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Development principles for preparing financial reporting in the context of digitalization

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Abstract. The information technology development and the digital economy have a significant impact on the business units' information system. The impact has resulted in a significant increase in the amount of business data used. With increased information availability, development of new processing methods and algorithms, the approaches to financial reporting need to be adjusted and modified. All changes to the basic principles of financial reporting have been included in the new version of the Conceptual Framework for Financial Reporting. It will come into force on January 1, 2020 for all business units developing their reporting policies under IFRS. The paper overviews the amendments and innovations introduced by the new version of this document. The Conceptual Framework dialectics has been reviewed based on all document versions since 1989. We analyzed the impact of digital technology on the transformation of accounting methods and principles and on the preparation of financial statements. The paper is of practical importance and helps to assess various areas of system development of the IFRS methodology in the context of digital economy.

Keywords: Conceptual Framework, Financial reporting, Digitalization, Principles.

1. Introduction

The system of international financial reporting standards is based on uniform approaches and principles determining the logics and goals of building such system, its key elements, their features and interaction. Conceptual Framework for Financial Reporting, or IFRS Framework, establishes the logics for building up the reporting information system. It determines the most important basic concepts of IFRS system. Not being a standard, the Conceptual Framework is the basis for all standards and deals with the key aspects of financial reports.

The approaches to financial reporting have changed with the changes in the economic environment; they reflected the processes in the global and national economies [1]. Principles of financial reporting in the public sector have been developed [2]. The realities of recent years included the new information technology, namely the digital one, the intensive development of which led to creating a brand-new concept of "digital economy". It is represented by various levels and has a significant impact on the business units' information system. A digital environment is being formed, which encourages development of platforms and technology, as well as effective interaction between various market players and economy sectors (areas of activity).

Digital technology has provided an unprecedented amount of business information used. As the result, for the last few years, the amount of information created has exceed more than twice that created for the entire human history [3].

The result was the growth of analytical and forecast value of reporting information about the business units' activity, the intensive use of which brought essential and substantive changes in the basic system of financial reporting [4].

Principles of valuation of accounting objects have undergone major changes [5]. In this regard, considering the dialectics of principles for preparing financial reporting is of great interest.

2. Methodology for preparing financial reporting according to the International Accounting Standards Board (IASB)

Adopted by the International Financial Reporting Committee in 1989, the first version of the document under consideration was entitled "Statement of Principles for Financial Reporting". In 2001, after the reorganization of the Committee into the International Accounting Standards Board, the document was adopted as a backbone for IFRS. It was entitled "Conceptual Framework for the Preparation and Presentation of Financial Statements" [6].

The problems of development of the principles for financial reporting are touched upon in the works of many authors. Hendriksen and van Breda noted that the relevance is the most important qualitative characteristic of financial reports [7]. Needles and Powers Ethics defined that ethics is an important problem in preparing financial reports [8]. "Users of these reports must depend on the good faith of the people involved in their preparation. Users have no other assurance that the reports are accurate and fully disclose all relevant facts".

The work on amending the Conceptual Framework to update and bring it closer to the approaches used in the US GAAP was finished in 2010 with the document entitled "Conceptual Framework of Financial Reporting" adopted. Structurally, the new Conceptual Framework included the text of the previous document version with some amendments and two new chapters: "Objective of General Purpose Financial Reporting" and "Qualitative Characteristics of Useful Financial Information". That is, the new document was not adopted in the final version, and work on it has continued.

In addition to a shorter title, the most important amendments to the Conceptual Framework as of 2010 included clarification of the financial statements' purpose and the changes in its qualitative characteristics. In particular, the objective of the financial statements, which is to provide useful financial information, has been preserved in the new version; however, the composition of users and the content of the reporting information have been adjusted. Existing and potential investors, lenders, and other creditors were listed as its users. In the 1989 version, the financial statement data included information about the financial standing, financial results, and changes in the financial standing. In the 2010 document, their list is not detailed, and the purpose of financial reporting was described as providing users with useful financial information to make decisions about earmarking resources for the relevant enterprise. At the same time, the focus was on the fact that users need information about the future cash flows with the enterprise.

Amendments were also made to the composition of the financial statement's qualitative characteristics. In the 1989 version, they included clarity, relevance, reliability, and comparability. The Conceptual Framework of 2010 identified two groups of qualitative characteristics: the basic ones and those improving the usefulness of the reporting information. The basic ones were relevance and truthfulness, the improving ones were comparability, verifiability, timeliness, and understandability. As for the changes in qualitative characteristics, it should be noted that the reliability has been replaced by veracity: prudence (caution) was removed from the list of financial statement characteristics with a new characteristic of "verifiability" introduced. Only one limitation was left, that is the cost of providing useful financial information. Therefore, with the growing need for forecast information in the financial statements, there were higher veracity and verifiability standards.

In March 2018, the International Accounting Standards Board released a new, revised version of the Conceptual Framework. The main reasons for adopting the new concept document were the inconsistency with modern thinking, the need to restore

some previously excluded important provisions, and the lack of clarity. All these reasons were mentioned by those criticizing the 2010 version of the Conceptual Framework. The expansion of public information scope in the context of the digital economy development resulted in another transformation of the requirements for the same, with new version of the Conceptual Framework for Financial Reporting adopted.

The new Conceptual Framework is more clearly structured; there are more chapters. Although the new version includes all the issues listed in the old document version, the latest format approved in 2018 is easier to search information. We can assume the 2018 Conceptual Framework has become complete as compared with the previous version, which was an intermediate stage of the work on the document.

The composition and number of objectives as defined for the Conceptual Framework have been significantly reduced in the new version. The IASB excluded detailing in defining the goals and objectives of the Conceptual Framework, which was present in the 2010 version, mainly due to the targeted use of IFRS by various users. The integration of objectives shall be recognized as an indicator of the maturity of the IASB's position.

Therefore, on the one hand, the influence of subjective factors in the IASB's activities is growing. On the other hand, it is obvious that the diversity of business units' activities does not always fit into the rigid principles established by the Conceptual Framework. This is especially true for the situation with the growth of information about business units in the context of digitalization. In particular, Big Data allows for processing virtually unlimited amounts of information.

The Conceptual Framework's section dealing with the qualitative characteristics of financial reports has been radically revised in the 2010 version (Macve R. 2015). In 2018, no major amendments were made thereto. As before, qualitative characteristics have been divided into fundamental ones, previously called basic, and those that increased the usefulness of information. Disclosing the contents of these characteristics has been preserved in the 2010 format. The most important change in this chapter was that prudence has been re-added to the list of financial statement characteristics (Efimova, O., Rozhnova, O. 2019). Prudence is related to reporting neutrality and means that caution shall be used when using judgments under conditions of uncertainty. The use of prudence means that assets and income shall not be overstated, and liabilities and costs shall not be underestimated. This is done to prevent underestimating assets or income, or overestimating liabilities or costs. At the same time, the need for an asymmetric approach to different items is denied, while recognizing asymmetric requirements in some standards to choose the most relevant information.

Therefore, the restoration of prudence, traditionally used in the recognition and evaluation of accounting items, demonstrates consistency and continuity of the principles of financial reporting under IFRS. At the same time, an increase in the amount of information processed inevitably results in higher requirements for its qualitative characteristics, toughening individual principles to prevent information distortion and provide an objective basis for its auditing.

As a result of the increased amount of information processed, its limits have expanded in terms of using both reporting and forecasting data. In this regard, the IASB acknowledged in the 2018 version that the information usefulness might be reduced because of a high uncertainty of the estimates. In such cases, preference should be given to information that was less significant, but more clearly defined in the estimates. A landmark point was restoring the concept of substance priority over form in the Conceptual Framework, which was excluded in 2010. Adhering to these conceptual approaches has one goal: to truthfully present information in financial statements.

The terms and definitions used in the new version of the Conceptual Framework have also been amended. In particular, the concepts of assets and liabilities have been updated. References to compulsory confidence in the inflow (outflow) of economic benefits were excluded from their definitions while recognizing reporting items. This allows extending the list of items included in the statements, which is very

important for generating reliable information about the resources of the business unit in the context of big data processing.

At the same time, this will improve the accuracy of information about the assets and liabilities of the company, because the coverage of recognized objects will increase. The predictive nature of financial reporting, which would reflect a broader list of facilities, would also improve. The list of objects reflected in the financial statements will also be expanded by reflecting all the rights that the reporting entity has to benefit from the use of the asset and the obligation to transfer the benefits.

An important provision of the Framework is the evaluation of elements of financial reporting. The conceptual framework is established by two groups of estimates - "historical value" and "present value." The fair value may be fair value, reflecting the market value; the cost of use, representing the discounted value of future cash flows generated by the object; the fair replacement value, which is the price of acquisition of the equivalent asset at the valuation date. Fair value assessment requires the reporting entity to undertake serious work related to the collection, processing and analysis of various information. Large amounts of data must be used. The need to use predictive values complicates the valuation even when it comes to determining historical value. For example, the acquisition cost of fixed assets (IAS 16) or rights to use a leased asset (IFRS 16) includes the cost of liquidating the asset at the end of its use. In order to determine the capitalized value, it is necessary to establish: cost amounts,

Which will allow for its liquidation, which is expected to take place in many years, the establishment of a discount rate, and the subsequent continuous monitoring of possible changes in these figures, as well as the date of liquidation, will be necessary. It is digital technologies that provide relevant and reliable information and reduce the risks of non-recognition of objects in financial reporting.

The relevance and reliability of the reporting information depends to a large extent on the quality of the source data, their adequacy, compliance with the task to be solved, reliability, as well as the speed and depth of their analysis, including their classification into different groups. In this case, it is no longer limited to financial information, information of a non-financial nature is also necessary, it helps to obtain a complete picture of events and to verify financial data. In this way

At the same time, real achievement of relevance and reliability of reporting information, timely and truthful reflection only of real assets and liabilities, income and expenses, becomes possible only in conditions of application of digital technologies. It is the development of these technologies, such as advanced analytics tools using BIG DATA, that allows the fundamental provisions of the Financial Reporting Framework to be implemented in practice.

3. Data and Methodology

The Russian economy which is highly dependent on oil and gas exports is now faced with a decline in Petro-dollars because of falling oil prices. Under new circumstances, Russian leaders have to decide how to reduce the energy resource dependence of the economy and, therefore, pay close attention to tourism and hospitality as potential drivers of the national economy. Given Russia's significant tourism potential in the world market, it is necessary to divert the country's economy from product dependence, identifying the main problems of competitiveness and financial support for the tourism industry in digital age in terms of increasing its export potential and ensuring a high level of attractiveness of tourist destinations in the formation of an effective program for the development of inbound tourism.

The authors used such methods as theoretical modeling and analysis. Official statistics and analytical reports of Statista, Inc., UNWTO, WTCC and Russian federal authorities served as the information basis of the study.

4. Transformation of the Companies' Information System in the Context of Digitalization

Corporate information systems have undergone significant changes in the context of automation and digitalization. These transformations have a significant impact on the development of an accounting model that allows for solving complex information processing tasks. A special place among modern information systems is taken by innovative systems that are based on the use of artificial intelligence technology, big data processing, the emergence of new analytical tools and cloud services.

Digitalization of economic processes has presented new requirements for identifying accounting and analysis objects and structuring accounting and analytical information using cloud technology. This happened due to the fact that processing of large amounts of data and its analysis can significantly increase the efficiency of production and commercial cycle processes. The ability to provide digital products and services has become vital in the context of the 2020 economic crisis that is aggravated by the coronavirus pandemic.

As digitalization processes continued to develop, new hybrid and modifiable accounting items emerged in corporate practice: digital assets, electronic money, virtual digital property, smart assets, smart contracts, blockchain, etc. This list is updated regularly as the information technology develops. Methods advance to allow evaluating new accounting objects: intellectual human capital, customer base, innovative products, etc.

In the context of digital technologies, there is a tendency to converge, deepen relations with users of reporting information. Working with them is individualized, the company is involved in the interests of investors and creditors, sensitive to their preferences. In these conditions, the flexibility of the reporting information is important, and it is possible to fill it with the data that is currently needed by a particular user. The format of financial reporting is increasingly expanded by non-financial information. Digital technologies save transaction costs and provide new potential for the development of a reporting information system. In this regard, it makes sense to assess the feasibility of the general user concept of financial reporting and its replacement with individual reporting. Financial reporting should not be driven only by the requirements of laws, regulations and standards. This inevitably leads to the depreciation of reporting information and formalizes the process itself. Admittedly, digital technology has provided unprecedented openness to today's business, and financial reporting has ceased to be the sole source of business information. The content of reporting should be based on information requests and expectations of specific users, provide them with real tools to solve their problems.

The speed of information exchange in the modern economy has a huge impact on the functioning of a corporate information system. Information sharing speeds up in conjunction with the expansion of circle of stakeholders, i.e. persons who are involved and interested in economic processes. To maintain communication and to preserve control when managing an economic entity, one needs to master modern digital tools. They allow to quickly monitor the processes occurring in the company's management systems. XBRL is such a digital tool, which is a format for transmitting regulatory, financial, and other reports.

Digitalization of the economy has significantly changed the nature of competition. From costs, competition has shifted to creativity. Creativity, innovation, non-standard thinking can give competitive advantages to companies. Creativity is evident not only at the technological and organizational level. Accounting and financial reporting are becoming creative. The development of a creative approach in accounting and financial reporting is related to the complexity of business processes,

the absence of appropriate regulations for new accounting objects and new technologies. Creativity in financial reporting is manifested in the use of an accountant's professional judgment to report innovations. The purpose of creative financial reporting is to overcome the limitations of existing accounting standards, to include forecast estimates and really necessary and useful information in the reporting. The conceptual basis of financial reporting should introduce into the normative plane both creative accounting, professional judgment of the accountant, and observance of professional ethics.

Expansion of information boundaries of financial reporting in conditions of digitalization, inclusion of forecast information and information resulting from professional judgment of the accountant, bring to the fore the problem of subjectivity and risk of fraud in reporting. The value of financial information under such conditions can be significantly reduced [9]. In order to protect the interests of users, it is necessary to establish reasonable boundaries for the creativity of financial reporting. The concept of accurate and honest reflection of information continues to be the philosophical basis of accounting. The return to the Financial Reporting Framework of the discretion requirement underscores this. However, objective strengthening of creativity in reporting requires guaranteed observance of the right of users to quality information. A fair reflection of creative reporting information can be considered a reflection that does not mislead users or lead to financial losses.

The largest consequence of digitalization for financial reporting is the use of blockchain technology. Many companies are already introducing blockchain into their resource planning systems to manage purchases. Blockchain technology allows safe registration of transactions, ensures transparency and reliability of information. However, its implementation in companies is hampered by the complexity and lack of a regulatory framework. Accountants have yet to understand the new trend and assess its impact on financial reporting.

5. Principles for Preparing Financial Statements in the Context of Digitalization

Digital transformation of the information space involves not only changing the technology of obtaining, storing and using financial information but also adjusting the methods for collecting and processing information in accounting as well as its systematization in financial statements. These processes require developing and supplementing the system of principles for reflecting accounting information and for preparing financial statements.

An important principle in the preparation of financial statements is the uncertainty management principle. It involves building up a company's threat and risk management system. This allows for identifying and evaluating risk parameters and indicators that appear based on accounting and management data. As a result, financial statements will include a comprehensive assessment of threats to the company's development. All stakeholders will be able to respond promptly to such threats; that is, implementing the uncertainty management principle will provide information support for financial statements and the focus on further assessment of conditions under which threats and risks appear.

The principle of openness should be mandatory in the preparation of financial statements. This principle implies the reliability and verification of information, the use of a convenient report format, the timely publication of reports, the studying of interests of various stakeholder groups, and taking into account the identified expectations for reporting information.

Implementing the adaptability principle will ensure the ability to adapt to transformation, shifts and modifications of the company's reporting information system, taking into account external and internal requirements.

The comprehensiveness principle in the preparation of financial statements means that all subsystems and elements of the company's activity must be intricately linked to each other. The use of this principle will allow to comprehensively identify the company's functioning problems that relate to economic, social, scientific, technical, environmental, legal and other areas, and to reflect them in statements.

The predictability principle is based on mandatory taking into account the probable nature of real processes in the corporate development to ensure sustainable development and achievement of high performance through forecasting income and expenses.

The principle of self-development and self-learning implies the ability to develop the business entity based on creating its information system in line with the requirements of the knowledge and innovation economy. It involves developing a large communication network between all interested parties.

The information security principle is based on mandatory creating and maintaining the information and accounting environment security. It involves the ability to use "smart contracts".

The visualization principle is based on creating an informative and user-friendly form for presenting reporting information.

The principle of close cooperation with various groups of interested market players. This principle involves building up reporting information taking into account the expectations of all stakeholders.

The system consistency principle means providing for a coordinated interaction between all subsystems of the reporting information preparation system.

The synergy principle considers the need for cooperation between companies and stakeholders and influencing the accounting and reporting information system, aiming at changing the performance through the emergence of new qualities of such system.

6. Results

When it comes to financial reporting in a digitalized economy, the most important thing is to ensure its qualitative characteristics, not to lose user confidence in the reporting information. Therefore, recognition of reporting items is linked to the fundamental characteristics of the reporting information: relevance and reliability. The IASB did not take the path of increasing the financial information uncertainty and riskiness, which could manifest themselves in the context of lower limits for recognizing individual items. Quality content of financial statements remains the most important task for informed economic decision-making.

Digitalization of the economy has had a significant impact on the reporting information system. Increased communication with users and the development of non-financial reporting require greater flexibility and user-oriented financial reporting. This can be facilitated by the concept of the individual usefulness of financial reporting, aimed at meeting the interests of specific groups of users. This approach will stop the impairment of financial reporting information that is currently taking place.

Digital technology has made creativity a competitive advantage. Financial reporting has also become creative, based on the professional judgement of the accountant and the observance of professional ethics. These issues should be included in the Financial Reporting Framework in order to enable the legal field to make a decision on the generation of reporting based on professional experience and expertise. To limit the risk of fraud in financial reporting, it is necessary to establish the boundaries of creativity. The main criterion may be the absence of financial losses for users of information.

The use of blockchain technologies in financial reporting is subject to serious

reflection in the future. Technical difficulties and lack of regulatory frameworks have so far limited the ability to assess the impact of this innovation on financial reporting. But it is likely that these issues will be the subject of professional debate in the years ahead.

7. Conclusion

The purpose of this paper was to review the dialectics of the Conceptual Framework for Financial Reporting and to assess the impact of the economy digitalization on the development of financial reporting principles. The analysis of the various versions of the Conceptual Framework and, primarily, that of 2018, showed that amendments made to the latest version have made the document more convenient. Structuring by chapters better reflects the document content and makes it easier to find the necessary information. Work is underway to formulate and summarize the Conceptual Framework objectives, the number of which is reduced to three. With significant expansion of the information processed in the context of economy digitalization, as well as the influence of the subjective factor needed more rigorous reporting approaches. Therefore, prudence has been re-added to the list of financial statement characteristics. This was done to prevent distortion of the reporting information and increase its relevance. The use of forecast information in the statements shall not reduce its veracity. Preference shall be given to information based on more specific estimates.

Further development of the Financial Reporting Framework should take into account the processes taking place in the economic and technological environment. They are related to changes in the reporting information system, promotion of non-financial reporting, orientation to specific information requests of users, expansion of the scope of application of professional judgment, ensuring reliability of financial reporting in conditions of digital transformations.

The study could not cover all existing problems. But consistent work to address them will make significant progress in the area under consideration and determine the role and place of financial reporting in a changed world.

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Aims and Objectives

Published online by ICS two times a year, Journal of Digital Science (JDS) is an international peer-reviewed journal which aims at the latest ideas, innovations, trends, experiences and concerns in the field of digital science covering all areas of the scholarly literature of the sciences, social sciences. The main topics currently covered include: Digital Communications and Network; Digital Economics, Education, Engineering, Finance, Health Care.

The main goal of the journal is the effective dissemination of original incites/results generated by the human brain and presented/reflected in articles using modern information/digital technology.

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