting policies, key approaches and value judgments. In addition, at the pro-forma level, the financial reporting template, the scope of disclosures, and all significant adjustments were checked with the auditors.

The preparatory stage ensured the timeliness of the applied judgments and assessments, gave time for planning the process, determining the necessary resources and IT systems, their acquisition, staff training, developing accounting policies, attracting the necessary experts and resolving other issues closely related to the implementation of IFRS in the company.

Considering the provisions of IAS 8 "Accounting Policies, Changes in Estimates and Errors", the company has the right to draw up an individual chart of accounts that includes all the features of doing business. As it is known, in the absence of this document, double-entry accounting is not possible, in this regard, Gentilin has formed its own IFRS chart of accounts and approved it as an appendix in the accounting policy. When creating an individual IFRS chart of accounts, one of the most common structures was used:

- The first block includes balance accounts compiled in accordance with the balance sheet structure (accounts of assets, liabilities and capital).
- The second block contains expense accounts of income and expenses.

Using this structure, company financiers can get an initial idea of the financial reporting data based on the results of the formation of the balance sheet.

The structure of the statement of financial position was approved in accordance with the structure of the balance sheet in Russia: items are listed in order of increasing turnover. Based on the above principles, Gentilin Chart of Accounts has the following structure:

- 1XXX – Fixed assets;
- 2XXX – Working assets;
- 3XXX – Capital;
- 4XXX – Long-term liabilities;
- 5XXX – Short-term liabilities
- 6XXX – Incomings;
- 7XXX – Outcomings.

The first section of the code determines the entry into the structure of the chart of accounts of IFRS; the second section is the top level of accounts for which financial statements is generated; the third section is the group account of RAS; the fourth section is sub-accounts to RAS accounts.

The final stage of the transition to the preparation of financial statements in accordance with IFRS was the choice of a method for generating international accounting data. According to the above concept of the choice of a method, nine basic criteria for choosing a method of transformation were analyzed. Using the matrix of pairwise comparison of the selected criteria, the point indicators of each of the criteria are summed up and the data obtained are ranked. Thus, it was concluded that the method of translation was chosen as the most suitable for the group method of transformation of Russian accounting data in accordance with international standards.

As the final stages of the methodological block of the tasks of the transition to the preparation of financial statements based on the principles of international accounting, an analysis was made of the systems in which the subsidiaries of the group of companies keep Russian records, and a choice of software was proposed, with the help of which the individual and consolidated reporting forms. The successful implementation of international standards in an organization depends not so much on the consistent implementation of all of the above steps, but on competently configured process chains.

5. Conclusion

The indisputable advantage of the translation method over the transformation of reporting is the ability to see postings. Using the transformation method, it is possible to see exclusively aggregated data, such as the volume of fixed assets received, while data translation allows considering the postings that formed a particular reporting indicator. The details of the postings will depend on the degree to which the analysts of the accounts have worked out both RAS and IFRS.

Data translation is based on RAS accounting entries reflecting the fact of conducting business activities in the organization's accounting system. The data received on the accounts of Russian accounting are transformed into data on the accounts of international accounting using the specified algorithm, data mapping (or in another way, "correspondence table"). The mapping model, as a rule, is prepared using Excel, and then transferred to the existing accounting system. But before we go directly to the broadcast, we have to go through the preliminary stages of preparation.

To ensure the correct coordination of the Russian chart of accounts with the chart of international accounts, the Russian ones are supplemented by the necessary number of additional sub-accounts and analysts. In order to mitigate the additional burden on bookkeeping resulting from the expansion of the chart of accounts and the need to fill out additional analytics, as well as to improve the quality of the broadcast data, the bookkeeping management jointly with the IFRS department needs to develop a clear regulation on the formation of RAS operations on new sub-accounts, writing down the rules and standard transactions in the program.

At the planning stage, it is necessary to analyze the business transaction logs of all subsidiaries of the group and determine typical and non-standard accounting entries. Based on the data received, the RAS chart of accounts is reviewed and brought to a single standard. This approach will make it possible to formulate uniform rules for uploading data from Russian accounts to IFRS accounts.

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