RELEVANT PROBLEMS OF INTANGIBLE ASSET IMPAIRMENT IN THE RUSSIAN IT INDUSTRY

PROBLEMAS RELEVANTES DE IMPARIDADE DE ATIVOS INTANGÍVEIS NA INDÚSTRIA DE TI DA RÚSSIA

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Resumo: A indústria de TI está evoluindo rapidamente e começando a penetrar em todas as áreas da vida. As grandes empresas estão a formar ecossistemas que lhes permitem expandir e diversificar significativamente as suas fontes de rendimento. No caso da indústria de TI, o desenvolvimento da base de software para a implementação de tais ecossistemas depende diretamente de novos produtos de software, patentes, tecnologias e know-how, que na contabilidade moderna são maioritariamente classificados como ativos intangíveis. Assim, examinar o impacto de fatores externos e internos na imparidade deste tipo de ativos é uma questão de grande relevância na conjuntura atual. Este artigo se concentrará nos ativos intangíveis das principais empresas russas de TI, como Yandex e VK.Group. O estudo inclui uma análise da literatura relevante e do quadro regulamentar sobre imparidade de ativos intangíveis, bem como um exame da dinâmica do desempenho da demonstração da posição financeira do Yandex e do VK.Group relacionada com esta questão. A pesquisa pretende delinear as especificidades da redução ao valor recuperável de ativos intangíveis na indústria e as questões que surgem durante esse processo. Com base nos resultados, as empresas de TI ampliaram sua base de ativos devido à expansão ativa de serviços e fontes de renda. À medida que a Yandex se expandiu, a sua quota de ativos intangíveis aumentou, enquanto o VK.Group reduziu a sua quota de ativos intangíveis.

Palavras-chave: Ativos Intangíveis, Imparidade, TI, Ecossistema

Abstract: The IT-industry is evolving rapidly and beginning to penetrate all areas of life. Large companies are forming ecosystems that allow them to significantly expand and diversify their sources of income. In the case of the IT industry, the development of the software base for implementing such ecosystems depends directly on new software products, patents, technologies and know-how, which in modern accounting are mostly classified as intangible assets. Thus, examining the impact of external and internal factors on the impairment of this type of asset is a highly relevant issue in the current environment. This paper will focus on intangible assets of major Russian IT companies such as Yandex and VK.Group. The study includes an analysis of the relevant literature and regulatory framework on intangible asset impairment, as well as an examination of the dynamics of Yandex and VK.Group's statement of financial position performance related to this issue. The research is planned to outline the specifics of intangible assets impairment in the industry and the issues that arise during this process. Based on the results, IT companies expanded their asset base due to the active expansion of services and sources of income. As Yandex expanded, its share of intangible assets increased, while VK.Group reduced their share of intangible assets.

Keywords: Intangible Assets, Impairment, It, Ecosystem

INTRODUCTION

In today's world, the digitalization and informatization of both operational processes in business and everyday private life is actively taking place. Digitalization or digital transformation can be defined as the process of introducing information technology in various fields of activity, aimed at transforming, optimizing and accelerating the existing paradigm of systems operation (Bekmansurov et al., 2019). The process of digitalization itself is a wide field of analysis for research, with many articles published in academic journals on how it is achieved in different areas of economic and social activity. It may be noted that the process is two-way interconnected: some consumers are embracing the new digital technologies - companies are adapting their operations to the new technologies - all consumers are adopting the new system of operation. However, the intermediary in this algorithm, on both sides, are IT companies offering digital solutions to both consumers and businesses (Xiong et al., 2022).

The turning point in modern digitalization is the transition of IT companies to an ecosystem approach. An ecosystem in information technology has to be defined as a set of services, devices, other products supported and developed by one company, or services, devices, other products of different companies that are inextricably linked into a single network by certain organizational and technological processes (Žunjić et al., 2022; Zainal et al., 2022). Contemporaneously, the approach itself is not new and has been used by IT companies since the 2000s. For example, Apple uses this approach to form a network of interconnection of its mobile and stationary devices by synchronizing operating systems within a single user account. However, a feature of such solutions in foreign practice is the use of solutions within their own products, mainly within the same industry (Konopatov & Salienko, 2018). Large Russian IT companies have found a strategic application for this method - diversification of income and development of new industries.

The origin of this trend took place in the early 2010s, when Yandex gradually began to create IT solutions for other market sectors, expanding its areas of activity. The most striking example is the creation of the Yandex.Taxi aggregator in 2012. Following it, similar events were noted in the services of Yandex's direct competitor - Mail.ru Group (From 2021 - VK.group). By 2020, the aforementioned companies began to operate in various industries (food delivery, social networks, music services, taxis, the Internet of things, and more), combining software products using centralized user management systems - aggregators (Yandex.GO, VK). At the end of 2020, Russia's largest bank, Sberbank, joined the two industry leaders, announcing a rebranding and transition to ecosystems with a central link - the bank's payment system. (Nabipour et al., 2021). The peak of ecosystem development and diversification of IT companies' sources of income occurred in 2019-2022, which is associated with an increase in demand for such services caused by the Covid-19 pandemic, as well as an increase in competition for new markets in the industry.

Undoubtedly, the expansion of the branches of activity of IT firms could not occur without the expansion of assets and changes in their structure. In the period from 2019 to 2022, the share of intangible assets of companies increased significantly. This fact is since the creation of such systems based on existing assets is almost impossible. Firstly, companies have significantly involved their own developers and actively patented new technologies. Secondly, to accelerate the introduction of their own solutions to new markets, companies actively bought out patents and technologies of local, industry IT firms, further increasing the share of intangible assets. In the context of a sharp expansion of the share of intangible assets, the question of the correctness of their assessment within the framework of the statement of financial position becomes acute. Thus, the author aims to study internal and external factors affecting the impairment of intangible assets and determine the potential for possible impairment of intangible assets of IT companies in the medium term. To achieve the goal, the author set himself the following tasks. First, to study the theoretical and methodological foundations of accounting for the impairment of intangible assets. Secondly, to study the dynamics of intangible assets and their impairment in the largest companies in the Russian IT industry in the period from 2018 to 2022. Thirdly, to draw conclusions about external and internal factors affecting the impairment of intangible assets in the IT industry in Russia. Researched companies: Yandex N.V. and VK group.

Considering that the most profitable jobs in the world are related to IT, you might want to have a precise and basic definition of it. Information Technology is abbreviated as IT, which consists of two parts: Technology and Information. Information technology deals with the processing, storage and transmission of information using technology (often meaning computers) and involves the use of computers, software and networks to create, manage and maintain data. The term IT is often used instead of information and communication technology (ICT) or information systems (IS) where the most important similarity between them is the desire to use technology to create, process and distribute data in a safe and efficient manner. Information technology is based on computers, servers, networks, databases and software programs to show itself in ways such as data processing, communication, storage and retrieval. It is not bad to know that the field of information technology has grown rapidly in the past few decades and its scope has expanded significantly. IT professionals now work in a wide variety of industries, including healthcare, finance, education, and government, and have proven themselves. The role of information technology in all these industries is to create and maintain computer systems that are responsible for supporting the organization's operations.

LITERATURE REVIEW

During the past few decades, privatization and strengthening the competitiveness of economic enterprises have been one of the most important elements of structural reform in developed and developing countries. In fact, today it is difficult to find a country that has not taken a program to hand over all or part of state-owned companies to the private sector or to share this sector in the management, ownership and financial affairs of these companies. Creating the necessary legal framework for the participation of the private sector, setting regulations, supervision and strategic management of the industry are among the most important things that have a direct impact on the risk of investment and, in turn, the level of participation of the private sector in economic activities. Among the discussions of the decision-makers and policy makers of the electricity industry, there is the discussion of changing the structure with the aim of increasing efficiency and creating competition in this industry.

Intangible assets are an integral part of the statement of financial position of any company and are classified as non-current assets. According to IAS 38 "Intangible assets", this category of assets is defined as identifiable non-monetary assets that do not have a physical form. It is important to note that an asset itself is a resource that is controlled by an entity because of past events and from which future economic benefits are expected to flow. This standard identifies three main criteria for classifying this category of assets. The first criterion is identifiability, that is, the possibility of separating this asset from the company. The main criteria for separability, in turn, may be separability itself, that is, the ability to sell, transfer, license, lease, exchange, etc. or the result of contractual or other legal rights, regardless of whether these rights can be transferred or separated from the company. The second criterion is control. The entity has the right to receive future economic benefits from the asset and the ability to restrict others from accessing those benefits. The third criterion, applicable to intangible assets as well, is the possibility of obtaining future economic benefits. These benefits include both revenue from the sale of products or services and cost savings and other benefits arising from the use of the asset (Ebe et al., 2023).

Having studied the formal approach to the definition of intangible assets, for a more comprehensive understanding of this definition, consider the points of view of various economists. So, Ebe et al., (2023) defines intangible assets as durable objects that are not tangible, but have a certain value, since they have properties to generate income. In turn, Agusmidah et al., (2022) defines them as income-generating intangible objects that have arisen as a result of past events (the operating activities of a company, the acquisition of an object from another company). Panasenko et al., (2020) complements this concept with the possibility and necessity of recognition and registration of an asset, and. indicates the use of the asset in the company's operations. An important blot to the definition was made by economists. They indicated the presence in the material world of material, documentary evidence of the existence of an intangible asset (for example, in the form

of a document), which is one of the criteria for defining an intangible object as an asset (Tightiz & Yoo, 2022).

If we follow the history of the formation of the concept of intangible assets and their accounting in company financial statements, it is worth noting that the first economic research analyzing the objects that are currently classified as intangible assets refers to the late 19th century to the 1930s of the 20th century. Regarding the accounting concept of intangible assets, the first regulation in which such assets recognised an accounting object was the bulletin "Amortization of Intangible Assets" of the Accounting Methods Committee of the American Institute of Accountants, published in 1944.

Subsequently, references to intangible assets surfaced in international standards of financial reporting. The first standard that designated the examined category was IAS 9 "Research and Development Costs", a little bit later - in IAS 38 "Intangible Assets" (Bykova et al., 2019). Regarding Russia, the occurrence in the accounting practice of the country of intangible assets concept is associated with the Regulations on Accounting and Reporting and refers to the year 1992. Despite this, a clear definition of this type of act was not presented, only the constituent parts have been listed. The accounting for intangible assets in the Russian Federation under current conditions is regimented by PBU 14/2007, at the same time from 2024 will be regulated by FSB 14 (Bobyleva, 2022).

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There are two key criteria for the recognition of intangible assets inside a company. The first is that it is highly probable that the entity will receive the future economic benefits associated with the asset. The second criterion is the ability to reliably estimate the initial cost of such assets.

In this case there are several options for obtaining intangible assets, in particularly: separate purchasing of an intangible asset, acquisition as part of a business combination (in this case the recognition of intangible assets is governed by IFRS 3 "Business Combinations" (Bykova et al., 2019), acquiring at the expense of state subsidies, exchange and generation of intangible assets by an entity on one's own. In the case of in-house development, asset recognition consists of 2 phases. In the first phase, research costs are incurred, within which it is not possible to assess the future economic benefit of the developed asset. The second phase is the development of the asset, the costs of which can be included in the future value of the asset (Bobyleva, 2022).

Intangible assets that are in the structure of the company's non-current assets are subject to amortization and impairment testing. Depreciation of intangible assets is a gradual write-off of the value of intangible assets in the process of their production use. The enterprise sets the norms for writing off intangible assets independently within the limits of their full useful life (but not more than 10 years of continuous operation). Depreciation charges are made until the residual value of the intangible asset reaches zero. The cost of intangible assets is repaid through depreciation, unless otherwise established by PBU 14/2000. Depreciation of intangible assets is carried out by one of the three main methods for calculating depreciation: straight-line method; reducing balance method; method of writing off the cost in proportion to the volume of products (works) (Xiong et al., 2022). At the same time, there is also a need to conduct an impairment test of the asset, which consists in comparing the initial cost less depreciation charges with the recoverable amount. The comparison process can also be used for revaluation of an asset if, when recognizing an asset, the revaluation

model is chosen instead of the cost model. In this case, unlike Goodwill, if the recoverable amount exceeds the original cost minus depreciation charges, the asset can be revalued upwards, and the revaluation income is recorded in the statement of profit and loss (Voronkova et al., 2022; Hidayat & Sebayang, 2022).

Thus, intangible assets are impaired on an annual basis. To determine the external and internal factors affecting this process, it is necessary to consider the methodologies for calculating the recoverable amount of assets, according to which an intangible asset may be impaired or overvalued. Without realizing it, Information Technology (IT) has become an integral part of our lives in today's modern world and has permeated the fabric of life in the 21st century. Thanks to IT and its tools like social media, we are all connected and rely on the power of technology; But what exactly is IT and how does it shape our world? In this article, we will examine various aspects of information technology. Whether you are a tech enthusiast or just curious about the role of technology in your daily life, this article will provide you with a comprehensive understanding of information technology and its impact on our society.

MATERIALS AND METHODS

As part of the study of factors affecting the impairment of goodwill, it is necessary to evaluate the methodology of impairment and revaluation tests. The test requires comparing the carrying amount of an asset with its recoverable amount. The recoverable amount is the higher of the fair value less costs of disposal and value in use of the asset. If the carrying amount exceeds the recoverable amount, the company needs to recognize an impairment loss. Otherwise, the company recognizes the gain from the revaluation of the asset and increases the carrying amount. Therefore, it is necessary to consider methods for estimating the recoverable amount of intangible assets. It is important to note that according to IAS 36 "Impairment of Assets", the company has the right to determine the methodology for assessing the recoverable amount depending on the type of asset but is obliged to describe it in sufficient detail when depreciating assets. Several approaches are used to assess the value of intangible assets (Voronkova et al., 2022).

The first is a comparative or market approach, which consists in determining the value based on the price of similar intangible assets with comparable utility. If there are enough options for comparison, the error is minimized. But since art trademarks or copyrights may not have equivalent value, and since intangible assets are often sold as part of a business, this method of valuation does not capture the full picture of value. Thus, this approach is valid only for intangible assets with a free trading market. An example of such assets within the research topic are software products and solutions. When conducting a market valuation of an asset, an unreliable result in the valuation of an asset may be associated with such internal facts as: intentional or unintentional compilation of a biased sample of market valuation, the choice of management in comparing an intangible asset with analogues of a broader specialization, which leads to an overestimation of the cost (Yemelyanov et al., 2018; Yaskevich & Moskalenko, 2020; Žunjić et al., 2022). External factors are expressed in the volatility of market conditions. Increased, speculative demand for specific intangible assets, reduced supply, the expectation of a shortage, or simply an increase in the value of an asset may raise the market value for a certain period, which may create conditions for an asset's fair value to be overstated at the time of valuation.

The second method is the cost method, which is associated with the documentally confirmed expenditures associated with the creation or acquisition of the specific item. Precisely this method is considered the foundation for determining the acquisition cost, by which intangible assets are accounted for and recognized in the Statement of financial position. According to international financial reporting standards, intellectual property objects are measured by the cost method. Undoubtedly, the method of their acquisition affects the value of the final appraisal. Nevertheless, the considered method can be applied for determining the cost of intangible asset at the recognition, but is not applicable for revaluation.

When it becomes essential to determine the expected economic benefits from the intangible assets, it is feasible to apply the income method of valuation, based on the calculation of the fair

value. This method can be described as a certain reference to the asset's price as of a particular valuation date. An significant prerequisite to be taken into consideration is the probability of absence or limited active market, a negative consequence of which is the impossibility of documenting valuation results, which may be due to various kinds of manipulations. Another major issue is the indicator for a reliable depiction of value. And, of course, the fair value calculation generally involves incremental costs, which should also be accounted for when applying the income method.

Fair value can be stated through market valuation, replacement, depreciation, discounting. As part of the income method of valuation, the discounted cash flow method is often used, the calculation formula (1):

$$DCF = \sum_{i=1}^{n} \frac{CF_i}{(1+r)^i}, \quad (1)$$

where

- CFi - Cash flow in a period i;
- r – discount rate.

It should be noted that intangible assets have the property of synergy - their joint use can provide more value than the sum of the value from their use separately. This aspect is actively used by large IT companies. For example, the integration of YouTube video hosting into the Google services system allowed the company to earn 10 times more in a year than was paid for the acquisition of the asset. That is why, as in the case of goodwill, the rules of IAS 36 "impairment of assets" are allowed to use groups of assets that generate income for impairment assessment. The risk of such an assumption exists when using the income method for revaluation as part of the rapid expansion of assets that we can observe in IT companies in Russia over the recent period. The growth of potential income from a group of intangible assets, which ensures an increase in the fair value of this group, is carried out by replenishing the composition of groups of intangible assets. Thus, the increase is fixed minus the depreciation of the components previously in the group. Thus, in the financial statements, an increase in the value of intangible assets is recorded, and the potential for impairment at the time of stopping the expansion of the asset base increases. This phenomenon is characterized as reporting screening.

RESULTS AND DISCUSSION

Turning to the practical part of the study, we should consider the prerequisites for changing the base of intangible assets in the companies under study: "Yandex N.V." and "VK.Group". Of the general trends, a sharp increase in demand for IT services for individuals should be highlighted, caused by restrictions associated with the COVID-19 pandemic. In the conditions of lockdown, people turned to the use of remote services for everyday operations (delivery of groceries, food, going to the movies, leisure activities). The situation created a rush demand, the creation of a proposal for which allowed IT companies not only to receive a high level of income, but also to consolidate themselves in new markets. The creation of such software products required investments to carry out their own development at an accelerated pace and buy out ready-made solutions from companies with further adaptation to ecosystem products (through acquisitions). Let's take a look at each of the companies under study.

Yandex is a pioneer in the policy of income diversification through the informatization of industries and the transition to ecosystem products in the Russian Federation. Since the beginning of the 2010s, the company has noted this goal in annual reports. In 2012, the first taxi aggregator was created, and in 2018, the Yandex.GO eco-system application was launched, combining services with taxis, navigation, carsharing, and, subsequently, food delivery. In 2022, the company produces not only software, but also physical products connected to a single ecosystem, developing in the field of the Internet of things. Consider the dynamics of intangible assets as part of the assets of Yandex N.V. (Figure1)

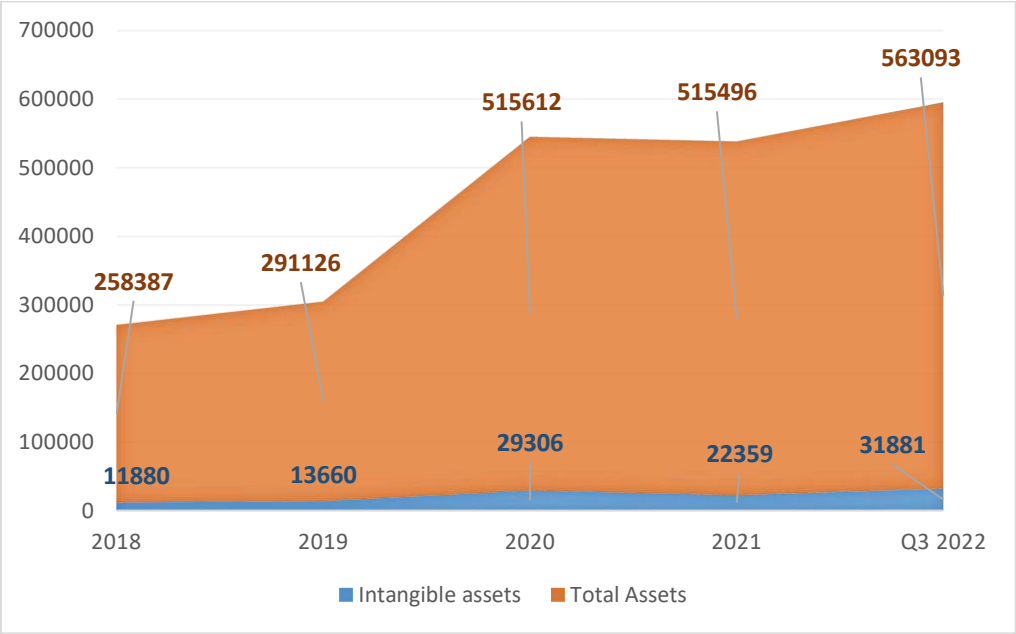

Figure 1. Intangible Assets in Assets structure of Yandex N.V. 2018- Q3 2022
Source: Ivankovaet al. (2021), Nikolay & Svyatoslav (2022).

Cconsidering the dynamics of Yandex's intangible assets, it should be noted not only a relatively high increase in their valuation (growth by 168% in the period from 2018 to Q3 2022), but also an increase in the share of the company's intangible assets in the asset structure from 4.6% to 5.7%. At the same time, the company's annual reports do not indicate revaluation and impairment testing of intangible assets, which means that the company uses the valuation of intangible assets at cost, assuming only write-off of depreciation costs. This approach is effective with a stable number of intangible assets in the structure of the company, when all components of the groups being evaluated work effectively. However, in the conditions of a sharp expansion, assets that are not adapted for use in the ecosystem and do not generate income are not subject to revaluation. There is no reason for an impairment test as the group as a whole generates income for the company.

The transition of the VK.group company can be traced back to 2014, when the company then bought out the largest social network in Russia, Vkontakte, under the previous name Mail.ru Group. Further, in the period from 2016 to 2020, the company gradually expanded its presence by buying out projects that compete with Yandex services, such as Delivery.club (a delivery service from restaurants) or Samokat (a grocery delivery service). Own analogues of Taxi (citymobil) and music services (Boom) were launched. At the same time, only by 2020 the company began to form the centralization of its system by connecting services to the VK social network, which has become an aggregator of the ecosystem.

Consider the dynamics of intangible assets as part of the assets of the company VK.Group (Fig. 2)

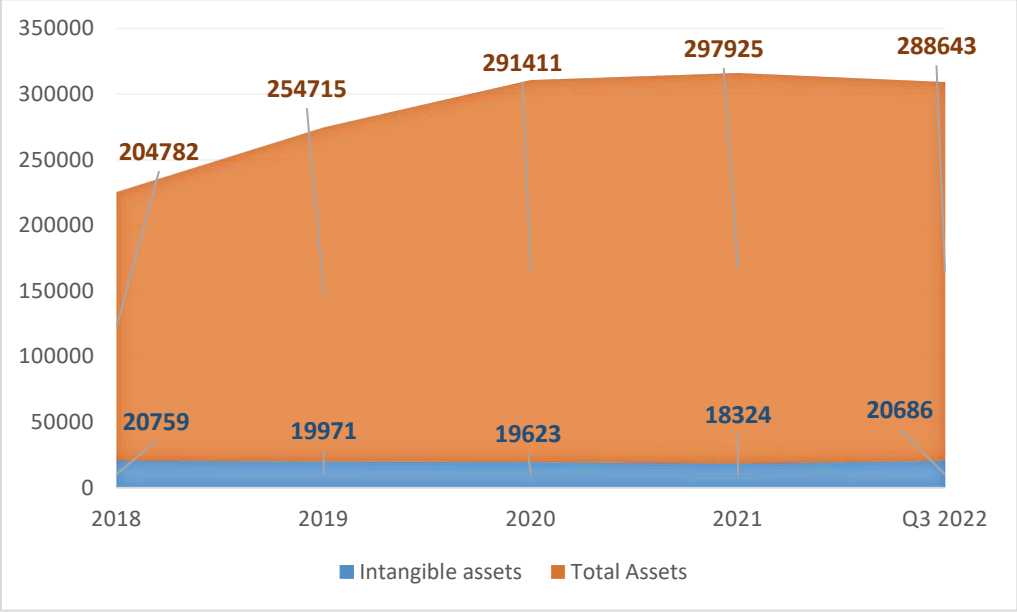

Figure 2. Intangible Assets in Assets structure of VK.Group 2018- Q3 2022
Source: Ivankova etr al., (2021), Nikolay & Svyatoslav (2022).

Considering the dynamics of the intangible assets of VK.Group in the asset structure for the period from 2018 to Q3 2022, we should note the stability and low volatility of the balance sheet item in nominal terms and the reduction in the share of assets from 10% in 2018 to 7% in Q3 2022. Thus, it should be noted that, unlike Yandex, the expansion of the company's activities was not carried out at the expense of intangible assets in the period under review. However, judging by the company's reports, VK.Group uses a system of revaluation of intangible assets, while the topics of impairment in the period under review are comparable to the rate of decline in their value from 2018 to 2021. However, in Q3 2021, an increase in intangible assets was recorded at a low rate of impairment, which may indicate exposure to the reporting shielding problem.

Thus, the analysis of the dynamics of intangible assets increased by growth in approaches to accounting for intangible assets in the largest Russian IT companies: VK.Group and Yandex N.V.

VK.Group joins the revaluation of the value of intangible assets. Despite the fact that in the period from 2018 to 2021 there are signs of screening violations associated with the accounting of not each of the intangible assets, but its group, there is a tendency for impairment to decrease in the volume of intangible assets. Thus, with a slight increase in intangible assets in 2022, the rate of impairment increased sharply. The problem of shielding spread with excess growth of intangible assets in the group with real impairment. This fact allows you to hide the fact of depreciation in accordance with the current increase. The decision of this study may be to cover the coverage and publication of the results of the impairment of intangible assets for the period without taking into account changes in the reporting year.

At Yandex.N.V. there is a system of accounting for intangible assets at cost, depreciation also occurs as part of a group of assets. At the same time, with the disappearance of the group, the ability to generate profit, the company does not initiate the process of depreciation of the group, which ensures profit in the balance of intangible assets, not generating profit, accruing depreciation. The solution to this problem can be the implementation of the need to assess the impairment of each unit of intangible assets and their accounting, even within a profit-generating group.

CONCLUSION

As a result of the study, the author identified several conclusions regarding the accounting and impairment of intangible assets of in IT-companies in Russian Federation.

Firstly, it was found that due to the active expansion of services and sources of income, IT companies expanded their asset base. In the case of Yandex, this expansion led to an increase in the share of intangible assets in the structure of the company's assets, when VK.Group, on the contrary, reduced their share.

Secondly, the factors influencing the depreciation and revaluation of assets are considered, in particular, internal ones include: building a biased sample or deliberately incorrect comparison with more functional assets when analyzing intangible assets using a comparative, market method, the problem of screening reporting within the framework of using groups of profit generating intangible assets of the income method. External risks include the volatility of the value of similar intangible assets on the free market, in the case of assessing the restoring value of assets using comparative, market methods.

Thirdly, the risk of screening during the depreciation of intangible assets by VK.Group (with the expansion of the base of intangible assets) and the problem of reflecting assets that do not bring profit within the groups of intangible assets of Yandex N.V.

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