

Digital economy: theory and practice

Цифровая экономика: теория и практика

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DIGITAL ECOSYSTEM: TREND IN STRATEGIC DEVELOPMENT OF RUSSIAN COMPANIES

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Abstract. In the 21st century, with the widespread development of the digital economy, there is a tendency for companies to create digital business ecosystems. This intention of big companies is explained by the desire to get more profit in a competitive environment by attracting more consumers and some other factors. The development of the digital business ecosystem market is also stimulated by consumer demand for such services, since in most cases the use of digital ecosystem services is convenient and beneficial for the user. Nevertheless, the authors had considered possible risks associated with the prospects for the development of business ecosystems in the consumer market, such as troubled market's entry to small businesses and decrease the consumer's freedom of choice due to market's oligopolization. The authors conducted comparative analysis of different domestic approaches to study the issue of regulating the activities of digital business ecosystems. Paper examines the evolution of digital business ecosystems in Russia using the examples of Yandex and Sberbank, two Russian largest companies developing their own digital ecosystems and creating competing services. The study explores current companies' positions on Russian market through the analysis of financial activities, as well as a comparative analysis of companies' policies in the field of strategic development. The forecast for Yandex and Sberbank based on the analysis in the field of digital business ecosystems was considered, as well as an overview of further directions for the development of digital business ecosystems for Russian companies, paying special attention to the peculiarities of Russian economy and legislation.

Keywords: digital economy, business strategy, electronic services, digital ecosystems

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ЦИФРОВАЯ ЭКОСИСТЕМА: ТРЕНД СТРАТЕГИЧЕСКОГО РАЗВИТИЯ РОССИЙСКИХ КОМПАНИЙ

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Аннотация. В 21 веке с повсеместным развитием цифровой экономики наблюдается тенденция создания компаниями цифровых бизнес-экосистем. В основном такое намерение крупных компаний объясняется стремлением получить больше прибыли в условиях конкуренции за счет привлечения большего количества потребителей и некоторыми другими факторами. Развитие рынка цифровой бизнес-экосистемы также стимулируется потребительским спросом на такие услуги, поскольку в большинстве случаев использование услуг цифровой экосистемы удобно и выгодно для пользователя. Есть несколько причин, по которым цифровые бизнес-экосистемы так популярны среди потребителей. Ключевой причиной этого спроса является стремление оптимизировать использование ресурсов, необходимых для удовлетворения повседневных потребностей человека: от прослушивания подкастов и музыки до выбора и покупки квартиры. Тем не менее авторы рассмотрели возможные риски, связанные с перспективами развития бизнес-экосистем на потребительском рынке. Риски, скрытые в описываемом явлении, можно разделить на несколько видов: для клиентов экосистемы связывание с компанией через покупку подписки, приводящее к уменьшению реального потребительского выбора, для малого бизнеса крупные олигополисты затруднят выход на рынок, для поставщиков крупная компания может диктовать поставщикам свои цены, для экономики компания, успешно внедрившая экосистему, будет продолжать расширяться, скупая все новые и новые технологии и подавляя конкурентов. В статье рассматривается эволюция цифровых бизнес-экосистем в России на примере Яндекса и Сбербанка — двух крупнейших российских компаний, разрабатывающих собственные цифровые экосистемы и создающих конкурирующие сервисы. В исследовании исследуются текущие позиции компаний на российском рынке посредством анализа финансовой деятельности, а также сравнительного анализа политики компаний в области стратегического развития. Рассмотрен прогноз для Яндекса и Сбербанка на основе анализа в области цифровых бизнес-экосистем, а также обзор дальнейших направлений развития цифровых бизнес-экосистем для российских компаний с особым вниманием к особенностям российской экономики и законодательства.

Ключевые слова: цифровая экономика, стратегия ведения бизнеса, электронные услуги, цифровые экосистемы

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Introduction

The term *business ecosystem* was introduced by the American business innovator James Frederick Moore in 1993 in the article "Predators and prey: a new ecology of competition" in the Harvard Business Review magazine. Moore understood the business ecosystem as a network of closely interconnected and dynamically developing (together) businesses [8]. However, the first prototypes of business ecosystems appeared much earlier. In 1949, the German car manufacturing company Volkswagen created its own network of car service stations and car distribution centers. These services were convenient for car owners, which allowed Volkswagen to increase car sales (by attracting more clients).



Digital ecosystems have become a new stage in the development of business ecosystems, which is closely related to the process of development of the digital economy. This process began with the transition from mechanical and analogue electronic technology to digital electronics, which appeared in the late 1950s. In 1969, US military scientists transmitted data over the ARPANET network for the first time. This marked the beginning of the World Wide Web, which brought humanity to a completely new level of communication. After 38 years, Apple gave birth not to the first, but one of the most memorable smartphones, then presented iPad, iPod and other products, simultaneously developing iOS and MacOS, i.e., it is creating the Apple's digital business ecosystem. Another well-known example is the Chinese company Xiaomi, whose ecosystem includes an extensive list of items ranging from smartphones to smart home appliances. Each of them is a part of common network, which provides users with access to all digital services.

However, it is not only the technology companies that have adopted digital ecosystems. Thus, Russian banks began to integrate digital technologies into their structures in the early 90s. By the end of this decade, centralized servers for storing information and automated banking systems for internal settlements were created. Since the 2000s, the era of Internet development has begun, companies are striving to digitize part of the work. Now almost all the major banks in Russia use digital ecosystems to offer their customers as many services as possible and win the battle for them. The effectiveness of digital ecosystems has stimulated their introduction even into government structures. For example, with the assistance of the Gosuslugi portal, Russian citizens can use various public services remotely.

There are several reasons why digital business ecosystems are so popular among consumers. The key reason for this demand is the desire to optimize the use of resources necessary to meet daily human needs: from listening podcasts and music to choosing and buying an apartment [6]. Thus, the opportunity to choose all the services in the framework of the same ecosystem helps to save the time and money (no switching between applications and the products of one ecosystem is much cheaper).

Moreover, the creation of digital business ecosystems is also beneficial for companies, as it allows to accelerate the attraction of new customers and, accordingly, the sales will increase. A good example is Okko TV. After merging to Sber ecosystem it began to receive new users 12 times faster. Another successful example of business ecosystems is Alibaba corporation [1]. It made IPO in 2014. For the last 8 years, the company has achieved an incredible speed of development thanks to a strong major business (the core of its ecosystem), on the side developing mechanisms for coordinating and integrating various businesses to ecosystem. A special policy of Alibaba company aimed to improve all the partnerships. Today, the number of employees in Alibaba exceeds 100,000 people; the company unites more than 2 million sellers and more than 600 million users [10].

Digital business ecosystems, like any innovation, consist not only of positive aspects. The risks hidden in the described phenomenon can be divided into several types:

1. Risks for ecosystem customers (linking to the company by purchasing subscriptions resulting in the reducing of real consumer's choice).
2. Risks for small businesses (large oligopolists would make it difficult to enter the market).
3. Risks for suppliers (large company can dictate its prices to suppliers).
4. Risks for the economy (a company that has successfully implemented an ecosystem would continue to expand, buying up more and more new technologies and suppressing competitors. It would negatively affect the development of business and industry sectors)¹.

Digital business ecosystems have become a new integral part of the economy. Under the pressure of these circumstances the state regulation of business ecosystems is necessary. In world practice, the policy in the field of regulation of such companies usually consists in improving the anti-monopoly legislation, requirements for the protection of personal data for users.

The methods of state regulation depend on several factors, including the prevailing approaches, the criticality of the situation and the specifics of the strategic development strategies for big companies. The

¹ Ekosistemy: podkhody k regulirovaniyu. Bank Rossii URL: https://cbr.ru/Content/Document/File/119960/Consultation_Paper_02042021.pdf (accessed October 10, 2022)

United States traditionally uses an antitrust policy and a well-functioning judicial system with the practice of judicial precedents. The European Union uses special regulation of digital platforms and ecosystems, adhering to the principles of protectionism, supporting national enterprises by increasing requirements for large foreign companies. In the UK the issue of creating an independent specialized regulator of digital ecosystems and platforms is currently under consideration [5].

Russia has a fairly developed ecosystem of the digital economy, starting with technologies and users and ending with the regulatory framework aimed at its development. These documents include the Strategy for the Development of the Information Society in the Russian Federation for 2017–2030, the National Program *Digital Economy of the Russian Federation 2024*, the National Strategy for the Development of Artificial Intelligence and many others.

Despite the conditions created for the development of high-tech businesses and the rapid growth of user demand, Russia has not yet become a world leader in the digital economy. The following reasons for this lag can be identified:

1. The lack of a unified concept in national projects for the development of the digital economy.
2. Significant delays in the adoption of the relevant regulatory legal acts.
3. Formal nature of reporting on the achievement of indicators².

Thus, the state needs to focus on regulation and support of digital ecosystems of Russian commercial enterprises to stimulate the development of the economy and reach global indicators of the scale of the digital economy.

Literature review

Currently, the issue of the evolution of business ecosystems is being studied from different angles. The influence of strategic thinking and entrepreneurial activity in the ecosystem on each other was studied, how this influence stimulates innovation [17]. Today it can be seen that the functioning of such large and complex systems requires the collaboration of several members of the business community to simplify and ensure the successful implementation of digital economy initiatives. The ecosystem is seen as the result of a transition from traditional partnerships between participants to inter-organizational partnerships [18]. The principles of functioning of business models in the conditions of digitalization and possible risks are studied and determined [19]. The possibility of constructing a methodology for studying the dynamics of ecosystem evolution is also considered [20].

Materials and methods

Many Russian companies have been actively developing their own digital business ecosystems in recent years. To find the possible incentives for companies to develop ecosystems trace how the development of ecosystems has affected the sustainable development of Russian companies, we studied the process of creating and expanding ecosystems analyzing the example of two biggest Russian ecosystems now, Sber and Yandex.

For the analysis, we proposed the following steps:

1. Conduct a comparative analysis of various approaches to the activities of the regulator of the digital business ecosystems in the Russian Federation.
2. Determine the main directions of development of a relatively new phenomenon — digital business ecosystems in the Russian Federation.
3. Study how the development of the digital business ecosystems has affected the sustainable development of Russian companies.
4. Determine the role of the digital business ecosystems in the stock market.

We assume it will help us to achieve the key goals of this study:

² Kontseptsiya obshchego regulirovaniya deyatel'nost' grupp kompaniy, razvivayushchikh razlichnyye tsifrovyye servisy na baze odnoy "ekosistemy", Ministerstvo ekonomicheskogo razvitiya Rossiyskoy Federatsii, 2021. URL: https://www.economy.gov.ru/material/file/cb29a7d08290120645a871be41599850/koncepciya_21052021.pdf (accessed October 6, 2022)

1. To understand how the ecosystems can be assessed and described as a market unit.
2. To identify the trend (trends) of the development for Russian companies.

The stages of solving the presented problem will help to achieve an understanding of the dynamics of the digital business ecosystems in the Russian Federation.

Results

Part 1: SBER. Sberbank is the historical successor of savings banks, and then Soviet labor savings banks. Now it is one of the backbone banks of the Russian banking system. In 2016, the company actively began to develop its own ecosystem due to the changed needs of customers, according to Sberbank's annual report for 2017³. According to the company's management, their clients do not have enough financial and banking services. So, Sberbank's clients require such services and tools that can solve everyday life tasks. And the company has to move in this direction. In addition, Sberbank is fighting for the title of a technology company with an ecosystem open for cooperation. Also, one of the key goals is to equalize the capitalization of non-bank businesses with the capitalization of Sberbank itself (it is more than 5 trillion rubles). Becoming the only player is not predetermined – in the future people will be able to choose between multiple ecosystems (Yandex, VK, etc.). The Sberbank ecosystem begins its development in 2016, gradually entering new markets using subsidiaries, mergers and acquisitions or the agreements with partners. Today it has more than 50 companies that are related to this banking business indirectly.

In 2018, the SberX department was created to develop an ecosystem of non-financial services. Companies in Sberbank Group and other partner companies will develop all together as a complex. The same year, steps in the field of digital medicine were undertaken. In 2019, it was announced that Sberbank and VK had agreed on strategic collaboration and signed binding documents on partnership in transport and food-related spheres services. As a result, the Sberbank's ecosystem has expanded significantly. The deal was closed after obtaining antimonopoly approval and fulfilling the suspensive conditions until the end of the year.

Therefore, in this way, Sber is one of the biggest and most actively growing digital business ecosystems in Russia nowadays. In the summer of 2021, the financial results of the ecosystem for the first half of the year were disclosed. Revenue in this segment increased, but so did the loss. Let's look the numbers more precisely. On September 24, 2020, Sberbank announced the change of the logotype and the change of the name of the company to the Sber, thereby securing the right to use the trademark in various areas of development of the digital ecosystem. Let's take a closer look to the services the ecosystem currently includes (Table 1).

In 2020, the investment bank UBS raised the valuation of non-financial assets of Sber by 4.5 times, from 134 to 595 billion rubles. In an optimistic case, this figure could be 1.1 trillion rubles. Sberbank has defined a new work strategy, which, according to forecasts, will boost revenue from services not connected to 5% of the total, and by 2030 to 20–30%.

Not so long ago, in April of 2021, it was announced that 300–350 billion rubles would be invested in the development of non-banking business. Thus, Sber has set ambitious goals related to e-commerce business. In the first half of 2021, Sber's revenue from non-financial services tripled compared to the first half of 2020 – from 24.7 billion to 74.7 billion rubles. During the reporting period, Sber's revenue reached 1.8 trillion rubles, increased by 14.4% during the year. Consequently, the proportion of the ecosystem in it is 4% against 1.5% a year earlier [12].

Let us take a closer look at the profits from different areas of this new ecosystem. It is presented in the Fig. 1 below.

Sberbank's loss from the ecosystem increased by 3.9 times in the second quarter of 2021 compared to the same period last year, up to 10.5 billion rubles, according to the bank's IFRS report. The loss of the

³ Sberbank's Annual Report for 2017 URL: https://www.sberbank.com/common/img/uploaded/files/pdf/yrep/sberbank_annual_report_2017_rus.pdf (accessed September 17, 2022)

ecosystem for the first half of 2021 increased by 2.7 times compared to the same period in 2020: up to 19.2 billion rubles (SBER, 2020). Ecosystem revenue in the second quarter increased by 2.5 times to 41.1 billion rubles, in the first half of 2021 by 3 times to 74.7 billion rubles. The largest profits and losses by spheres can be tracked below, Fig. 2.

Table 1. Sber Services⁴

Sphere	Service
Food	Delivery Club, Samokat, SberMarket.ru, Level Kitchen, Kuhnya na rajone, SberFood, Performance Food
Purchases	SberPrajm, SberMobajl, SberLogištika, Pokupaj so Sberom, SberMegaMarket
Mobility	Sitimobil, Sitidrajv
Search and maps	2GIS
Technologies	BI. ZONE, VisionLabs, SberCloud, R-keeper, Cognitive Pilot, Group of Companies CRT, SberDevices, Sber ID
Education	SberKlass, SberUniversitet
Loyalty	SberSpasibo, Sber-Prajm
Health	SberZdorov'e, SBER EAPTEKA
Media and entertainment	SberPrajm, SberMobajl, SberLogištika, SberMegaMarket, Soyuzmul'fil'm, Segmento, SberMarketing, Lenta.ru, Gazeta.Ru, Afisha Daily, Eda.ru, Portal Rambler, CHempionat, LiveJournal, Sekret firmy, Moslenta, WMJ.ru, Letidor.ru, Passion.ru, Motor.ru, QUTO.ru
Finance	Investments, Deposits, Loans, ЮMoney, SberBank Online, SberPay, United Credit Bureau
Car	SberAvto, Setelem, Osago online, SberAvtopodpiska
Work	Rabota.ru
Sphere	Service

Part 2: YANDEX. The company history begins in 1993, with the launch of a new search engine Yandex. The name arose as an abbreviation for 'yet another indexer'. Then Yandex was officially registered as a company in 2000, and by August 2002 the company became profitable, mainly due to the revenue made by the placement of contextual advertising. The same year Yandex.Market was opened, but it was in 2011 that the company started to promote itself not only as the searching system but as an ecosystem after the launch of the Yandex.Taxi application [14]. By 2021, the company's infrastructure is represented by various services being useful in all areas of everyday life, Table 2.

Table 2. Yandex Services, [14]

Area	Service
Food	Yandex.Lavka, Yandex.Food
Shopping	Edadil, Yandex.Market
Mobility	Yandex.Drive, Yandex.Taxi, Uber Russia
Searching and maps	Yandex.Maps, Yandex.Poisk, Yandex.Metro
Technologies	Alice, Yandex.Disk, Yandex.Passport, Yandex.Phone
Education	Yandex.Practicum, Yandex.Tutor, Yandex.Translator
Cashback	Yandex.Plus
House	Yandex.Station, Yandex.Module, Yandex.Smart home, Yandex.Realty
Health	Yandex.Health, Yandex.Sport
Media and entertainment	Kinopoisk HD, Yandex.Ether, Yandex.Afisha, Yandex.Streamer, Yandex.Video, Yandex.News, Yandex.Music, Yandex.Radio
Finances	Account in Yandex.Plus, Yammi

⁴ Sberbank's Annual Report for 2020 URL: https://www.sberbank.ru/common/img/uploaded/_new_site/com/gosa2021/yr-sber-ar20-rus.pdf (accessed September 6, 2022)

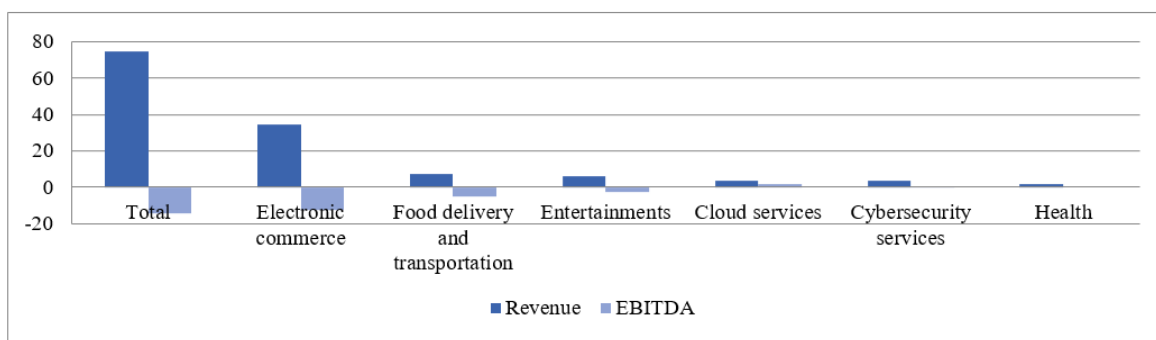


Fig. 1. Revenue from specific digital business ecosystems services from January to June 2021, billion rubles, [12]

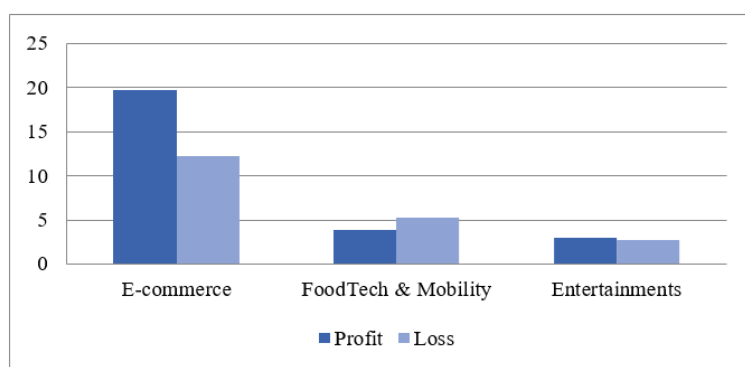


Fig. 2. Profit and loss by spheres in the second quarter of 2021, billion Rub.

In September 2019, the company was recognized as one of the 25 fastest growing companies by Fortune. The revenue during the period 2011–2020 was growing by 31% annually on average, and in total has increased by more than 20 times, Fig. 3.

By looking at the structure of the company's income it can be concluded that the growth is characterized by the services development with a gradual decrease in the share of advertising revenue (see Fig. 4 below).

One of the reasons for stimulating the company to develop its ecosystem is that Yandex will use its assets more efficiently developing new projects. For example, when the company faced the urge to provide Yandex.Market with trucks to deliver goods, Yandex, instead of creating such an infrastructure from scratch, used the capabilities of the already existing Drive service. The division bought 1,500 trucks and, on this basis, created special type of cars for sharing to couriers. Arriving at the parking lot, each courier unlocks such a car using a mobile application and starts driving [11]. Moreover, to improve the quality of performance, almost all the services have introduced machine learning technology, which Yandex began to develop when it was a search engine. In particular, the technology is used in Yandex.Station smart column communication algorithms with the user [16].

But, of course, the key idea is not to compare Yandex and Sber. We want to better understand and navigate the new paradigm of digital ecosystems. Yandex and Sber are two best examples representing our market. It is not easy to define the role of the digital ecosystem in the market. Knowledge about digital ecosystems is still limited: how they are created, how they work.

On the other hand, the diversification of its activities increases the company's resistance to crises when the demand for certain types of products decreases. For instance, the pandemic in general had a negative

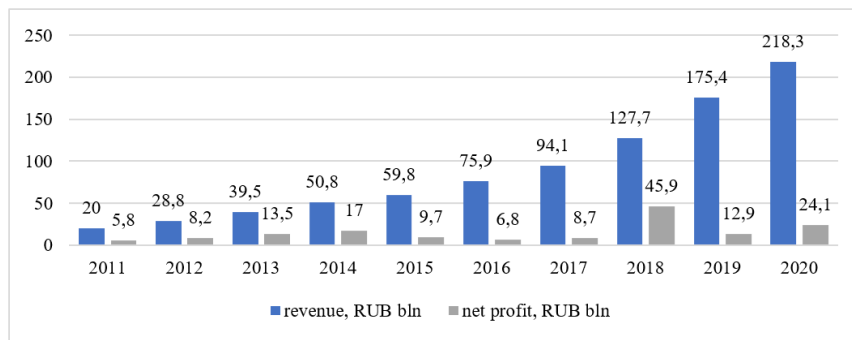


Fig. 3. Revenue from specific digital business ecosystems services from January to June 2021, billion rubles, [12]

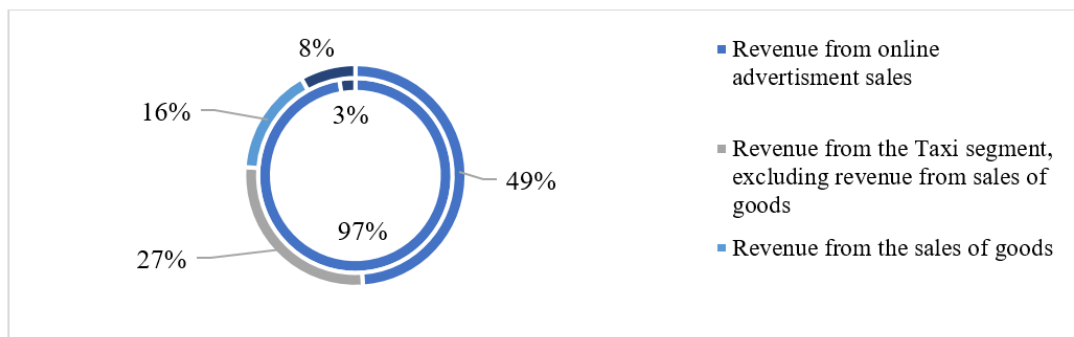


Fig. 4. Structure of revenue: inner circle corresponds to 2015, outer circle to the first half of 2021. (Yandex, 2020)

impact on Russian companies. However, one of the spheres that has benefited from the pandemic is delivery service. Initially, several people were engaged in logistics without interruption from other projects, but during the pandemic, the service quickly adapted and became a full-fledged business. Now let us attempt to answer the second one. We want to introduce an approach based on stock market expectations. Stock market expectations are related to perception of ecosystem by potential investors in terms of long-term growth potential. So, if we move to stock market, we immediately fall to portfolio management. According to the Markowitz theory, the well-diversified portfolio is a good portfolio. From this point of view, Yandex company (or Sber, or MTS Group) represents a diversified portfolio. Indeed, we can find its parts representing different businesses. Then investors buying a Yandex share will buy a share of some portfolio. It is like very concentrated ETF.

In practice, the task of construction of the investment portfolio is based on two steps:

- Assets choice
- Structure choice.

Here both of the two steps are skipped. Yandex or MTS investor cannot influence which businesses are included in ecosystem or which part they will take. But the investor can evaluate these parts separately and thus, get cost estimation of business. This approach is very good especially when structure of ecosystem changes. Let us clarify the idea. Investors are always based on their own ratio profit/risk. Firstly, they should find some compromise by fixing one of parameters. Then the real portfolio, corresponding to current ecosystem structure, should be constructed. And its structure (depending on weight in portfolio) should be studied [7]: see Fig. 5.

We can conclude from Fig. 5 that the increasing, for example, the share of business 3 (simultaneously to eliminating share 2) arises the expected return almost twice. This modeling corresponding classic restruc-

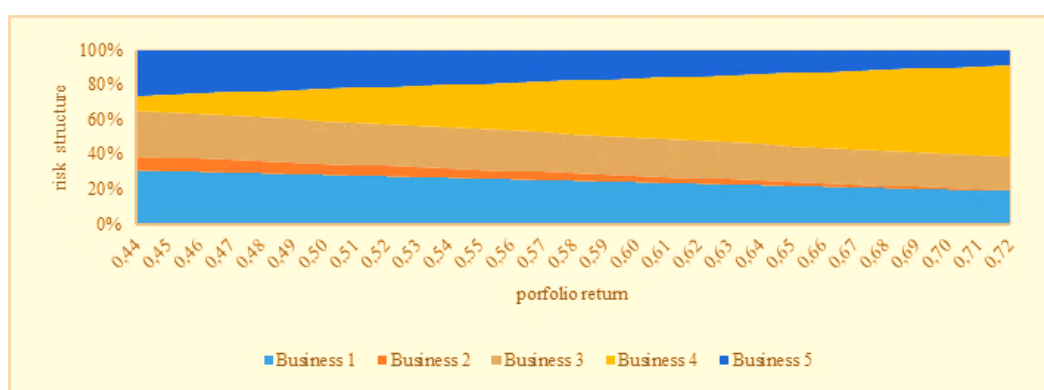


Fig. 5. Portfolio risk structure

turing process of a company. The largest share of the new risk structure lies, as we can see, on business 3. The investor just should estimate the riskiness of this third business to make a decision about the shares of ecosystem. If the new ratio is unacceptable, then sell the shares (because there is no possibility to change the structure).

Since digital business ecosystems are a relatively new phenomenon and now no general algorithms for their valuation, authors recommend evaluating the parts of ecosystem separately (using various modern methods).

Discussion

1. Yandex shares from November 2015 to November 2020 increased by **392.5%** on the Moscow Stock Exchange: from 980 rubles to 4826.4 rubles per share⁵. This significant growth is primarily due to Yandex's promising **business model, i.e., ecosystem**.

In addition, the company is a representative of Russian IT sector, which also makes the shares more attractive to investors, especially in the context of the growing popularity of IT companies promoting innovations.

2. The COVID-19 pandemic has **had a significant positive impact on Yandex** due to the acceleration of the pace of digitalization of everyday life.

People were forced to resort to electronic and remote services, which stimulated the development of various digital services of the Yandex ecosystem. For example, in 2020, the number of users of the service Yandex.Plus increased by 152% and reached 6.8 million people, according to the company's report [15]. However, there are also negative factors associated with the pandemic, such as a decrease in demand for advertising services, car-sharing services, taxis, especially during the period of exacerbation of the epidemiological situation.

So, we can conclude, the further development of the company will directly depend on the epidemiological situation and the restrictions imposed in Russia and in the world, which makes it difficult to make an accurate forecast even for the short term.

Nevertheless, we will consider the possible financial development of the company based on the current direction of events. The P/E multiplier for 2020, showing the ratio of the company's capitalization to its annual profit, is equal to 111.19 points for Yandex, which is several times higher than Google or Alphabet (15.09 points).

3. Even considering the fact that the company belongs to the technology sector, which is characterized by an increased multiplier value, this multiplier is high, which indicates that the company's shares are over-

⁵ Publichnaya Kompaniya s ogranichennoy otvetstvennostyu Yandeks N.V. (Public Limited Liability Company Yandex N.V.), aktsii inostrannogo emitenta (YNDX) // Moskovskaya birzha URL: <https://www.moex.com/en/issue.aspx?board=TQBR&code=YNDX> (accessed September 6, 2022)

bought and a possible downward adjustment [13]. As a result, it will, in turn, very likely **require business restructuring**.

This in fact is what is happening now. Yandex had to redirect its ecosystem. One of the company's largest projects Yandex.Market received significant funding and now it is strongly competing with Ozon and Wildberries. Thus, the turnover of this service has increased by more than 140% to almost 27 billion rubles year-over-year. Such rapid growth allows to compete with no less fast-growing competitors.

Another change in business is looking towards grocery and household goods delivery, Yandex.Lavka project. The turnover of it, in turn, in the second quarter of 2021 increased by 132% in annual terms up to 6.3 billion rubles. Yandex has opened more than 360 storehouses by mid-2021.

4. Gross Merchandise Volume of another popular service Yandex.Taxi for the 2nd quarter amounted to almost 135 billion rubles, which is almost 160% more than in the same period last year, which indicates a significant growth of this sector of the company. A possible further logical step in the development of this direction could be the exit of Yandex.Taxi for IPO.

So, investment banks estimated the cost of the service at an average of \$7.7–8.5 billion, compared with the total capitalization of Yandex at about \$ 12.5 billion, according to Bloomberg. However, Yandex.Taxi refused to enter the IPO, citing a desire to maintain integrity with other services, as well as not the most appropriate time due to the coronavirus pandemic [3].

But the ecosystem continues to grow, but it changed the direction. According to the new strategy presented by Yandex, the company will focus on the development of transport and logistics (Yandex has previously indicated significant success in these areas). Yandex has also launched another logistics-related service, Yandex.Chef, which allows to collect blanks for dishes and deliver them to ordinary restaurants, where chefs cook them, after which Yandex.Lavka delivers ready meals to customers.

5. So, we can see the Yandex ecosystem is constantly growing organism which is reacting extremely strong to market. And we can assume that will be the key model of behavior of such a system. Due to size, it has the opportunities to regroup relatively fast and reconstruct the business in the most demanded direction.

Let us move to Sber. Sber's competition with Yandex has reached a particularly new level after the summer of 2020, as Sber introduced its ecosystem with various smart devices, voice assistants, as well as the ability to order various services, including taxis and delivery of goods. Yandex, in turn, announced negotiations on the purchase of Tinkoff Bank [2]. Earlier, Sber divided its existing joint assets with Yandex, becoming direct competitors. As German Gref, the head of Sber, emphasizes, banks risk losing the competition to IT companies if they continue to remain within the traditional banking model [4].

At the end of August 2021, financial analysts considered the value of the shares of Sber to be close to the maximum, however, due to the financial activities of the organization. Thus, for the first time in history, the value of ordinary shares of Sberbank exceeded the mark of 350 rubles at the auction of the Moscow Stock Exchange in early October, having risen in price by more than 28% since the beginning of the year. In turn, the market capitalization of Sber, showing the current value of the company on the market, at the beginning of October amounted to 7.9 trillion rubles.

These results allowed to Sber, being a direct competitor of Yandex in many areas of digital ecosystems, made a **special breakthrough in their development**. And now Sber is the process of rapid building its own ecosystem.

However, it is worth noting that the company's own ecosystem does not bring profit to Sber, as it follows from the financial report. Such indicators are the norm since the company is still in the process of establishing a general system and capturing the market, which is a higher priority than a quick payback. According to official documents, it is planned to make profit on its own digital ecosystem by 2023. Nevertheless, the lack of profit now does not cause investors to refuse to invest the company, as further significant possible growth in the value of the company's securities is predicted.



The COVID-19 pandemic significantly affected the financial activities of the company, preventing the fulfilment of the promise of Herman Gref to earn 1 trillion rubles. This is due, among other things, to the increased losses of the ecosystem.

Sber is fighting for the title of a technology company with an ecosystem open for cooperation.

One of the key goals of such a policy is to equalize the capitalization of non-bank businesses with the capitalization of Sberbank itself (it is more than 5 trillion rubles). According to Eduard Kharin, Portfolio manager of Alfa-Capital Management Company, financial and high-tech services, as well as Delivery Club and Citymobil, can be considered the most promising in the Sber ecosystem. Based on digital platform.

Competition (really, it would be more honest to call it ‘fight’) between Yandex and Sberbank for customers is going to be sharp. Currently, most people are subscribed to Yandex. Nevertheless, evaluating the strategy of Sberbank services promotion, we can predict that a gradual change in the current situation should be expected soon.

Conclusions

It is very likely that the essence of the Russian market will soon change: these will not be individual highly specialized companies fighting for customer loyalty, but ecosystems covering many areas at once. This path allows companies to better develop resources, use management more efficiently and diversify risks. According to the analysis carried out in the work, large Russian companies are close to the idea of implementing a business ecosystem. It should also be noted that the development of business ecosystems has a positive effect on economic stability in Russia. The development of digital markets and, as a result, national ecosystems and platforms can become not only a driver of economic growth, but also the basis for maintaining economic and technological sovereignty in the long term. So, we just have caught one of key trend of strategic development for Russian companies: to construct the independent digital ecosystem. This business approach nowadays is the best possible way to create a new strong basis for future development and innovations.

Summing up we can say that:

1. Our study demonstrates the big business (no matter what it had as a starting point) in modern reality has to transform to digital ecosystem for safety and further development.
2. From #1, it follows that the strategic business development represents the digital ecosystems’ development. It is the key trend. Thus, we can identify further ways for research as a study of lifecycle of digital ecosystems.
3. Authors suggested the new approach to assess such businesses based on well-known portfolio theory.

Directions for further research

For further research, it is possible to propose the definition of signs of a company’s transformation into a business ecosystem and, in the future, develop a methodology for assessing a business ecosystem in the Russian Federation. And determination the key points of their lifecycles.

In particular, the authors intend to develop a general algorithm based on the analysis of different areas of the ecosystem separately using current methods to obtain an aggregated assessment of a single business ecosystem.

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