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Faculty of Economics and Management

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Bachelor Thesis

**Assessment of the Financial Position and Performance
of a Chosen Company Operating in the Information
Technology Industry in Russia**

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Methodology: Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.

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1. ALEXANDER, J. Financial Planning & Analysis and Performance Management. USA : John Wiley & Sons, Inc. Hoboken, 2018, 640 p., ISBN-13: 978-1119491484
2. ELLIOTT, B. Financial Accounting and Reporting. Harlow UK:Pearson, 2019, 928 p., ISBN-13 : 978-1292255996
3. ERNST & YOUNG, LLC. IFRS, US GAAP and RAP. Comparison and basics, Introduction., 2016, p. 56, ISBN N/A, available online
4. International Trade Administration. Russia - Country Commercial Guide: Information & Communication Technology, 2021, available online at trade.gov
5. Russian Federation. Ministry of finance. Federal Law on Accounting, dated December 6, 2011, No. 402-ФЗ, as amended
6. Russian Federation. Ministry of finance. Order No. 34n of 29.07.1998. Position on accounting and financial statements in the Russian Federation., as amended
7. SIVOVA, M. Form 2 of the balance – Income statement. Сивова Марина: Заполнение формы 2 бухгалтерского баланса (образец), 2020, available online
8. СОЦКАЯ, А. PBU (RAS) 4/99 - accounting statements of the organization (Соцкая Анастасия: ПБУ 4/99 - бухгалтерская отчетность организации), 2020, available online

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Declaration

I declare that I have worked on my bachelor thesis titled " Assessment of the Financial Position and Performance of a Chosen Company Operating in the Information Technology Industry in Russia" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2022

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Assessment of the Financial Position and Performance of a Chosen Company Operating in the Information Technology Industry in Russia

Abstract

The aim of this bachelor thesis is to assess the financial position and performance of the Russian information technology corporation „Yandex“.

The theoretical part of the thesis focuses on the Russian accounting system and the presentation of the financial statements of companies that are required to submit their financial statements in line with the International accounting standards IAS/IFRS or US GAAP. The literary review also deals with the characteristics of the selected methods and ratios of financial analysis and with the industry specifics and development of internet services and technologies in Russia.

The practical part of the thesis deals with the characterization of the company „Yandex“ and analyses the financial position (represented by the balance sheet) and the financial performance (represented by the Income statement) of the company based on the published financial statements and annual reports of the company using the methods of vertical and horizontal analysis and selected ratios of financial analysis for the financial years 2017-2021.

The results of the thesis show the most significant factors influencing the profit and the potential financial problems for the company and the industry.

Keywords: financial statements, financial analysis, financial position, balance sheet, assets, liabilities, equity, financial performance, Income statement, expenses, revenues, profit, technology industry.

Hodnocení finanční pozice a výkonnosti vybrané společnosti podnikající v oboru informačních technologií v Rusku

Abstrakt

Cílem této bakalářské práce je zhodnocení finanční pozice a výkonnosti společnosti „Yandex“, který podniká v oboru informačních technologií v Rusku.

Teoretická část práce se věnuje účetnímu systému v Rusku a vykazování účetních výkazů velkých společností, které mají povinnost sestavit svoji účetní závěrku podle mezinárodních účetních standardů IAS/IFRS nebo US GAAP. Literární rešerše práce se také věnuje charakteristice vybraných ukazatelů finanční analýzy a přehledu a oborových specifik internetových služeb a vývoji technologií v Rusku.

Praktická část práce se věnuje charakteristice vybrané společnosti „Yandex“, a na základě zveřejněných účetních výkazů a výročních zpráv analyzuje finanční pozici (reprezentované rozvahou) a finanční výkonnost (reprezentované výkazem zisku a ztráty) společnosti pomocí vertikální a horizontální analýzy těchto výkazů a vybraných ukazatelů finanční analýzy pro účetní období 2017-2021. Výsledky práce poukazují na nejvýznamnější faktory ovlivňujících zisk a případné finanční problémy společnosti a oboru.

Klíčová slova: účetní výkazy, finanční analýza, finanční pozice, rozvaha, aktiva, závazky, vlastní kapitál, finanční výkonnost, Výkaz zisku a ztráty, náklady, výnosy, obor informačních technologií.

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List of Abbreviations

FASB – Financial Accounting Standards Board

ASU – Accounting Standards Update

IFRR – International Financial Reporting Standards

GAAP – Generally accepted accounting principles

CPC – Cost-per-click

IT – Internet Technology

ROA – Return on Assets

ROE – Return on Equity

D/E – Debt-to-Equity

RAS – Russian Accounting Standards

RAP – Russian Accounting Principles

FZ – Federalny Zakon (Federal Law)

NYSE – New York Stock Exchange

LSE – London Stock Exchange

AI – Artificial Intelligence

ML – Machine Learning

1. Introduction

Every company, organization must keep accounting.

In order to improve the business on a daily basis, leaders must know the strengths and weaknesses of their own business and work on them. Nothing should happen without control. To monitor, analyze and make the right decisions is the main task of the CEO.

To develop a business means when it is necessary to turn around, calculate and get rid of non-working, outdated and inefficient methods of work, marketing tools, lines of business, individual goods and services that slow down, stop the expected development.

It is impractical to plan the further work of the company without accounting. Analytical accounting data allows managers to build a company's strategy or make changes to an existing development plan.

The value of accounting for business plays a big role. Since analysis, planning, control, regulation are carried out on the basis of business reporting information, therefore, the management process is impossible without this.

2. Objectives and Methodology

2.1 Objectives

The aim of this bachelor thesis is to assess the financial position and performance of a chosen company operating in the information technology industry in Russia by analyzing the company's financial statements with a focus on the reported assets, liabilities, expenses, and revenues for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit from the company and industry point of view.

2.2 Methodology

Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis..

3. Literature Review

The literature review is a theoretical section of the thesis that contains information about Russian and worldwide accounting standards, their principles, and distinctions.

Additionally, the literature review section offers information on the methodologies for analyzing a company's financial statements, as well as the Russian information technology industry.

3.1 Accounting and Financial Reporting in general

Accounting is a system for recording and reporting business transactions, in financial terms, to interested parties who use this information as the basis for performance assessment, decision-making and control. (Marriott, 2002)

Financial reporting is a legal entity's primary accounting report to the government. It is a way of following standard practices to give to the readers of the financial statements an accurate depiction of a firm's finances, including its revenues, expenses, profits, capital, cash flows. (Lessambo, 2018)

Financial statements contain information regarding an economic entity's financial position as of the reporting date, as well as the financial results of its activities and cash flows for the reporting period, all of which are organized in line with legal standards.

The assets and liabilities of an organization, as well as their duties and operational processes performed by organizations in the course of their operations, are the objects of accounting.

In accounting, the primary task is the preparation of comprehensive and reliable information (financial reports) on the organization's operations and financial condition. This information is required for internal users of financial statements - managers, founders, participants, and owners of the organization's property - and external users of financial statements: investors, creditors, and other users of financial statements, on the basis of which it is possible to:

- prevention of negative results of economic activities of the organization;

- identification of on-farm reserves to ensure the financial stability of the organization;
- control of compliance with the law in the implementation of economic operations by the organization;
- control of expediency of economic operations;
- control over the availability and movement of property and liabilities;
- control over the use of material, labor, and financial resources;
- control of compliance of activities with the approved norms, standards, and estimates. (Vance, 2019)

3.2 Accounting system in Russia

Market relations and capitalism grew in Western nations during the Soviet Union's and its planned economy's existence. On stock exchanges, shares of firms with a worldwide influence were exchanged, drawing investors' capital for company expansion and profiting from these operations for the latter.

In Russia, the modern accounting period started in 1991, with the fall of the Soviet Union and the wave of state-owned firm privatization. The USSR lacked a market economy, and firms were unable to integrate into the global economy concurrently owing to Russia's economic system, which succeeded the USSR. Nonetheless, the process of modernizing the national accounting system began in 1994-1996. This was the era when top Russian corporations began chasing worldwide prominence via initial public offerings on the world's main stock exchanges. However, the first centralized exchange, the Russian Trading System (RTS), was unable to provide necessary listing and trading support, as companies were required to restate financial statements from RAS to US GAAP or International Financial Reporting Standards (IFRS), file interim reports, and prepare enhanced disclosures in order to be admitted to the NYSE and LSE. Since that time, Russia has made a concerted effort to harmonize the RAS and IAS. (Kim, 2013)

3.2.1 Accounting legal framework in Russia

Russian Accounting Standard (RAS) is a set of federal legislation and accounting regulations (so-called “Polozhenia po Bukhgalterskomu Uchetu” in Russian) that govern the rules of accounting in the Russian Federation. The development of requirements, rules, methods of maintaining RAS is carried out by the Ministry of Finance of the Russian Federation. In addition to the accounting provisions themselves, RAS includes:

- Federal Law No. 402-FZ of 06.12.2011 “On Accounting” (Ministry of Finance of the Russian Federation, 2011)
- Chart of accounts of Financial Reports (PSBU) and instructions for its use, dated from the order of the Ministry of Finance of Russia on October 31, 2000 No. 94n (Ministry of Finance of the Russian Federation, 2000)
- Regulation on accounting and reporting in the Russian Federation, order of the Ministry of Finance of Russia dated 29.07.1998 No. 34n (Ministry of Finance of the Russian Federation, 1998)
- 24 PBU governing the accounting of assets, liabilities, and business events; (Ministry of Finance of the Russian Federation, n.d.)
- Industry regulations, guidelines, and regulations.

All subjects of the Russian economy must apply the approved RAS standards, except for organizations that are part of the banking system. The accounting procedure for them is determined by the Central Bank. The basic requirements and principles for organizing accounting for banking institutions are identical to RAS.

Companies whose stock is quoted on the Moscow Exchange must report in line with both IFRS and RAS. In most cases, the financial results presented do not correspond due to the pursuit of different goals in their reporting. IFRS is intended for investors, while RAS is for tax authorities. (Antipova, 2017)

3.2.2 Financial statement in Russia

Following appendices No. 1-3 of the Order of the Ministry of Finance of the Russian Federation dated July 2, 2010 No. 66n "On the Forms of Accounting Statements of Organizations," the annual financial statements of a commercial organization include five components:

- Balance sheet;
- Income statement;
- Statement of changes in equity;
- Cash flow statement;
- an auditor's report confirming the correctness of accounting (for companies with a mandatory audit);
- Explanations for reporting.

In the financial statements, the presence of a mandatory determination of the presence of a part, the reporting date or reporting period for which the financial statements are prepared, the full name of the organization, the volumetric number of the taxpayer, the type of activity, the legal form/form of ownership, the date of calculation of the date of receipt/acceptance. (Lukin, 2009) For each numerical indicator of financial statements, data must be provided for at least two years - the reporting and the previous reporting years, with an exception for newly formed companies. Property, liabilities, and financial activities (facts of economic activity) are all recorded in rubles, the Russian Federation's currency; the whole report is maintained only in the Russian language. In RAS, the reporting year normally coincides with the calendar year, which finishes on December 31. (an exception is provided for newly created organizations). Financial reports must be sent to the tax office once a year, no later than three months after the reporting period ends (the deadline is March 31 of each year). (Antipova, 2017) According to the Federal Law of November 28, 2018 N 444-FZ (as amended on July 26, 2019) "On Amendments to the Federal Law "On Accounting" thousands of rubles became the unit of measurement, it is impossible to fill out reports in millions. In addition, as amended from 2019, the Federal Tax Service (FTS) has become obliged to maintain a Unified State Information Resource of Accounting Statements, where all accounting reports received by the FTS are published in the public domain. Thus, information from financial statements automatically ceases to

be a tax secret. And according to the same document issued by the Ministry of Finance of the Russian Federation N 444-FZ (as amended on July 26, 2019) "On Amendments to the Federal Law "On Accounting", financial statements for 2020 and beyond must be submitted in electronic form only.

3.2.3 Statement of the financial position – a Balance Sheet in Russia

The RAS balance sheet is horizontal in format and is divided into two major sections: Assets and Liabilities, the totals of which must be equal. The asset is divided into two categories: non-current assets (equipment, buildings, intangible assets, etc.) and current assets (raw materials, cash, short-term receivables, etc.) and is presented in the balance sheet in its pure form after cost adjustments, i.e. after amortization, depreciation, and deduction of allowance for doubtful debts. The classification of assets into one or more groups is determined by their intended use, cost, and other characteristics. On the other hand, liabilities are classified into three categories: capital and reserves (owners' funds), long-term liabilities (loans, credits, and other debts having a maturity of more than one year), and short-term liabilities (current and payable during the year debt). (М.Д. Носкова, 2017)

3.2.4 Statement of the financial performance – an Income statement in Russia

Profit and Loss Statement or Statement of Financial Performance contains information on an organization's financial performance and illustrates the change in the company's capital as a result of expenses and income. (Aleksandrovna, 2014) Also it is called “Form 2 of the balance sheet”. This form was referred to as the Profit and Loss Statement in the law "On Accounting" dated November 21, 1996 No. 129-FZ, which was in force until 2013, and as the Statement of Financial Results in the law that replaced it dated December 06, 2011 No. 402-FZ. At the same time, the form itself began to bear such a name quite recently: the “Profit and Loss Statement” was formally renamed the "Statement of Financial Results" on May 17, 2015, after the Ministry of Finance of Russia's order of April 6, 2015 No.57н. (Марина, 2021) In an Income Statement prepared in accordance with RAS, the report begins with the organization's key performance indicators - revenue, cost of sales, selling and administrative expenses - which all make up to the financial result (profit or loss) from

sales. Then there are indications of additional revenue and expenses, such as interest receivable and payable, and other income and expenses, which, when added to the previously obtained sales data, comprise the indicator "Profit (loss) before tax." After deducting income tax from this indicator and adding the change in deferred tax, assets, and liabilities, the final financial outcome - net profit or loss for the period - is obtained. (Audit it, 2012)

3.2.5 Adoption of IFRS in Russia for consolidated financial statements

IFRS Standards were endorsed for use in the Russian Federation at the end of 2011 and became mandatory from 2012 in accordance with the Federal Law 208-FZ On Consolidated Financial Statements. (IFRS Foundation, 2019)

Until the adoption of Law 208-FZ, Russian companies with subsidiaries were required to prepare both stand-alone and consolidated financial statements. Recommendations for the preparation of consolidated financial statements were set forth in Order No. 112 Consolidated Financial Statements which is a part of RAP. Starting 2013, only Russian companies that directly or indirectly fall within the scope of Law No. 208-FZ are required to prepare consolidated financial statements under IFRS, like banks (except for banks with a basic license), insurance companies (except for medical insurance companies), non-state pension funds; management companies of investment funds, investment unit trusts, clearing organization and federal state-owned enterprises as well as joint-stock companies, whose shareholder is the Russian Federation. Other Russian companies are not required to prepare consolidated financial statements under RAP, even if they have subsidiaries. However, some companies included in the scope of Law No. 208-FZ were entitled to postpone the application of IFRS until 2015. In such a case, they were required to present and publish their consolidated financial statements prepared under RAP. Starting 2015, such companies must present and publish financial statements prepared in accordance with IFRS. From that time, IFRS are mandatory for consolidated financial statements, and standalone (separate) financial statements for all entities must be prepared using RAS. (IFRS Foundation, 2019)

IFRS are included into the Russian legal system. Federal Law 208-FZ 'On Consolidated Financial Statements' provides that the Russian Government, in cooperation with the Central Bank, endorses IASB standards and interpretations for application in Russia. For international businesses working in Russia, the status is almost identical. If a firm is publicly listed and uses consolidated financial statements, it is obligated to use IFRS standards in its preparation. If a foreign entity follows Japan GAAP, US GAAP, or any other internationally recognized accounting standards, Russia may apply them. (IFRS Foundation, 2019) All the significant differences between those three accounting standards may be found in Appendix No 1,2.

Russia has a formal process for endorsement of new or amended IFRSs (including interpretations). Newly-issued standards go through technical expertise by the National Accounting Standards Board (NSFO), an independent organization designated by the Ministry of Finance. Based on the results of the expertise the Ministry issues endorsement decisions. (IAS, n.d.)

3.3 Financial analysis (vertical and horizontal analysis, ratio analysis)

The traditional and most fundamental aspect of financial planning is the ability to understand, analyze and evaluate financial statements and financial performance. To use information effectively, you need to be able to understand and interpret data. (Alexander, 2018) The following approaches for assessing financial records will be employed in the thesis work to accomplish this.

Vertical analysis, also called common size analysis, is a technique for proportional analysing of financial statements, in which the ratio of a selected indicator with other homogeneous indicators within one reporting period is studied to tell their significance relatively to the total value of chosen item. Vertical analysis of the balance sheet aims to identify changes in the business's financial condition to determine the organisation's current position. Percentage indicators clearly show how many deviations have occurred and in which direction and how it all affected on the total. However, decreasing a percentage of some items does not necessarily imply that the value of those items has

reduced in terms of the total; instead, it could indicate that other items have changed more substantially in terms of the total. (Marriott, 2002)

Horizontal analysis, alternatively referred to as trend analysis, displays data for a few years and allows to compare it. This method may be used to establish a base year and refer to it or the method can be used with a chain analysis in which each year is compared to the following one to determine how a certain item changes over time. In my thesis I decided to use a chain analysis method, so the analysis will be made on a year-over-year basis. On the basis of it, it is simple to illustrate how specific elements have changed over time and how this has impacted the growth of the company, its activities and revenues. (Shim, J.K., et al., 2015)

There are several ratios that are more applicable to the Internet technology industry for my financial analysis. Among them are:

- Current Ratio,
- Operating margin Ratio,
- Debt to Equity Ratio,
- Return on Assets,
- Return on Equity.

A current ratio is one of the most common liquidity ratios for measuring a company's ability to pay its short-term financial obligations. In the technology industry, it is important to have a high current ratio, normally higher than 1, since the business normally needs to fund all of its operations from current assets. (Tarver, 2021) A current ratio that is lower than the industry average may indicate a higher risk of distress or default. Similarly, if a company has a very high current ratio compared with its peer group, it indicates that management may not be using its assets efficiently. (Fernando, 2021)

Equation 1 Current Ratio (Fernando, 2021)

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The second ratio which will be used, operating margin, measures how much profit a company makes on a dollar or other currency of sales after paying for variable costs of production, such as wages and raw materials, but before paying interest or tax. It is calculated by dividing a company's operating income by its net sales. (Hayes, 2021)

Equation 2 Operating Margin Ratio (Hayes, 2021)

$$\text{Operating Margin} = \frac{\text{Operating Income}}{\text{Revenue}}$$

Operating margin varies by industry, but across the board, a value above 10% is considered good, and a value above 25% is considered excellent. (Tarver, 2021) When a company's operating margin exceeds the average for its industry, it is said to have a competitive advantage, meaning it is more successful than other companies that have similar operations. Businesses can gain a competitive advantage in general by increasing sales or reducing expenses — or both. (Hayes, 2021)

Return on Equity or ROE is considered to be a gauge of a corporation's profitability and how efficient it is in generating profits. It represents the total return on equity capital and shows the firm's ability to turn equity investments into profits. To put it another way, it measures the profits made for each dollar from shareholders' equity. (CFI, n.d.) Return on equity is a measure of financial performance calculated by dividing net income by shareholders' equity.

Equation 3 ROE Ratio (Fernando, 2021)

$$\text{ROE} = \frac{\text{Net Income}}{\text{Total Equity}}$$

Relatively high or low ROE ratios will vary significantly from one industry group or sector to another. Still, a common shortcut for investors is to consider a return on equity near the long-term average of the S&P 500 (14%) as an acceptable ratio and anything less than 10% as poor. (Fernando, 2021)

The debt-to-equity or D/E ratio is used to evaluate a company's financial leverage and to measure the degree to which a company is financing its operations through debt versus wholly-owned funds. More specifically, it reflects the ability of shareholder equity to cover all outstanding debts in the event of a business downturn. (Fernando, 2022) D/E is calculated by dividing a company's total liabilities by its shareholder equity.

Equation 4 Debt-to-Equity Ratio (Fernando, 2022)

$$D/E = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

The debt-to-equity ratio is extremely important for the analysis of technology companies as technology companies make large amounts of investments in other technology companies and take on investments and debt from other organizations to fund product development. A value under 1 is considered good. (Tarver, 2021)

Return on Assets (ROA) is a type of return on investment (ROI) metric that measures the profitability of a business in relation to its total assets. This ratio indicates how well a company is performing by comparing the profit (net income) it's generating to the capital it's invested in assets. The higher the return, the more productive and efficient management is in utilizing economic resources. (CFI, n.d.)

Equation 5 ROA Ratio (CFI, n.d.)

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

A ROA of over 5% is generally considered good and over 20% excellent. However, ROAs should always be compared amongst firms in the same sector. (Hargrave, 2022)

All the above ratios will be counted and compared to industry median ratios.

3.4 Characteristics of the IT industry in the world and in Russia

The Russian Association of Electronic Communications categorizes the Internet technology market into four broad categories: marketing and advertising, e-commerce, infrastructure and communications, and digital content. In 2020, the economy of the Russian segment of Russia amounted to 6.7 trillion rubles, which is 4.7% more than a year earlier (or \$90 billion at the rate of 75 rubles per \$1) (Appendix 3). E-commerce, which includes electronic payment services, online retail, online travel, and other Internet-based services, accounts for more than 89 % volume of the Internet technology market. Appendices N 4,5,6 obtain data for additional segments. The top three largest technology companies in Russia include Yandex with revenue of 356 billion rubles in 2021, VK with 125.7 billion rubles, and Sber with 193.8 billion rubles. (Trading Economics, 2022)

Russian Internet users constitute roughly 97.4 million, or approximately 79.5% of the country's total population. By comparison, 4.66 billion individuals, or 59% of the global population, are Internet users. With 14.1%, 7.64%, and 7.59%, respectively, Yandex, YouTube, and Google are the top three in terms of total traffic share. (SimilarWeb, 2022)

In 2020, the volume of e-commerce exceeded 6 trillion rubles (including customer-to-customer sales), a 22% increase over the previous year. (Appendix 7). The e-commerce segment brings together the four interconnected sub-markets mentioned above, which use the Internet as a platform for the sale of goods and services. Wildberries, with a revenue of \$14.52 billion, and Ozon, with a revenue of \$10.58 billion, are among the market leaders in online retail in Russia. They face competition from AliExpress Russia, Yandex.Market, goods.ru, and Joom. (Елена Тофанюк & Елена Ганжур, 2021) By comparison, China's E-commerce revenue in 2020 was \$2296 billion, while Russia's revenue was \$37 billion in the same year. (Appendix 8) The share of e-commerce in the trade turnover of Russia in 2020 was 9.6% meanwhile China took the lead and has 41.2% of e-commerce in the trade turnover. (Appendix 9)

Due to the growth of a relatively young industry, the authorities of both Russia and Western countries are introducing regulations of certain IT sectors. For example, in the EU, as part

of the Shaping Europe's Digital Future strategy, a regulatory package for technology giants has been developed: the Digital Markets Act (DMA) - supplementing antitrust regulation with requirements for the largest digital platforms; and the Digital Services Act (DSA). In Russia, in particular, the following initiatives have been approved: The Fifth Antimonopoly Package, which mostly affects such digital monopolies as Google and Apple; the law on pre-installation of Russian software, which came into force on April 1, 2021, and the law on the prevention of censorship of Russian media by Internet platforms. (TAdviser, 2021) Despite the restrictions in some areas, the authorities also aided the Internet industry during the pandemic: specific advantages, the law on remote work, and so forth. (Российская ассоциация электронных коммуникаций, 2021)

According to ICT (2020) research, the most promising niches for startup development according to investors are:

- AI/ML
- SaaS
- EdTech
- FinTech
- B2B Software
- BioTech
- FoodTech, IT, MedTech
- Health Tech
- Marketplaces
- E-commerce

4. Practical Part

The practical portion of this bachelor thesis analyzes the financial position (represented by the balance sheet) and financial performance (represented by the statement of profit or loss) of a selected Russian company, Yandex, through the use of vertical and horizontal analysis of the company's selected financial statements and the calculation of selected financial ratios.

4.1 Characteristics of the company Yandex

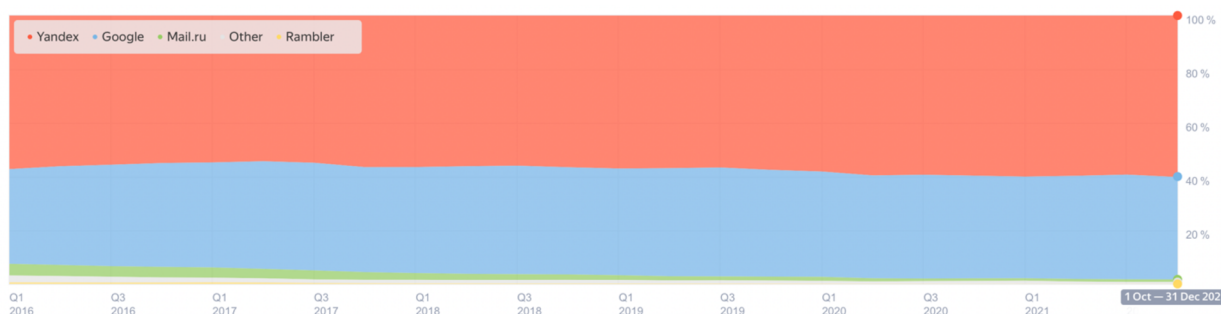
Yandex is a multinational information technology firm registered in the Netherlands with headquarters in Moscow, that owns the same-named Internet search engine, as well as an Internet portal and web services in several countries. The company was founded in 2000. In May 2011, Yandex held an initial public offering on the New York Nasdaq Stock Exchange. Yandex shares are traded under the ticket YNDX. As of the end of December 2020, Yandex had over 18 offices across 10 countries. (Yandex, 2022)

As of December 31, 2021, Yandex had 18,004 employees, 54.4% related to the product development cost category, 39.5% employees related to sales, general and administration, and 6% employees related to cost of revenues. (Yandex, 2021)

Yandex is the most popular site among Russian Internet users in January 2022 with 2.2 billion visits per month, followed by Google.com with 1.39 billion visits (Semrush, 2022).

An important source of revenue for Yandex comes from the sale of advertising space on its website (Yandex). According to the analytical center W3Techs, Yandex.Metrica ranks third in the world in terms of the number of domains on which its counter is installed with a total market share of 9,4% which puts the Russian company in the top 3 companies in the world in online advertising sales after Alphabet and Meta. (W3Techs, 2022)

Figure 1 Search engines by a percentage of sessions for the 2016-2022 period (Yandex.Radar, 2022)



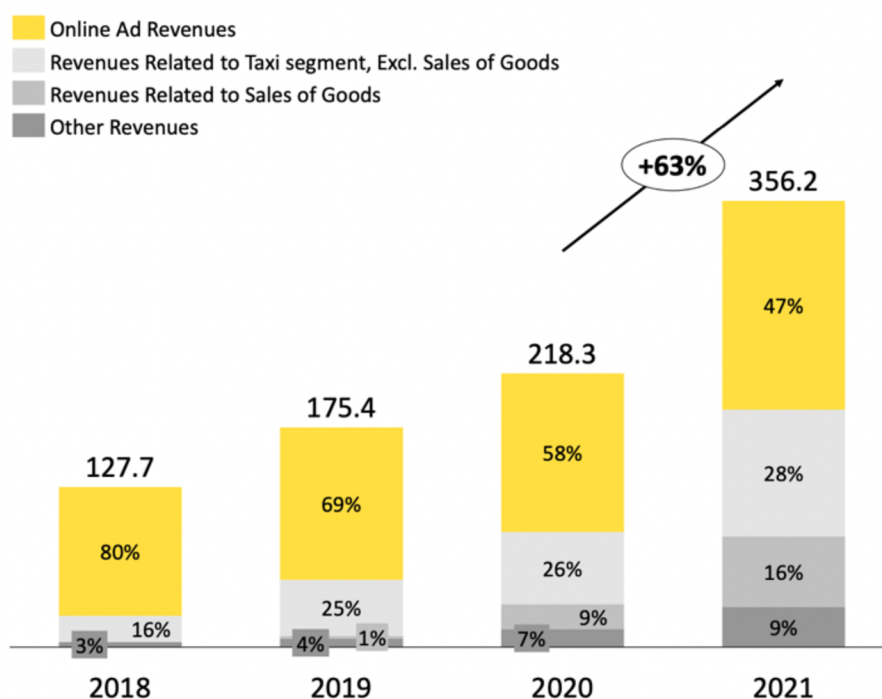
Starting from the 1st quarter of 2016, Yandex's share in the RU segment of Internet search amounted to 11.5 billion sessions with a 57.11% share of the Russian market. Over the next 6 years, Yandex's share increased by an average of 0.5% and today has reached a value of 60.74% with 15 billion active sessions. In comparison, Google's share of the search engine market increased from 35.29% to 38.13% over the same period, with 9.5 billion active sessions. (Yandex.Radar, 2022)

But the company is engaged not only in web search and contextual advertising. According to the company itself, its scope of activities also includes:

- Search and Portal, which includes Search, Mail, Weather, News, Services, Travel, Voice assistant and number of other services offered in Russia, Belarus and Kazakhstan, as well as Internet of Things business;
- Taxi and ride-hailing business in Russia (MLU) and 16 other countries across CIS and EMEA, and Uber in Russia and CIS) for both B2C and B2B, Logistics, FoodTech businesses, and a car-sharing business;
- E-commerce marketplace (Yandex.Market);
- Media Services with music and video streaming platform;
- Self-driving technologies, Cloud solutions, and the advertisement (Yandex, 2021)

Figure 2 Consolidated Revenue Breakdown (Yandex, 2022)

Consolidated Revenue¹ Breakdown, RUB BN, %



The advertising business, based on the search engine, brought the company 166,6 billion rubles in 2021, which is 46.7% of its total revenue. For the first time in 2021, this share was less than 50% of total revenue, which indicates the development of other business areas that bring more income to the company. According to the 2021 annual report, the contribution of non-advertising businesses has increased significantly. For the year 2020, the non-advertising segments accounted for 46% of our total group revenue compared with 33% in 2019 and 23% in 2018. In 2021 total revenue was 356 billion rubles. The company generates almost all of its revenue in Russia.

Table 1 Revenues by country

	Revenues (in millions of rubles)				
	As of December 31,				
	2017	2018	2019	2020	2021*
Russia	87 470	118 128	162 958	204 205	—
Rest of the world	6 584	9 529	12 433	14 129	—
Total Revenues	94 054	127 657	175 391	218 334	356 171

*The consolidated report for 2021 financial report has not been published on the date of the writing

4.2 Analysis of the financial position – the Balance Sheet

In order to determine the most significant items on the balance sheet (by vertical analysis) and their changes over time (by horizontal analysis), the company's financial position must be examined both vertically and horizontally across all of its items on the balance sheet: assets, liabilities, and equity.

4.2.1 Vertical analysis of the Assets

Table 2 Vertical Analysis of Assets, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2017-2021

Consolidated Balance Sheets (in millions of Russian rubles)										
Twelve months ended December 31,										
	2017	%	2018	%	2019	%	2020	%	2021	%
ASSETS										
Cash and cash equivalents	42 662	32,68%	68 798	26,55%	56 415	19,38%	132 398	25,68%	79 275	15,38%
Term deposits	23 040	17,65%			31 891	10,95%	105 787	20,52%	23 415	4,54%
Investments in marketable equity securities									4 049	0,79%
Accounts receivable, net	9 746	7,47%	14 570	5,62%	17 832	6,13%	25 440	4,93%	43 568	8,45%
Prepaid expenses	1 269	0,97%	2 119	0,82%	3 315	1,14%	6 727	1,30%	12 663	2,46%
Inventory					808	0,28%	4 810	0,93%	9 587	1,86%
Funds receivable, net			2 217	0,86%	1 226	0,42%	2 289	0,44%	6 180	1,20%
Investments in debt securities									452	0,09%
VAT reclaimable							7 573	1,47%	13 498	2,62%
Other current assets	4 039	3,09%	4 177	1,61%	8 797	3,02%	5 377	1,04%	7 288	1,41%
Total current assets	80 756	61,86%	91 881	35,46%	120 284	41,32%	290 401	56,32%	199 975	38,79%
Property and equipment, net	21 171	16,22%	39 740	15,34%	47 856	16,44%	61 772	11,98%	98 325	19,07%
Operating lease right-of-use assets			17 654	6,81%	21 218	7,29%	20 800	4,03%	36 245	7,03%
Intangible assets, net	5 023	3,85%	11 545	4,46%	10 365	3,56%	21 842	4,24%	22 359	4,34%
Content assets, net			335	0,13%	3 295	1,13%	7 464	1,45%	13 767	2,67%
Goodwill	9 328	7,15%	52 662	20,33%	52 205	17,93%	104 275	20,22%	117 864	22,86%
Long-term prepaid expenses	1 788	1,37%	1 800	0,69%	2 289	0,79%	1 391	0,27%	3 278	0,64%
Term deposits, non-current	5 005	3,83%								
Investments in non marketable equity securities	2 001	1,53%	36 484	14,08%	28 073	9,64%	1 135	0,22%	10 215	1,98%
Deferred tax assets	2 171	1,66%	3 523	1,36%	1 847	0,63%	1 639	0,32%	5 625	1,09%
Other non-current assets	3 301	2,53%	3 473	1,34%	3 694	1,27%	4 893	0,95%	7 843	1,52%
Total non-current assets	49 788	38,14%	167 216	64,54%	170 842	58,68%	225 211	43,68%	315 521	61,21%
TOTAL ASSETS	130 544	100%	259 097	100%	291 126	100,00%	515 612	100,00%	515 496	100,00%

Table 1 clearly shows the changes in the proportion of items from year to year. These changes can be observed in items like cash, cash equivalents, and deposits combined for 2017 amounted to 65.7 billion rubles, about 50.4% of the company's total assets. The percentage decreased to 26.5% in the following year and amounted to 68.7 billion rubles. I pay particular attention to those items because they are directly affect the company's

liquidity. The current ratio which will be counted in the next chapters of the thesis is one of the most frequently used metrics for determining a company's liquidity. The jump from 50,4% to 26,5% is associated with the growth of other parts of the balance sheet despite the actual amount hasn't changed much. One of the facts of replenishing the account of cash and its equivalents in 2018 is related to creating the joint venture by Yandex. According to the press release of the company (Mandzhikov & Melkumova, 20218), In February 2018, Yandex and Uber International C.V., a subsidiary of Uber Technologies Inc., completed the combination of Yandex.Taxi Holding B.V. with several Uber legal entities into MLU B.V., a Dutch private limited liability company. The Company and Uber each contributed their legal entities operating the ride-hailing and food delivery businesses in Russia, Kazakhstan, Azerbaijan, Armenia, Belarus, and Georgia. The merger was accounted for as a business combination. Thus, after the merger, the company received 20.8 billion Russian rubles in cash and equivalent. In 2019, the share of cash, cash equivalents, and deposits amounted to 30.3% of total assets - 88.3 billion rubles. The year 2020 for the company was marked by a large amount of accumulations in cash, cash equivalent, and deposits, 46.2% of all assets, but if look through the report, it may be seen that this is due to the proceeds from the issue of convertible debt in the amount of 82 billion rubles and proceeds from the issued ordinary shares in the amount of 72.6 billion rubles. In 2021, the absolute value of the same indicators amounted to 102.7 billion rubles or 19.9% of total assets.

When we look at non-current assets, we instantly see significant growth in 2018 from 38.14% to 64.54% compared to the same period a year before. This is related to the change of three items: operating lease right-of-use assets, goodwill, and non-marketable equity securities investments. Examining the assets covered by an operational lease in the form of a right-of-use, the report (Yandex, 2019) states that in February 2016, the FASB issued an ASU on accounting for leases which introduced a model that brings most leases on the lessee's balance sheet. The amendments are effective for annual reporting periods beginning after December 15, 2018, including interim periods within those annual reporting periods. The standard had a material impact on the company's consolidated balance sheets but did not have a material impact on its consolidated statements of income and comprehensive income, its consolidated statements of shareholders' equity, or its consolidated statements of cash flows.

Nearly all operating lease right-of-use assets are real estate (offices, headquarters, representative offices) and cars on Yandex.Drive balance. The number of employees, which grew from 7 445 to 18 004, is associated with business expansion and ride-hailing business, more specifically the car-sharing segment Yandex.Drive and the increase in its fleet to 16,300 as of the end of December 2021, show growth in the reporting periods of 2017 - 2021. This explains an increase in non-current assets from 2018 to 2019 year from 6.81% to 7.29% and the following years (with the exception to the 2020 year). In 2018, goodwill increased significantly, from 9.3 billion rubles (7.15% relative) to 52.7 billion rubles (20.33% relative). This is since 42 billion rubles in goodwill were attributed to the company's Taxi reportable segment as a result of the previously mentioned joint venture between Yandex and Uber in February 2018. More information on goodwill may be found in the horizontal analysis of Assets.

Table 3 Goodwill changes, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2020

	Goodwill changes (in millions rubles)					Total
	Search and Portal	Taxi	Yandex.Market	Classifieds	Media Services	
Balance as of January 1, 2017	1 657	224	106	4 885	1 564	8 436
Acquisitions	—	—	—	303	—	942
Foreign currency translation adjustment	-50	—	—	—	—	-50
Balance as of December 31, 2017	1 607	863	106	5 188	1 564	9 328
Acquisitions	641	42 799	—	—	—	43 440
Disposal due to Yandex.Market deconsolidation	—	—	-106	—	—	-106
Balance as of December 31, 2018	2 248	43 662	—	5 188	1 564	52 662
Acquisitions	295	—	—	—	—	295
Accumulated impairment loss	—	-762	—	—	—	-762
Foreign currency translation adjustment	4	—	—	6	—	10
Balance as of December 31, 2019	2 547	42 900	—	5 194	1 564	52 205
Acquisitions	172	22	51836	—	—	52030
Accumulated impairment loss	—	-762	—	—	-576	-1 338
Balance as of December 31, 2020	2 719	43 724	51 836	5 194	1 564	105 613
Accumulated impairment loss	—	-762	—	—	—	-1 338
	2 719	42 962	51 836	5 194	1 564	104 275

The third aspect for the increase in non-current assets in 2018 is mainly related to the deconsolidation of Yandex.Market assets from the Company's consolidated financial results and accounted for its investment under the equity method within Investments in non-marketable equity securities due to a newly formed joint venture with the company Sberbank. However, just under two years later, Yandex acquired Sberbank's stake in their joint venture Yandex.Market (approximately 50%) and sold to Sberbank a 25% plus RUB

1 interest in Yandex.Money, whilst percentage of investments in non-marketable equity securities as a percentage of total assets decreased from 14.08% to 1.98% in 2021. This could indicate that Yandex prefers to retain complete operational control in joint ventures, which partners may not like and result in the acquisition of their interests by Yandex.

Additionally, it is interesting to observe the absolute and relative worth of a technology company's property and equipment. Servers comprise the majority of this asset category, accounting for around 50% of property and equipment on a yearly basis. Within five years, the relative value nearly remains constant, remaining at an average of 15.58%. However, as search inquiries have increased and the infrastructure has developed, the absolute value has risen from 21 billion rubles in 2017 to 98 billion rubles in 2021. Property and equipment are recorded at cost and depreciated over their useful lives.

Table 4 Property and Plant changes, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2020

	Property and equipment (in millions of rubles)				
		As of December 31,			
	2017	2018	2019	2020	2021*
Servers and network equipment	34 165	49 570	59 409	74 478	—
Land and buildings	5 835	16 261	16 133	18 587	—
Infrastructure systems	7 621	8 753	9 537	14 343	—
Office furniture and equipment	2 090	3 585	4 843	5 847	—
Finance lease right-of-use assets			1 680	3 858	—
Leasehold improvements	976	1 325	1 980	3 087	—
Other equipment	82	519	1 607	3 152	—
Assets not yet in use	694	1 435	3 778	5 817	—
Total	51 463	81 448	98 967	129 169	—
Less: accumulated depreciation	-30 292	-41 708	-51 111	-67 397	—
Total property and equipment, net	21 171	39 740	47 856	61 772	98 325

*The consolidated report for 2021 financial report has not been published on the date of the writing

4.2.2 Vertical analysis of the Equity and Liabilities

Table 5 Vertical analysis of Equity and Liabilities, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2017-2021

	Twelve months ended December 31,									
	2017	%	2018	%	2019	%	2020	%	2021	%
LIABILITIES AND SHAREHOLDERS' EQUITY										
Accounts payable, accrued and other liabilities	11 111	8,51%	22 904	8,84%	34 978	12,01%	43 634	8,46%	84 495	16,39%
Income and non-income taxes payable	4 213	3,23%	4 059	1,57%	8 020	2,75%	12 573	2,44%	16 196	3,14%
Deferred revenue	2 464	1,89%	2 792	1,08%	3 542	1,22%	6 645	1,29%	10 415	2,02%
Total current liabilities	17 788	13,63%	29 755	11,48%	46 540	15,99%	62 852	12,19%	111 106	21,55%
Convertible debt	17 834	13,66%					83 277	16,15%	85 835	16,65%
Deferred tax liabilities	959	0,73%	1 572	0,61%	1 951	0,67%	3 705	0,72%	2 989	0,58%
Operating lease liabilities			12 560	4,85%	10 841	3,72%	12 830	2,49%	24 642	4,78%
Finance lease liabilities							3 387	0,66%	15 350	2,98%
Other accrued liabilities	1 316	1,01%	569	0,22%	2 359	0,81%	1 459	0,28%	2 649	0,51%
Total non-current liabilities	20 109	15,40%	14 701	5,67%	15 151	5,20%	104 658	20,30%	131 465	25,50%
Total liabilities	37 897	29,03%	44 456	17,16%	61 691	21,19%	167 510	32,49%	242 571	47,06%
Redeemable noncontrolling interests	9 821	7,52%	13 035	5,03%	14 246	4,89%	3 167	0,61%	869	0,17%
Shareholders' equity:										
Priority share: €1 par value; 1 share authorized, issued and outstanding	—	—	—	—	—	—	—	—	—	—
Ordinary shares	271	0,21%	263	0,10%	261	0,09%	278	0,05%	281	0,05%
Treasury shares at cost (Class A: 1,928,621 and 795,801, respectively)	-3 814	-2,92%	-10 769	-4,16%	-411	-0,14%	-6	0,00%	-2 728	-0,53%
Additional paid-in capital	16 469	12,62%	69 729	26,91%	68 050	23,37%	160 857	31,20%	112 942	21,91%
Accumulated other comprehensive income	1 864	1,43%	8 182	3,16%	4 841	1,66%	17 923	3,48%	16 193	3,14%
Retained earnings	68 036	52,12%	111 465	43,02%	122 187	41,97%	145 789	28,27%	131 488	25,51%
Total equity attributable to Yandex N.V.	82 826	63,45%	178 870	69,04%	194 928	66,96%	324 841	63,00%	258 176	50,08%
Noncontrolling interests			22 736	8,78%	20 261	6,96%	20 094	3,90%	13 880	2,69%
Total shareholders' equity	82 826	63,45%	201 606	77,81%	215 189	73,92%	344 935	66,90%	272 056	52,78%
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	130 544	100%	259 097	100%	291 126	100%	515 612	100%	515 496	100%

The vertical analysis of liabilities and equity is displayed in Table 4. Accounts payable is an important factor in a business's balance sheet. Throughout the five-year period covered by this work, the proportion of accounts payable to total equity and liabilities averaged 8%, with the exception of 2019, when this ratio increased to 12,01%, and finishing the reporting period in 2021 at 16,39%. If accounts payable increases over the previous period, it indicates that the business is purchasing more goods and services on credit rather than paying cash. If a company's accounts payable drops, it indicates that it is repaying preceding period debts quicker than it is purchasing new things on credit. (Tuovila, 2022) Thus, both the company and investors should pay close attention to this component of obligations and strive to maintain a favorable ratio of current assets to current liabilities in order to ensure timely debt repayment.

In the items which are under non-current liabilities, the biggest part of total non-current liabilities takes convertible debt. In 2017, the proportion of convertible debt at that time was 13.63% of total equity and liabilities. A year later, Yandex fully repaid its convertible

debt in cash and in the next 2 years, the company had no convertible obligations. But in March 2020, the Company issued and sold 82.9 billion rubles in aggregate principal amount of 0.75% convertible notes due March 3, 2025. This may imply that the corporation is considering expanding or making a huge acquisition, as it nearly did in September 2020 when it attempted to acquire the world's largest online bank by client base, Tinkoff (Frost & Sullivan, 2016). However, the deal fell through, and Yandex then acquired another bank. (Королев, 2021) And in February 2021, Yandex.Taxi group of companies under ride-hailing segment of Yandex bought call-centres and a business for ordering cargo transportation from the “Vezet” group of companies for 18.6 billion rubles.

Noncontrolling interest fell year after year until it reached 13 880 billion rubles at the end of 2021, or 2.69% of total equity and liabilities. As previously stated, the corporation acquired controlling holdings in joint ventures in exchange for complete operational control.

Now, let us consider Additional paid-in capital. This particular item refers to money paid by an investor in excess of the par value of a stock. This indication consistently accounted for more than 20% of the total during the 2018-2021 period. Companies perceive additional paid-in capital as a profit opportunity since it results in their obtaining excess cash from stockholders. This capital offers some protection against future losses in the event that retained earnings begin to indicate a deficit. The consistent indicator is a healthy sign for Yandex.

Retained earnings is a quantity of net income that stays in a company after paid out dividends to shareholders or reinvesting money back into the company for developing their business. In 2017 it took 52,12% from the overall percentage of all equity and liability which clearly shows us that company had enough money for doing freely their financial and operating activities and is able to pay their debt and other payables. The share of retained earnings increased steadily in successive years but began to decline in 2021, falling from 145.8 billion rubles to 131.5 billion rubles. Additionally, in 2020, due to the issuance of convertible bonds, the entire portion of the company's liabilities will exceed the portion of funds in retained earnings for the first time. This disparity rose even more significantly a year later, from -21 721 to -111 083 million rubles. This state of affairs is

considered to be riskier to the investors and the creditors of the company. Despite this, Yandex has 4 years to go to repay its long-term debt and the current assets the company has could help her with it.

Finally, it can be seen that the liability portion has increased in respect to the equity share. If the ratio of total liabilities to total equity is typically in favour of the latter, liabilities would account for 47% of the total in 2021, while equity would account for 53%. However, we will discuss this in greater depth during the Ratio analysis.

4.2.3 Horizontal analysis of the Assets

Table 6 Horizontal analysis of Assets, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2017-2021

Consolidated Statement of the Financial Position (in millions of Russian rubles)									
Twelve months ended December 31,									
	2017	%	2018	%	2019	%	2020	%	2021
ASSETS									
Cash and cash equivalents	42 662	▲ 61,26%	68 798	▼ -18%	56 415	▲ 134,69%	132 398	▼ -40,12%	79 275
Term deposits	23 040	▼ -100%		▲ 100%	31 891	▲ 231,71%	105 787	▼ -77,87%	23 415
Investments in marketable equity securities							▲ 100%		4 049
Accounts receivable, net	9 746	▲ 49,50%	14 570	▲ 22,39%	17 832	▲ 42,66%	25 440	▲ 71,26%	43 568
Prepaid expenses	1 269	▲ 66,98%	2 119	▲ 56,44%	3 315	▲ 102,93%	6 727	▲ 88,24%	12 663
Inventory				n/m	808	▲ 495,30%	4 810	▲ 99,31%	9 587
Funds receivable, net		▲ 100%	2 217	▼ -44,70%	1 226	▲ 86,70%	2 289	▲ 169,99%	6 180
Investments in debt securities							▲ 100%		452
VAT reclaimable						▲ 100%	7 573	▲ 78,24%	13 498
Other current assets	4 039	▲ 3,42%	4 177	▲ 110,61%	8 797	▼ -38,88%	5 377	▲ 35,54%	7 288
Total current assets	80 756	▲ 13,78%	91 881	▲ 30,91%	120 284	▲ 141,43%	290 401	▼ -31,14%	199 975
Property and equipment, net	21 171	▲ 87,71%	39 740	▲ 20,42%	47 856	▲ 29,08%	61 772	▲ 59,17%	98 325
Operating lease right-of-use assets		▲ 100%	17 654	▲ 20,19%	21 218	▼ -1,97%	20 800	▲ 74,25%	36 245
Intangible assets, net	5 023	▲ 129,84%	11 545	▼ -10,22%	10 365	▲ 110,73%	21 842	▲ 2,37%	22 359
Content assets, net		▲ 100%	335	▲ 883,58%	3 295	▲ 126,53%	7 464	▲ 84,45%	13 767
Goodwill	9 328	▲ 464,56%	52 662	▼ -0,87%	52 205	▲ 99,74%	104 275	▲ 13,03%	117 864
Long-term prepaid expenses	1 788	▲ 0,67%	1 800	▲ 27,17%	2 289	▼ -39,23%	1 391	▲ 135,66%	3 278
Term deposits, non-current	5 005	▼ -100%							
Investments in non-marketable equity securities	2 001	▲ 1723%	36 484	▼ -23,05%	28 073	▼ -95,96%	1 135	▲ 800%	10 215
Deferred tax assets	2 171	▲ 62,28%	3 523	▼ -47,57%	1 847	▼ -11,26%	1 639	▲ 243,20%	5 625
Other non-current assets	3 301	▲ 5,21%	3 473	▲ 6,36%	3 694	▲ 32,46%	4 893	▲ 60,29%	7 843
Total non-current assets	49 788	▲ 235,86%	167 216	▲ 2,17%	170 842	▲ 31,82%	225 211	▲ 40,10%	315 521
TOTAL ASSETS	130 544	▲ 98,47%	259 097	▲ 12,36%	291 126	▲ 77,11%	515 612	▼ -0,02%	515 496

Given that Yandex is a technology company that generates around 50% of its revenue from advertising, the company is actively contributing to the growth of server infrastructure and network equipment. Between 2017 and 2021, the minimum year-on-year growth was 20%, and the peak was recorded in 2018, with an increase in the company's assets in P&E item

by 87.71% over the same period last year. However, horizontal analysis of the company's revenue and key performance indicators in the financial statement for the same period reveals that the search and portal is not growing as fast as the taxi segment (would be seen in the horizontal analysis of the Income Statement). This segment is responsible for the huge increase in server share, as the company serves as a platform holder, a link between the driver and the client, which requires significant processing capacity to execute requests. According to the report, among other things, the revenue share of the business segment linked with the provision of cloud solutions is increasing. All of this clearly justifies the expansion of the aforementioned balance sheet item.

Another item worth noting is the Inventory. Since 2018, the company has been actively advertising its smart home ecosystem in the IoT industry. According to the company, the primary hub of such a home is a speaker equipped with a smart assistant that responds to user orders. If in 2018 Inventory was under Other current assets and accounted to only 265 million Russian rubles, then at the end of the reporting period in 2021 it was already 9.6 billion rubles, showing almost 100% growth from the previous year. Yandex has already released three speaker models in February 2022 and holds a 70% market share in Russia for the 2018-2021 reporting period. (Just AI, 2021) Additionally, the item inventory includes items sold on the Yandex.Market website.

The only negative percentage among total current and non-current assets is observed in 2020-2021, owing primarily to a -40.12 % in cash and equivalents and a -77.87 % decline in term deposits, respectively. This is for two primary reasons. Firstly, Yandex announced in December 2021 that it had completed the restructuring of its joint venture with Uber, MLU B.V. Following closing, Yandex owns a 100% of Yandex.Eats, Yandex.Lavka, and Yandex.Delivery (Logistics), as well as approximately 71% of newly structured MLU B.V. Yandex also acquired the entirety of Uber's 18.2% stake in Self Driving Group in the first stage, which was completed in September 2021, and now owns 100% of the business. Yandex paid 14.9 billion rubles in cash, the remaining consideration upon the completion of the joint venture restructuring transaction with Uber. Second, in February 2021, the same MLU B.V. announced the acquisition of certain Vezet Group assets, including call centers and cargo business, for 13.3 billion rubles in cash. In February 2021, the purchase was completed. Yandex's cash flow statement for 2021 indicates that the “net change in

cash and cash equivalents, as well as restricted cash and cash equivalents”, was negative, totaling -53 billion rubles. The investments in term deposits (264 billion rubles) and the acquisition of non-redeemable noncontrolling interests (73 billion rubles) had the greatest influence on cash.

According to a vertical analysis of the firm's assets and Table 2, the company acquired goodwill in 2018 as a result of the creation of a joint venture between Yandex and Uber. A similar thing happened in 2020 when the subsidiary business Yandex.Market assets were acquired as part of a deal with Sberbank. If the vertical analysis does not reveal this point due to the constant relative share of 17-20% over 2 years, the trend analysis reveals the growth of 465% and 100% in 2018 and 2020, respectively.

VAT reclaimable and Account receivables show the essential increase with the growth of the business being converted to cash next years.

4.2.4 Horizontal analysis of Liabilities and Equity

Table 7 Horizontal analysis of Equity and Liabilities, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2017-2021

Consolidated Statement of the Financial Position (in millions of Russian rubles)									
Twelve months ended December 31,									
	2017	%	2018	%	2019	%	2020	%	2021
LIABILITIES AND SHAREHOLDERS' EQUITY									
Accounts payable, accrued and other liabilities	11 111	▲ 106,14%	22 904	▲ 52,72%	34 978	▲ 24,75%	43 634	▲ 93,64%	84 495
Income and non-income taxes payable	4 213	▼ -3,66%	4 059	▲ 97,59%	8 020	▲ 56,77%	12 573	▲ 28,82%	16 196
Deferred revenue	2 464	▲ 13,31%	2 792	▲ 26,86%	3 542	▲ 87,61%	6 645	▲ 56,73%	10 415
Total current liabilities	17 788	▲ 67,28%	29 755	▲ 56,41%	46 540	▲ 35,05%	62 852	▲ 76,77%	111 106
Convertible debt	17 834	▼ -100,00%				▲ 100%	83 277	▲ 3,07%	85 835
Deferred tax liabilities	959	▲ 63,92%	1 572	▲ 24,11%	1 951	▲ 89,90%	3 705	▼ -19,33%	2 989
Operating lease liabilities		▲ 100,00%	12 560	▼ -13,69%	10 841	▲ 18,35%	12 830	▲ 92,07%	24 642
Finance lease liabilities						▲ 100%	3 387	▲ 353,20%	15 350
Other accrued liabilities	1 316	▼ -56,76%	569	▲ 314,59%	2 359	▼ -38,15%	1 459	▲ 81,56%	2 649
Total non-current liabilities	20 109	▼ -26,89%	14 701	▲ 3,06%	15 151	▲ 591%	104 658	▲ 25,61%	131 465
Total liabilities	37 897	▲ 17,31%	44 456	▲ 38,77%	61 691	▲ 172%	167 510	▲ 44,81%	242 571
Redeemable noncontrolling interests	9 821	▲ 32,73%	13 035	▲ 9,29%	14 246	▼ -77,77%	3 167	▼ -72,56%	869
Shareholders' equity:									
Priority share: €1 par value;									
1 share authorized, issued and outstanding									
Ordinary shares	271	▼ -2,95%	263	▼ -0,76%	261	▲ 6,51%	278	▲ 1,08%	281
Treasury shares at cost									
(Class A: 1,928,621 and 795,801, respectively)	-3 814	▲ 182,35%	-10 769	▼ -96,18%	-411	▼ -98,54%	-6	▲ 45367%	-2 728
Additional paid-in capital	16 469	▲ 323,40%	69 729	▼ -2,41%	68 050	▲ 136%	160 857	▼ -29,79%	112 942
Accumulated other comprehensive income	1 864	▲ 338,95%	8 182	▼ -40,83%	4 841	▲ 270%	17 923	▼ -9,65%	16 193
Retained earnings	68 036	▲ 63,83%	111 465	▲ 9,62%	122 187	▲ 19,32%	145 789	▼ -9,81%	131 488
Total equity attributable to Yandex N.V.	82 826	▲ 115,96%	178 870	▲ 8,98%	194 928	▲ 66,65%	324 841	▼ -20,52%	258 176
Noncontrolling interests		▲ 100,00%	22 736	▼ -10,89%	20 261	▼ -0,82%	20 094	▼ -30,92%	13 880
Total shareholders' equity	82 826	▲ 143,41%	201 606	▲ 6,74%	215 189	▲ 60,29%	344 935	▼ -21,13%	272 056
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	130 544	▲ 98,47%	259 097	▲ 12,36%	291 126	▲ 77,11%	515 612	▼ -0,02%	515 496

There are two types of liabilities that have not been considered in the vertical analysis, but which will be considered through the perspective of the horizontal analysis: operating lease liabilities and finance lease liabilities, which are associated with operating lease right-of-use assets. Non-current operating Lease liabilities were first listed as a separate item on the balance sheet in 2018. Since then, at the end of 2021, the absolute figure has almost doubled and reached 24 642 million rubles. The increase in non-current Finance lease liabilities was 353% in 2021 compared to 2020. As mentioned earlier, with the growth in the number of employees and the company's vehicle fleet, the company's leasing obligations have increased. Leasing is more convenient in such cases, as the company has the option of paying in part instead of repaying the full amount immediately, which allows it to plan its finances more freely.

Table 8 Operating and Finance Leases changes, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2018-2021

Operating and Finance Leases (in million rubles)

	As of December 31,			
	2018	2019	2020	2021*
OPERATING LEASES				
Operating lease right-of-use assets	17 654	21 218	20 800	36 245
Operating lease liabilities - current	6 516	10 603	8 620	n/d
Operating lease liabilities - non-current	12 560	10 841	12 830	24 642
Total operating lease liabilities	19 076	21 444	21 450	n/d
FINANCE LEASES				
Finance lease liabilities - current	36	462	321	n/d
Finance lease liabilities - non-current	76	1 094	3 387	15 350
Total finance lease liabilities	112	1 556	3 708	n/d

*The consolidated report for 2021 financial report has not been published on the date of the writing

Accumulated other comprehensive income showed rapid growth of 339% in 2018, from 1 864 to 8 182 million of Russian rubles, with the same rapid loss of that amount the next year by -41% to 4 841 million. And the same happened again in the following years. As the company's report states, Accumulated other comprehensive income consists solely of

cumulative foreign currency translation adjustments, which in general has almost no effect on the overall neither financial performance or position of the company.

And the last to mention is the 591% change in Non-current liabilities of Yandex in the 2020 fiscal year. The reason for this is the issuance of convertible bonds, as was previously disclosed.

4.3 Analysis of financial performance – Income Statement

In conjunction with the balance sheet, and cash flow statement, income statements provide a holistic view of a business's operational results, allowing executives, analysts, and investors to assess its value and efficiency and, ideally, forecast its future trajectory. With the same methods used above, common size analysis and trend analysis, statements of income will be studied, particularly revenues and expenses covering the 2017-2021 period.

4.3.1 Vertical analysis of Expenses

Table 9 Vertical analysis of Expenses, Own processing based on the Consolidated Statement of Financial Performance of Yandex FY 2017-2021

Consolidated Statement of Income (in millions of Russian rubles)										
Twelve months ended December 31,										
	2017	%	2018	%	2019	%	2020	%	2021	%
OPERATING COSTS AND EXPENSES										
Cost of revenues	23 937	29,55%	35 893	33,60%	55 788	37,02%	85 734	42,30%	173 952	47,08%
Product development	18 761	23,16%	22 579	21,14%	29 209	19,38%	36 339	17,93%	48 461	13,12%
Sales, general and administrative	27 081	33,43%	36 206	33,90%	50 155	33,28%	62 913	31,04%	122 924	33,27%
Depreciation and amortization	11 239	13,87%	12 137	11,36%	14 777	9,81%	17 687	8,73%	24 111	6,53%
Goodwill impairment	—	n/m	—	n/m	762	0,51%	—	n/m	—	n/m
Total operating costs and expenses	81 018	100%	106 815	100%	150 691	100%	202 673	100%	369 448	100%
FINANCE INCOME/(EXPENSES)										
Interest income	2 909	436,79%	3 382	66,33%	3 315	-1521%	3 869	128,75%	4 615	76,43%
Interest expense	-897	-134,68%	-945	-18,53%	-74	33,94%	-2 373	-78,97%	-3 711	-61,46%
Income/(loss) from equity method investments	—	—	-194	-3,80%	-3 886	1783%	-2 175	-72,38%	6 367	105,45%
Other income/(loss), net	-1 466	-220,12%	1 130	22,16%	-1 200	550,46%	2 321	77,24%	-1 217	-20,16%
Net loss/(income) attributable to noncontrolling interests	120	18,02%	1 726	33,85%	1 627	-746%	1 363	45,36%	-16	-0,26%
Total finance income/(expenses)	666	100%	5 099	100%	-218	100%	3 005	100%	6 038	100%

Each year, the cost of revenues as a percentage of overall operating costs and expenses grows by an average of 4-5%. Thus, in 2017, the cost of revenues was 29.55 % or 23.9 billion rubles, but then after four years, it increased to 47.08 % or 174 billion rubles. Cost of revenues, as defined in the company's financial report, comprises mostly of traffic

acquisition costs and costs associated with the Taxi segment, excluding the cost of goods sold, cost of devices and other goods sold, and other costs of revenues.

Table 10 Cost of Revenues changes, Own processing based on the Consolidated Statement of Financial Performance of Yandex FY 2017-2021

	Cost of Revenues (in million rubles)				
		As of December 31,			
	2017	2018	2019	2020	2021
Traffic acquisition costs	17 345	20 498	23 140	19 946	25 669
Costs related to MLU (Taxi) segment, excluding sales of goods	1 240	7 692	20 113	29 014	52 945
Cost of devices and other goods sold	-	1 019	2 215	17 586	49 957
Other cost of revenues	4 560	6 684	10 320	19 188	45 381
Total cost of revenues	23 145	35 893	55 788	85 734	173 952

Cost of revenues increased by 29 946 million rubles, or 53.7%, from 2019 to 2020, primarily due to a 15 371 million rubles increase in cost of devices and other goods sold, as well as due to a 8 901 million rubles increase in Taxi segment costs, excluding cost of goods sold (principally for costs of logistics service and the increase of costs related to the company's corporate Taxi business), to a 8 868 million rubles increase in other cost of revenues, and decreased by 3 194 million rubles in traffic acquisition costs. Thus, the company is actively developing its non-advertising business areas, and the costs associated with their running operations are increasing accordingly.

Product development consistently accounts for about 20% of operating costs and expenses and consist primarily of personnel costs incurred for the development, enhancement and maintenance of our search engine and other Yandex services and technology platforms. Rent and utilities attributable to office space occupied by development staff in product development expenses are also included in such costs. This trend is a good sign, but if we consider the ratio of development costs to revenue, this figure will be 19.9%, 17.7%, 16.7%, 16.7% and 13.6% in the 2017-2021 time period. Accordingly, the company spends more in absolute terms, but less as a percentage of revenues, which is contrary to the company's own expectations for 2020.

The relative values of Sales, general and administrative are also stable. But in more detail, we will consider this item of expenditure in horizontal analysis.

Finance expenses in the vertical analysis will not be affected due to low significance relative to other expenses and not too large changes in absolute terms.

4.3.2 Vertical analysis of Revenues

Table 11 Vertical analysis of Revenues, Own processing based on the Consolidated Statement of Financial Performance of Yandex FY 2017-2021

Segment financial results (in millions of Russian rubles)										
REVENUE BY SEGMENT	2017		2018		Twelve months ended December 31,				2021	
		%		%	2019	%	2020	%		%
Search and Portal	84 168	89,49%	101 021	79,13%	121 547	69,30%	124 810	57,16%	165 235	46,39%
E-commerce	4 968	5,28%								
Yandex.Market*			1 697	1,33%	n/m	n/m	13 867	6,35%	35 288	9,91%
Taxi	4 891	5,20%	19 213	15,05%	45 587	25,99%	67 955	31,12%	131 571	36,94%
Classfields	2 059	2,19%	3 717	2,91%	5 390	3,07%	5 778	2,65%	8 158	2,29%
Media Service	1 187	1,26%	1 909	1,50%	3 867	2,20%	7 807	3,58%	18 408	5,17%
Other Business Units and Initiatives	369	0,39%	5 625	4,41%	7 877	4,49%	11 105	5,09%	24 082	6,76%
Eliminations	-3 588	-3,81%	-5 525	-4,33%	-8 877	-5,06%	-12 978	-5,94%	-26 571	-7,46%
Total Revenue	94 054	100,00%	127 657	100,00%	175 391	100,00%	218 344	100,00%	356 171	100,00%

*Financial results of Yandex.Market for the full year ended December 31, 2019 were not included in Yandex's consolidated financial results on a consolidated basis, but portion of the results were recognized in line «Loss from equity method investments» due to accounting for the equity stake in Yandex.Market.

We begin by focusing on the Search and Portal. As can be observed, this segment's revenue share has steadily fallen from 89.49% in 2017 to 46.39% in 2021. That is, Yandex reduced its entire income dependence on the first segment in the table by nearly double. Simultaneously, the corporation was actively developing its other units, indicating the company's diversification. This is an enormous amount of work, which enabled Yandex to establish new revenue streams. And, while we're on the subject of new revenue channels, Yandex not only creates new business segments within the company, but also integrates them into one organic ecosystem of mobile applications and services, resulting in mutually beneficial growth.

The company's taxi segment has also grown significantly, including the taxi aggregator itself, car-sharing businesses, FoodTech businesses (ready-to-eat and grocery delivery services, as well as hyperlocal convenience store delivery services), and Yandex.Delivery

(Logistics), a last-mile logistics solution for individuals, small businesses, and enterprises. In 2017, this segment generated only 5.2% of overall revenue, but over the next three years, this percentage climbed to 37% or 131 571 of 356 171 million rubles in total. As indicated in the Balance Sheet analysis, this is attributable to the formation of joint ventures, capital injections, and the industry's development itself.

And there is also a Yandex.Market. At its core, the Yandex.Market is the e-commerce segment of the company, separated into an independent business unit. Unfortunately, there is no very accurate information on Yandex.Market's revenue due to the creation of a joint venture with Sberbank and the subsequent buyout of its share by Yandex, but in any case, an increase in both the revenue from this segment and its percentage of total revenue is clearly visible. The change in other revenues does not really affect total revenues as other revenues account for a really small percentage of total revenues.

4.3.3 Horizontal analysis of Income Statement

Table 12 Horizontal analysis of Income Statement, Own processing based on the Consolidated Statement of Financial Performance of Yandex FY 2017-2021

Consolidated Statement of Income (in millions of Russian rubles)									
	2017		2018*		2019**		2020		2021
		%		%		%		%	
REVENUE BY SEGMENT									
Search and Portal	84 168	▲ 20,02%	101 021	▲ 20,32%	121 547	▲ 2,68%	124 810	▲ 32,39%	165 235
E-commerce	4 968	▼ -100%							
Yandex.Market		▲ 100%	1 697	—	n/m	—	13 867	▲ 154,47%	35 288
Taxi	4 891	▲ 292,82%	19 213	▲ 137,27%	45 587	▲ 49,07%	67 955	▲ 93,61%	131 571
Classfields	2 059	▲ 80,52%	3 717	▲ 45,01%	5 390	▲ 7,20%	5 778	▲ 41,19%	8 158
Media Service	1 187	▲ 60,83%	1 909	▲ 102,57%	3 867	▲ 101,89%	7 807	▲ 135,79%	18 408
Other Business Units and Initiatives	369	▲ 1424%	5 625	▲ 40,04%	7 877	▲ 40,98%	11 105	▲ 116,86%	24 082
Eliminations	-3 588	▲ 53,99%	-5 525	▲ 60,67%	-8 877	▲ 46,20%	-12 978	▲ 104,74%	-26 571
Total Revenue	94 054	▲ 35,73%	127 657	▲ 37,39%	175 391	▲ 24,49%	218 344	▲ 63,12%	356 171
OPERATING COSTS AND EXPENSES									
Cost of revenues	23 937	▲ 49,95%	35 893	▲ 55,43%	55 788	▲ 53,68%	85 734	▲ 102,90%	173 952
Product development	18 761	▲ 20,35%	22 579	▲ 29,36%	29 209	▲ 24,41%	36 339	▲ 33,36%	48 461
Sales, general and administrative	27 081	▲ 33,70%	36 206	▲ 38,53%	50 155	▲ 25,44%	62 913	▲ 95,39%	122 924
Depreciation and amortization	11 239	▲ 7,99%	12 137	▲ 21,75%	14 777	▲ 19,69%	17 687	▲ 36,32%	24 111
Goodwill impairment	—		—		762	▲ 100%	—		—
Total operating costs and expenses	81 018	▲ 31,84%	106 815	▲ 41,08%	150 691	▲ 34,50%	202 673	▲ 82,29%	369 448
Income/(loss) from operations	13 036	▲ 59,88%	20 842	▲ 18,51%	24 700	▼ -37%	15 671	▼ -184,72%	-13 277
Interest income	2 909	▲ 16,26%	3 382	▼ -1,98%	3 315	▲ 16,71%	3 869	▲ 19,28%	4 615
Interest expense	-897	▲ 5,35%	-945	▼ -92,17%	-74	▲ 3107%	-2 373	▲ 56,38%	-3 711
Effect of Yandex Market consolidation	—	▲ 100%	28 244	▼ -100%	—	▲ 100%	19 230	▼ -100%	—
Income/(loss) from equity method investments	—	▲ 100%	-194	▲ 1903%	-3 886	▼ -44,03%	-2 175	▼ -392,74%	6 367
Other income/(loss), net	-1 466	▼ -177,08%	1 130	▼ -206,19%	-1 200	▼ -293,42%	2 321	▼ -152,43%	-1 217
Net income/(loss) before income taxes	13 582	▲ 286,24%	52 459	▼ -56,43%	22 855	▲ 59,89%	36 543	▼ -119,77%	-7 223
Income tax expense	4 926	▲ 66,48%	8 201	▲ 42,13%	11 656	▲ 13,19%	13 193	▼ -43,68%	7 430
Net income/(loss)	8 656	▲ 411,30%	44 258	▼ -74,70%	11 199	▲ 108,50%	23 350	▼ -162,75%	-14 653
Net loss/(income) attributable to noncontrolling interests	120	▲ 1338%	1 726	▼ -5,74%	1 627	▼ -16,23%	1 363	▼ -101,17%	-16
Net income/(loss) attributable to Yandex N.V.	8 776	▲ 423,97%	45 984	▼ -72,11%	12 826	▲ 92,68%	24 713	▼ -159,36%	-14 669

Throughout the reporting periods examined, all segments of Yandex's company showed positive growth in revenue terms. Consistent and structural growth indicates that the company is heading in the right direction. However, let us examine the Income Statement's trend analysis table (Table 11) in further detail.

Media Service and Other Business Units and Initiatives. Although the Media Service section of Yandex does not create as much revenue as the Search and Portal or Taxi segments, it had a 61% gain in revenue in 2018 compared to 2017 and improved growth rates by at least twofold between 2018 and 2021 yearly. According to the firm, the increase in this segment's share of total revenues in 2019 and 2020 is mostly due to the expansion of Yandex Plus members, a subscription service, from 2.7 million of people to 6.9 million, partially supported by COVID-19 lockdowns in 2020. As indicated previously, the effort to create a single ecosystem of applications and services is “bearing fruit”. The same is true for the Other Business Units and Initiatives sector, which comprised Zen, Yandex.Cloud, Yandex.Drive (which lately accounted under Taxi segment), Yandex.Health, and Yandex Data Factory in 2018. The business unit has also been expanded to include the Yandex Self-Driving Group, Devices, FinTech, Yandex.Services, and Yandex.Education teams. Between 2017 and 2018, revenue in this area climbed by 5 256 million rubles, or 1424%, and by 12 977 million rubles, or 116%, between 2020 and 2021. In 2018, revenues from Other Business Units and Initiatives were primarily driven by Yandex.Drive and Zen, states the report. In 2021 the increase was primarily due to rapid growth in Devices (revenue increased on the back of strong demand for our stations and consumer price increases per device), Zen (due to the development of new formats aimed at improving the quality of content and advertising feed), and Cloud (due to client base expansion and strong acceleration in the consumption of platform services). Finally, with regards to revenue – Eliminations. Eliminations are the outcomes of transactions across reportable segments, principally advertising, brand royalties, and server costs, and so parsing this item makes little sense.

Additionally, a 93.6% increase in revenue cost is visible in 2021. This item has already been parsed using common size analysis. What I'd want to add is a pretty rapid growth rate of about twofold, which the company itself stated in 2020 in its report that “the cost of revenues will continue to rise in absolute terms primarily as a result of increases in Taxi

and Yandex direct expenses. Expenditures associated with market segmentation, IoT device production and logistics, as well as content and data center costs, have increased as a percentage of sales in the near future”. Along with this increase, sales, general, and administrative expenses increased by a similar 95.4%. By and large, these two subcategories of expense items due to personnel expenses, which supported revenue growth of MLU (Taxi) and Search and Portal, growth acceleration of Yandex.Market, advertising, and performance marketing activities to support Yandex market share gains, and the expansion of customer base in a number of services (primarily Ride-hailing, E-commerce businesses, Search and Portal, and Yandex Plus subscription program). 2021 dynamics were also affected by the pandemic-related cost optimization measures that were implemented in 2020.

Depreciation and amortization are growing mainly due to the company's purchase of goods for sale on Yandex.Market platform and the production of its own devices. If some of them are not sold, all expenses with the loss of their values are displayed in the Income Statement.

All of the above, including vertical and horizontal analysis of revenues and expenses, explains why the company lost money for the first time in five years in 2021. The business's low margins and the costs involved with segment expansion are the primary causes for the income category's negative value. However, I believe the corporation can afford it given its accumulated funds and revenue, which almost entirely cover operating expenses. Investors think so too, as the company's shares increased by 6% on the day the fiscal year 2021 report was published. (BCS Express, 2022)

4.4 Selected ratios of financial analysis

In this chapter Current Ratio, Operating margin Ratio, Debt to Equity Ratio, Return on Assets, and Return on Equity will be analyzed covering the 2017-2021 period.

4.4.1 Current Ratio

Table 13 Current Ratio, Own processing based on the Consolidated Statement of Financial Position of Yandex FY 2017-2021

	As of December 31 (in millions of Russian rubles)				
	2017	2018	2019	2020	2021
Total current assets	80 756	91 881	120 284	290 401	199 975
Total current liabilities	17 788	29 755	46 540	62 852	111 106
Current Ratio	4,54	3,09	2,58	4,62	1,80

As noted in the literature review, it is important to keep the coefficient's value of at least 1 for the Current ratio. But it is also important not to have it too high, which means that the company uses its own current assets inefficiently or does not use enough borrowed capital. The ratio gradually dropped over the next five years (except in 2020, when the company issued convertible debt which is meant to be repaid in five years but received cash and received proceeds from the sale of company stock in the same year) and reached 1.8 in 2021. If we take for comparison the median values for the computer software development industry, which Yandex falls under, for the US market, where the company's shares are traded, and for Russia, where the company is based, then they will be equal to 1.6 (for 2020) and 1.3 (for 2019), respectively. (Test Firm, 2020) (ReadyRatios, 2021) Thus, it can be noted that the company is efficient in the use of current assets.

4.4.2 Operating Margin Ratio

Table 14 Operating Margin Ratio, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2021

	As of December 31 (in millions of Russian rubles)				
	2017	2018	2019	2020	2021
Operation Income	13 036	20 842	24 700	15 671	-13 277
Revenue	94 054	127 657	175 391	218 344	356 171
Operating margin ratio	13,86%	16,33%	14,08%	7,18%	-3,73%

The table demonstrates Yandex's operating margin indicator's inconsistency. In 2017 and 2018, the company generated 0.14 and 0.16 rubles of net profit for each ruble earned, respectively, indicating growth. However, in 2019, the ratio was 14.08%, down from

16.33% in 2018. It increased again in 2020, followed by a decline in 2021, 7.18% and -3.73%, respectively. Now consider the median values for the United States and Russia. The latest recent estimates are -8.6% for the United States in 2020 (Table 14) and 3.74% for Russia in the 2019 (Test Firm, 2020). In general, Yandex outperforms other industry competitors. Naturally, median numbers vary from year to year. For instance, the US market is not as marginal as the Russian sector, with most enterprises operating at a loss. Yandex, on the other hand, earned a profit and maintained a competitive advantage between 2017 and 2020 (Table 13). In 2021, the situation shifted, and the corporation recorded losses for the fiscal year, losing 0.04 rubles for each earned.

Table 15 Median averages of Operating margins in the USA, (ReadyRatios, 2021)

	2017	2018	2019	2020	2021	2022
Operating margin	-7.9%	-5.6%	-1.7%	-0.6%	-1.7%	-8.6%

4.4.3 Return on Equity

Table 16 ROE, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2021

	As of December 31 (in millions of Russian rubles)				
	2017	2018	2019	2020	2021
Net income/(loss)	8 776	45 984	12 826	24 713	-14 669
Total equity	82 826	201 606	215 189	344 935	272 056
ROE	10,60%	22,81%	5,96%	7,16%	n/m

In the literature review, it was said that if a return on equity was less than 10%, it is considered as poor. The ROE was always changing and ranged from less than 2% to more than 17% from year to year. Across the United States in the same industry, the median ROE for 2020 is -17%, and overall over the past 5 years till 2020, the ROE has been negative. When looking at ROE, it needs to be compared to how the company has done in the past and to how the industry as a whole has done. It doesn't mean much if it's only looked at alone. (CFI, n.d.) Yes, the overall figure has dropped, but when we look at the company's income and expenses in horizontal and vertical analyses, we see that in 2021, the company increased its spending dramatically, resulting in the above drop.

4.4.4 Return on Assets

Table 17 ROA, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2021

	As of December 31 (in millions of Russian rubles)				
	2017	2018	2019	2020	2021
Net income	8 776	45 984	12 826	24 713	-14 669
Total Assets	130 544	259 097	291 126	515 612	515 496
ROA	6,72%	17,75%	4,41%	4,79%	n/m

Now, let us examine Table 16, containing Yandex's ROA calculations. As with ROE, we should avoid excessive reliance on ROA indicators, as they do not accurately reflect a company's financial status and performance. They were chosen in order to conditionally see how much the company earns for each ruble invested by the company in assets. ROA was 6.72% in 2017, 4.41% in 2019, and 4.79% in 2020. In 2018, the indicator increased significantly in response to the similar sharp increase in income, but reversed course in 2021, when ROA became negative as a result of the company's net losses during the reporting period. For the computer technology industry in the United States, the median return on assets is negative for the 2017-2020 timeframe, according to the latest recent data.

4.4.5 Debt-to-Equity Ratio

Table 18 D/E Ratio, Own processing based on the Consolidated Financial Statements of Yandex FY 2017-2021

	As of December 31 (in millions of Russian rubles)				
	2017	2018	2019	2020	2021
Total liabilities	37 897	44 456	61 691	167 510	242 571
Total equity	82 826	201 606	215 189	344 935	272 056
Debt-Equity Ratio	0,46	0,22	0,29	0,49	0,89

For the period examined in my thesis work, the D/E indicator did not exceed the value of 1, which, as the literature research indicates, is good for business. In 2021, the indicator increased from 0.49 to 0.89 as Accounts payables and Operating and Finance leasing

obligations increased, and Additional paid-in capital and Retained earnings in Equity have decreased. For comparison, a figure of 0.73 is typical for the United States in 2020.

5. Results and Discussion

Results are based on the financial position and performance of the company which are evaluated using the data from the practical section of the thesis. The balance sheet analysis is used to examine the company's financial position, while the income statement analysis is used to assess the company's financial performance. Profitability is influenced by both internal and external factors. Internal factors include the company's revenues and expenses and external include for instance law regulations, covid-19 or economic difficulties of the country where the company is based.

5.1 Assessment of the financial position of the company

The common size analysis revealed that the company's assets are diverse in terms of significance, with Goodwill accounting for 22.86% of total assets, Property and equipment accounting for 19.07%, and Cash and cash equivalents accounting for 15.38% in the 2021 financial year report. The ratio of current and non-current assets has fluctuated throughout time, reaching 38.79% and 61.21% of total assets in 2021. In 2021, the most significant sources of financing are Convertible debt and Account payables, both of which are account for 16% of liabilities, and Retained earnings (25.5%) with Additional paid-in capital (22%) within the equity. Even though the data is for 2021, all of the above-mentioned items held considerable shares in their respective categories, with the exception of Convertible debt, whose share rose sharply in 2020.

The trend analysis, Table 5, showed that the biggest changes from the relative perspective in 2021 in assets were within non-current assets, like Deferred tax assets, Investments in non-marketable equity securities, and Long-term prepaid expenses with 243%, 800%, and 136% year-over-year growth. However, the vertical analysis revealed that these items are not nearly as critical as others. Over the course of five years, I concentrated on changes in Plant and equipment, Inventories, and Goodwill. Thus, Plant and equipment increased by 87.7% in 2019, from 21 171 to 39 740 million rubles; Inventory increased by 495% and 99.3% in 2020-2021, respectively, from 808 to 9 587 million rubles; and Goodwill increased by 1164%, from 9 328 to 117 864 million rubles. Within liabilities, Table 6, both Operating lease and Finance lease obligations have changed significantly over the years.

Finance lease liabilities increased by 353% in 2021 compared to 2020. Operating lease liabilities increased by 100% and 92% in 2018 and 2021, respectively. Account payables increased by 11 111 million rubles to 84 495 million rubles from 2017 to 2021 period. As to the changes in Equity, the most significant change occurs in 2021 with respect to treasury stock (own shares bought back by the company from the shareholders). With a minus sign, there was a 45367% change from the prior year. Other comprehensive income increased 339% year on year in 2018, from 1 864 to 8 182 million Russian rubles.

The Company maintains sufficient cash and deposit funds to cover its current debts. Additionally, the company's infrastructure is expanding in lockstep along with the number of servers. Also, despite the increase in D/E in 2021, the company's debt-to-equity ratio remains favorable. But the problem may arise with the repayment of a convertible loan of \$1.25 billion from 2020 due to floating international and Russian currency rates, while the company receives almost all of its revenue in rubles.

5.2 Assessment of the financial performance of the company

The vertical analysis, Table 10, showed that the company managed to diversify revenue channels through the Taxi segment. For 2021, it accounted for 37% of all revenue, 46% belongs to the Search and portal segment. Simultaneously, Yandex's main expense is revenue cost (47% of 369 billion or 174 billion rubles). Each year, the cost of revenues increased by an average of 4-5 percent as a percentage of total operating costs and expenses. Sales, general, and administrative expenses come in second place with 33% or 122 billion rubles in absolute terms. these two subcategories of expense items due to personnel expenses, which supported revenue growth of Taxi and Search and Portal business units, growth acceleration of Yandex.Market, advertising and performance marketing activities to support Yandex market share gains, and the expansion of customer base in a number of services (primarily Ride-hailing, E-commerce businesses, Search and Portal and Yandex Plus subscription program).

The horizontal analysis showed, Table 11, that practically all company segments grew 1.5-2 times in 2021, resulting in a 63% yearly increase in total revenues. In general, all Yandex business units grew steadily between 2017 and 2021. In terms of spending, the above-

mentioned Cost of revenue and Sales, general, and administrative expenses are up by 103% and 95%, respectively, in 2021. Unfortunately, the company did not publish information on expenses at the time of writing the thesis, but such growth was most likely driven by injections of funds into the expansion of its segments in the markets.

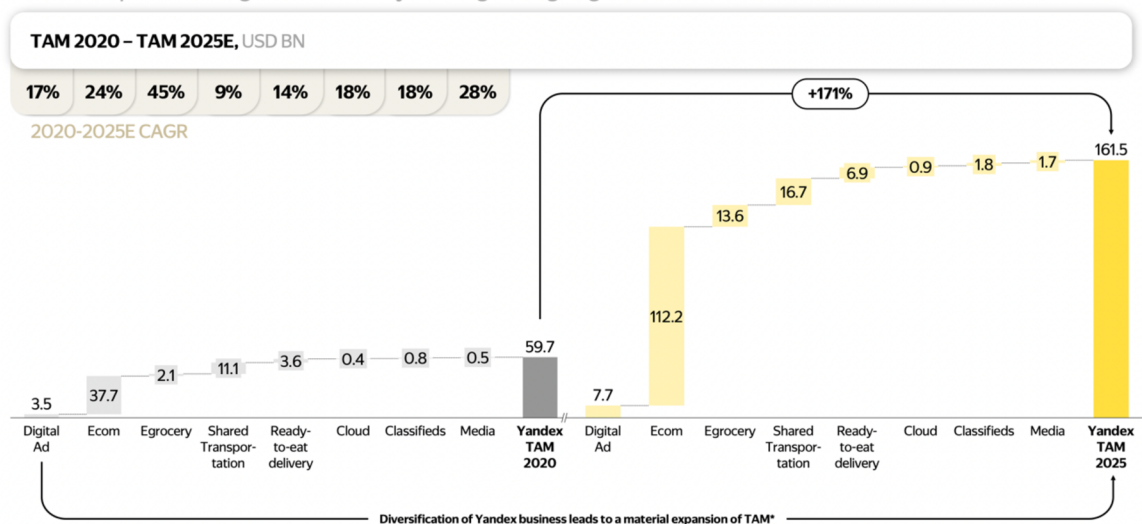
5.3 Factors influencing the profit

Profitability was achieved over a four-year period, from 2017 to 2020 inclusive. For the first time in many years, the corporation posted a financial loss in 2021. Previously, the factors affecting the company's earnings were identified: high development expenses for new business divisions. The essential of every company is to earn money. Yandex started to invest in new revenue streams. Figure 3 depicting the primary markets in which the company is currently operating is included in the investment presentation from 2020. It's worth noting that the forecasted size of the online advertising industry in 2025 is \$7.7 billion, and given the presence of Google, Facebook, VK, TikTok, and other companies in this market, Yandex will find it difficult to maintain a consistent share rise. But the target market as a whole, including the company's other businesses, exceeds \$160 billion. And Yandex has yet to enter or operate in any other significant markets - finance, education, or healthcare, for example.

Figure 3 Yandex TAM, (Yandex, 2021)

Yandex Total Addressable Market

Yandex exposed to large TAM and major fast-growing segments



The point is that Yandex is committed to moving away from the stereotype of a search engine image that has established itself in Russia and toward becoming a true information technology giant proficient of nearly anything.

Therefore, why did Yandex allow itself to finish the year in the minus? It's also about the investors' faith in the business. Unlike practically every other Russian company, Yandex has never paid dividends and will not in the foreseeable future, allowing it to spend all cash to expand existing or new businesses, even if the return on investment is many years later. Additionally, the company has a “cash machine” in the form of a search engine, and a now-profitable Taxi segment with a high valuation of \$20 billion, and the capacity to borrow money very inexpensively in the market (for example, through convertible bonds at 0.75%). All the mentioned influence the company's profit.

5.4 The main possible problem areas

Nevertheless, the company identifies the following possible risks that may occur:

5.4.1 Risks Related to the Current Global Political, Regulatory and Economic Environment

- The principal markets in which Yandex operates are generally subject to greater financial, economic, legal, and political risks than more developed markets. Such risks may have a material adverse effect on its business, financial condition, and results of operations.
- Risks related to health epidemics and related crises, including the COVID-19 pandemic.
- The adoption and maintenance of international embargo, economic or other sanctions against Russia or certain persons in Russia may have a material adverse effect on business, financial condition, and results of operations.
- If existing limitations on foreign ownership were to be extended to the business, or if new limitations were to be adopted, it could materially adversely affect the Yandex group. (Yandex, 2021)

5.4.2 Risks Related to IT Business and Industry

- Reduction in spending by or loss of advertisers.

- Any decline in the internet as a significant advertising platform in the countries in which the company operates would affect the profit.
- The loss of any of our key personnel, or a failure to attract, retain and motivate qualified personnel.
- As the internet evolves, an increasing amount of online content may be held in closed social networks, mobile apps or proprietary document formats, which may limit the effectiveness of the search technology. (Yandex, 2021)

5.4.3 Additional Risks Related to Regulatory Matters

- The need to comply with applicable Russian laws and regulations could hamper the ability to offer services that compete effectively with those of Yandex's foreign competitors.
- The competent authorities could determine that the company holds a dominant position in one or more markets and could impose limitations on the operational flexibility. (Yandex, 2021)

6. Conclusion

The aim of this bachelor thesis is to assess the financial position and performance of a chosen company operating in the information technology industry in Russia by analyzing the company's financial statements with a focus on the reported assets, liabilities, expenses, and revenues for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit from the company and industry point of view.

Financial statements provide information on an economic entity's financial position as of the reporting date, which can be determined via a balance sheet analysis, as well as its financial results during the reporting period, which can be determined through an income statement analysis. The balance sheet is represented by the company's assets, liabilities, and equity, while the income statement summarizes revenue, expenses, profits, and losses. The thesis paper studied and analyzed the Russian corporation Yandex, which operates in the Russian information technology industry. The company's annual financial statements for the years 2017 through 2020 and the full-year 2021 financial results announced in February 2022 were the primary data sources.

Yandex's financial position analysis revealed a diverse range of assets, with goodwill, property and equipment, and cash and cash equivalents accounting for the majority of total assets. Non-current assets accounted for the bigger share of total assets. The most significant sources of financing are Convertible debt and Account payables. Retained earnings with additional paid-in capital comprise the greatest portion of equity. All of the above-mentioned items held considerable shares in their respective categories, with the exception of Convertible debt, whose share rose sharply in 2020.

Financial performance analysis revealed that online advertising and the Taxi business segment generate the majority of revenue. Particularly in recent years, revenue from the latter has grown faster than revenue from the others in absolute terms. Yandex's main expense is revenue cost. Sales, general, and administrative costs are ranked second. These two subcategories of expense items due to personnel expenses, which supported revenue growth of the company's business units, mainly Taxi and E-commerce segments.

Profitability was achieved over a four-year period, from 2017 to 2020 inclusive, however, the 2021 fiscal year was reported with a loss. Income is affected by the creation of new revenue streams and the associated expenses. Due to the fact that the company's portion of the internet advertising market is unlikely to rise significantly due to intense competition, the company is focusing its efforts on other areas. However, the company may find it difficult to pay its debts due to its profits mainly in the Russian market and possible economic sanctions along with the outflow of personnel abroad.

7. Bibliography

1. James, T., n.d. *Luca Pacioli the 'Father of Accounting'*. [Online]
Available at: <https://www.stptax.com/luca-pacioli-the-father-of-accounting/>
2. Ministry of Finance of the Russian Federation, 2011. *Federal Law No. 402-FZ of 06.12.2011 "On Accounting"*. [В Интернете]
Available at: https://minfin.gov.ru/ru/document/?id_4=15014-federalnyi_zakon_ot_06.12.2011_402-fz_o_bukhgalterskom_uchete
3. Ministry of Finance of the Russian Federation, 2000. *Chart of Accounts for Financial and Economic Activities of Organizations and Instructions for the Application of the Chart of Accounts for Financial and Economic Activities of Organizations*. [В Интернете]
Available at: https://minfin.gov.ru/ru/document/?id_4=2293-plan_schetov_bukhgalterskogo_ucheta_finansovo-khozyaistvennoi_dyeyatelnosti_organizatsii_i_instruktsiya_po_primeneniyu_plana_schetov_bukhgalterskogo_ucheta_finansovo-khozyaistv
4. Ministry of Finance of the Russian Federation, 1998. *Regulation on accounting and reporting in the Russian Federation*. [Online]
Available at: https://minfin.gov.ru/ru/document/?id_4=2304-polozhenie_po_vedeniyu_bukhgalterskogo_ucheta_i_bukhgalterskoi_otchetnosti_v_rossiiskoi_federatsii
5. Ministry of Finance of the Russian Federation, n.d. *Federal Accounting Standards*. [Online]
Available at: <https://minfin.gov.ru/ru/performance/accounting/accounting/legislation/positions/>
6. Lukin, E. E., 2009. *Analysis of financial statements. Answers to exams questions*. s.l.:s.n.
7. W3Techs, 2022. *Traffic Analysis Tools*. [Online]
Available at: https://w3techs.com/technologies/overview/traffic_analysis
8. Yandex, n.d. *About company*. [Online]
Available at: <https://yandex.ru/company/main>
9. Marriott, P. E. J. & M., 2002. *Introduction to Accounting*. London: SAGE Publications.
10. Lessambo, 2018. *Financial Statements : Analysis and Reporting*. Cham: Springer International Publishing AG.
11. Vance, H., 2019. *What is bookkeeping, and how does it work?*. [Online]
Available at: <https://simple-accounting.org/what-is-bookkeeping/>
[Accessed 23 02 2022].
12. Kim, O., 2013. Russian Accounting System: Value Relevance of Reported Information and the IFRS Adoption Perspective. *The International Journal of Accounting*, Volume 48, p. 525–547.
13. Antipova, T., 2017. *Digital view on the financial statements' consolidation in Russian public sector*. Cham, Springer.
14. М.Д. Носкова, А. С. Е. Ч., 2017. БУХГАЛТЕРСКИЙ БАЛАНС. СИМВОЛ НАУКИ, 12(ISSN 2410-700X), pp. 62-63.
15. Aleksandrovna, B. I., 2014. MODERN ROLE OF THE REPORT ON FINANCIAL RESULTS AND THE FEATURES OF ITS EXTERNAL AND INTERNAL ANALYSIS. *Научный журнал КубГАУ*, Volume 101.

16. Марина, С., 2021. *Заполнение формы 2 бухгалтерского баланса*. [В Интернете]
Available at: https://nalog-nalog.ru/buhgalterskaya_otchetnost/sostavlenie_buhgalterskoj_otchetnosti/zapolnenie_formy_2_buhgalterskogo_balansa_obrazec/#item-4
[Дата обращения: 25 02 2022].
17. Audit it, 2012. *Отчет о прибылях и убытках*. [Online]
Available at: https://www.audit-it.ru/terms/accounting/profit_and_loss_statement.html
[Accessed 8 3 2022].
18. IFRS Foundation, 2019. *IFRS® STANDARDS — APPLICATION AROUND THE WORLD*, s.l.: IFRS Foundation.
19. Alexander, J., 2018. *Financial Planning and Analysis and Performance Management*. Newark: John Wiley & Sons, Incorporated.
20. IAS, n.d. *Jurisdictions - Russia*. [Online]
Available at: <https://www.iasplus.com/en/jurisdictions/europe/russia>
[Accessed 23 02 2022].
21. Shim, J.K., Siegel, J.G., Dauber, N.A. & Qureshi A.A., 2015. *Accounting handbook*. s.l.:Barrons Educational Series, Incorporated.
22. Tarver, E., 2021. *Key Financial Ratios to Analyze Tech Companies*. [Online]
Available at: <https://www.investopedia.com/articles/active-trading/082615/key-financial-ratios-analyze-tech-companies.asp>
[Accessed 05 03 2022].
23. Fernando, J., 2021. *Current Ratio*. [Online]
Available at: <https://www.investopedia.com/terms/c/currentratio.asp>
[Accessed 05 03 2022].
24. Hayes, A., 2021. *Operating Margin*. [Online]
Available at: <https://www.investopedia.com/terms/o/operatingmargin.asp>
[Accessed 5 3 2022].
25. CFI, n.d. *Return on Equity (ROE)*. [Online]
Available at:
<https://corporatefinanceinstitute.com/resources/knowledge/finance/what-is-return-on-equity-roe/>
[Accessed 5 3 2022].
26. Fernando, J., 2021. *Return on Equity (ROE)*. [Online]
Available at: Equation 3 ROE ROE = (Net Income)/(Total Equity)
<https://www.investopedia.com/terms/r/returnonequity.asp#toc-using-return-on-equity-to-identify-problems>
[Accessed 6 2 2022].
27. Fernando, J., 2022. *Debt-to-Equity (D/E) Ratio*. [Online]
Available at: <https://www.investopedia.com/terms/d/debtequityratio.asp>
[Accessed 6 3 2022].
28. CFI, n.d. *Return on Assets & ROA Formula*. [Online]
Available at:
<https://corporatefinanceinstitute.com/resources/knowledge/finance/return-on-assets-roa-formula/>
[Accessed 6 2 2022].

29. Hargrave, M., 2022. *Return on Assets (ROA)*. [Online]
Available at: <https://www.investopedia.com/terms/r/returnonassets.asp>
[Accessed 6 2 2022].
30. Yandex, 2022. *Offices, Contacts*. [Online]
Available at: <https://yandex.com/adv/contact/offices>
[Accessed 17 02 2022].
31. Semrush, 2022. *Traffic Stats*. [Online]
Available at: <https://www.semrush.com/website/yandex.ru/>
[Accessed 15 02 2022].
32. Yandex.Radar, 2022. *Search Engines in Russia*. [Online]
Available at: <https://radar.yandex.ru/search>
[Accessed 25 2 2022].
33. Yandex, 2022. *Quarterly Supplementary Materials*, Moscow: Yandex.
34. Mandzhikov, O. & Melkumova, A., 2021. *Yandex and Uber Complete the Combination of Their Ride-Sharing Businesses in Russia and Neighboring Countries*. [Online]
Available at: <https://ir.yandex/press-releases?year=2018&id=0207>
[Accessed 4 03 2022].
35. Yandex, 2019. *Yandex 2018 Annual Report*, Netherlands: Yandex.
36. Yandex, 2021. *Yandex 2020 Annual Report*, Netherlands: Yandex.
37. Tuovila, A., 2022. *Accounts Payable (AP)*. [Online]
Available at: <https://www.investopedia.com/terms/a/accountspayable.asp>
[Accessed 5 2 2022].
38. Frost & Sullivan, 2016. *Global Rating of Direct Banks*, s.l.: Frost & Sullivan.
39. Королев, И., 2021. *После провала с «Тинькофф» «Яндекс» купил другой банк*. [Online]
Available at: https://www.cnews.ru/news/top/2021-04-29_posle_provala_s_tinkoff
[Accessed 8 3 2022].
40. Just AI, 2021. *Рынок умных колонок и голосовых ассистентов в России и мире: ежегодное исследование Just AI*. [Online]
Available at: <https://just-ai.com/ru/blog/rynok-umnyh-kolonok-i-golosovyh-assistentov-v-rossii-i-mire-ezhegodnoe-issledovanie-just-ai>
[Accessed 06 03 2022].
41. BCS Express, 2022. *Ударный отчет Яндекса. Акции растут на 6% Подробнее на БКС Экспресс: https://bcs-express.ru/novosti-i-analitika/iandeks-otchitalsia-za-iv-kvartal*. [Online]
Available at: <https://bcs-express.ru/novosti-i-analitika/iandeks-otchitalsia-za-iv-kvartal>
[Accessed 10 2 2022].
42. Test Firm, 2020. *Финансовое состояние ООО ЯНДЕКС*. [Online]
Available at: https://www.testfirm.ru/result/7736207543_ooo-yandeks
[Accessed 10 2 2022].
43. ReadyRatios, 2021. *Financial Ratios*. [Online]
Available at: <https://www.readyratios.com/sec/industry/737/>
[Accessed 10 2 2022].
44. Yandex, 2021. *Company Presentation*, Netherlands: s.n.
45. Trading Economics, 2022. [Online]
Available at: <https://tradingeconomics.com>
[Accessed 14 2 2022].

46. SimilarWeb, 2022. *Top Websites Ranking*. [Online]
Available at: <https://www.similarweb.com/top-websites/russian-federation/>
[Accessed 17 2 2022].
47. Елена Тофанюк & Елена Ганжур, 2021. *30 самых дорогих компаний Рунета. Рейтинг Forbes*. [Online]
Available at: <https://www.forbes.ru/biznes-photogallery/421235-30-samyh-dorogih-kompaniy-runeta-reyting-forbes?photo=1>
[Accessed 25 2 2022].
48. TAdviser, 2021. *IT industry in Russia*. [Online]
Available at: https://www.tadviser.ru/index.php/Статья:ИТ-рынок_России#.D0.9A.D1.80.D1.83.D0.BF.D0.BD.D0.B5.D0.B9.D1.88.D0.B8.D0.B5_.D0.98.D0.A2-.D0.BA.D0.BE.D0.BC.D0.BF.D0.B0.D0.BD.D0.B8.D0.B8_.D0.B2_.D0.A0.D0.BE.D1.81.D1.81.D0.B8.D0.B8
[Accessed 7 3 2022].
49. Российская ассоциация электронных коммуникаций, 2021. *Вклад экономики Рунета в российскую экономику составил 6,7 трлн рублей*. [Online]
Available at: <https://raec.ru/live/branch/12448>
[Accessed 9 3 2022].
50. ICT, 2020. *Startup Barometr 2020*. [Online]
Available at:
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewjKvcu06Mj2AhUXt6QKHb2ICEIQFnoECAQQAaw&url=https%3A%2F%2Ffict.moscow%2Fen%2Fresearch%2Fstartup-barometer-2020%2F&usg=AOvVaw1VcT44HuB-d_N2plS6Gs1N
[Accessed 27 02 2022].
51. Ernst & Young LLC, 2016. *IFRS, US GAAP and RAP. Comparison and basics*, s.l.: E&Y.
52. eMarketer, 2020. *Global Ecommerce 2020*. [Online]
Available at: <https://www.emarketer.com/content/global-ecommerce-2020>
[Accessed 14 03 2022].

8. Appendix

Appendix 1 US GAAP, IFRS, RAS significant differences, (Ernst & Young LLC, 2016)

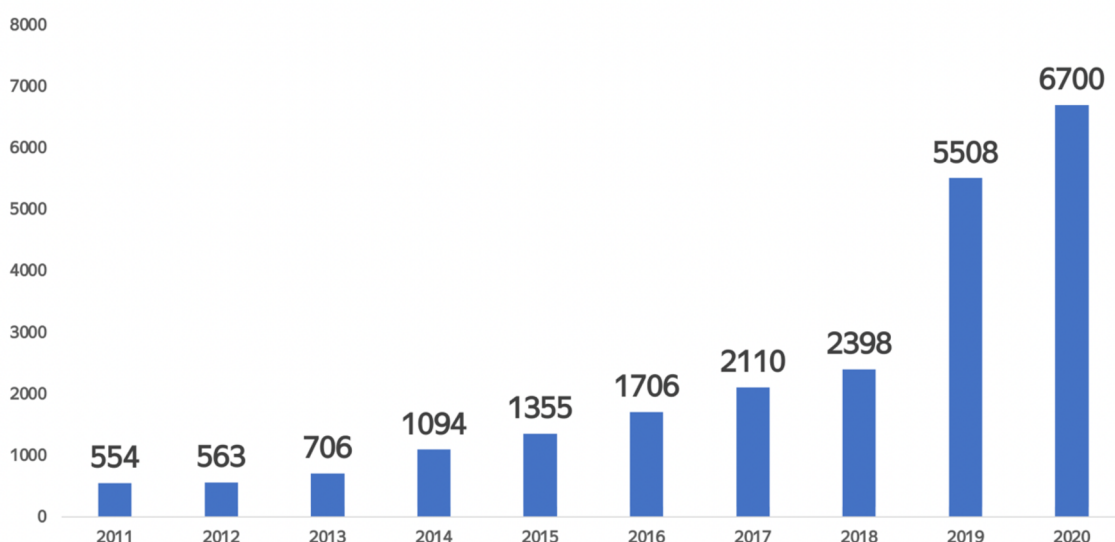
	US GAAP	IFRS	RAP
Financial periods required	Generally, comparative financial statements are presented; however, a single year may be presented in certain circumstances. Public companies must follow SEC rules, which typically require balance sheets for the two most recent years, while all other statements must cover the three-year period ended on the balance sheet date.	Comparative information must be disclosed with respect to the previous period for all amounts reported in the current period's financial statements.	Comparative information must be disclosed in respect of the two previous periods for the balance sheet, one previous period for the statements of financial results, changes in equity, cash flows and appendices to the financial statements.
Layout of balance sheet and income statement	No general requirement within US GAAP to prepare the balance sheet or income statement in accordance with a specific layout; however, public companies must follow the detailed requirements in Regulation S-X.	IFRS does not prescribe a standard layout, but includes a list of minimum line items. These minimum line items are less prescriptive than the requirements in Regulation S-X.	PBU 4/99 <i>The Accounting Reports of an Organization</i> and Order No. 66n <i>Financial Reporting Forms of Organizations</i> prescribe a specific layout for the balance sheet and other statements.
Balance sheet - presentation of debt as current versus non-current	Debt for which there has been a covenant violation may be presented as non-current if the lender agreed, before the financial statements are issued, to waive its right to demand repayment for over one year.	Debt associated with a covenant violation must be presented as current unless an agreement with the lender was reached prior to the balance sheet date.	A long-term loan that is payable on demand following a covenant violation is classified in the balance sheet as current. If, prior to the issue of the financial statements, the credit institution provides a written waiver of its right to claim repayment for at least one year, the loan shall continue to be classified in the balance sheet as non-current. The notes to the financial statements should disclose the terms of the loan agreement that were violated.
Balance sheet - classification of deferred tax assets and liabilities	A distinction is required between current and non-current items, generally based on the nature of the related asset or liability.	All amounts are classified as non-current in the balance sheet.	All amounts are classified as non-current in the balance sheet.
Income statement - classification of expenses	No general requirement within US GAAP to classify income statement items by function or nature. However, SEC registrants are generally required to present expenses based on function (e.g., cost of sales, administrative).	Entities may present expenses based on either function or nature (e.g., salaries, depreciation). However, if function is selected, certain disclosures about the nature of the expenses must be included in the notes.	Expenses should be classified with regard to function (cost of sales or production, commercial expenses, management expenses, other expenses) in the statement of financial results, and should be detailed in the appendices in accordance with their nature.
Income statement - extraordinary items criteria	Restricted to items that are both unusual and infrequent.	Prohibited.	Extraordinary items should be presented as part of other income or other expenses in the statement of financial results and may be disclosed if they are material in the appendices to the financial statements.

Appendix 5 US GAAP, IFRS, RAS significant differences, (Ernst & Young LLC, 2016)

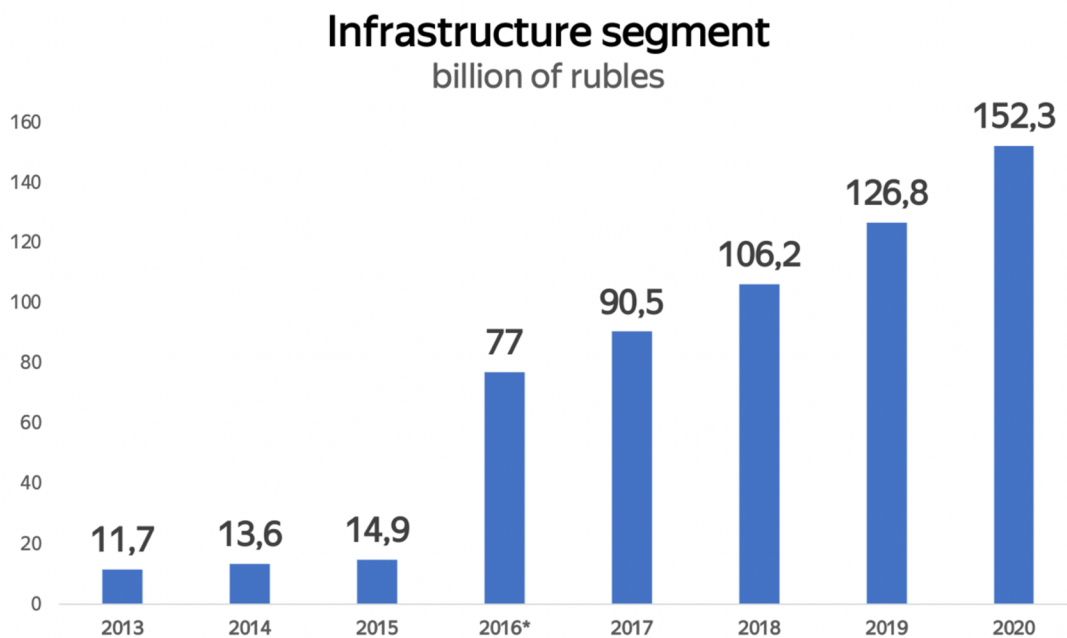
	US GAAP	IFRS	RAP
Income statement - discontinued operations criteria	Components held for sale or disposed of may be classified as discontinued operations, provided that there will be no significant continuing cash flows or involvement with the disposed components.	Components held for sale or disposed of may be classified as discontinued operations, provided that they are (were) either a separate major line of business or geographical area, or a subsidiary acquired exclusively with the intention to resell it.	PBU 16/02 <i>Information on Discontinuing Operations</i> does not require separate classification on the balance sheet. It is recommended to disclose discontinued operations separately in the statement of financial results and cash flow statement. Information related to discontinued operations should be at least disclosed in the appendices to the financial statements.
Disclosure of performance measures	There are no general requirements within US GAAP that address the presentation of specific performance measures. SEC regulations define certain key measures and require the presentation of certain headings and subtotals. Additionally, public companies are prohibited from disclosing non-GAAP measures in the financial statements and accompanying notes.	Certain traditional concepts such as "operating profit" are not defined; therefore, diversity in practice exists regarding line items, headings and subtotals presented in the income statement. IFRS permits the presentation of additional line items, headings and subtotals in the statement of comprehensive income when such presentation is relevant to an understanding of the entity's financial performance.	According to Order No. 66n <i>Financial Reporting Forms of Organizations</i> the following subtotals should be presented in the statement of financial results: gross profit, profit from sales, and net profit before and after tax.
Third balance sheet	Not required.	A third balance sheet is required as of the beginning of the earliest comparative period when there is a retrospective application of a new accounting policy, or a retrospective restatement or reclassifications that have a material effect on the balances of the third balance sheet. Related notes to the third balance sheet are not required.	A third balance sheet is required in all cases. The third balance sheet is viewed as a comparative to the prior year balance sheet.

Appendix 9 Growth dynamics of the Russian Internet economy, (Российская ассоциация электронных коммуникаций, 2021)

Growth dynamics of the Russian Internet economy billion of Russian rubles

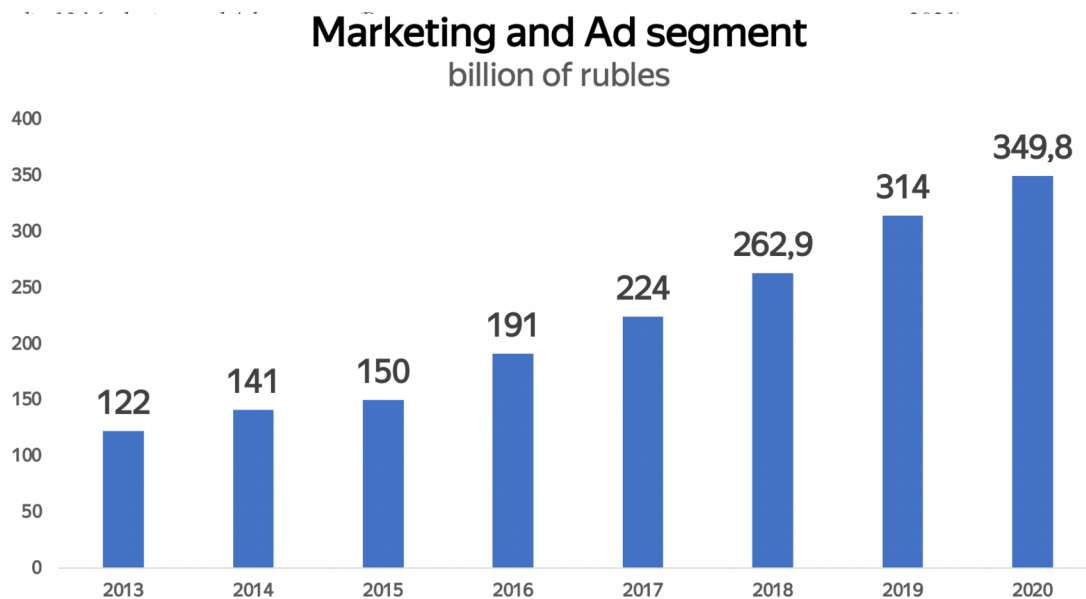


Appendix 4 Infrastructure segment, (Российская ассоциация электронных коммуникаций, 2021)

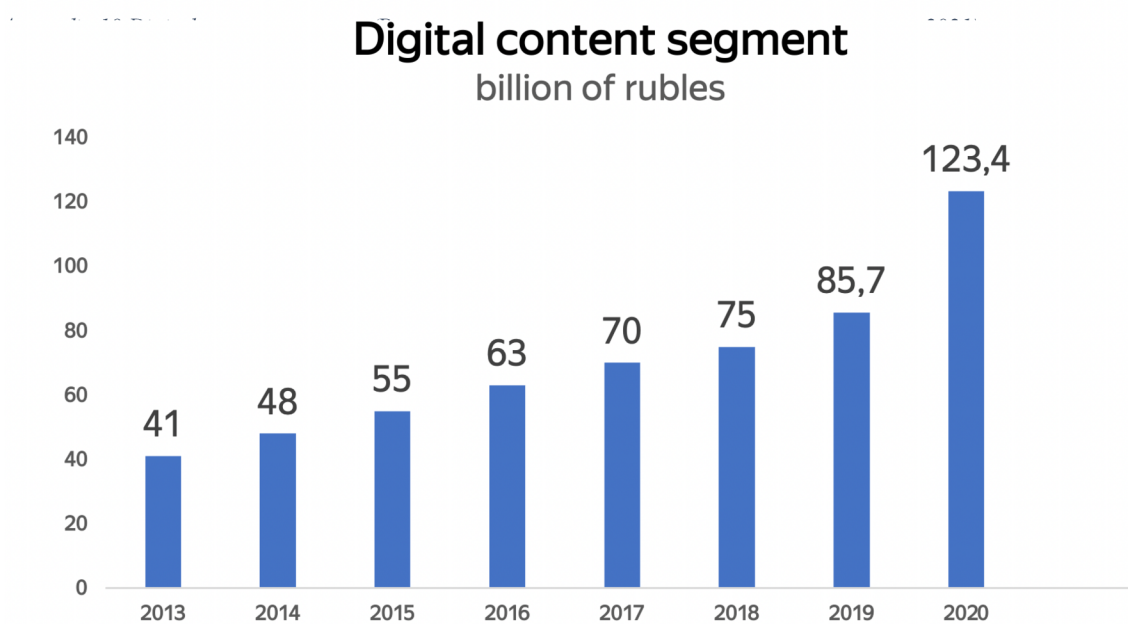


*in 2016 in infrastructure segment cloud infrastructure was included

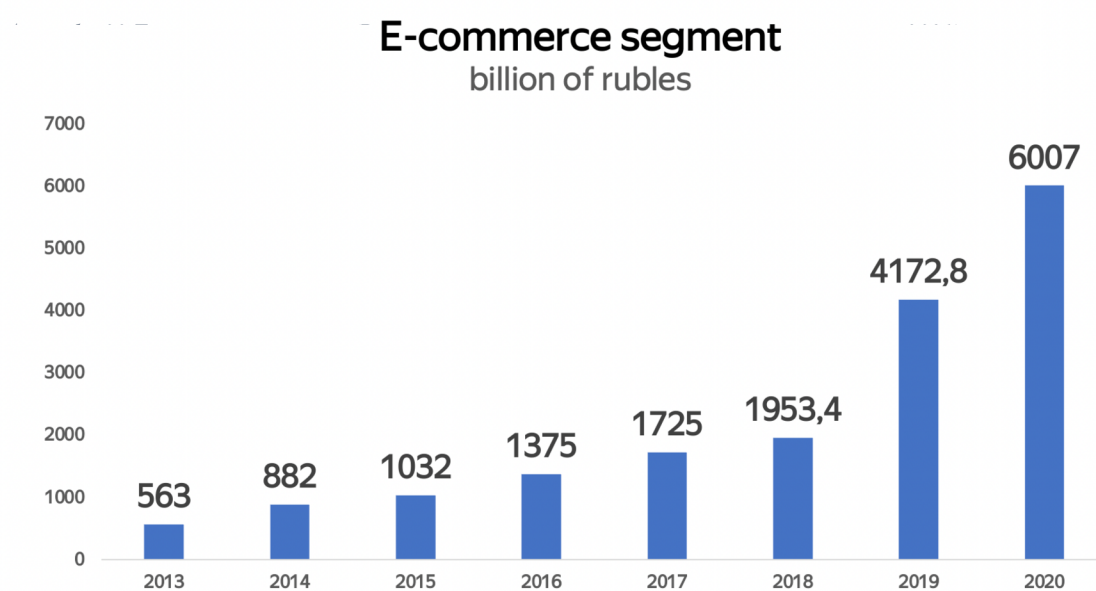
Appendix 5 Marketing and Ad segment, (Российская ассоциация электронных коммуникаций, 2021)



Appendix 6 Digital content segment, (Российская ассоциация электронных коммуникаций, 2021)

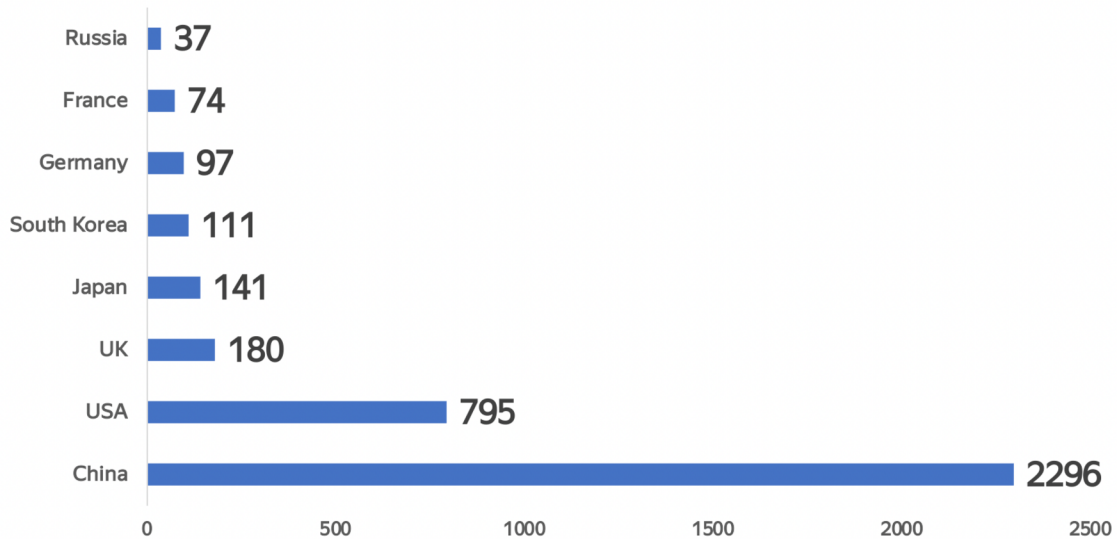


Appendix 22 E-commerce segment, (Российская ассоциация электронных коммуникаций, 2021)



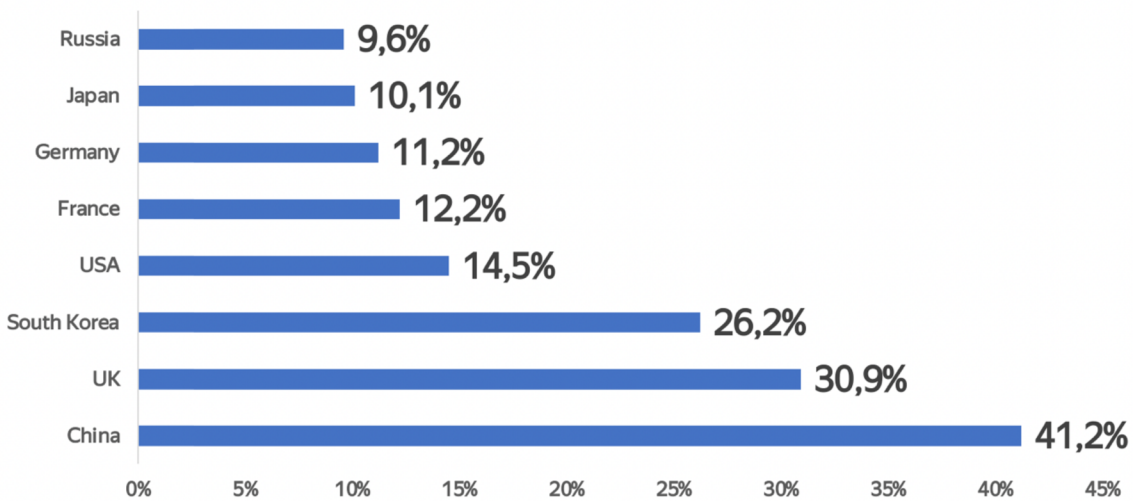
Appendix 8 Volume of the e-commerce market in selected countries of the world 2020, (eMarketer, 2020)

Volume of the e-commerce market in selected countries of the world 2020 billion \$



Appendix 9 Shares of e-commerce in the trade turnover of individual countries of the world 2020, (eMarketer, 2020)

Shares of e-commerce in the trade turnover of individual countries of the world, %



YANDEX N.V.

CONSOLIDATED BALANCE SHEETS

(In millions of Russian rubles ("RUB") and U.S. dollars ("\$"), except share and per share data)

	Notes	As of December 31,		
		2019 RUB	2020 RUB	2020 \$
ASSETS				
Cash and cash equivalents	4	56,415	132,398	1,792.2
Term deposits		31,891	105,787	1,432.0
Accounts receivable, less allowance for doubtful accounts of RUB 815 and RUB 1,798, respectively	4	17,832	25,440	344.4
Prepaid expenses		3,315	6,727	90.9
Inventory		808	4,810	65.1
Funds receivable, net		1,226	2,289	31.0
Other current assets	4	8,797	12,950	175.3
Total current assets		120,284	290,401	3,930.9
Property and equipment, net	7	47,856	61,772	836.2
Operating lease right-of-use assets	8	21,218	20,800	281.6
Intangible assets, net	9	10,365	21,842	295.7
Non-current content assets, net	11	3,295	7,464	101.0
Goodwill	9	52,205	104,275	1,411.5
Long-term prepaid expenses		2,289	1,391	18.8
Investments in non-marketable equity securities	3, 4	28,073	1,135	15.4
Deferred tax assets	10	1,847	1,639	22.2
Other non-current assets	4	3,694	4,893	66.2
Total non-current assets		170,842	225,211	3,048.6
TOTAL ASSETS		291,126	515,612	6,979.5
LIABILITIES AND SHAREHOLDERS' EQUITY				
Accounts payable and accrued liabilities	4	34,978	43,634	590.6
Income and non-income taxes payable	4	8,020	11,440	154.9
Deferred revenue	1	3,542	6,645	89.9
Total current liabilities		46,540	61,719	835.4
Convertible debt	13	—	83,277	1,127.3
Deferred tax liabilities	10	1,951	3,838	52.0
Operating lease liabilities	8	10,841	12,830	173.7
Other accrued liabilities		2,359	4,689	63.4
Total non-current liabilities		15,151	104,634	1,416.4
Total liabilities		61,691	166,353	2,251.8
Commitments and contingencies	12	—	—	—
Redeemable noncontrolling interests	15	14,246	3,167	42.9
Shareholders' equity:				
Priority share: €1.00 par value; shares authorized (1 and 1), shares issued (1 and 1) and outstanding (nil and 1)	14	—	—	—
Ordinary shares: par value (Class A €0.01, Class B €0.10 and Class C €0.09); shares authorized (Class A: 500,000,000, Class B: 37,138,658 and Class C: 37,748,658 as of December 31, 2019 and 2020); shares issued (Class A: 293,527,655 and 320,430,479, Class B: 37,138,658 and 35,708,674, and Class C: 610,000 and 1,429,984); shares outstanding (Class A: 292,719,508 and 318,501,858, Class B: 37,138,658 and 35,708,674, and Class C: nil)	14	261	278	3.8
Treasury shares at cost (Class A: 808,147 and 1,928,621, Priority share: 1 and nil)		(411)	(6)	(0.1)
Additional paid-in capital		68,050	160,762	2,176.1
Accumulated other comprehensive income	1, 4	4,841	17,976	243.3
Retained earnings		122,187	146,988	1,989.7
Total equity attributable to Yandex N.V.		194,928	325,998	4,412.8
Noncontrolling interests		20,261	20,094	272.0
Total shareholders' equity		215,189	346,092	4,684.8
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		291,126	515,612	6,979.5

The accompanying notes are an integral part of the consolidated financial statements.

YANDEX N.V.

CONSOLIDATED STATEMENTS OF INCOME

(In millions of Russian rubles and U.S. dollars, except share and per share data)

Notes	Year ended December 31,			
	2018 RUB	2019 RUB	2020 RUB	2020 \$
Revenues	127,657	175,391	218,344	2,955.6
Operating costs and expenses:				
Cost of revenues(1)	35,893	55,788	85,734	1,160.5
Product development(1)	22,579	29,209	36,339	491.9
Sales, general and administrative(1)	36,206	50,155	62,335	843.8
Depreciation and amortization	12,137	14,777	17,687	239.4
Goodwill impairment	9	762	—	—
Total operating costs and expenses	106,815	150,691	202,095	2,735.6
Income from operations	20,842	24,700	16,249	220.0
Interest income	3,382	3,315	3,869	52.4
Interest expense	(945)	(74)	(2,373)	(32.1)
Effect of deconsolidation/consolidation of Yandex.Market	3	28,244	—	19,230
Loss from equity method investments	(194)	(3,886)	(2,175)	(29.4)
Other income/(loss), net	1,130	(1,200)	2,404	32.4
Income before income tax expense	52,459	22,855	37,204	503.6
Income tax expense	10	8,201	11,656	176.7
Net income	44,258	11,199	24,149	326.9
Net loss attributable to noncontrolling interests	1,726	1,627	1,363	18.4
Net income attributable to Yandex N.V.	45,984	12,826	25,512	345.3
Net income per Class A and Class B share:				
Basic	2	140.77	39.21	74.87
Diluted	2	137.20	38.21	72.03
Weighted average number of Class A and Class B shares outstanding:				
Basic	2	326,667,118	327,127,314	340,764,574
Diluted	2	335,162,062	335,428,137	353,382,841

(1) These balances exclude depreciation and amortization expenses, which are presented separately, and include share-based compensation expenses of:

Cost of revenues	180	293	449	6.1
Product development	4,450	6,294	9,216	124.8
Sales, general and administrative	1,922	3,268	6,063	82.0

The accompanying notes are an integral part of the consolidated financial statements.

Appendix 40 Consolidated statement of Cash flows of Yandex as of December 31, 2020, (Yandex, 2021)

YANDEX N.V.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of Russian rubles and U.S. dollars)

	Notes	Year ended December 31,			
		2018 RUB	2019 RUB	2020 RUB	2020 \$
CASH FLOWS FROM OPERATING ACTIVITIES:					
Net income		44,258	11,199	24,149	326.9
Adjustments to reconcile net income to net cash provided by operating activities:					
Depreciation of property and equipment	7	9,833	12,164	13,862	187.6
Amortization of intangible assets	9	2,304	2,613	3,825	51.8
Amortization of content assets	11	184	1,167	3,013	40.8
Operating lease right-of-use assets amortization and the lease liability accretion	8	5,466	9,195	9,643	130.5
Amortization of debt discount and issuance costs		728	—	1,667	22.6
Share-based compensation expense		6,552	9,855	15,728	212.9
Deferred income tax (benefit)/expense		(2,264)	1,845	685	9.3
Foreign exchange (gains)/losses	4	(1,169)	1,294	(2,835)	(38.4)
Effect of deconsolidation/consolidation of Yandex.Market	3	(28,244)	—	(19,230)	(260.3)
Goodwill impairment	9	—	762	—	—
Loss from equity method investments		194	3,886	2,175	29.4
Other		(63)	355	1,166	15.8
Changes in operating assets and liabilities excluding the effect of acquisitions:					
Accounts receivable, net		(4,705)	(3,469)	(6,333)	(85.7)
Prepaid expenses and other assets		(5,352)	(5,242)	(5,607)	(76.0)
Inventory		(225)	(543)	(1,501)	(20.3)
Accounts payable and accrued liabilities		719	991	(3,674)	(49.7)
Deferred revenue		479	786	2,617	35.4
Content assets	11	(575)	(4,451)	(7,300)	(98.8)
Content liabilities		92	1,972	554	7.5
Net cash from operating activities		<u>28,212</u>	<u>44,379</u>	<u>32,604</u>	<u>441.3</u>
CASH FLOWS PROVIDED BY/(USED IN) INVESTING ACTIVITIES:					
Purchases of property and equipment and intangible assets		(28,323)	(20,543)	(24,551)	(332.3)
Proceeds from sale of property and equipment		235	44	106	1.4
Acquisitions of businesses, net of cash acquired	3	19,844	(347)	(33,798)	(457.5)
Investments in non-marketable equity securities		(155)	(72)	(15)	(0.2)
Proceeds from sale of equity securities	3	34	4,612	—	—
Investments in term deposits		(55,592)	(90,975)	(364,894)	(4,939.3)
Maturities of term deposits		92,469	57,967	303,286	4,105.4
Loans granted, net of proceeds from repayments		(372)	178	(81)	(1.1)
Deconsolidation of cash and cash equivalents of Yandex.Market		(2,181)	—	—	—
Net cash provided by/(used in) investing activities		<u>25,959</u>	<u>(49,136)</u>	<u>(119,947)</u>	<u>(1,623.6)</u>

The accompanying notes are an integral part of the consolidated financial statements.

YANDEX N.V.
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

(In millions of Russian rubles and U.S. dollars)

	Notes	Year ended December 31,			
		2018	2019	2020	2020
		RUB	RUB	RUB	\$
CASH FLOWS (USED IN)/PROVIDED BY FINANCING ACTIVITIES:					
Proceeds from exercise of share options		115	156	1,176	15.9
Repurchases of share options		—	(88)	(828)	(11.2)
Purchase of redeemable noncontrolling interests		—	(747)	(3,213)	(43.5)
Purchase of non-redeemable noncontrolling interests		—	—	(1,709)	(23.1)
Proceeds from sale of noncontrolling interests		—	20	—	—
Ordinary shares issuance costs		—	—	(96)	(1.3)
Proceeds from overdraft borrowings		—	—	397	5.4
Repayment of convertible debt		(21,281)	—	—	—
Repurchases of ordinary shares		(10,085)	(1,422)	(10,165)	(137.6)
Proceeds from issuance of convertible debt	13	—	—	82,046	1,110.6
Proceeds from issuance of ordinary shares	14	—	—	72,650	983.4
Payment for contingent consideration		(1,504)	(91)	(63)	(0.9)
Payment for finance leases		(3)	(240)	(374)	(5.1)
Other financing activities		(46)	18	(145)	(1.9)
Net cash (used in)/provided by financing activities		<u>(32,804)</u>	<u>(2,394)</u>	<u>139,676</u>	<u>1,890.7</u>
Effect of exchange rate changes on cash and cash equivalents, and restricted cash and cash equivalents		4,288	(5,282)	23,660	320.2
Net change in cash and cash equivalents, and restricted cash and cash equivalents		25,655	(12,433)	75,993	1,028.6
Cash and cash equivalents, and restricted cash and cash equivalents, beginning of period		43,231	68,886	56,453	764.2
Cash and cash equivalents, and restricted cash and cash equivalents, end of period		68,886	56,453	132,446	1,792.8
RECONCILIATION OF CASH AND CASH EQUIVALENTS, AND RESTRICTED CASH AND CASH EQUIVALENTS:					
Cash and cash equivalents, beginning of period		42,662	68,798	56,415	763.6
Restricted cash and cash equivalents, beginning of period		569	88	38	0.6
Cash and cash equivalents, and restricted cash and cash equivalents, beginning of period		43,231	68,886	56,453	764.2
Cash and cash equivalents, end of period		68,798	56,415	132,398	1,792.2
Restricted cash and cash equivalents, end of period		88	38	48	0.6
Cash and cash equivalents, and restricted cash and cash equivalents, end of period		68,886	56,453	132,446	1,792.8
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:					
Cash paid for income taxes		8,874	11,183	12,399	167.8
Cash paid for acquisitions	3	956	351	40,030	541.9
Convertible notes coupon paid		112	—	346	4.7
Interest paid for finance leases		—	—	113	1.5
Operating cash flows from operating leases		5,475	9,199	10,790	146.1
Non-cash operating activities:					
Right-of-use assets obtained in exchange for operating lease obligations		7,235	12,233	6,190	83.8
Non-cash investing activities:					
Settlement of loans granted and interest receivable through acquisition		795	—	—	—
Acquired property and equipment and intangible assets not yet paid for		693	1,240	1,475	20.0
Non-cash financing activities:					
Right-of-use assets obtained in exchange for finance lease obligations		113	1,568	3,612	48.9

The accompanying notes are an integral part of the consolidated financial statements.