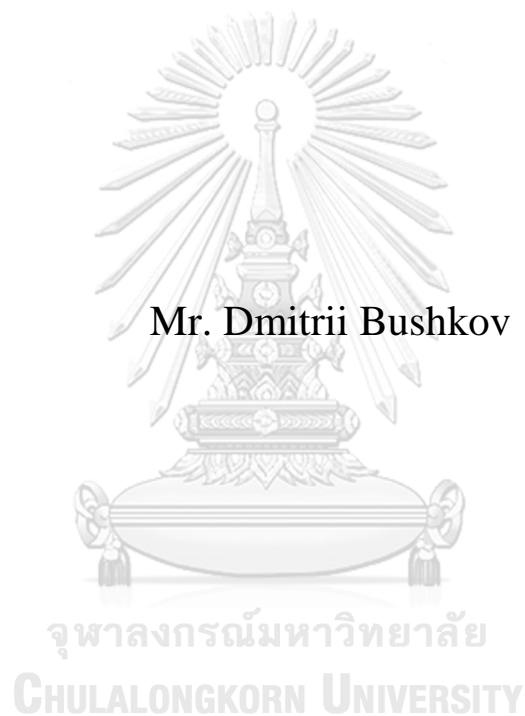


**Marketing Strategy Development for Professional Services  
Firms: Case Study of Certified Audit Firms in Russia**



**A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Arts in Business and Managerial Economics  
Field of Study of Business and Managerial Economics  
Faculty of Economics  
Chulalongkorn University  
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กรณีศึกษาในประเทศไทย



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By	Mr. Dmitrii Bushkov
Field of Study	Business and Managerial Economics
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Russia) อ.ที่ปรึกษาหลัก : ผศ. ดร.สันต์ สัมปัตตะวนิช

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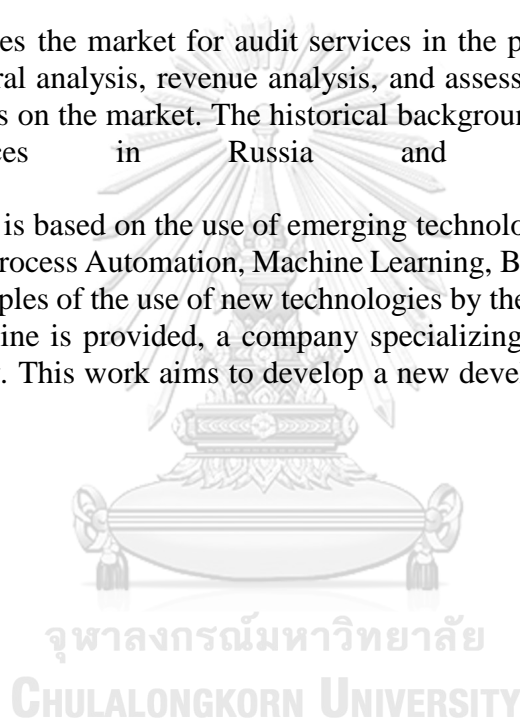
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Dmitrii Bushkov : Marketing Strategy Development for Professional Services Firms: Case Study of Certified Audit Firms in Russia. Advisor: Asst. Prof. SAN SAMPATTAVANIJA, Ph.D.

This work is devoted to developing a strategy based on the Blue Ocean Strategy framework for audit firms in Russia. Today, audit firms in Russia are in an awkward position, caused by a fall of revenue in real terms, a high level of competition and a difficult economic situation. Therefore, audit firms are forced to look for new ways to grow their business.

The paper analyzes the market for audit services in the period from 2009 to 2018, including structural analysis, revenue analysis, and assessment of the impact of the largest audit firms on the market. The historical background shows the formation of audit services in Russia and in the world.

The new strategy is based on the use of emerging technologies in the audit business, such as Robotic Process Automation, Machine Learning, Blockchain, and others. The paper gives examples of the use of new technologies by the Big Four firms. Also, the case of AuditOnline is provided, a company specializing in the provision of audit services remotely. This work aims to develop a new development strategy for audit firms in Russia.



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# 1. Introduction

Today, the Russian market for audit services is in an awkward position. One problem is that the revenue from audit services has not grown over the past ten years. Furthermore, the difficult economic situation and future audit reform are forcing audit firms to look for new points of growth.

The audit business remains the most conservative industry, despite the advent of new technologies and innovative business models. Already today, the Big Four companies are using artificial intelligence, machine learning, drones (PwC, 2019), and blockchain technology (Boillet, Sidhu, & Persico, 2019) to optimize internal processes and develop new services. In Russia, only four companies from more than 4,000 audit firms use new technologies in their business.

New technologies can increase productivity, reduce costs, and develop innovative services based on them. These changes will attract new customers, help audit firms enter new markets, and gain a serious competitive advantage. For these purposes, companies can use a wide range of tools and methodologies for developing market strategy, but one of the most successful approaches is Blue Ocean Strategy.

Blue Ocean Strategy was developed in 2004 by two professors, W. Chan Kim and Renée Mauborgne, from INSEAD business school (Kim & Mauborgne, Blue Ocean Strategy, 2015). A distinctive feature of this methodology is the way to search for new market opportunities to avoid direct competition. Using the Blue Ocean Strategy allows the audit firm to gain a competitive advantage and create new customer value.

This work includes a wide range of issues concerning audit firms in Russia:

- Market analysis of audit services in Russia, including historical context, economic situation, and legislative reforms over the past years;
- Market structure, the impact of the “Big Four,” and revenue analysis and valuation of the auditing services into the revenue growth of audit firms;
- A literature review concerning strategy issues, the Blue Ocean Strategy, and marketing of professional services firms;

- Emerging technologies applying by the audit firms, including artificial intelligence, machine learning, blockchain, drones and Internet-of-Things, and others;
- This work also includes an observation of the Uberization technology implementation in the Russian audit market.

The purpose of this work is to develop a new strategy for audit firms in Russia using new technologies based on the Blue Ocean Strategy methodology.

## **1.1. Research Purpose**

The Russian audit market today is in a challenging position. A high level of competition, legislation reform, the challenging economic situation, and the almost constant level of revenue from audit services on the market make audit firms look for new ways to develop their business.

Most experts agree that the reform of the audit legislation will significantly change the market in the future. This reform will not only change the rules of the game but also significantly accelerate the reduction in the number of audit firms in the market. Therefore, it is crucial to develop today new business strategies taking considering economic conditions, market changes, and emerging technologies.

The purpose of this work is to develop a new business strategy for an audit firm based on the Blue Ocean Strategy framework. This method avoids direct competition in the market by creating new market niches that did not exist before. Searching answer to this question requests to study:

- competition factors which audit firms are using today;
- new technologies used by audit firms;
- pros and cons of using emerging technologies by audit firms.

The largest 50 firms have the most significant impact on the audit market. Therefore, this work focuses on developing a strategy suitable for one of these firms. The new strategy should be based on advanced technologies that will determine the market in the future.

The Blue Ocean Strategy is one of the most popular tools today for developing a business strategy, which allows a company to avoid direct competition, open new market niches, and reduce costs. The future reform of the audit industry and the emergence of new technologies are forcing companies to look for such approaches and new business models. Firms that do not change their strategy run the risk of losing their market position soon.

The author also has a personal interest in this study. Working in marketing departments in Russian audit firms, he understands the importance and relevance of the issue. This work will allow not only a deeper understanding of the audit market but also contribute to the study of professional services marketing.



## 2. Literature Review

Because of globalization and the increasing level of competition, the strategy became the primary focus for managers for the last 30 years. Every company, despite industry and size, are looking for ways to increase revenue and beat the competitors. The right strategy allows the company to solve all these problems.

Peter Drucker, in the “Management: Tasks, Responsibilities, Practices” book, wrote: “Marketing and innovation are the foundation areas in objective setting. It is in these two areas that a business obtains its results. It is performance and contribution in these areas for which a consumer pays” (Drucker, 1974). Today, all successful business strategies are guided by the use of emerging technologies and enhanced marketing.

Despite the relevance and importance of the problem, the amount of literature is limited. This can be explained by the fact that audit is an extremely conservative industry with a small share in the total GDP of any country. This work is intended to contribute to the study of marketing professional services.

In this part, we will consider the understanding of the strategy by various experts and the modern approach to developing a strategy - the Blue Ocean Strategy. This methodology has received worldwide recognition in developing strategies for international corporations and startups for innovative businesses and non-profit organizations. The remainder of this section is devoted to a review of the literature on marketing professional services.

### 2.1. Strategy Definition

For the last thirty years, the issue of competition is the main focus of strategic thinking. A lot of worldwide known experts made a strategy as their fields of research, such as Philip Kotler, David Aaker, Michael Porter, Henry Mintzberg, and Kenichi Ohmae. Today scholars continue to debate “what strategy is,” and therefore, the literature offers many different definitions.

Alfred D. Chandler in the book “Strategy and Structure: Chapters in the History of the Industrial Enterprises” defines strategy as “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources for carrying out these goals” (Chandler, 1962). He offered an approach to achieving goals based on the organization's objectives and available resources.

Michael Porter discussed strategy from the competition side. He wrote, “The essence of strategy is choosing to perform activities differently than rivals do” (Porter, 1996, November-December). He stated that general management’s core is the strategy, which means defining the company’s position, making trade-offs, and forging fit among activities.

The most known researcher of the strategy Henry Mintzberg, in his book “Strategy Safari: A Guided Tour Through the Wilds of Strategic Management” analyses different approaches for strategy formulating and defines ten schools of strategy. He recognized strategy as “A pattern in a stream of decisions” and divided strategy approaches into ten schools. All of these approaches focus on competing for the existing market share with other firms (Mintzberg, 1998).

Kenichi Ohmae, in “The Mind of the Strategist,” book focuses on the market lens and defined strategy as "reserved for actions aimed directly at altering the strengths of the enterprise relative to that of its competitors... Perfect strategies are not called for what counts is... performance relative to competitors” (Ohmae, 1991). The author considers the boundaries of the market as not given, where companies compete with each other for market share.

All authors consider the market as something given, and a strategy as a tool to capture and hold market share. Undoubtedly, this approach fully reflects the aggressive approach, which was used as the basis for business strategy. From the historical perspective, the term “Strategia” came from Greek and meant a plan to achieve goals under uncertainty (Freedman, 2013). This concept usually applied to martial art.

Lawrence Freedman, in his work “Strategy: A History,” defines strategy as “a comprehensive way to try to pursue political ends, including the threat or actual use of force, in a dialectic of wills” (Freedman, 2013). Initially used for warfare, from a 20-century term strategy, has been used broadly at different conditions include business. In the business field, term strategy was initially used for the whole company’s activities and later was split for describing some fields of the business.

## **2.2. Blue Ocean Strategy**

A completely different approach is suggested by INSEAD professors Kim and Mauborgne. As an alternative to fighting for existing markets, they propose the creation of new markets through value innovation. Kim and Mauborgne argue: “...focus on making the competition irrelevant by creating a leap in value for buyers and your company, thereby opening up new and uncontested market space” (Kim & Mauborgne, Blue Ocean Strategy, 2015).

It is important to note that the analysis element in the blue ocean methodology is not a company, but a strategic move – a set of managerial actions and decisions involved in making a primary market-creating business offering (Kim & Mauborgne, Blue Ocean Strategy, 2015). The authors explain their choice by the fact that there is no perpetually high-performing company, and often companies that were the industry leaders at some time later lose their market positions.

Kim and Mauborgne make the central point of their research a value innovation - the simultaneous pursuit of differentiation and low cost, creating a leap in value for both buyers and the company. Authors state that used only together value and innovation can create lasting business success in a contending industry. Value without innovation leads the shift toward incremental change, which can barely sustain the companies in the marketplace. Innovation without value creation tends to be “technologically driven, market pioneering, or futuristic,” often does not meet the needs or expected price of consumers.

Value innovation is a core element of the Blue Ocean Strategy, which helps companies to take competitive advantages as a pioneer, which leads to sustainable high growth and

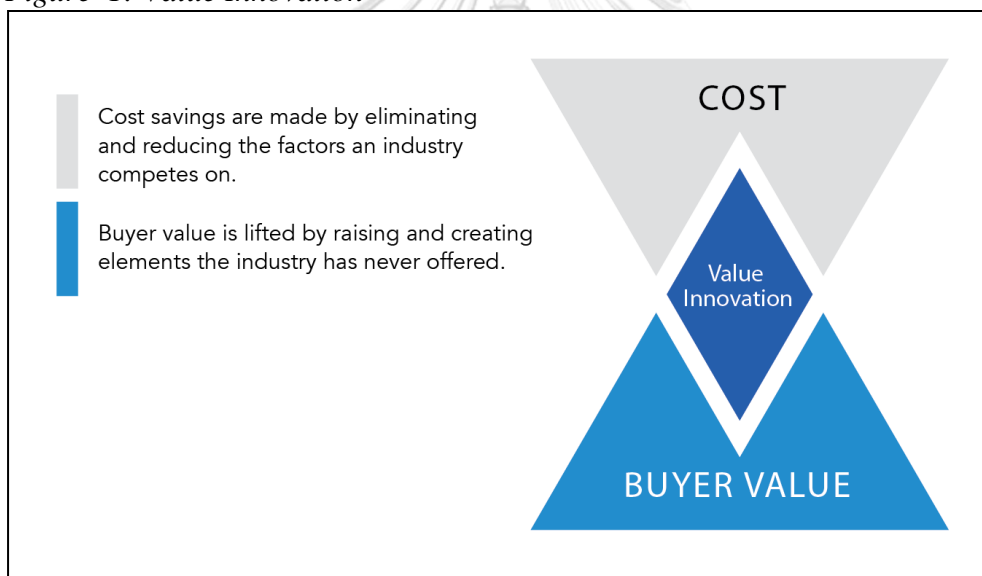


higher profits. Companies should not only focus on new technologies to decrease costs or create new products, but also consider the customer value side to create real value innovation.

Kim and Mauborgne suggest looking for growth not only using innovation but also attracting customers outside the market. One of the sources of new demand is noncustomers, which are divided into three tiers (closest to the market; who refuse to use the industry's offerings; farthest from the market). Focus on noncustomers lets companies go beyond existing demand to unlock a new mass of customers that did not exist before (Kim & Mauborgne, *Blue Ocean Strategy*, 2015).

The value innovation approach is shown in **Error! Reference source not found.**

*Figure 1: Value Innovation*



*Source: Kim & Mauborgne, Blue Ocean Strategy, 2015*

As shown in **Error! Reference source not found.**, developing a blue ocean strategy involves simultaneously reducing costs and increasing customer value. Thus, the company and customers benefit from the new strategy. Consumer value is formed from the utility and cost of the service, while the value for the company is obtained from the cost and costs incurred. Therefore, value innovation is achieved only when utility, price, and cost are consistent. This balancing of business and customer interests makes the Blue Ocean a sustainable strategy.

The value innovation avoids the trap of previous approaches to strategy development: a trade-off between price and value. Previously, companies were forced to choose between creating more excellent consumer value at a higher cost or lower consumer value at a lower cost. Today, companies can offer high customer value at a lower cost at the same time using a value innovation approach.

For a long time, beating the competition was the main idea of strategy development for academics and business. Kim and Mauborgne introduced a new strategy methodology, where the value innovation idea plays a central role. To explain the idea, the authors made a metaphor of Red Ocean – the crowded existing market space, and Blue Ocean – uncontested market space.

*Table 1* shows a comparison between the Blue Ocean and Red Ocean Strategies (Kim & Mauborgne, Blue Ocean Strategy, 2015).

*Table 1: Blue Ocean Strategy Vs. Red Ocean Strategy*

<b>Red Ocean Strategy</b>	<b>Blue Ocean Strategy</b>
Compete in existing market space	Create uncontested market space
Beat the competition	Make the competition irrelevant
Exploit existing demand	Create and capture new demand
Make the value-cost trade-off	Break the value-cost trade-off

*Source: Kim & Mauborgne, Blue Ocean Strategy, 2015*

The Red Ocean has apparent advantages: because the market is already established, it is clear what products and services customers want, therefore the market risk is minimum. However, because market is established, the level of competition is high which usually leads to a decrease in profits. Blue Ocean concept based on the idea that companies can succeed not by competing with rivals, but instead by making competition irrelevant (Kim & Mauborgne, Blue Ocean Strategy, 2015). Implementing the Blue Ocean Strategy gives the company a competitive advantage as a pioneer and escape of any competition.

Kim and Mauborgne also provide a wide range of tools for strategy development. One of these tools is the strategy canvas - a convenient diagnostic tool and an action framework that graphically captures, in one simple picture, the current strategic

landscape and the prospects for an organization (Kim & Mauborgne, Blue Ocean Strategy, 2015). This tool shows for what factors the industry is currently competing and from which customers receive value: if the score of a factor is high – a company offers more to buyers and thus invests more in this field.

Blue Ocean Strategy concept suggests that companies should create new factors for competition in order to create new value. Also, companies should attract new customers from noncustomers tiers to extend the current demand level. Blue Ocean leads not only to value innovation creation but also to redefine the industry problems and thereby reconstruct the market boundaries.

Analyzing successful cases on the different markets, Kim and Mauborgne found companies that created uncontested market spaces revised the existing market rules. These companies used “The Four Action Framework” to define which factors should be eliminated, be reduced, be raised, or be created.

Elimination and reducing associated with the change of the cost structure, whereas raising and creation issues typically focus on the new customer value creation. The Eliminate-Reduce-Raise-Create framework helps companies create new customer value and reduce the cost, which is known as value innovation.

Value innovation is the core element of the Blue Ocean Strategy. All tools and frameworks developed by Kim and Mauborgne support it and helps strategists find the uncontested market space. In the latest book “Blue Ocean Shift” authors analyze successful cases of creation Blue Oceans and recommend new strategy implementation.

Despite the popularity of the Blue Ocean strategy among businesses, this concept has also been criticized. Next, we will consider the main supporters and opponents of this methodology.

### **2.3. Pros and Cons of Blue Ocean Strategy**

Blue Ocean Strategy concept influenced many authors and practitioners’ study and implemented the Blue Ocean Strategy framework worldwide. On the one hand,

academicians and business managers find it attractive and use it in their practice and researches. On the other hand, some scholars point out gaps in the methodology. In this section we discuss the pro and cons of the Blue Ocean Strategy.

Stan Abraham from the California State Polytechnic University connects the Blue Ocean Strategy with the concept of temporary monopolies. He found the connection between correctly defining the market space and market monopolization (Abraham, 2006).

Norman T. Sheehan and Ganesh Vaidyanathan from Edwards School of Business discover long-term competitive advantage in the Blue Ocean and offer three approaches to add new buyer value (Sheehan & Vaidyanathan, 2009). To get a long-term competitive advantage, firms can:

- Offer lower prices by employing an industrial efficiency logic;
- Enhance the offering's fit with customer needs using a knowledge-intensive logic;
- Connect users using network services logic.

Firms that successfully combine two or more of the logics have the highest potential to enjoy long-term profitability sailing in a Blue Ocean market of their creation.

Kim and Mauborgne also provide many examples of the Blue Oceans Strategy realization in the new book *Blue Ocean Shift* (Kim & Mauborgne, *Blue Ocean Shift*, 2017). Since the first edition was published, *Blue Ocean Strategy* has sold over 3.5 million copies. However, the concept faced some critics from scholars.

Andrew Burke, André van Stel, and Roy Thurik from Erasmus Research Institute of Management (ERIM) state emphasize that no scientific control is used during the research process: only successful companies were studied (Burke, van Stel, & Thurik, 2009). Despite Kim and Mauborgne studied successful and not successful companies to determine what companies created value innovation, in the book, no unsuccessful cases are provided.

Researches also found that Blue Ocean Strategy can be imitating, which means that innovation or the uncontested market is only a fleeting advantage. However, Kim and Mauborgne state that for long-term success firms should make continuous improvement and develop new blue oceans. Some researchers also claim that the Blue Ocean Strategy is not new and uses Ted Levitt's old differentiation directive with innovation importance, just because this is trendy right now (Herman, 2019).

Blue Ocean Strategy is a methodology to develop a strategy for noncommercial organizations and business users all over the world. Despite the critics, it provides a wide range of tools which help not only look at the current market from the new side, but also find an uncontested market space to gain competitive advantages as a pioneer.

## **2.4. Marketing factors for Professional Services Firms**

At the end of 2018, more than four thousand companies work on the Russian audit market. The highly competitive environment and quality requirements lead to a shifting of competitive advantage in the marketing field. Therefore, we have to discuss the marketing factors for professional services firms' success.

The word Marketing comes from the Latin word "Mercatus," meaning marketplace. The practice of marketing has been known for hundreds of years. However, marketing as a term was initially used only in the sixteenth century to describe some commercial activities such as buying and selling. In the late nineteenth century, it became widely used. Today there is not only the one right marketing definition, and depending on the business task, every company can define its definition.

According to the American Marketing Association, marketing is "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (American Marketing Association, 2019) Jean-Jacque Lambin defines marketing as "the social process, oriented towards the satisfaction of the needs and desires of individuals and organizations, for the creation and voluntary and competitive exchange of products and services of utilities" (Lambin, 2012).

Phillip Kotler in book “Marketing Management,” wrote, “The marketing strategy lays out target markets and the value proposition that will be offered based on an analysis of the best market opportunities” (Kotler & Keller, 2012). A marketing strategy can vary between companies: chosen strategy and suited to one company will not necessarily be appropriate for other companies.

Price setting is one of the core marketing activities that define firm success in the future, especially for the service sector. Services usually are highly customized, which gives firms an ability to price differentiation and consequently leads to a high reward for the company for some services. At the same time, some services, like audit or accounting, have a highly transparent price for clients, and therefore value competition has been increasing dramatically also because of the effects of the Internet and new technologies.

Ricardo Silveira Martins, in his paper “Customer Participation in Professional Services Operations and Its Impacts on Flexibility and Costs” explained the paradoxical relation between flexibility and costs in the field of operations service strategy and management, approaching the customer participation effects on the professional services. He defined four primary sources of variability: customer arrival, the diagnosis of needs, production and implementation, and the delivery value analysis, which affects the cost and, therefore, a firm’s profitability.

Professor James H. McAlexander, with colleagues, published an article, “Positioning Professional Services: Segmenting the Financial Services Market.” The authors stated that customer value and competitive advantage are core factors for market segmentation and differentiation from competitors (McAlexander, Schouten, & Scammon, 1991).

When it is quite obvious how to implement marketing-mix for goods, there are differences in services. Services’ characteristics relevant for professional services include intangibility, the ratio of fixed to variable costs, the lack of transferability, the integration of customer resources, the importance of experience and trust, and the social nature of services. Therefore, developing a strategy for a service company should have in an account-wide range of limitations and specifications.

Matthew Semadeni and Brian S. Anderson from Indiana University made research on “The Follower’s Dilemma: Innovation and Imitation in The Professional Services Industry.” This is the core problem not only for the Russian Professional services market but also for the global market too. Consulting is a very conservative industry, and every new idea and innovation is faced with denial. However, at the same time, all the best solutions, especially in marketing, are copied very quickly. Therefore, companies always face a dilemma: imitate a new, unproven offering, or forgo imitation and perhaps miss out on the “next big thing”? In analyzing the service mark filings of the 50 largest management consulting firms over 11 years, authors found that although an innovator’s organization-level characteristics increase imitation, offering-level characteristics decrease imitation. Furthermore, organization- and offering-level characteristics interact, resulting in different imitation outcomes.

Two professors from Singidunum University in Belgrade shown that the branding process of professional services has become inevitable and mandatory for achieving the desired market position. In their paper “The Importance of Professional Services Branding in International Transactions,” they claim that successful professional companies use the valuable branding strategy for developing a sustainable competitive advantage in the professional services market, as this strategy could be a valuable source for differentiation, satisfaction, and client retention. “The ultimate goal of professional services branding is to make the brand understandable, which is the basis of a good relationship with clients”, - wrote the authors.

Also, the massive impact on market success affects social media. Domenico Consoli and Fabio Musso from Carlo Bo University of Urbino, Italy in their work “Marketing 2.0: A New Marketing Strategy” observe a new model of Enterprise 2.0 and its collaborative tools (forums, chat, blogs, wikis) which simplified the interaction among various business subjects (company, customers, suppliers). Discussed model will let companies reach business goals using technological tools and social media that exploit, in the interactive dialogue, the old power of word of mouth.

Because of social impact for the last three years, many international companies started to use elements of influencer marketing. Goran Vlašić from the University of Zagreb

found that a star marketer has a robust positive influence on market-driving strategy... while star marketers are crucial for market-driving strategy and long-term success, they represent an unnecessary cost and provide no added value to companies focusing on market-driven strategies and short-term results.

In highly competitive markets, the core role in future success plays innovations and marketing decisions united in the business strategy. Today Russian audit market is in a challenging position, which leads audit firms to search for new business strategies and implement emerging technologies to improve business processes. Blue Ocean Strategy framework with emerging technologies provide a unique competitive solution for the consulting and auditing firms today.





### **3. Market analysis**

Auditing services play an essential role in the economy of every country. Firstly, it provides credibility, which builds a trust relationship with suppliers, buyers, and other partners. Also, it gives shareholders confidence that businesses run accurately, and the management provides the correct reports. Lastly, auditing services show mistakes and miscalculations in accounting and operations, which could be used for internal systems and control improvements.

Today Russian audit market is in a challenging position. For the last ten years, the annual audit revenue in real terms is not growing (see Revenue Analysis, p. 39). As well, it is not an attractive industry for investors and employees. Moreover, all audit firms in Russia are awaiting the new legislative reform, which can reduce the number of audit firms dramatically (see Audit Legislation, p. 21).

In this section, we define what audit services are, observe the history of audit in Russia and the world. We also discuss the economic situation in Russia, legislative reforms, and how they affect the audit market. Finally, we evaluate the impact of auditing services on the revenue growth of audit firms in Russia. The market analysis confirms the necessity and timeliness of developing a new strategy for audit firms in Russia.

#### **3.1. Definition and Objectives of the Audit**

According to the Federal Law “On Auditing” 307-FZ (hereinafter - the Law N 307-FZ) definition, Audit – is an independent examination of accounting reports of the audited company to conclude the authenticity and accuracy of those reports (Rossiiskaya Gazeta, 2008). Apart from accuracy, such an examination will help to identify mistakes and facilitate the correction of the report.

Because of audit examination, based on such true-to-fact information, investors, as well as governmental institutes and other interested parties, can make reliable investment decisions, initiate and coordinate management tasks to follow the financial forecast of company performance.

Thus, an independent audit provides information not only for one specific company but also includes information for evaluating the entire industry. Such an overview positively influences the country's economy by creating a transparent business environment and supporting the investment climate in the country.

It is worth to highlight that simple from the first glance audit examination can be a reliable economy driver by creating first, but a most crucial building block of any business relationship – trust to its participants and secure base for any management decision.

### 3.2. World History of Audit

There is a belief that accounting had first appeared around 6000 years ago (Riahi-Belkaoui, 2004). Audit, as reporting verification activity, however, is dated as of 19th century only, so much later than accounting. The word “audit” comes from the Latin word “audire,” which means “he hears” or “hears” in different translations (Online Etymology Dictionary, 2019). This meaning emphasizes the special trust in the relationship between the auditor and his clients, attentiveness, interest in the client affairs who turned to the auditor for services.

The history of audit services is related to the emergence of a market economy in the middle of the XIX century right after the First industrial revolution. Massive bankruptcy of companies happened in this period, which was often caused by dishonesty and abuse of their managers. The center of the industrial revolution was England - the most economically developed country at that time, therefore with a whole series of frauds and, consequently, bankruptcies **Invalid source specified**. This case has proved that the market economy cannot exist without accountants and a public guarantee of their work objectivity.

England is considered to be the historical homeland of audit, wherein the connection with the robust development of market relations in 1844, several company laws were

passed<sup>1</sup>. Following these laws, boards of directors of companies were required to invite at least once a year a particular person to check accounts and submit reports to shareholders. These experts became auditors - specialists with proper training, qualifications, experience, and permission to provide such services.

In December 1854 in Edinburgh, a group of accountants created the first accountant professional association “Institute of Chartered Accountants of Scotland,” the purpose of which was to verify any financial statements submitted to it (Perks, 1993). The auditing task was to verify in detail the financial and economic activities and the correctness of company accounts.

In 1880, the Institute of Chartered Accountants was formed from five accountant’s association in England and Wales (Perks, 1993). One hundred years later, 76 thousand accountants are members of the institute. Its functions included extensive methodological work, development of auditing and accounting standards, the publication of the Accountants magazine, which published valuable audit materials. Today Great Britain still has a significant influence on the audit and accounting in the world: 3 of 4 audit firms recognized as “Big Four” have a headquarters in the United Kingdom (see *Table 8*).

Until the beginning of the 20th century, independent audit in the USA was based on the English model, which supports a detailed study of balance sheet data. R. Montgomery called the American audit of this stage bookkeeping audit, noting that three-quarters of the auditor’s working time was spent on accounting and bookkeeping (Nouri & Lombardi, 2009). The first official audit order in the United States was published in 1917, and it was devoted to the audit of balance sheets. This order was prepared by the American Institute of Accountants-Experts (currently the American Institute of Certified Public Accountants - AICPA).

In the 1940s, the focus of the audit activity changed to assess the existing accounting and internal control systems at the enterprise, followed by the study of accounting

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<sup>1</sup> Report of the Parliamentary Committee on Joint Stock Companies (1844) British Parliamentary Papers vol VII

records in areas with the highest risk to its activities. The standardization of auditing in the United States began in 1939 when the AICPA established the Audit Procedures Committee (Auditing Standards Board today), which issued the Audit Procedure Regulation<sup>2</sup>. It summarized all the provisions and brought them together into one form. In the United States, verification of the accuracy of financial statements is carried out by a certified public accountant.

Until the end of the 1940th, the audit consisted of checking the documentation confirming the movement of monetary operations, as well as their correct grouping in financial statements; this audit can be called confirmatory. After 1949, independent auditors began to pay more attention to issues of internal control in companies, believing that with an effective system of internal control, the probability of errors is negligible, and the financial statements are quite complete and accurate (Nouri & Lombardi, 2009).

At present, auditing is aimed at identifying a possible risk when conducting inspections or consulting. An audit is carried out selectively, which is also known as a risk-based audit and based on the conditions of the client's business.

Since the origin of its history, audit became an independent, standalone field, which plays a vital role in the economy of any country, just as education or medicine. It is undoubtful that in the current globalization trend and with the development of global holistic finance, labor, or good markets, audit becomes a fundamental economy driver. International audit standards allow to unify pre-requisites and outcomes of audit services and to achieve reliable and actionable information about the company's performance despite its geographical location.

### **3.3. History of Audit in Russia**

The history of Audit in Russia has a direct link to country history. Before the revolution at the beginning of the 20th century, Russia was still under emperor governance, and

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<sup>2</sup> <https://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-C-00250.pdf>

there was a separate function of tax amount collection to country budget, but the only control conducted was a comparison of the paid amount with a Taxbook. After the revolution and till the late 20th century, when the Soviet Union collapsed audit did not appear even though the accounting function was highly developed.

The first mention On Auditing in Russia is dated in 1985, at the “perestroika” period and economy transition to a free-market economy. The appearance of private companies and cooperative organizations required strict examination of financial reports for the correct taxing process. For this purpose, on September 8th, 1987, the Committee of Ministers of the USSR accepted a resolution № 1033-245<sup>3</sup> “About Creation of Soviet Audit Organization.” This document became a base for the establishment of the first audit company in Russia – “Inaudit.” September 8th, 1987, can be counted as the birthday of Audit in Russia.

Two years later, the first discussion on legal audit regulation was initiated in USSR. The discussed document was supposed to define audit as a service, as well as establish a collaboration model between government, audit companies, and other economic agents. However, the year 1989 was full of structural and political changes in Russia, which lead to the Soviet Union collapsed and the start of the “perestroika” process. Obviously, in these circumstances, the question of audit service formalization was not of the highest priority, and the law was not finalized.

The transition from governmental to private property in Russia at the end of the 1980s was accompanied by the creation of first consulting companies, which also were responsible for the examination of financial reports of client-companies. The first definition and objectives of Audit service appeared in those companies founding documents. Then definitions and objectives developed by these companies were used in “Temporary Rules of Audit Service in the Russian Federation” regulation of 1993 (Fedosenko, 2011).

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<sup>3</sup> <http://inaudit.group/wyswyg/File/SUMinistr.pdf>

First branches of Price Waterhouse and Ernst&Young appeared in Russia in 1989. One year later, in 1990 the other four companies (known at that time as “big six”) Arthur Andersen, KPMG, Coopers & Lybrand, Deloitte & Touché establish their offices in Russia as well. Alongside the first audit companies, we can also observe the formation of accountants and auditors’ associations. These organizations started to raise topics of regulation of the audit field as well as the legal base for audit services, up to the need for reorganization of the whole financial control system in the country.

As a result of that active discussion between business and the state, on December 29, 1993, the President signed a decree on the introduction of the “Temporary Rules of Audit Service in the Russian Federation,” which defined the audit and its procedures, its purpose, introduced the concept of a mandatory audit (Fedosenko, 2011). Also, this document set licensing and certification procedures to obtain the right to conduct audit activities, the procedure for canceling licenses, and severe sanctions for auditors and audit firms for making mistakes in their work.

The next important date in the history of audit in Russia is on August 7, 2001, when the first Law “On Auditing,” 119-FZ entered into force (Consultant Plus, 2001). This law toughened the requirements for audit firms, changed the system of certification of auditors, and introduced new rules for conducting the audit. Despite all the significant changes, the new law showed later that there were still many opportunities left for manipulation and abuse in the audit process.

The global financial crisis of 2008 served as a turning point not only in the country's economy but also in law-making. Regulator (Ministry of Finance of the Russian Federation) decided to tighten the legislation in the field of audit and economic crimes combating. As a result, in December 2008, a new Federal Law 307-FZ "On Auditing " was adopted (Rossiiskaya Gazeta, 2008). In the new law, it was forbidden for audit organizations to engage in any other activities besides audit and related services. Also, the document introduced the concept of self-regulatory organizations in the field of the audit, and it replaced national audit standards with international ones, which tightened the requirements for certification of auditors.

In 2017, the Central Bank of the Russian Federation came up with the initiative to change the rules of audit activity and transfer complete control from the Ministry of Finance to the Central Bank (Goryacheva, Year-long reform, 2018). If the document is adopted, the industry will face many severe changes and innovations that will undoubtedly substantially change the market for audit services in the future. Among the new changes, one can expect a decrease in the number of companies obliged to conduct a mandatory audit, the creation of a register of auditors allowed to audit socially significant economic entities (SSEE)<sup>4</sup> and banks, and the introduction of new certification rules for auditors (Khanferyan, 2018).

Such changes are long overdue, and the auditors themselves have repeatedly spoken out about the need to amend the legislation “On Auditing.” On the other hand, the adoption of the new law will lead to a redistribution of the market, the closure of many Russian audit companies, especially small firms where the share of audit in revenue is a significant part. At the moment, the document has passed readings in the State Duma, and there is a high likelihood that before the end of 2019, it will be enacted (Goryacheva, Year of failed events, 2019).

### **3.4. Audit Legislation**

According to the Ministry of Finance of the Russian Federation, in 2018, the total revenue of all audit firms amounted to 58.5 billion rubles, revenues from the provision of audit services - 16.38 billion rubles. In total, there are 4.1 thousand audit firms in Russia, with 40.9 thousand employees, of which 19.5 thousand are auditors, and 21.4 thousand are the rest of the staff (Ministry of Finance, 2019).

Even though the share of revenue of audit firms is less than 0.1% of Russia's total GDP, audit services play a vital role in the country's economy (Analytical Center, 2019). It

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<sup>4</sup> Socially significant economic entities (SSEE)-organizations whose securities are admitted to circulation at organized tenders, credit and insurance organizations, non-state pension funds, organizations, in the authorized (joint-stock) capital of which the share of state ownership is at least 25 percent, state corporations, state-owned companies, public law companies.

builds trust between economic agents, including external investors and the state, and serves the country's economic development.

Today, in Russia, audit services are provided only by audit companies, or individual auditors registered as individual entrepreneurs. According to the Law 307-FZ "On Auditing," the Audit Organization is an individually practicing specialist, partnership, or corporation, or another organization of professional accountants that do not have the right to engage in any other entrepreneurial activity, besides conducting an audit and other services related to the audit.

Among the primary services provided by audit, companies are auditing services and audit-related services that “provide reasonable assurance.” Also, the law allows audit firms to provide an expanded list of services related to audit and consulting activities (Federal Law “On Auditing” No. 307-FZ, 2008):

- accounting;
- accounting and tax advice;
- preparation of tax calculations and declarations;
- management consulting, support for the reorganization of organizations;
- valuation;
- development and analysis of investment projects, preparation of business plans;
- also, other services permitted by the Law.

Audit activities are carried out by audit firms under the Law 307-FZ and other regulatory legal acts introduced forth in Appendix 1.

Since January 1, 2017, international auditing standards have been applied in the Russian Federation. Therefore, in connection with which most of the documents that previously regulated the activities of audit organizations in Russia have ceased to be valid. These changes significantly influenced the market for audit services and led to a noticeable drop in the level of revenue in the industry as a whole.

According to the auditors' assessment, changes in the legislation increased the complexity of the audit by 30–40%, as the number of audit procedures increased, and



it became necessary to fill out new forms of documents (Khanferyan, 2018). New audit standards require that the audit report contain not only an assessment of the organization financial statements, but also information about essential points in the audited company performance: what attracted the attention of the auditor, what the auditor sees as the most considerable risks to the business, and so on.

The auditors themselves differed in their assessments of future changes. According to some, the use of new standards makes the audit report more transparent and informative; the audit results more reliable, which means it will enable investors and company counterparties to make better business decisions. So, for example, Elena Loss, president of auditing firm “RSM RUS,” believes that “reform can lead to a reduction in the number of small audit companies. As a result of such a reduction, the cost of auditing for large companies, in particular, the mandatory audit, may increase due to a reducing the number of audit firms using a price dumping strategy. Also, the reduction of the number of small audit firms with staffing up to four auditors will increase the quality of audits” (Khanferyan, 2018).

At the same time, representatives of small and regional audit firms recognize that changing the law and applying new requirements will increase the cost of the audit, limit the ability of small regional audit firms to work, and therefore they will be forced to shut down.

In any case, the need for reform is long overdue and discussed by the audit community, and there are many reasons for this. One of them: a large number of audit firms conduct only one or two audits per year, more than 20% of all audit firms do not have a single auditor in their permanent headcount, 60% of audit firms have less than three auditors. According to the chairman of the National Union of Auditors Sergey Nikiforov, in some cases, one auditor is simultaneously listed in 7 audit firms to maintain the required number of auditors in the firm (Goryacheva, Year of failed events, 2019).

Another reason is the frequent violation of the law. The Central Bank of the Russian Federation is a supervisor for banks and financial organizations. In recent years it has faced a massive problem of fraudulent schemes in the banking sector and withdrawing

money abroad. Because of fraud, the Central Bank revoked licenses from many banks in recent years. So, for example, in 2013, the Central Bank revoked 36 licenses, in 2014 - 87, 2015 - 93, 2016 - 96, 2017 - 50, 2018 - 350 licenses. According to the head of the Central Bank Elvira Nabiullina, about 70% of cases of revocation of licenses from banks of the Russian Federation caused by a violation of the law on combating money laundering (Central Bank of the Russian Federation, 2019).

From the audit point of view, it is interesting that more than half of the banks whose licenses were eventually revoked previously received a positive audit examination. This trade of positive audit opinions contradicts essential audit principles (Khanferyan, 2018). Naturally, this situation could not suit the government, and a decision to reform the audit industry was made.

Also, in recent years, the fight against money laundering has intensified. The recent audit of the requirement of the Financial Action Task Force (FATF<sup>5</sup>) Development Group compliance showed gaps in the control and monitoring of the banking and financial sectors. Therefore, since 2018, with the participation of financial intelligence, the auditors have an obligation not only to identify dubious transactions of customers but also to inform Rosfinmonitoring<sup>6</sup> about those facts. Even though according to the opinion of the auditors, this regulation did not fit well with the international audit standards, it was adopted at the legislative level.

The desire of the Central Bank to make the banking sector more transparent and cleaner led to a reform of the audit business. According to experts, more than 60% of auditing firms will lose their license in the coming years, and in order to continue working, they will have to merge with other firms to meet the requirements of the law on the number of auditors in the state (Goryacheva, Year of failed events, 2019). At the same time, in order to conduct an audit of socially significant economic entities (SSEE) and financial organizations, it will be necessary to have at least seven auditors with the new audit

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<sup>5</sup><http://www.fatf-gafi.org/publications/mutualevaluations/documents/mutualevaluationoftherussianfederation.html>

<sup>6</sup> Russian financial intelligence agency

certificate on staff. Given that new law will reduce the number of organizations falling under the requirements of a mandatory audit, we can say that around 3 out of 5 audit firms will be liquidated.

It is important to note that before the introduction of new audit rules for SSEE, the Central Bank of Russia, the future regulator of the market for audit services, proposed to audit firms to voluntarily pass certification and check themselves for compliance with future requirements. According to the results of this certification, only 150-170 audit firms may be allowed to audit SSEE, and approximately sixty of these audit firms will be allowed to audit financial institutions, including banks (Goryacheva, Year of failed events, 2019).

Also, not only small audit firms may be affected by new rules. Big companies and socially significant economic entities regularly change their audit firms, and one of the reasons for the change is the price of the audit services. The new reform may even intensify competition in the market for audit services, which will lead to a price war. Besides, some experts agree that companies, including Big Four clients, want to save on the imposed audit procedure. Therefore, it is possible to expect not only a reduction in the number of clients but also an average cost per audit (Khanferyan, 2018).

According to the Ministry of Finance of the Russian Federation (Ministry of Finance, 2019), in 2018, 78688 companies in Russia passed an audit out of the 3295 companies belong to socially significant economic entities (78087 and 3553 companies in 2017, respectively). Law 307-FZ specifies the criteria for companies that are required to undergo an annual audit:

- Joint-stock companies;
- Credit organizations, insurance firms, and banks;
- Professional participants in the securities market;
- Pension and other funds;
- Organizations whose revenue exceeds 400 million rubles per year or the total assets of the balance sheet exceeds 60 million rubles;
- State-owned companies;

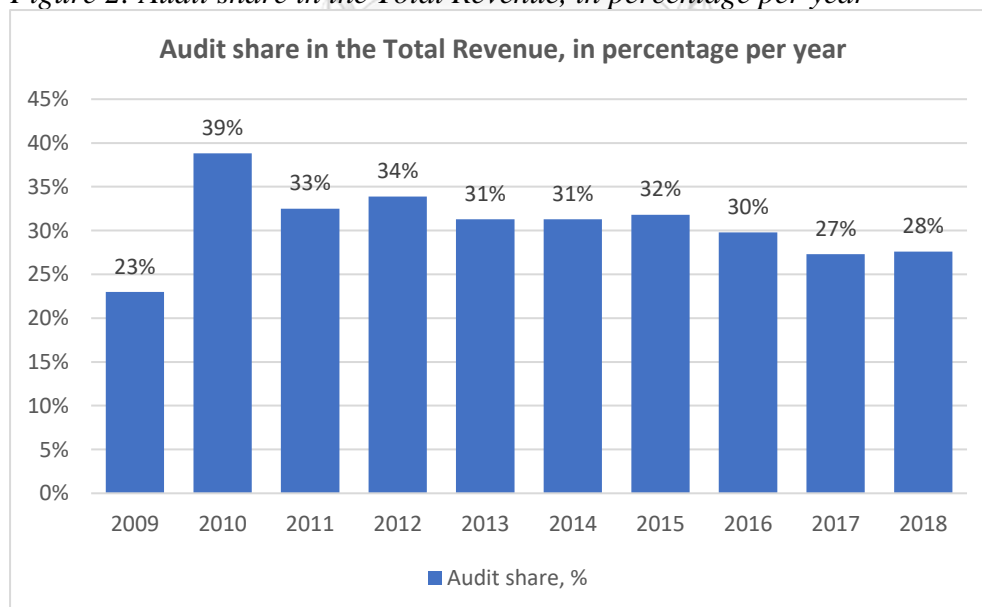
- Self-regulatory organizations;
- Socially significant economic entities (SSEE) and other organizations.

The list of criteria for Social significant economic entities is given in Appendix 2.

In the case of the transfer of supervising authority over auditing activities to the Central Bank of Russia and the strengthening of requirements for audit firms, the number of companies subject to mandatory audit will be reduced significantly. Some experts believe that only socially significant economic entities will undergo a mandatory audit in the future, while other companies will conduct a special-purpose audit in cases of the company's wish.

In addition to audit services, audit firms are entitled to provide a wide range of consulting services in accounting, taxation, valuation, management consulting, and other areas. Surprisingly, but audit services do not have the most significant share in the total revenue of the average audit firm in Russia. *Figure 2* illustrates statistics on the annual share of audit services in the total industry revenue (Ministry of Finance, 2019).

*Figure 2: Audit share in the Total Revenue, in percentage per year*



Source: Ministry of Finance, 2019

For the last ten years, an average share of audit services in the total revenue is only 31%. The highest value of 39% was in 2010, which can be explained by the low base of total revenue that year.

It is noteworthy that being a core service for audit firms, the share of the audit is gradually decreasing and reached only the level of 28% in 2018. The high level of competition influence audit firms to change focus to other services, such as valuation, tax, and management consulting. However, there are still many audit firms on the market, audit share of which accounts for most of the total revenue. If such firms do not change the strategic approach to run business, it is likely to see a series of bankruptcies of such firms shortly.

### **3.5. The Economic Situation in Russia**

Changes in legislation and a highly competitive environment are decisive factors affecting the audit market in Russia. In recent years, also the economic situation in the country had a significant influence on business development, including the audit market. This section discusses economic factors such as GDP growth, inflation, the business confidence index, and unemployment in Russia.

*Figure 3* shows the annual GDP (Gross Domestic Product) growth rate over the past 20 years (Analytical Center, 2019). As can be seen from the graph, the annual GDP growth from 1999 to 2008 was about 6.9% annually. In 2008, a global economic crisis happened, which had the most substantial impact on the Russian economy. Based on the statistics of the World Bank, the Russian GDP fell from \$1.661 trillion in 2008 to \$1.223 trillion in 2009, which is a 35% decrease (World Bank, 2019). In the same period, the price of oil Brent crude fell from \$ 96.94 (2008) to \$ 61.74 (2009) per barrel with local minimums 33 and 39 per barrel, respectively (NASDAQ, 2019). Given that the sale of oil and gas generated approximately 43% of Russia's state budget, this was a severe hit to the economy (Unified portal of the budget system of the Russian Federation, 2019).

Some experts attribute Russia's economic problems to the lack of necessary reforms. As it is mentioned by The U.S. Department of Commerce's International Trade

Administration: “Russia's 2014-2016 economic downturn, driven by low oil prices and the lack of structural economic reform, squeezed both Russian corporations and the average consumer” (International Trade Administration, 2019).

Figure 3: Annual GDP growth rate, in percentage



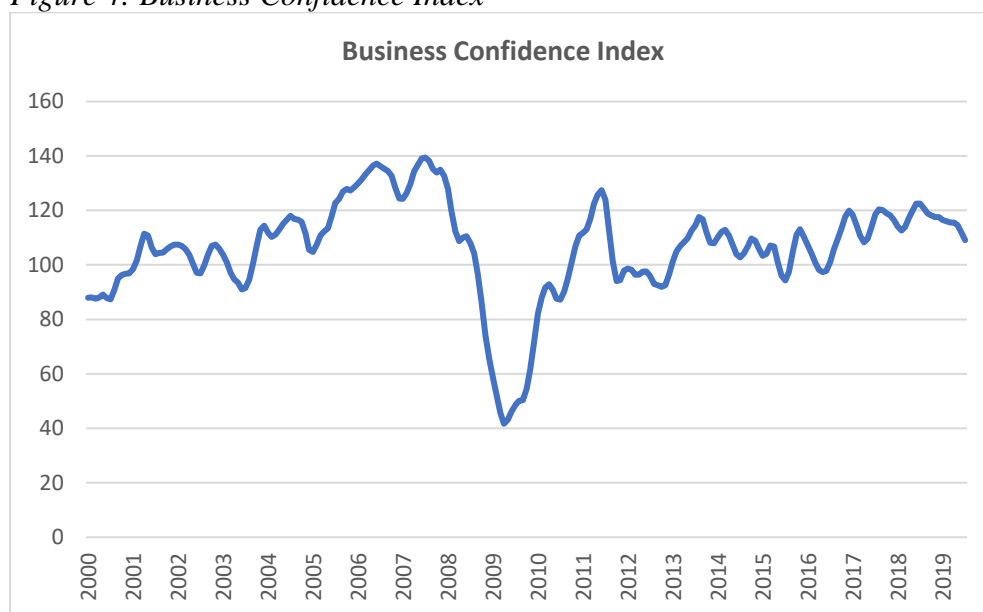
Source: Analytical Center, 2019

If in the period until 2008, companies could grow along with the economy, then as of 2009, there was no more such opportunity. The decline in economic growth in 2015, associated with the introduction of economic sanctions against Russia in 2014, also affected the audit market (Russian Sanction Tracker, 2019). Sixteen firms from the 50 largest audit firms, showed a decrease in income in 2018; 22 audit firms had negative revenue growth in 2017 (Russian Audit Market RAEX, 2019). Growth in revenue was shown by audit firms that had a competitive advantage over others, which we will discuss in detail in the section on the income of audit companies.

Changes in GDP growth undoubtedly affect the Business Confidence Index (BCI). This indicator provides a summary of future events, based on surveys of business representatives about their forecast of production, sales, and stocks of finished products in the industrial sector. It can be used to monitor production growth and forecast tipping points in economic activity. Numbers above 100 indicate increased confidence soon in business, and numbers below 100 indicate pessimism regarding future results (OECD, 2019).

Figure 4 shows the level of business confidence since 2000 (OECD, 2019). To construct this graph, we used monthly measurements of the index. As can be seen from the graph, the business confidence index over the past ten years several times fell below 100 points, which indicates a pessimistic mood of business representatives. Besides, we can mention the direct link between the GDP growth index and the business confidence index: a decrease in GDP growth is associated with a decrease in the business confidence index, and vice versa.

Figure 4: Business Confidence Index



Source: OECD, 2019

Pessimistic view of future events usually means a reduction in investment programs, cost cuts, and the growth of savings in general. Pessimism naturally affects the services of audit firms: the demand for special-purpose audit services is diminished, and firms are forced to take extreme measures like cutting the permanent staff, reducing the cost of services, while they have to maintain a high level of quality.

The 2008 Financial crisis led this way to raise the official unemployment rate - from 6.2% to 8.3% (World Bank, 2019). The most affected in this period group were people with advanced education level (incl. auditors): unemployment rate for this group was almost doubled: from 3.99% to 7.16% (World Bank, 2019).

Another indicator that generally would accompany the GDP growth trend is inflation. As seen from *Table 2*, in 2009–2010 and 2014–2015, there was the highest level of inflation, which completely coincided with failures in GDP growth (Analytical Center, 2019).

*Table 2: Official annual inflation, percentage*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Official inflation, %</b>	8.8%	8.8%	6.1%	3.7%	6.5%	11.4%	12.9%	5.4%	2.5%	4.3%
<b>World Bank</b>	2%	14%	25%	9%	5%	7%	8%	3%	5%	10%
<b>OECD</b>	-	-	8.4%	5.1%	6.8%	7.8%	15.5%	7.0%	3.7%	2.9%

*Source: Analytical Center, World Bank, OECD*

It is important to note that *Table 2* shows the official average inflation for Russia, which may not always correspond to reality. First, in some sectors of the economy, the inflation rate may be higher than indicated. Secondly, due to changes in the calculation methodology in 2014 and 2017, the reduced inflation rate may not always correspond to the real level. Thirdly, the official inflation rate is not equal to the inflation rate calculated by external organizations, such as the World Bank and OECD Data.

In any case, we see several periods with a rather high level of inflation and a drop in the level of GDP, which undoubtedly negatively affected the country's economy and the audit services market in particular. Also, the exchange rate of the national currency plays an essential role in the Russian economy.

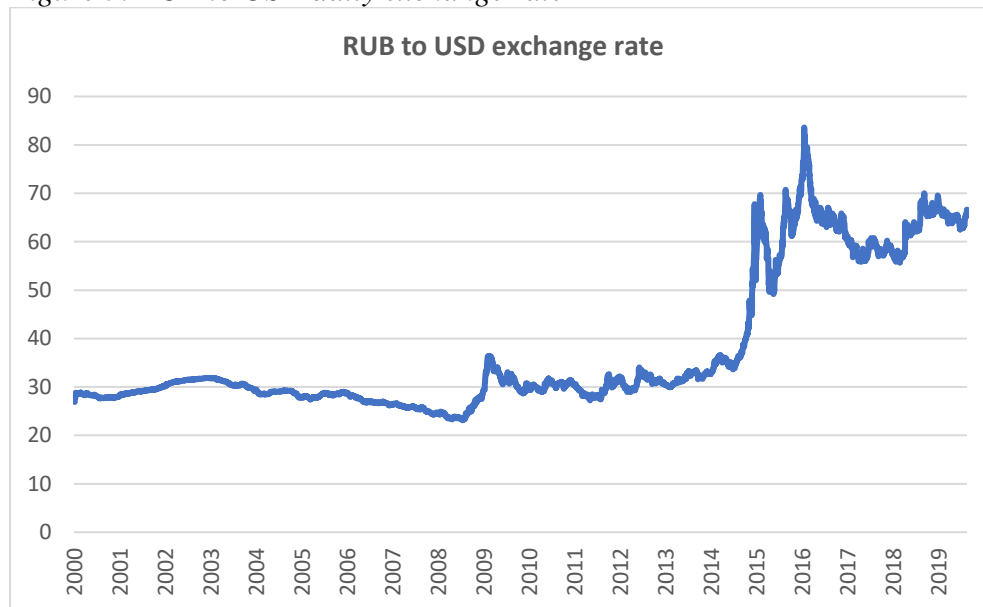
As mentioned earlier, the Federal Budget of Russia consists of 43% of revenues from the sale of oil and gas abroad. The sale is carried out in dollars, which are subsequently exchanged for rubles or remain in foreign currency accounts for settlements with foreign counterparties. That is why the exchange rate of national currency plays a vital role in the Russian economy.

As can be seen in *Figure 5*, at the end of 2014, the exchange rate of the Russian ruble against the U.S. dollar changed drastically from 34 rubles to 68 rubles per dollar (Trading Economics, 2019). The ruble devalued against the dollar almost twice. Of course, devaluation affected the general economic situation in the country: there was a decrease in the growth of GDP, inflation increased, the level of business confidence fell



below 100 points. The devaluation of the ruble was a severe hit to the entire Russian business in 2014-2015.

*Figure 5: RUB to USD daily exchange rate*



*Source: Trading Economics, 2019*

The audit companies, known as the Big Four, are subsidiaries or branches of foreign companies. Assessment of the effectiveness of their activities at the global level takes place in terms of the dollar, and the devaluation of the ruble at the end of 2014 reduced revenue in dollar terms almost by half. Even though the "Big Four" occupies a large part of the Russian audit market, the revenues of the Big Four in Russia are insignificant on a global scale (an analysis of the top companies will be given later in this section).

A decline in the Big Four revenues in the Russian market may indicate a decrease in interest in the market. Because of Russian Law, any transactions are allowed in rubles only, so it is impossible to fix the income of companies in dollars. Therefore, from growth potential, the Russian market fell out of the shortlist of the Big Four, and it is hard to expect from them any considerable business moves, including the implementation of the latest technological solutions shortly.

Another factor influencing the audit market and one of the most critical problems, according to most expert's opinions, is personnel shortage. According to the Ministry of Finance, there are around 20 thousand auditors, but there is still a shortage of

professional auditors in the market (Ministry of Finance, 2019). So, according to Elena Laskeva, development director of the Audit and Consulting Firm MIAN: “The introduction of a requirement for the number of auditors with a new certificate for audit companies has already led to a market race for specialists - highly qualified auditors. At the same time, improving the quality of the services can cause an increase in the cost of the audit” (Khanferyan, 2018).

However, there are also some optimistic opinions about the problem of staff shortages. So, the general director of the largest in St. Petersburg audit firm "AFC-Audit" Vera Konsetova hopes that "the reform in the audit will enhance the prestige of the profession, which, in the medium term, can eliminate the shortage of qualified personnel." Important to say that the "AFC-Audit" took position 21 in the rating of the largest audit firms in Russia with a turnover of 150 million rubles, but had a drop of 26.1% in revenue in 2018 compared with the previous year (Khanferyan, 2018).

### 3.6. Number of Audit Firms and Auditors

It is crucial to analyze the changes in the number of auditors and audit firms to understand the current state of the audit market. Russia is the largest country in the world, with eleven time zones. Therefore, it is complicated to provide all services for the whole country from one place (i.e., from Moscow), and many local audit firms are working in the regions.

*Table 3: Audit Firms in Russia by Region, in thousands*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Russian Federation</b>	6.7	5.2	5.2	4.8	4.7	4.5	4.4	4.4	4.2	4.1
<b>Central</b>	3.2	2.4	2.4	2.2	2.2	2.1	2.1	2.1	2	1.9
<b>Northwestern</b>	0.8	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
<b>South</b>	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>Volga</b>	0.9	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.5	0.5
<b>Ural</b>	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
<b>Siberian</b>	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3
<b>Far Eastern</b>	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2

*Source: Ministry of Finance, 2019*

*Table 3* shows information on the number of audit firms in thousands of units, broken down by federal district yearly (Ministry of Finance, 2019). The row Russia Federation indicates the total number of audit firms in Russia in the selected year. As can be seen from the table, over the past ten years, the total number of audit firms has decreased.

There are several reasons for the reduction in the number of audit firms. As mentioned early, legislative reform, increased requirements for audit firms and auditors, a high level of competition, and the harsh economic situation in the country has affected audit firms in Russia. Also, the fight against unscrupulous audit firms at the regulator level, represented by the Ministry of Finance of the Russian Federation, the Central Bank of Russia and self-regulatory organizations, led to the exit from the audit market firms that perform their work with insufficient quality, sometimes openly selling audit reports.

A highly competitive environment is pushing companies to come up with different business solutions to strengthen their market positions. Some companies do it via mergers. Merges and acquisitions are not a very common practice, and there are only several audit firms that have taken this path. As mentioned, audit firms that are not in the top hundred usually have less than three auditors in the staff, and often auditors work concurrently in several organizations. It is a common practice when auditors move from one firm to another during the “audit season.” Some small audit firms close, others open. The merger deals are typically applied only by the largest audit firms from the first hundred.

For example, Rosekspertiza, in 2016, re-branded and merged several audit firms under the name Crow Expertise (Crowe Expertise Company History, 2019). Another example is the company “KSK Group,” which was acquired by 1C in 2014 (Goryacheva, Year-long reform, 2018). As a result, using the resources of the largest IT company in Russia in the field of accounting software, “KSK Group” will gain 20 positions in the TOP 100 rating.

Apart from mergers, there are also examples of creating international networks<sup>7</sup>. One of the largest Russian audit companies, Finexpertiza, has created an international network, which in 2019 included 12 countries and 14 partners (Finexpertiza Global Network, 2019). From the information on the network's website, the Finexpertiza Network "forms a unified policy and strategy, controls the issues of brand use, the application by all independent members of the network of a unified approach to risk, quality and activity management in the areas in which this is necessary. The network does not provide professional services to customers and does not conduct joint activities with third parties." This is the first successful example of creating an international audit network from Russia.

Another strategy used by audit firms is the incorporation or inclusion of large consulting IT companies into their network. The reason for this partnership is not to use a single brand, strategy, or marketing policy, but just increasing the total income for use in the ratings. This strategy has been used by several companies, which leads to an increase of more than 100% per year in total revenue or a drop in about the same amount next year when the partnership gets canceled for some reason.

Another example is Intercom-Audit, which operates throughout Russia, providing accounting and consulting services (About Intercom Audit, 2019). In the early 2010s, the company operated under a franchising scheme, and the total revenue of all franchisees varied around 3 billion rubles (more than 1,200 partners were indicted in the report). In the same years, according to the financial statements, the revenue of the parent company was below 100 million rubles per year. In 2015, the audit firm conducted a restructuring, after which revenue for 2018 amounted to 255 million rubles (Russian Audit Market RAEX, 2019). According to the information on the website, "the Intercom-Audit partnership includes more than 300 companies in 150 cities of Russia and the near abroad<sup>8</sup>."

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<sup>7</sup> <https://finexpertiza.com/en/about/>

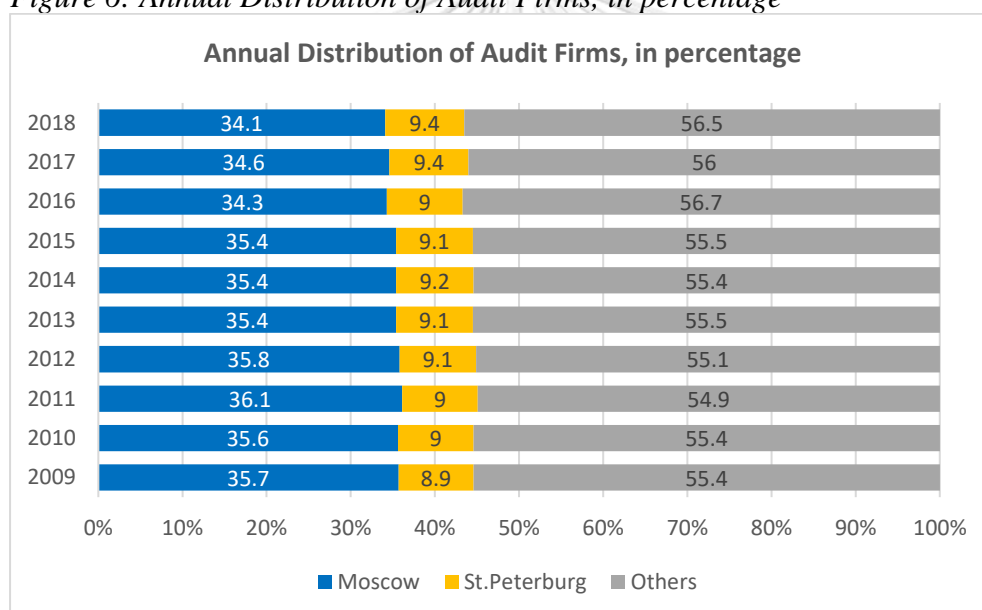
<sup>8</sup> <https://intercom-audit.ru/regions/region/>

Apart from the total number of audit firms, it is interesting also to note that the reduction process has progressed evenly throughout Russia even though it would be logical to assume that regions with higher competition, would be more affected.

As can be seen from

Table 3, the most significant number of audit firms are located in Moscow and St. Petersburg. In order to present how the change in the number of audit firms has taken place structurally, it is necessary to separate the most significant regions and group the small ones. A graph below presents the distribution of audit firms across Russia annually (Ministry of Finance, 2019).

*Figure 6: Annual Distribution of Audit Firms, in percentage*



*Source: Ministry of Finance, 2019*

As can be seen in *Figure 6*, the reduction in the number of audit firms in Russia over the past ten years has not affected their structural distribution by region. The relative number of firms operating in Moscow, St. Petersburg, and other regions of Russia has remained almost unchanged over the past ten years.

At the same time, it is possible to conclude that the reduction did not occur due to a decrease in the number of small regional firms, which means that the territorial factor plays a significant role in choosing an auditor. This factor explains the pricing policy of regional audit firms: they can always offer a lower price for audit services than

Moscow or St. Petersburg firms. It also confirms our previous statement that companies are looking for the opportunity to save on mandatory audits, especially companies in the regions.

Apart from audit firms, it is crucial to consider that the number of certified auditors is also declining —Table 4 below presents data on the number of certified auditors (Ministry of Finance, 2019). The number of auditors is given in thousands of people. Since 2012, a new auditor’s certification was introduced, which required an audit of socially significant economic entities, financial institutions, companies with state participation, and other companies (see Appendix 2). Therefore, the number of auditors with the new certificate is given in the table separately.

*Table 4: Number of Total Auditors per year, in thousands*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Auditors</b>	18.3	26.3	26.8	24.1	23	22.2	21.5	19.6	19.6	19.5
<b>Auditors with the new certificate</b>	x	x	1.1	3.2	3.2	3.4	3.5	3.6	4.0	4.3

*Source: Ministry of Finance, 2019*

In order for the auditors to have the right to conduct audit activities, they need a specific document - a qualification certificate. As can be seen from the table, the total number of auditors has been declining since 2010. Before the decrease period, the increase in the number of auditors in 2010 is due to the re-certification of specialists in connection with the audit reform of 2008: after the introduction of the new rules, not all auditors managed to pass certification in 2009.

Until November 1, 2009, auditor qualification certificates allowed the following types of audit: general audit; bank audit; audit of insurers, an audit of exchanges. From November 1, 2009, new certificates are issued for general and banking audits; the general audit certificate also covers the audit of insurance companies and brokers (Federal Law “On Auditing” No. 307-FZ, 2008).

Another milestone in auditor’s regulation - January 1, 2012. Audit of socially significant economic entities since that date can be carried out only by auditors with uniform qualification certificates. This reform obligated already certified auditors to re-pass certification. In 2011, 1.1 thousand auditors received a new auditor qualification

certificate, which corresponds to approximately 4% of the total number of auditors. In 2018, already 4.3 thousand auditors had a similar certificate, which corresponds to more than 22% of the total number of auditors (Ministry of Finance, 2019). Auditors are gradually moving to a new model; without a new qualification certificate, they have significant limitations in their work.

The duration of the unified qualification certificate is not limited, but the auditor is obliged to attend annual training. However, even though under the law, a certificate is issued to an auditor for an indefinite period, it can be canceled. The reasons for certificate cancellation are listed in the Law "On Auditing," such as violation of audit secrets, issuing a knowingly false opinion, violation of audit requirements, and others.

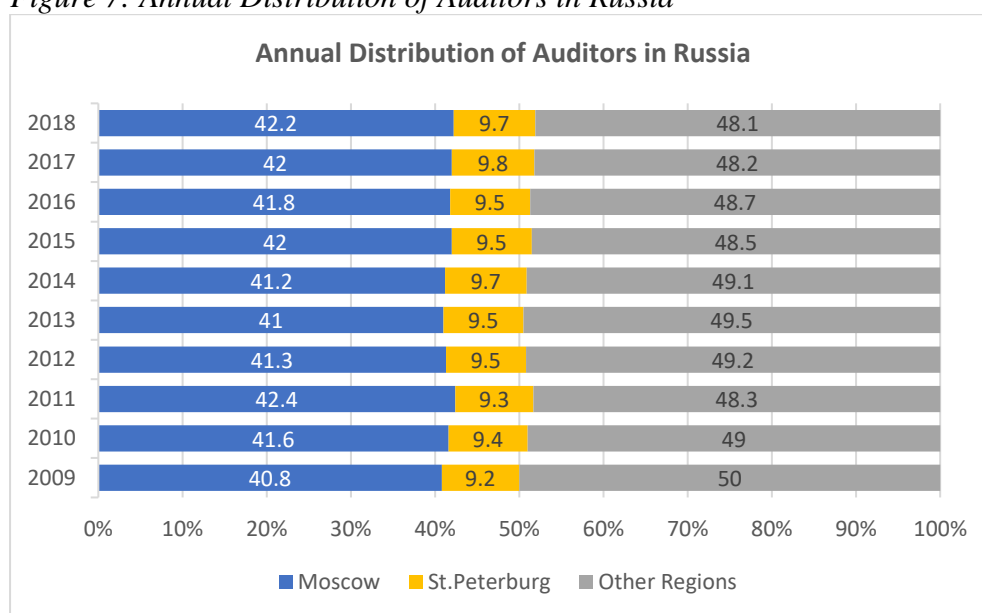
The new draft Law "On Auditing" does not say anything about the recertification of auditors, but audit firms, which will have to undergo certification (one of the criteria of which is the presence of at least seven auditors with a valid new form certificate). The new reform will primarily affect small regional firms with three or fewer auditors. Consequently, we can expect that the total number of audit firms, and, accordingly, auditors, should seriously decrease shortly.

It is also crucial to analyze how structurally the number of auditors has changed over the past ten years. As in the case of the distribution of audit firms, the largest concentration of auditors is observed in two regions: Moscow and St. Petersburg. Therefore, all auditors are divided into three groups: Moscow, St. Petersburg, and other regions of Russia. The result of this analysis is presented in The graph shows that structurally the number of auditors has changed slightly over the past ten years. Hence, the reduction in the number of auditors in Russia went evenly across all regions of the country. At the same time, Moscow has the most significant number of auditors. As in the case of audit firms, there is a rational explanation for this: Moscow is the capital of Russia with the largest concentration of companies and economic resources in the country.

*Figure 7* below (Ministry of Finance, 2019).

The graph shows that structurally the number of auditors has changed slightly over the past ten years. Hence, the reduction in the number of auditors in Russia went evenly across all regions of the country. At the same time, Moscow has the most significant number of auditors. As in the case of audit firms, there is a rational explanation for this: Moscow is the capital of Russia with the largest concentration of companies and economic resources in the country.

Figure 7: Annual Distribution of Auditors in Russia



Source: Ministry of Finance, 2019

With the introduction of the new Law, a significant number of auditors in the regions will lose their job because they will not be able to find work due to the increasing requirements for audit organizations. Because Russia is the largest country in the world by territory, personnel migration is limited by these geographical features. Also, the economic situation has a considerable impact on the decreasing of migration of human resources. In this connection, large audit firms will likely have the opportunity to attract qualified personnel for audit in the regions, and the supply of auditors, in this case, will exceed demand.

As for the gender structure, everything is entirely predictable here. Approximately 80% of the total number of auditors are women. Among the auditors, 35% are people aged 35 to 45 years, 30% are from 45 to 55 years old, about 20% are from 25 to 35 years old,



15% are over 55 years old, a small number are auditors under 25 years old (Ministry of Finance, 2019). The indicated proportion with slight variations remains for several years.

To sum up: the number of audit firms and auditors is reduced year by year. This decrease occurs evenly across all regions of Russia, remaining approximately in the same proportions as ten years ago. At the same time, the number of auditors with a new certificate is growing both in percentage terms and quantitatively. This growth is due to changes in legislation and restrictions for auditors who do not have a single qualification certificate.

### 3.7. Revenue Analysis

The economic situation in the country and the strengthening of regulatory control have undoubtedly influenced the income level of audit firms. It is critical to analyze the financial side of the issue to understand the current situation in the audit services market. Next, we will consider the revenue, share of audit, growth, and change in revenue per audit firm over the past ten years.

As noted early, the market for audit services in Russia in 2018 amounted to 58.5 billion rubles, including income from the mandatory audit services - 16.38 billion rubles (Ministry of Finance, 2019). The total revenue and share of audit services are given in *Table 5* below.

*Table 5: Total revenue and audit revenue from 2009 to 2018*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total Revenue, bn</b>	49.6	49.1	51	51.7	53.6	53.6	56.1	57.1	55.4	58.5
<b>Revenue growth</b>	-0.9%	-1.1%	0.5%	1.4%	3.7%	3.7%	4.7%	1.8%	-2.9%	5.5%
<b>Audit share, %</b>	23%	31%	33%	34%	31%	31%	32%	30%	27%	28%
<b>Audit Services, bn</b>	11.4	15.0	16.6	17.5	16.8	16.8	17.8	17.0	15.1	16.1

*Source: Ministry of Finance, 2019*

As can be seen from *Table 5*, the total revenue of all audit firms over the past ten years is increasing from 49.6 billion rubles in 2009 to 58.5 billion rubles in 2018. The market showed maximum growth in 2018 and grew by 5.5%.

At the same time, in 2009, 2010 and 2017, trend was in contrary negative: -0.9%, -1.1% and -2.9%, respectively. The first fall in total revenue of audit firms in 2009-2010 can be explained by the cumulative effects of the 2008 global crisis and expectations of a recession in the Russian economy (Bashkatova, 2010). The effects of the 2008 crisis began to diminish after 2010.

The fall in the total revenue in 2017 is the result of three different factors: the transition of a number of large clients to audit firms, perceived as unconditionally Russian, increasing price competition in the market, and desire of client to save money on legal procedures, such as mandatory audit **Invalid source specified.**

The largest companies in the market made the most significant contribution to the drop of 2017: although only 42 companies from the top 100 audit firms completed the year with a negative revenue, they accounted for 70% of the total revenue. In 2016, there were slightly fewer such companies (36), but their share accounted for only 11% of total revenue (Khanferyan, 2018).

The drop-in revenue observed in the market also affected the absolute market leaders - the Big Four. The reason for this was the reorientation of several large customers to audit firms perceived as “truly Russian.” Economic sanctions against Russia, introduced in 2014, triggered this process. Besides, there was an increasing price competition in the market: many audit firms reduce their cost of services in order to attract customers.

*Figure 8* shows the total revenue of audit firms in Russia for the last ten years, in billion rubles (Ministry of Finance, 2019).

*Figure 8: Annual Total Revenue of Audit Firms in Russia, billion rubles*



Source: Ministry of Finance, 2019

On average, over the past ten years, the market has grown by 1.6% annually without adjusting for inflation. If we apply the correction factor in the form of inflation, we can say that over the past ten years, only in 2018, revenue growth exceeded inflation. *Table 6* shows the inflation-adjusted indicator of the annual growth (fall) of the market (calculation based on the statistics provided by the Ministry of Finance of the Russian Federation and the Analytical Center under the Government of the Russian Federation).

*Table 6: Revenue Growth adjusted by Inflation*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Revenue Growth</b>	-0.9%	-1.1%	0.5%	1.4%	3.7%	3.7%	4.7%	1.8%	-2.9%	5.5%
<b>Official Inflation</b>	8.8%	8.8%	6.1%	3.7%	6.5%	11.4%	12.9%	5.4%	2.5%	4.3%
<b>Inflation adjusted Revenue Growth</b>	-9.7%	-9.9%	-5.6%	-2.3%	-2.8%	-7.7%	-8.2%	-3.6%	-5.4%	1.2%

Source: Ministry of Finance, Analytical Center, 2019

As can be seen from *Table 6*, for nine years, official inflation exceeded the percentage growth of the audit market. The exceed means that in real terms, the market shrank by the level of Adjusted Revenue Growth every year. The most significant drop in real terms fell in 2009-2010 when the consequences of the global crisis had a strong influence not only in Russia but also on the whole world. The second significant drop occurred in 2013-2014. This fall is due to the introduction of economic sanctions against Russia, which, among other things, caused the devaluation of the ruble at the

end of 2014. In the section on the Economic Situation, we have these reasons considered in detail.

Another indicator from *Table 5* worth mentioning is the share of audit services in the total revenue of audit firms. In absolute terms, it ranges from 11.4 to 17.5 billion rubles with an average value of 16.0 billion rubles over the past ten years. The minimum nominal value was reached in 2009, in the first year after the global financial crisis of 2008. The maximum nominal value was in 2012, where the share of audit revenues amounted to 34% of total income, which is also the maximum value for the last ten years. The average cost of the audit share in the revenue of audit companies over the past ten years amounted to 30% of the market (Ministry of Finance, 2019).

Audit seems to be the core service for audit firms, but surprisingly, it does not have a predominant share in the audit firms' earnings. As mentioned above, a large number of players in the market leads to high competition and, in some cases, to openly dumping pricing policies. Naturally, the cost of audit services is falling, which leads to a decrease in audit revenue in total revenue. The new audit reform is designed to resolve this issue and reduce the number of companies in the market. Most major players agree that this reform is necessary and useful for the market (Goryacheva, Year of failed events, 2019).

As noted in the section “Definition and Objectives of the Audit,” audit services are divided into a mandatory and special-purpose audit. Mandatory audit accounts for more than 80% of the total revenue from audit services (Ministry of Finance, 2019). This share once again confirms the thesis that companies in Russia are reluctant to audit if it is not mandatory. Unfortunately, there are no statistics on companies conducting a special-purpose audit to determine the factors that influence the decision to conduct such type of audit.

What is also interesting is to consider the change in income per audit firm. Taking into account that in 2009, the total market for audit firms was 49.6 billion rubles, with 6.7 thousand companies. In 2018, the total market volume amounted to 58.5 billion rubles, while only 4.1 thousand could provide audit services (Ministry of Finance, 2019).

Table 7 presents the distribution of revenue on average per audit firm for the period from 2009 to 2018 (Ministry of Finance, 2019). Total revenue is in billion rubles, the number of audit firms is in thousands of organizations, revenue per firm is in millions of rubles, revenue growth per firm is in percentage compared to the previous period.

*Table 7: Revenue per Audit Firm*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total Revenue, bn</b>	49.6	49.1	51.0	51.7	53.6	53.6	56.1	57.1	55.4	58.5
<b>Total Number of Audit Firms</b>	6.7	5.2	5.2	4.8	4.7	4.5	4.4	4.4	4.2	4.1
<b>Revenue per Firm, ml</b>	7.40	9.44	9.81	10.77	11.40	11.91	12.75	12.98	13.19	14.27
<b>Revenue Growth per Firm</b>	-2%	28%	4%	10%	6%	4%	7%	2%	2%	8%

*Source: Ministry of Finance, 2019*

As can be seen from *Table 7*, the revenue of one audit firm, taken on average in the market, has been growing over the past ten years. If we compare 2009 with 2018, we can see that revenue per company on average almost doubled - growth over ten years amounted to 93% in nominal terms. In 2009, there was a noticeable drop in revenue per firm, which was due to the global crisis and a small increase in the number of audit firms in 2009. The most significant increase of 28% was in 2010, associated with a reduction in the number of audit firms authorized to provide audit services. At the same time, the total revenue of the audit market in 2010 showed negative dynamics and decreased by 0.5 billion compared with a year earlier.

Also, the lowest annual revenue growth per audit firm (excluding the fall in 2009) was in 2016-2017. During this period, the growth rate was only 2%, which can be explained by the unidirectional movement of revenue indicators and the number of audit firms. In 2018, revenue growth was 8% per audit firm, while total revenue increased by 5.5% compared to the previous period, which is explained by a decrease in the number of firms by 0.1 thousand. It is essential to note that the official statistics Ministry of Finance of the Russian Federation, the number of audit firms is changing daily and find the exact number is impossible.

Even with comparative data, it is visible that the audit market with constant revenue growth per company is still an attractive field to operate, and worth working on

developing and applying the best business strategy that can help to gain even more from the severe competition.

### 3.8. The Largest Audit Firms in Russia

As noted in the section “Number of Audit Firms and Auditors,” the audit services market in Russia is uneven: there are a small number of audit firms that significantly affect the overall performance of the entire market and a large number of firms whose market share is tiny. To illustrate this, in this section, we analyzed the influence of the largest audit firms, including the Big Four, on the Russian audit services market.

To show the impact of the largest audit firms on the audit market, we divided all companies into 3 groups: the Big Four, the most significant 50 audit firms without the Big Four (46 companies in total, respectively), and all other audit firms on the market (Ministry of Finance, 2019). As evaluation criteria, four characteristics of audit firms were selected:

- The number of client reports issued by the audit firm;
- The number of auditors working in the audit firm;
- The number of SSEE that have been audited by the relevant audit firm;
- Revenues of an audit firm.

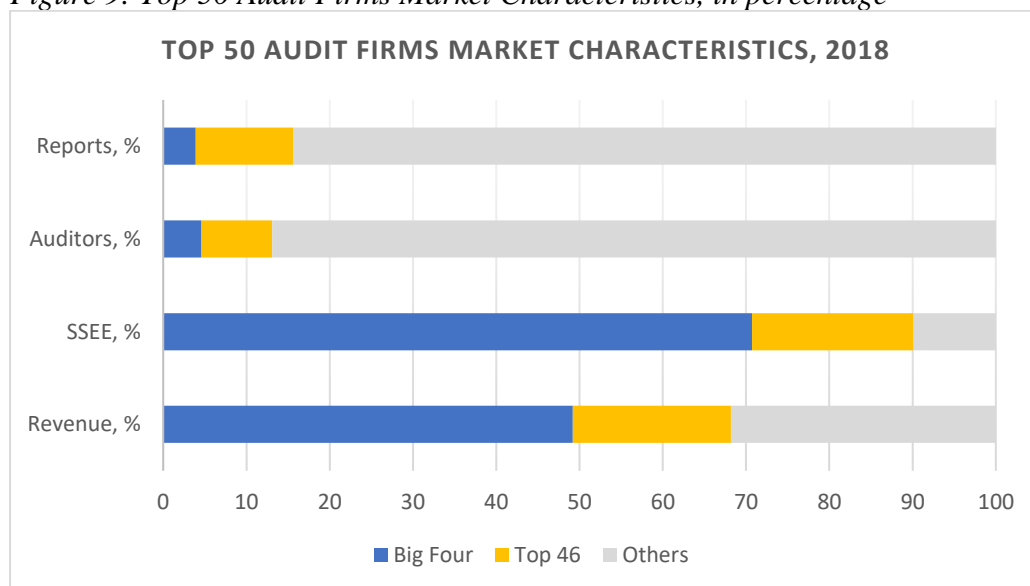
All characteristics are presented as a percentage of the total selected factors for all audit firms in Russia. As can be seen from **Error! Not a valid bookmark self-reference.**, the companies included in the Big Four occupy almost half of the market in terms of income, with 71% of all SSEE audited by Big Four auditors. At the same time, a total of 5% of certified auditors (including old and new certificates) work by the Big Four, and the number of reports issued in just one year is only 4%. Figure 9 reflects the dominant position of foreign audit firms in the Russian market.

*Figure 9* below presents the results of this analysis.

As can be seen from **Error! Not a valid bookmark self-reference.**, the companies included in the Big Four occupy almost half of the market in terms of income, with 71% of all SSEE audited by Big Four auditors. At the same time, a total of 5% of

certified auditors (including old and new certificates) work by the Big Four, and the number of reports issued in just one year is only 4%. **Error! Not a valid bookmark self-reference.** reflects the dominant position of foreign audit firms in the Russian market.

Figure 9: Top 50 Audit Firms Market Characteristics, in percentage



Source: Ministry of Finance, 2019

At the same time, if we add to the results of the Big Four, the indicators of the next 46 companies (total of the top 50 largest audit firms in Russia), it becomes evident that the largest audit firms have the most significant impact on the market. So, 90% of socially significant organizations as the auditor chose one of the 50 largest audit firms in Russia, 68% of the revenue came from the same 50 largest audit firms.

At the same time, as of the end of 2018, only 14% of auditors work by these firms; in absolute terms, about 2.7 thousand auditors work in the top 50 audit and consulting groups, which is less than the total number of auditors with a single qualification certificate (in 2018, 4.3 thousand auditors had a new certificate). The largest firms have the most significant impact on the audit market. That is why the largest 50 audit firms in Russia were selected as the object of analysis in this work.

The largest 50 audit firms have a dominant influence on the Russian audit market. Among the largest audit firms, the first four lines for the last ten years are occupied by

the firms known as the Big Four: KPMG, EY, Deloitte, and PwC. KPMG showed the most significant revenue in 2018 - it ended the year with a result of 10.668 billion rubles, then EY with a result of 6.977 billion rubles, followed by Deloitte and PwC with results of 5.611 and 5.505 billion, respectively (Russian Audit Market RAEX, 2019). The total revenue attributable to these four companies only in 2018 amounted to 28.7 billion rubles, i.e., 49% of the total market.

The Big Four companies appeared in Russia in 1989-90, during the collapse of the USSR and the transition to a market economy (see “History of Audit in Russia”). They have been working in the country since the founding of modern Russia, providing a wide range of accounting, auditing, tax optimization, and management consulting services. Due to their reputation, these companies have become auditors of the largest companies in Russia, including strategic state defense enterprises. Since most of these companies sell products abroad, the presence of an audit opinion from a well-known, respected audit firm with a worldwide reputation has become an essential requirement for most Russian companies.

Table 8 below provides a summary of the Big Four companies<sup>9</sup>, including the year of foundation, the year the office was opened in Russia, the number of employees globally and in the Russian office, global revenue for 2018, revenue in Russia for 2018, number of offices in Russia, number of countries of presence and other characteristics.

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<sup>9</sup> Information for *Table 8* were collected from reports from companies’ websites (Deloitte, PwC, EY, KPMG).



Table 8: "Big Four" firms characteristics

	Deloitte	PwC	EY	KPMG
<b>Full Name</b>	Deloitte Touche Tohmatsu Limited	PricewaterhouseCoopers International Limited	Ernst & Young Global Limited	Klynveld Peat Marwick Goerdeler International Cooperative
<b>Brand value, bn</b>	\$ 20.83	\$ 22.28	\$ 17.13	\$ 12.47
<b>Brand Finance Global 500 place</b>	59	50	84	119
<b>Global Legal Form</b>	Non-public joint-stock company	Transnational corporation	Limited liability company	Cooperative
<b>Place of registration</b>	Great Britain	Great Britain	Great Britain	Switzerland
<b>Established</b>	1849	1849	1903	1870
<b>Headquarters</b>	United Kingdom	United Kingdom	United Kingdom	Netherlands
<b>Global annual revenue</b>	\$ 43.2 bn.	\$ 41.76 bn.	\$ 34.8 bn.	\$ 28.96
<b>Presented in countries</b>	152	158	150	154
<b>The global number of employees</b>	286200	250930	260000	207050
<b>Official site</b>	www.deloitte.com	www.pwc.com	www.ey.com	www.kpmg.com
<b>Opening office in Russia</b>	1990	1989	1989	1990
<b>Offices in Russia</b>	7	12	9	13
<b>Employees in Russia</b>	2200	2700	3300	3150
<b>Revenue in Russia, ml</b>	\$ 80.769	\$ 79.251	\$ 100.432	\$ 153.568

Source: Deloitte, PwC, EY, and KPMG

Deloitte worked in Russia since 1990. Today, the company has more than 2,200 employees in Moscow, St. Petersburg, Yekaterinburg, Novosibirsk, Yuzhno-Sakhalinsk, Vladivostok, and Ufa (total of seven offices). The list of services provided in Russia: audit services, risk management services, financial advice, consulting and legal services, tax services, as well as services for servicing foreign companies. Deloitte provides an exclusive range of Private services for private and family businesses. The company specializes in the consumer sector, energy, mining and manufacturing, financial institutions, healthcare, high technology, telecommunications, and the media (TMT). Deloitte's revenue in Russia in 2018 amounted to \$ 80.769 million, which corresponds to **0.19% of the company's global income** (Deloitte Russia, 2019).

PwC has been operating in Russia since 1989. The company has 2700 employees in Moscow, St. Petersburg, Kazan, Yekaterinburg, Nizhny Novgorod, Perm, Vladikavkaz, Novosibirsk, Krasnodar, Voronezh, Rostov-on-Don, and Ufa (12 offices). Historically, PwC firstly came to Russia in 1913 and opened the office in Moscow, but the revolution in 1917 forced the company to close its office in Russia. The Moscow office of PwC employs more than 2,000 people, and the average age of employees in the Moscow office is 29 years old. PwC customers in Russia are about 2,000 companies, more than 200 of which are the largest Russian companies in the RAEX600 rating (PwC Russia, 2019). PwC provides a wide range of services in the field of audit, analysis and risk control, consulting services, support of export-import operations, tax services, forensic and legal services. The company has a particular group for working with German companies specializing in audit, consulting, tax optimization, and legal support of the business.

It is important to note that in addition to the “classic” services typical of audit firms, PwC provides a series of technological solutions, including data analysis, Internet-of-Things, cybersecurity, visualization, and interactive reporting, blockchain, cloud solutions, and robotics. In this area, the company organizes the accelerator “PwC Russia Accelerator” - a program for technological companies, which is carried out in collaboration with the YellowRockets fund. The program allows participants to gain access to PwC customers and partners and accelerate the development of their business.

Among other things, the company provides data management, reporting, and XBRL<sup>10</sup> services. PwC revenue in Russia in 2018 amounted to \$ 79.251 million, which corresponds to **0.19% of the global income** of the company as a whole.

EY has also been operating in Russia since 1989, and it was the first company from the Big Four to open an office in Russia. Today the company employs 3300 employees in 10 offices: Moscow, St. Petersburg, Vladivostok, Tolyatti, Yekaterinburg, Kazan, Krasnodar, Novosibirsk, and Rostov-on-Don. The company acted as an auditor of the first Russian IPO at the NYSE in 1996 - mobile operator VimpelCom (EY Russia, 2019). Today EY specializes in audit services, consulting, tax and legal services, transaction support, and provides a series of specialized services for the family business.

Besides, the company provides services in the area of clean technology and sustainable development services. Partially, these services use artificial intelligence technologies and new technologies. The company provides a wide range of education programs, master classes, and corporate training in the framework of the EY Academy of Business project. Also, the company makes a significant contribution to the development of entrepreneurship by organizing the Entrepreneur of the Year and Business Women awards. Today, EY is the leader in the number of IPO transactions conducted by companies from the CIS countries on stock exchanges in the USA and on the London Stock Exchange. The company provides audit services to 50% of companies listed on the London Stock Exchange, and 42% of companies that have been listed on the New York Stock Exchange and NASDAQ from Russia. EY income in Russia in 2018 amounted to \$ 100.432 million, which corresponds to **0.29% of the global income** of the company as a whole.

KPMG opened the first office in Russia in 1990. Today the company employs 3,150 personnel and has offices in 13 cities of Russia: Moscow, St. Petersburg, Vladivostok, Yekaterinburg, Krasnoyarsk, Novosibirsk, Rostov-on-Don, Kazan, Perm, Nizhny

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<sup>10</sup> XBRL (eXtensible Business Reporting Language) is a freely available and global framework for exchanging business information.

Novgorod, Ufa, and Voronezh (KPMG Russia, 2019). The company is the leader in revenue among all the Big Four companies in Russia, giving them a place in the world ranking. Among the services provided: audit, tax and legal support, management consulting, risk management and investment, and capital market services. The company specializes in the automotive industry, the agricultural sector, healthcare, metallurgy and mining, the oil and gas industry, and construction.

KPMG has developed the first Dynamic Discount Platform in Russia - an online platform for mutually beneficial interaction between buyers and their suppliers to coordinate discounts for early payment of bills. The company does not provide services in the modern technologies field, but one of the services offered is IT consulting, which offers services in the field of Business Intelligence and work with Big Data. Like EY, KPMG opened a Business School, and today it offers various training programs for businesses. KPMG revenue in Russia in 2018 amounted to \$ 153.568 million, which corresponds to **0.53% of the global income** of the company as a whole.

The Big Four companies not only occupy a large part of the audit services market in Russia but also actively engage in the development of the country's economy through training events, the provision of new services, and the support of complex projects. Thanks to international expertise, companies use the best international practices and approaches to solving business problems, which positively affects the business environment in Russia.

Despite a significant share in the Russian audit market, the Russian revenues of the Big Four are insignificant on a global scale and amount to less than 1% for each firm (see *Table 8*). In conditions of economic recession, international sanctions, and a decline in GDP, these companies are unlikely to see great potential in the Russian market today. It is likely, the most promising projects based on new technologies will be realized by these companies in other markets, such as Southeast Asia, Europe, and the United States of America.

At the same time, as shown in the section “The Largest Audit Firms in Russia,” a significant part of the market is occupied by companies belonging to the top 50 largest audit firms

in Russia. In 2018, these companies together occupied 68% of the market in terms of revenue and showed considerable growth potential in recent years. Table 9 below provides detailed information about the market share of Big Four and another top 46 audit firms in Russia in the period between 2011 and 2018 (Ministry of Finance, 2019). Furthermore, the top 50 audit firms in Russia in 2018 earned 37.7 billion rubles in total (Russian Audit Market RAEX, 2019).

*Table 9: Market share by Revenue of the Top-50 Audit Firms*

	2011	2012	2013	2014	2015	2016	2017	2018
<b>“Big Four” audit firms</b>	40%	39%	41%	43%	46%	48%	46%	49%
<b>Other Top-46 audit firms</b>	26%	23%	22%	21%	20%	20%	20%	19%
<b>Top-50 audit firms</b>	65%	62%	63%	65%	66%	68%	66%	68%

*Source: Ministry of Finance, 2019*

As can be seen from *Table 9*, top-50 audit companies in Russia occupied in different years, from 62% to 68% of the total market in terms of revenue. This share means that these companies are trusted, but they also have sufficient resources to implement new market strategies. The annual rotation of companies in the list of 100 largest audit firms shows a high level of competition among companies, a willingness to change, and a desire to take a higher position in the market.

Among the audit firms from the top 50, there are two companies with incomes above 1 billion rubles: BDO and FBK (Russian Audit Market RAEX, 2019). BDO is a Russian audit and consulting group of companies, founded in 1989, part of the international BDO group. Today, over 800 employees work in the Russian division of the company; offices are located in Moscow and St. Petersburg. The company's revenue for 2018 amounted to 1.69 billion rubles (BDO Russia, 2019). FBK (Financial and Accounting Consultants) is by far the oldest Russian audit company, founded in 1990, and recently a member of Grant Thornton. The company is perceived as exclusively Russian, so the 24 largest Russian companies from the top 50 chose it as a service provider. FBK is known for its strong legal expertise - different rankings recognize the company's lawyers as one of the best in the industry (FBK, 2019). In 2018, the company's revenue amounted to 1.19 billion rubles, which corresponds to position 6 in the rating of the largest audit companies in Russia (Russian Audit Market RAEX, 2019).

Most of the audit firms of the first hundred are members of international audit networks. Audit firms consider it essential and honorable to be members of a reputable international network, and this also affects the image of the firm, confirming the high level of quality and seriousness of their approach. Most relevant information about audit firms participating with international networks is provided by the Ministry of Finance of the Russia Federation. Unfortunately, this information has been published only since 2011, and no other sources of previous periods have been found.

Table 10 below presents information about members of international networks and the number of auditors working by these firms (Ministry of Finance, 2019). As it is seen from the table, in 2016, the share of audit firms – members of international networks dropped by 42% compared to the previous period. The number of auditors working only by 14%, which means that only audit firms with a small number of auditors canceled their membership in international networks.

*Table 10: The participation of audit firms and auditors in international networks*

	2011	2012	2013	2014	2015	2016	2017	2018
<b>Audit firms - members of international networks, %</b>	2.2	1.9	2	1.9	1.9	1.1	1.2	1.3
<b>Auditors working by members of international networks, %</b>	10.4	9.6	10	10	10.1	8.7	10.1	10.4

*Source: Ministry of Finance, 2019*

Moreover, in 2016, the decrease in the number of audit firms members of international networks did not lead to a change in the total number of audit firms. It means that audit firms continued to operate on the market without international network membership. As membership in the international network usually costs money and restricts some limitation to the members, in case of economic recession and market shrinking, some audit firms decided to withdraw from international associations.

In 2018, the following international networks were represented on the Russian market (Russian Audit Market RAEX, 2019):

- Ernst & Young Global Limited;
- KPMG International Cooperative;
- PricewaterhouseCoopers International;

- Deloitte Touche Tohmatsu Limited;
- BDO;
- Grant Thornton International Ltd;
- HLB International;
- Nexia International;
- Crowe Global;
- FinExpertiza;
- Mazars Group;
- Baker Tilly International;
- AGN international;
- Russel Bedford International;
- UHY International;
- JPA International;
- Kreston International.

As we see, the largest companies have a strong influence on the audit market in Russia. Companies are known as the Big Four, occupy a dominant position in terms of revenue and the audit of socially significant organizations. The top 50 audit firms in Russia have the capabilities and resources to take a better position in the market or to maintain the current position. The competition in the market is high, but most of the companies are small audit firms and do not take part in the competition. That is why the object of study is limited to the 50 largest audit firms in Russia.

Some firms outside the top 50 largest companies are also interesting for the research. One of them is AuditOnline, which, using modern technologies and a new business model, offers audit services remotely for 2-5 days. We will study these firms in detail as examples of innovative business strategies to understand the possible trends in market development (see Case Study: Auditonline).

## 4. Research Methodology

The core issue of this study is the development of a new strategy for audit firms in Russia, which will avoid direct competition and will improve the market position. According to the current state analysis of the Russian audit market, there is a high possibility that the situation can be getting worse shortly (Goryacheva, Year of failed events, 2019).

As shown in the section “Revenue Analysis,” the audit is not the leading service for audit firms in Russia. In this section, we show that the audit does not have a direct impact on revenue growth for audit-based companies using regression analysis. The absence of the influence of the share of audit services on revenue growth confirms that audit firms can switch their focus to other services without losing growth.

Even though there is a tendency to choose auditors perceived as Russian firms, the Big Four holds a significant share of the audit market (Khanferyan, 2018). At the same time, future legislative reform, the challenging economic situation, and the fall in real incomes, further aggravate the position of audit firms on the market. These factors force audit firms to seek new opportunities and strategies to improve their current market position.

Audit firms need a new strategy that will avoid competition and take a stable position in the market. One of the best-known tools for developing such type of strategy is the Blue Ocean Strategy. Blue Ocean Strategy was developed in 2004 by two professors W. Chan Kim and Renée Mauborgne, from INSEAD business school (Kim & Mauborgne, Blue Ocean Strategy, 2015). Today this methodology is widely used throughout the world to develop strategies.

The Blue Ocean Strategy provides a set of tools focused on finding a new market position that did not exist before. The difference between the Blue Ocean Strategy from other methodologies is that it implies both a reduction in costs and an increase in customer value. Today this approach gains wide popularity around the world: from small noncommercial organizations to international corporations.



## 4.1. Emerging Technologies

One of the main drivers of emerging technology rapid distribution is the demand from the business. Business widely uses machine learning and Big Data: from forecasting products and services demand tasks to the optimization of technological processes and business automation. Undoubtedly, the audit and consulting markets also have a high potential for emerging technologies implementation.

Most experts agree that new technologies will seriously change the audit business in the next ten years (Ask the AI experts: What's driving today's progress in AI?, 2019). Today, the world's largest consulting companies are paying serious attention to new technologies and create specialized departments or separate companies in the field of new technologies (see Big Four's Services Based on Emerging Technologies). However, today in Russia, only the Big Four are engaged in the implementation of artificial intelligence technologies and big data in their technological processes.

The section devoted to emerging technologies is divided into two parts. The first part analyzes the Russian experience of using new technologies in the field of accounting, auditing, and consulting. Here we study how audit firms in Russia use new technologies to increase labor productivity and provide new services to customers. The second part compares pro and contra of using new technologies and considers the potential of using emerging technologies by Russian audit firms.

As sources of information, we use secondary data from official websites of companies, specialized publications, and Internet resources (all links are given). The author was unable to find academic papers on the introduction of new technologies in the Russian audit market.

Also, a wide range of the international specialized internet resources was used for finding the actual information about using emerging technologies in audit and accounting market, such as:

- [aitrends.com](http://aitrends.com)
- [aws.amazon.com/blogs/ai](http://aws.amazon.com/blogs/ai)

- [marketingaiinstitute.com](http://marketingaiinstitute.com)
- [news.mit.edu](http://news.mit.edu)
- [research.baidu.com](http://research.baidu.com)
- [developer.ibm.com](http://developer.ibm.com)
- [blogs.nvidia.com](http://blogs.nvidia.com)
- [techcrunch.com](http://techcrunch.com)
- [venturebeat.com](http://venturebeat.com)
- [blog.openai.com](http://blog.openai.com)
- [deepmind.com/blog](http://deepmind.com/blog)
- [sciencedaily.com](http://sciencedaily.com)
- [ai.google/research](http://ai.google/research)
- [goodfirms.co/artificial-intelligence](http://goodfirms.co/artificial-intelligence)

This work does not address separate issues of branding, consumer and shopper, customer lifecycle management, digital marketing, marketing analytics, pricing, sales, and channel management. The author proceeds from the fact that the scope of application of modern technologies is almost unlimited and does not aim to make a detailed forecast of changes in each direction of the business. The purpose of this section is to review existing technological solutions in the field of accounting, auditing, and consulting and to identify emerging opportunities for business development.

One of the significant limitations of predicting how artificial intelligence will be used in the future is that these technologies today are at the initial stage of the life cycle. The level of artificial intelligence penetration in the Russian audit market is minimal, and almost all audit firms do not use the vast potential of new technologies. The only exceptions are the Big Four firms, but Russia is not a priority market for them because of the insignificant amount of income (see “The Largest Audit Firms in Russia”).

Big Four companies in the Russian market provide various services based on emerging technologies. These services are intended for companies that already use blockchain or big data in their work or plan to use them in the future. There is very little information about how Big Four companies themselves use these technologies. The author gives all the information found in the corresponding section.

## 4.2. Regression Analysis And Information Resources

Mathematical methods in economics offer a wide range of tools for data analysis and forecasting. One of the most important and widely used methods is regression analysis. Regression analysis is a study used to evaluate the relationship between variables. This analysis allows the researcher to understand how one or more independent variables affect one dependent variable.

The regression analysis has several goals:

- determine the degree of influence of independent variables on the dependent variable;
- predict the value of the dependent variable using an independent;
- determine the contribution of individual independent variables to the variation of the dependent.

The simplest linear regression model, also called the First-Order Linear Model, is as follows:

$$y = \beta_0 + \beta_1 x + \varepsilon,$$

where:  $y$  – a dependent variable;

$x$  – an independent variable;

$\beta_0$  - y-intercept;

$\beta_1$  - a slope of the line (rise/run);

$\varepsilon$  - error variable.

As a result of the regression analysis, a model is obtained that determines the influence of independent variables on the change in the dependent variable. Using this model, one can build a forecast for changes in the dependent variable  $Y$  in the future. Several indicators are used to evaluate the regression model, the main of which is the coefficient of determination ( $R^2$ ). This coefficient takes a value from 0 to 1 and shows the share of the explained variance of series. The closer  $R^2$  is to 1, the better the model, and the less the share of the unexplained.

The annual revenue growth shows the effectiveness of the chosen strategy. Therefore, the dependent variable is a revenue growth rate expressed in percentage. As a data source of audit firms are used indicators presented in the annual ranking RAEX of the largest audit and consulting firms in Russia (Russian Audit Market RAEX, 2019).

As mentioned early, almost 70% of the audit services market in terms of revenue is accounted for by the largest 50 firms (see The Largest Audit Firms in Russia). Therefore, to build regression models, the results of the activities of the largest 100 audit firms in Russia were used, and it shows how selected factors determine the audit firm growth rate.

Most audit firms in Russia are registered as Limited Liabilities Company, which means that they are not required to publish statements or any detailed information about their activities. Audit firms should exclusively submit reports to the regulatory body (Ministry of Finance of the Russian Federation), Rosstat, and the Self-regulatory Organization. These bodies also do not provide public accounting reports of audit firms and only partially publish aggregated reports throughout the market.

In this connection, the only public source of information is the annual ratings of audit firms, which contains information on the leading performance indicators of the audit firm for the year. At the same time, participation in the ratings is voluntary. Therefore, the audit firm may skip participation in any year or not participate at all. Since participation in the ranking is a crucial element of a firm's marketing, refusal to participate is often explained by the unsatisfactory performance of the firm, usually a drop in revenue and growth rates.

At the same time, we can conclude that all the largest audit firms participate in the rating, and the rating results practically wholly correlate with the results of the Ministry of Finance of the Russian Federation in terms of market size and the share of the largest audit firms. This means that the rating data of the largest audit firms can be used as a source of data for analysis. The only exception is the Big Four, which does not publish information on the number of auditors or has not participated in the ranking for some

years. In any case, the Big Four is not an object for developing a strategy, so the lack of some Big Four data can be neglected.

The annual rating of audit firms includes the following information:

- name of the audit firm or audit and consulting group;
- place in the ranking in the current year;
- place in the ranking in the previous year;
- revenue in millions of rubles for the current year;
- revenue in millions of rubles for the previous year;
- revenue growth as a percentage of the previous year;
- revenue from the audit services in millions of rubles;
- revenue from audit services in total revenue as a percentage;
- revenue growth in absolute terms in millions of rubles;
- the average annual number of employees for the reporting year;
- the income per employee in millions of rubles;
- the average annual number of auditors for the reporting period;
- income from audit activities per auditor in millions of rubles;
- membership in the international audit network.

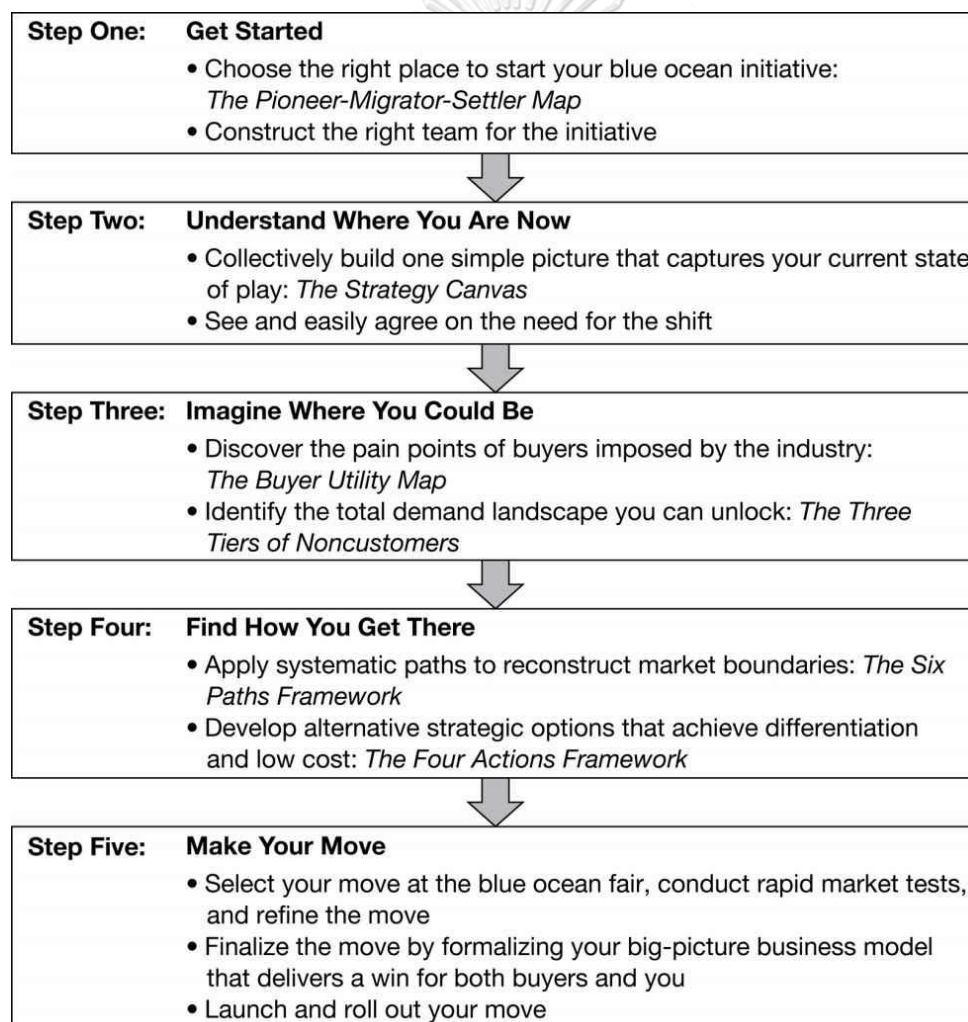
In some years, the ratings included additional information, such as the name of the insurance company, where the results of the activities of the audit firm or membership in a self-regulatory organization are insured. Because this information is not necessary for the study, it is not given in this research.

The data were randomly checked using other sources, such as corporate sites, indicators in other ratings, or published reports on the company's activities. All verified data corresponded to data published in other sources.

### 4.3. Blue Ocean Strategy

A Blue Ocean Strategy is the analytical frameworks and tools designed to create an uncontested market space that makes the competition irrelevant (Kim & Mauborgne, Blue Ocean Strategy, 2015). In contrast to the classical theory of business strategy, the company from the Blue Ocean Strategy should create a new market that did not exist before to capture new demand and avoid direct competition with other companies in the market.

Figure 10: Blue Ocean Strategy development sequence



Source: Kim & Mauborgne, *Blue Ocean Shift*, 2017

The authors offer a wide range of tools for developing a new strategy, searching for a new market position, pricing, and other tasks. Among the proposed tools are strategy

canvas, four-action framework, ERRC-grid, eight principles of an effective strategy, six paths to reconstruct market boundaries, three tiers of the non-customers model, buyer's utility map, buyers experience cycle, pricing corridor, and others. In this thesis, to develop a new market strategy is used, some of the tools that are most relevant to the research objectives.

The authors of the Blue Ocean Shift strategy in "Blue Ocean Shift" provide a sequence for developing a strategy (Kim & Mauborgne, Blue Ocean Shift, 2017), which is shown in **Error! Reference source not found.**

In detail each step of the sequence is discussed in the Literature Review section. In this section for the research methodology, the features of its implementation are briefly described.

The Blue Ocean Strategy offers tools that are equally suitable for both strategy development and market analysis. This analysis allows us to highlight market leaders and understand which critical elements of the business allow them to achieve better results compared to other companies.

It is important to note that the analysis element in the blue ocean methodology is not a company, but a strategic move - a set of managerial actions and decisions involved in making a primary market-creating business offering (Kim & Mauborgne, Blue Ocean Strategy, 2015). The authors explain their choice by the fact that there is no perpetually high-performing company, and often companies that were the industry leaders at some time later lose their market positions.

The section on market analysis presents the results of the leaders' analysis among the largest audit firms using tools from the Blue Ocean Strategy methodology. Since the 50 largest audit firms in Russia have the most considerable influence on the market, they are the subject of research.

The key criterion for choosing audit firms for analysis is the revenue growth for previous years. This choice is based on the idea that these firms have some competitive advantage over other firms. Such advantages may include new tools, technologies, and

strategies that allow companies to attract new customers, reduce costs, or sell more services, which ultimately affects revenue growth.

#### 4.4. Pioneer-Migrators-Settler Map

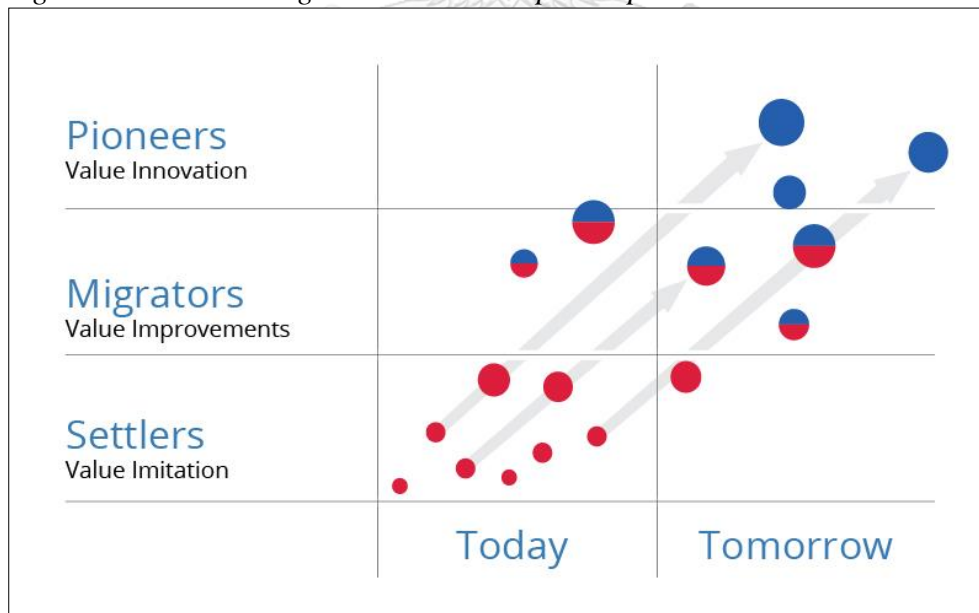
Developing a Blue Ocean Strategy begins with creating a market map. This map divides companies into pioneers, migrators, and settlers. The difference with other tools, such as the BCG matrix, is that the PMS map replaces market share and industry attractiveness with "value" and "innovation."

- Creating a pioneer-migrators-settler map consists of the following steps:
- Identify the key businesses or product/service offerings in the portfolio;
- Identify which offerings are pioneers, migrators, and settlers;
- Plot company's portfolio.

An example of the pioneer-migrators-settler map is shown in

*Figure (Kim & Mauborgne, 2019).*

*Figure 11: Pioneer-Migrators-Settler Map example*



*Source: Kim & Mauborgne, 2019*

The PMS map also implies comparing the new market offer with others. This step will be performed at the end of the study because the result of this work will be a strategy



that is not suitable for any company, but any company from the list of the 50 largest audit firms in Russia as a whole.

Also, it is crucial at this stage to build a team that will develop and subsequently implement the created strategy. Undoubtedly, in the framework of strategy development, team building is a critical success factor. Since the author is working on these projects alone, this step is skipped.

#### **4.5. The Strategy Canvas**

The next step in developing a strategy process is to understand the current market position. Typically, this step is used to compare a company's position relative to other companies (Kim & Mauborgne, Blue Ocean Shift, 2017). The Strategy Canvas tool is used to compare one market offer with others.

The authors define strategy canvas as a one-page visual analytic that depicts the way an organization configures its offering to buyers concerning those of its competitors. This tool allows us to present a market offer simultaneously from four positions: the factors of competition, the offering level buyers receive across these factors, and firm and its competitors' strategic profiles and cost structures.

The Strategy Canvas allows us to look at a business simultaneously from several angles:

- where the company and its competitors are currently investing;
- the product, service, and delivery factors the industry is competing on;
- what customers receive from existing competitive offerings.

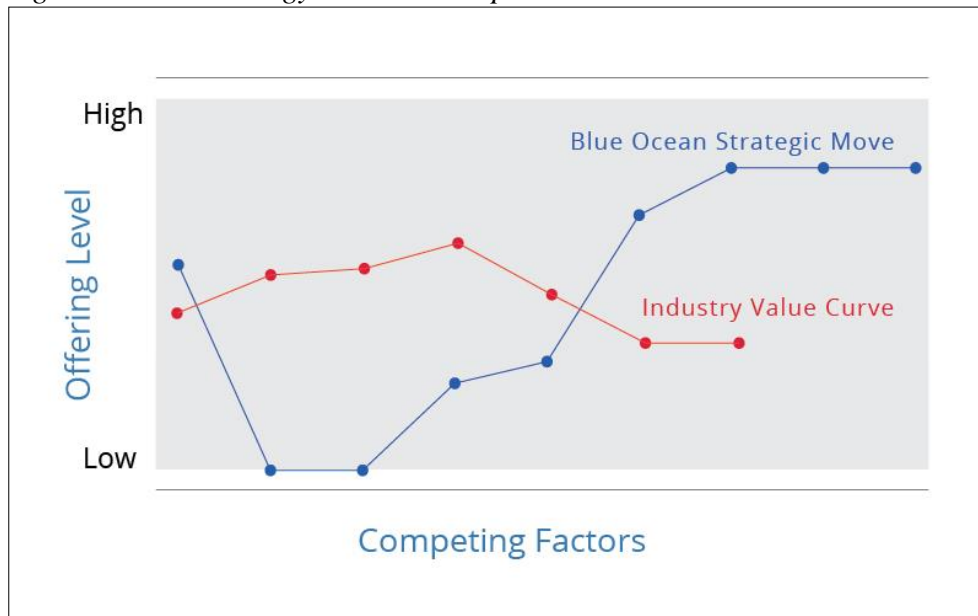
An example of The Strategy Canvas is shown in *Figure 12* (Kim & Mauborgne, 2019).

The authors suggest the following steps to create the strategy canvas:

- name the industry audit firm is in;
- identify the key factors audit industry competes on (5 – 12 factors);
- decide which key player(s) to compare firm with;
- rate firm offering and the best-in-class player or players along with the key competing factors;

- draw a firm's as-is strategy canvas.

Figure 12: The Strategy Canvas example



Source: Kim & Mauborgne, 2019

This tool is critical not only for formulating a strategy but also for the business operation. Often, there is a significant difference between the factors that companies compete with and those that matter to customers. This difference allows us to determine the strategy canvas.

#### 4.6. Buyer Utility Map

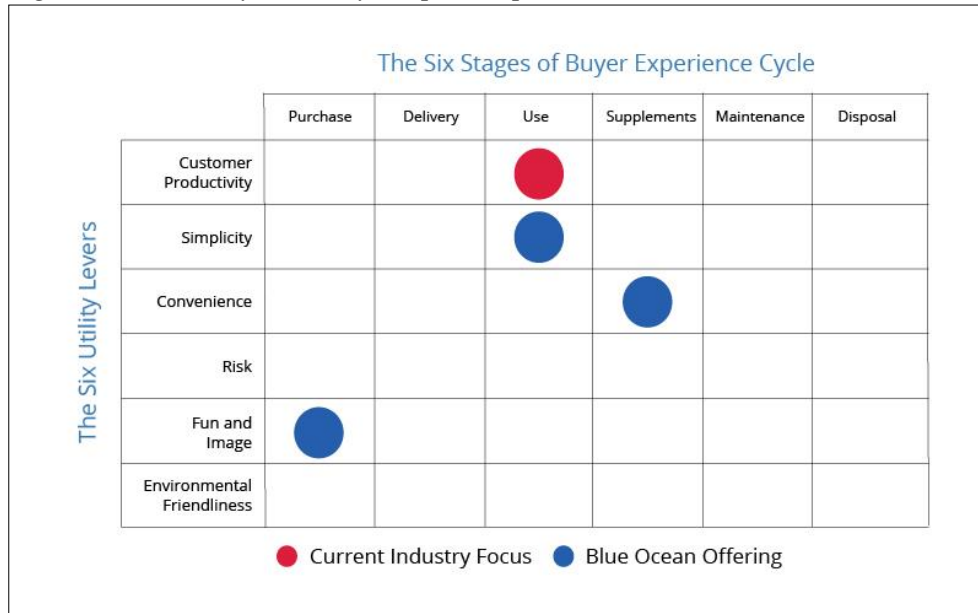
The third step in creating a Blue Ocean Strategy is the development of the Buyer Utility Map (Kim & Mauborgne, Blue Ocean Strategy, 2015). This tool outlines the full range of experiences buyers have in using the firm industry's offering. Almost every industry has significant problems worth solving, the solution of which will enable them to unlock exceptional utility.

Buyer Utility Map is a 6x6 matrix. The six stages of the customer experience are represented horizontally: purchase, delivery, use, supplements, maintenance, and disposal. Each stage encompasses a variety of specific experiences. The six utility levels are located vertically: environmental friendliness, fun, and image, risk reduction, convenience, simplicity, customer productivity.

An example of a Buyer Utility Map is presented in

*Figure 13* (Kim & Mauborgne, 2019).

*Figure 13: The Buyer Utility Map example*



Source: Kim & Mauborgne, 2019

Creating a Buyer Utility Map consists of the following steps:

- start with the buyer experience cycle;
- explore the six buyer utility levers;
- fill in the buyer utility map.

Buyer Utility Map is a tool designed to compare the current market supply with consumer expectations. It allows the company to look at the market from a consumer point of view and identify pain points, which are not satisfied with the market for various reasons.

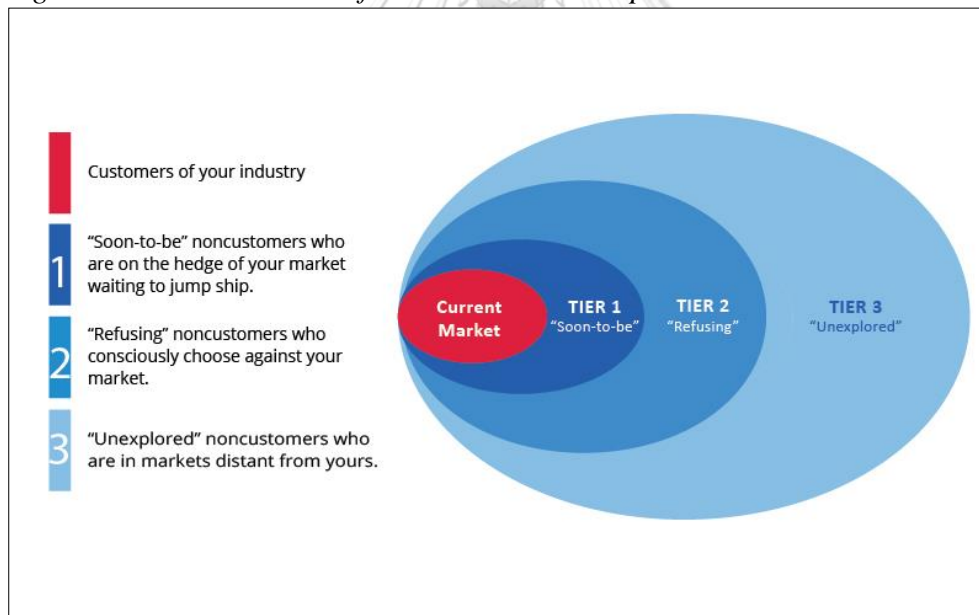
The buyer utility map gives the team initial insight into the pain points and blocks to utility the industry imposes on its existing customers that may potentially also turn noncustomers away. Marketing usually focuses on the current market, which significantly limits potential demand. The authors of the Blue Ocean Strategy concept propose to go beyond the current market and pay attention to noncustomers.

To expand the current focus, the authors propose the “Three Tiers of Noncustomers” tool (Kim & Mauborgne, Blue Ocean Strategy, 2015). This tool consists of three lenses:

- **first-tier noncustomers** are all the soon-to-be noncustomers of the industry;
- **second-tier noncustomers** are refusing noncustomers—people or organizations that have consciously thought about using an industry's offering, but then rejected it, either because another industry's offering better meets their needs or because it is beyond their means, in which case their needs are either dealt with by another industry or ignored;
- **third-tier noncustomers** are the furthest away from an industry's existing customers.

An example of the 3 Tiers of noncustomers tool is shown in *Figure 14* (Kim & Mauborgne, 2019).

*Figure 14: The three tiers of noncustomers example*



*Source: Kim & Mauborgne, 2019*

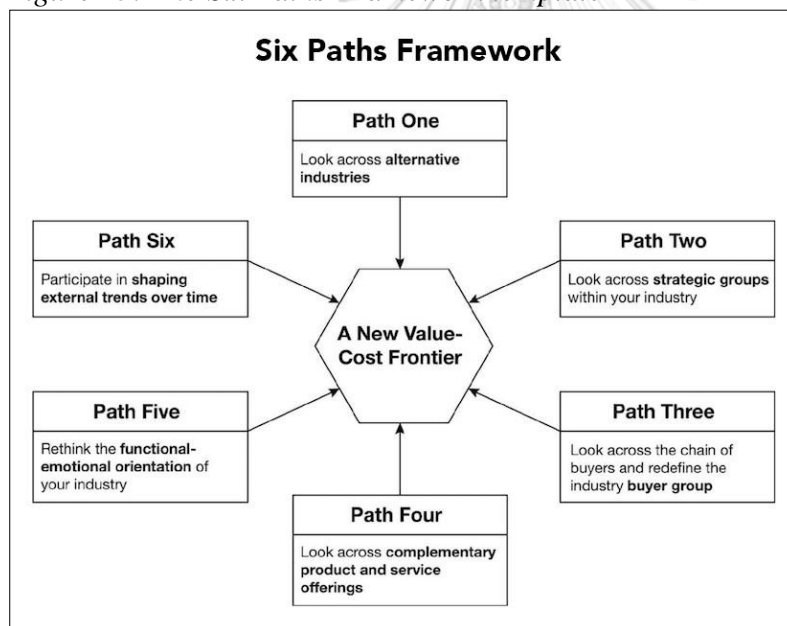
Three tiers of noncustomers allow a company to take a fresh look at the existing market and compare the current market offer with market requirements. Together with the Buyer Utility Map, such a focus will allow concentrating on unmet demand and developing new products and services that will be in demand by the market.

## 4.7. Reconstructing Market Boundaries

The next step in developing a Blue Ocean Strategy is a systematic reconstructing of market boundaries. A business can expand the boundaries of an existing market with unsatisfied demand and the creation of new services. Authors propose two tools for this purpose: the six paths framework and the four-action framework (Kim & Mauborgne, *Blue Ocean Strategy*, 2015).

Companies in the industry usually pursue a similar strategy or approach to the market. The six paths framework allows us to look at the strategic playing field based on six conventional boundaries: industry, strategic group, buyer group, the scope of the product or service offering, nature of the offering's appeal, and time.

Figure 15: The Six Paths Framework template



Source: Kim & Mauborgne, *Blue Ocean Shift*, 2017

The authors claim that no market boundaries are defined but are no more than the product of people's minds. That is the reason why market boundaries are open to change. The six paths framework provides six systematic ways to shift the lens company use in looking at the market universe and open a new value-cost frontier.

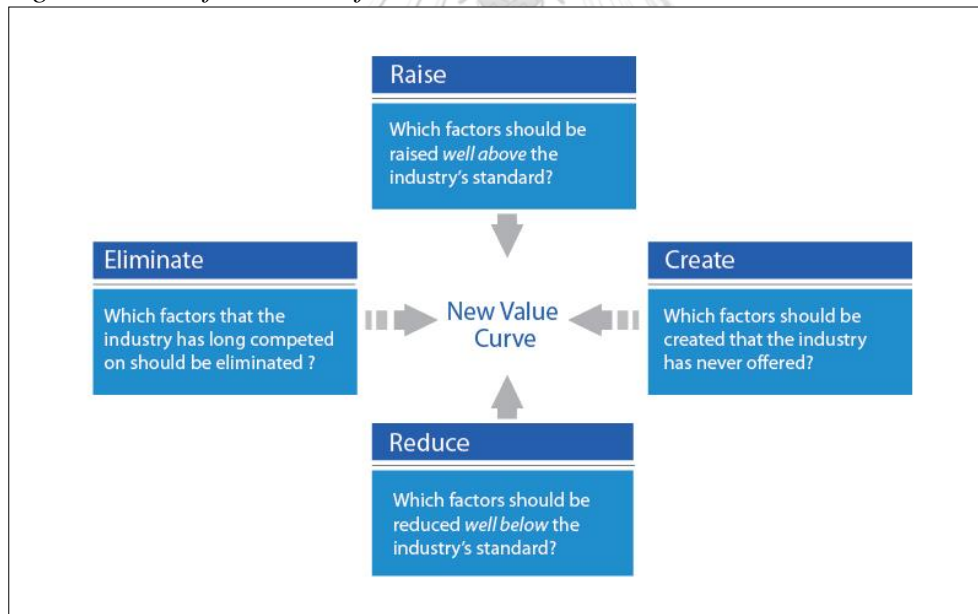
The six paths framework template is shown in *Figure 15* (Kim & Mauborgne, 2019).

The four-action framework helps to transform the findings from the market exploration into concrete, actionable, strategic options that pursue both differentiation and low cost. The four actions framework is built on four key questions:

- Which factors that the industry takes for granted should **be eliminated**?
- Which factors should **be reduced well** below the industry's standard?
- Which factors should **be raised well** above the industry's standard?
- Which factors that the industry has never offered should **be created**?

The four-action framework example is presented in *Figure 16* (Kim & Mauborgne, 2019).

*Figure 16: The four-action framework*



Source: Kim & Mauborgne, 2019

The result of the application of the six paths framework and the four-action framework is the development of a unique market proposition, which is the core of the new strategy. Reducing and eliminating factors helps diminish business costs while raising and creating factors that design new customer value. This approach allows an audit firm

to create a new market strategy, which will attract new customers and improve the company's position in the market.

#### **4.8. Market Test**

Undoubtedly, any developed strategy requires rigorous testing in practice. The Big Four creates departments that specialize in implementing new technologies into business processes or providing services to companies that use new technologies in their work. According to the Blue Ocean Strategy methodology, it is necessary to verify its viability before implementing a new strategy throughout the company.

That is why the last step in developing a strategy is called "Make Your Move" (Kim & Mauborgne, Blue Ocean Shift, 2017). In fact, at this stage, the company must choose "its" blue ocean and conduct rapid market tests. As a result, either the company returns to the previous steps and modifies its research or opens a new blue ocean and takes full advantage of the pioneer.

Since this stage is a practical implementation of the development, the author skips this step in the paper. At the same time, it is necessary to compare the new market offer with existing ones on the market. The Strategy Canvas is used to compare market offers. The result of this work is not the development of a new market proposal, but the development of recommendations for implementation related to both strategies and emerging technologies implementation.

Blue Ocean Strategy offers a unique approach to strategy development. This strategy focuses on developing a new market proposal that did not previously exist on the market. The basis of the new strategy is value innovation, an approach in which a reduction in company costs accompanies an increase in consumer value. A key feature of this methodology is the creation of such a market space where there is no competition.

The authors offer a set of tools that can be combined in five consecutive steps. First of all, it is necessary to evaluate the market in terms of market supply. Companies are divided into three categories (pioneers, migrators, and settlers) depending on the

proposed customer value. This tool allows us to identify companies that offer an innovative approach to the market.

After identifying innovative market leaders, we build a strategy canvas. This tool allows us to compare the current market supply of leading companies for several factors. This tool enables an analyzing of a new market offer with an existing one and understands what competitive factors the existing companies are focusing on in the market. This allows us to develop a new proposal that is different from existing ones on the market.

The third step allows us to look at the market offer through the eyes of buyers. This step uses the Buyers Utility Map, which will enable us to build a different market than current competitors, focusing future efforts on factors relevant to customers. This tool allows us to expand the market offer by creating a new product or service.

The fourth step allows us to look at comparing the current cost structure and factors valuable to customers and build a new market proposal. The company must decide what elements it is ready to get rid of and what to add to the current offer. At this step, a new market offer appears, ready for verification in real conditions.

The fifth step is a test in practice. The new market offer carries not only opportunities but also risks for the company. Therefore, it is necessary to check everything carefully before introducing a new strategy. This stage is skipped in this paper.

The Blue Ocean Strategy offers a wide range of tools for developing an innovative market strategy. Using the sequence proposed by the authors, it is possible to create products and services that have high consumer value and lower costs for the company. For this reason, it was chosen as the primary tool for developing a new strategy for audit firms in Russia.



## 5. Emerging Technologies

Artificial intelligence has been known since the middle of the last century (Moor, 2006), but only in the last few years, it becomes available to most people. Today, there is not an industry where emerging technologies could not be applied: from the steel industry to video streaming services on the Internet.

The audit is one of the most conservative industries in the world. Despite this, new tools based on machine learning and blockchain regularly appear, designed to increase labor productivity and improve the quality of services provided. The largest world audit firms have already adopted the latest technologies and use them in their work. This section discusses examples of the use of new technologies in the market of audit services in Russia.

### 5.1. Case Study: Auditonline

AuditOnline is the only audit firm with Russian roots that offers an innovative approach to work. According to the information on the site, this company offers to conduct a mandatory audit remotely within 3-5 days (AuditOnline, 2019). At the end of 2018, the company's revenue amounted to 3,356 thousand rubles, and revenue growth amounted to 138.9% compared to the previous year (Russian Audit Market RAEX, 2019).

Initially, the market for audit services was skeptical of the audit firm AuditOnline, which offered an audit of any complexity for only five days. Such services were usually provided by unscrupulous audit firms, in fact, "trading in opinions" (Goryacheva, Year-long reform, 2018). Therefore, the fact that the venture fund "Internet Initiatives Development Fund" which was established on the initiative of the President of Russia in 2013 (the total amount of the fund is 6 billion rubles) was a big surprise (The 14th accelerator of IIDF included 25 startups from 7 cities of Russia, 2018).

The audit market negatively met the news about investments. KPMG partner Kirill Altukhov noted that the current international audit standards require the auditor in many cases to have a personal presence, without which it is impossible to conduct a quality audit. Alexander Andrianov, deputy head of ACG "Collegium of Tax Consultants,"

assured that the auditor should see the original documents, to which the copies cannot be equated (Goryacheva, Year-long reform, 2018).

At the same time, IIDF insisted that the auditors found a unique solution to reduce the audit time, simplify and reduce the cost for the client. Indeed, in the presentation at the end of IIDF acceleration program, CEO AuditOnline Alexei Kryuchkov said that the company was able to reduce the audit from 13.5 days to 5 days, increase the profitability of audit from market average of 12.5% to 67%, conducting the audit remotely (presentation date April 27, 2018)<sup>11</sup>.

AuditOnline achieved such an increase in performance due to the following changes (from the presentation of CEO Alexei Kryuchkov on April 27, 2018):

- They made the auditors removed (found 1,500 auditors and reduced the cost by 25%);
- Introduced the International Auditing Standards into activities (due to which the project time was 6.5 days, and the cost price decreased by another 20%);
- Automation of the verification procedure (additional reduction of the verification time to 4.5 days and cost reduction by another 22%).

Community criticism and IIDF investments have attracted attention from regulatory organizations. After the AuditOnline inspection, the Self-regulatory organization revealed severe violations. According to the head of the quality control commission of the Self-regulatory organization Nadezhda Kobozeva: "The results of the audit were poor, there were many violations, but the main thing that AuditOnline always proved to us was the lack of remote audit. That is, there were unfair advertising and misleading potential customers" (Goryacheva, Year-long reform, 2018).

To date, the former AuditOnline CEO Alexei Kryuchkov has been working in the IIDF (since September 15, 2018), the company is headed by a former director of audit, according to official documents, only two employees are working in the firm. Recent publications on social networks are dated October 2018, which indicates that the

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<sup>11</sup> [https://youtu.be/\\_i6-jsgN9MU](https://youtu.be/_i6-jsgN9MU)

company has stopped using social networks for its promotion, unlike other audit firms in Russia<sup>12</sup>.

Some experts agree that the only goal of AuditOnline was to receive investments from the Internet Initiatives Development Fund. As mentioned above, international audit standards require the personal presence of the auditor and the availability of the original documents during the audit. The company did not comply with these requirements and provided false information (Goryacheva, Year of failed events, 2019).

The idea of conducting a remote audit has apparent advantages (speed, cost, convenience). At the same time, there are serious risks associated with conducting such an audit, for example, the provision of false or incomplete data. This problem can also be solved with the help of modern technologies, for example, when each operation will be carried out using blockchain technology, which will make data manipulation impossible. In any case, this decision should be made at the state level, and businesses can only participate in the development of recommendations and the introduction of innovations.

## **5.2. Big Four's Services Based on Emerging Technologies**

Despite the significant share of the Russian audit market occupied by Big Four, the revenues of these firms on a global scale are insignificant (see The Largest Audit Firms in Russia). The level of revenue affects the level of enthusiasm of the Russian market, and, accordingly, affects the implementation of innovations in the region. In this section, we will dwell on services based on new technologies provided by the Big Four firms in Russia and globally.

Deloitte offers a wide range of services for Russian and foreign companies in the field of audit, risk management, financial advice, and taxation. As part of the risk management service, the company protects against cyber risks: to prevent cyberattacks and protect valuable assets. This service is a supplement to technology services,

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<sup>12</sup> <https://www.facebook.com/OnlineAudit/>

including the implementation of ERP systems, system integration, SAP, digital transformation, and automation (Deloitte Russia, 2019).

Deloitte in Russia also offers services in the field of information management and analytics. The company proposes the creation of Insight-Driven Organization, which implies the process of transforming an organization into a developing one based on analytics. As part of this service, Deloitte helps organizations develop strategies to seamlessly integrate data analysis into decision-making processes and use analytical tools to solve the most complex business problems. It looks like an implementation of Business Intelligence tools, which firstly appeared in Russia more than 15 years ago.

As part of these services, the company offers services for automating data collection and processing. These services include solutions for data visualization and discovery, virtualization, cloud technologies, data integration, as well as data storage services. The company offers a full range of services, from developing a data management strategy to managing data at the administration level.

In 2019, the President of Russia announced the digital transformation priorities for the country and all sectors of the economy (Putin, 2019). Deloitte offers services in the design, development, and development of effective Enterprise Data Management (EDM) solutions for various tasks in the field of process automation, data analysis and support of business digital transformation initiatives.

For the research purpose, the most interesting of solutions are represented by "Advanced Data Analysis Methods" and "Cognitive Technologies" services. Data analysis involves the use of machine learning tools, predictive modeling, statistics, and advanced visualization capabilities in order to obtain practically relevant information. Deloitte offers solutions in the following areas:

- Advanced visualization and rapid prototyping;
- Natural language processing and text analysis;
- Content analysis and transmission of predictive content;
- Real-time decision making;
- Machine learning and predictive analytics.

To solve data analysis problems, the company uses the following technologies: R, SAS, IBM Modeler and Watson, Python and Fluxicon Disco, and others.

Deloitte also provides cognitive analysis services, which allows the business to extract information about concepts and relationships from various data sources and receive answers hidden in vast amounts of information in real-time.

Automation of cognitive processes is aimed at using improved human intelligence to automate business processes that involve the use of integrated knowledge and decision-making by "cognizing" expensive, time-consuming, involving a large number of specialists, repetitive operations. The use of such technologies improves the quality, efficiency, and timeliness of the provision of the services by scanning a large amount of information to obtain the required answers.

Additionally, as part of the analytics lab, Deloitte holds seminars on developing an analytic strategy, sessions on explaining the "art of the possible" and group discussions based on the principles of design thinking using Deloitte Greenhouse / HIVE.

**PwC** provides approximately the same range of audit, accounting, tax, and risk management services as Deloitte. Among the services offered in Russia based on new technologies, one can name "PwC technological solutions," "Forensic," "Data management, reporting, and XBRL," and "PwC Russia Accelerator" (PwC Russia, 2019). Next, we will consider each of these solutions.

Technological solutions PwC represents a whole cluster of services based on new technologies. The PwC Technology team of experts has created a single center for all PwC technology solutions in the key areas below:

- Corporate technology;
- Data analysis;
- Blockchain;
- Forensic Technology;
- Legal Tech;
- Internet of Things IoT;

- Process Mining;
- Cloud solutions;
- AR / VR;
- Robotization of business processes (RPA);
- Cybersecurity;
- Visualization and interactive reporting;
- Agile;
- Drones;
- Digital identity management.

As can be seen from the list of services provided, PwC provides a wide range of innovative services, often not usual for the audit business. Services in the field of corporate technologies, data analysis, cybersecurity, and interactive reporting almost wholly repeat the range of services provided by Deloitte. At the same time, other services are of serious interest to study.

A blockchain is a chain of transaction blocks built according to specific rules from generated transaction blocks. This tool is the basis for cryptocurrencies, but this is only a small part of all technological capabilities. The blockchain has several advantages, such as decentralization (there is no single control center or storage location), data security (due to multiple duplications among participants), transparency, and high transaction speed. Thanks to such advantages, businesses and the state are considering the possibility of using this technology in various fields: banks, land registration, contracts, identification card, and others.

PwC provides several services in the field of blockchain: consulting, training, and selling its solutions developed on blockchain technology. Consulting services include strategic and digital transformation, technological consulting, legal and tax support of the business. At the same time, PwC provides training programs in the use of technology in business. A distinctive feature of PwC is the provision of its developments, such as the PwC blockchain Supply chain, PwC blockchain Healthcare & Pharma, PwC blockchain Financial Sector, PwC blockchain Node.

An interesting feature of PwC in Russia is the creation of technological startup accelerators. So, in December 2018, an accelerator in the field of blockchain was created together with the Bitfury Group. Unfortunately, it was not possible to find information about projects that took part in or about the results of this project.

Agile is known as the principle of combining flexible approaches to software development to ensure maximum compliance with customer requirements. PwC offers Agile services, claiming that Agile is a new modern way of thinking and working throughout the company on the most advanced (flexible and fastest) approaches.

PwC offers business preparation and transformation services, training and launching Agile business practices, and support for project teams following the introduction of new management technology. PwC is a partner of the Scrum Alliance, the Agile Alliance, and has been recognized as the Digital Transformation Leader and Leader in business technology transformation.

It is entirely unexpected in the list of services provided by the audit firm to see services in the field of Augmented / Virtual Reality, Drones (Unmanned aerial vehicles), digital identity management, and business process robotics. These areas are new to the company: the site provides only a brief description of the technologies and general implementation examples. In any case, contact details of practice leaders are given for each area, which means that there are employees in the Russian office responsible for these areas.

As part of the practice, Forensic PwC provides a wide range of services, such as compliance with license agreements, compliance, construction project support, corporate intelligence, fraud, and corruption investigation. It is noteworthy that new technologies are also widely represented in the implementation of these services. For example, PwC offers analysis services for the entire range of business partners, up to thousands of counterparties, and to identify reputational, financial, and tax risks associated with them using Intella internal software. There is no data on what this technology works on, but it is evident that it uses machine learning systems at its core.

Another distinguishing feature of PwC is the provision of data management, reporting, and XBRL services. XBRL is a freely available and global standard for exchanging business information. XBRL allows the expression of semantic meaning commonly required in business reporting.

Obviously, for the use of new technologies, the issue of collecting and transmitting data in a single format is acute. That is why reporting and XBRL services are critical to the use of new technologies. It should be noted that the Bank of Russia has successfully implemented the XBRL format as a single format for the presentation of financial and supervisory statements for insurance companies, private pension funds, and a wide range of professional participants in the securities market.

An XBRL is a de-facto standard for companies in the financial sector of Russia. The PwC team that provides these services in Russia has more than 20 people, which indicates the demand and importance of the service in the market.

The last thing to focus on is the creation of acceleration programs for technology startups. Unlike the blockchain accelerator created jointly with the Bitfury Group, PwC Russia Accelerator is a program for all technology companies, which is carried out in cooperation with the YellowRockets.vc fund. The program allows participants to gain access to PwC customers and partners and accelerate the development of their business.

This program has several advantages. Firstly, in the process of acceleration, PwC helps startups to establish cooperation with Russian and foreign companies - clients of PwC. Secondly, expert support from top Russian companies and international investors, as well as from PwC. Thirdly, the opportunity to attract investment up to 20 million rubles from the YellowRockets.vc foundation.

The key criterion for selecting a project for participation in the accelerator is the direction of activity. So, PwC identifies the following areas for participation:

- Cybersecurity;
- Online learning;
- RPA (Robotic process automation);



- Data Science;
- IoT (Internet of things);
- AI (Artificial intelligence);
- AR / VR (Augmented Reality / Virtual Reality);
- Blockchain.

Projects specializing in industry solutions, such as industrial safety, tracking production, transportation, and sales products, digitalization solutions for legal and financial departments, cost and expense analysis, creating digital doubles, startups from the media industry could also get into the acceleration program.

As part of the first acceleration program, 250 applications for participation were submitted, of which 14 projects were accepted into the program, 3 of which eventually received investments. On August 15, 2019, the selection of projects for participation in the second acceleration program begins (PwC Russia Accelerator, 2019).

From all the above, we can conclude that PwC is trying to go beyond the traditional audit business, becoming a single provider of consulting services and business solutions. Today, PwC provides the broadest range of services in the field of new technologies among all audit firms in Russia. At the end of 2018, the company ranks third in the rating of the largest audit firms in Russia with the smallest share of audit services in total revenue. It can be assumed that if PwC continues to expand its specialization, the company will occupy a leading position in the Russian market shortly.

At the end of 2018, **EY** ranks first among all audit firms in Russia, outperforming its closest competitor, **KPMG**, by almost 2.5 billion rubles in terms of revenue (Russian Audit Market RAEX, 2019). In the Russian market, the company provides a classic set of audit firm services.

The company provides services for companies in the technology sector, but they are exclusively related to tax optimization, accounting consulting, registration, minimizing risks, and improving efficiency. On the Russian version of the site, there is no

information about the use of new technologies or the provision of services for companies using new technologies.

At the same time, there are articles on the global version of the EY website dedicated to the use of artificial intelligence and blockchain technology in business. Local versions of websites, for example, Germany, France, the USA, provide information about the services provided in the field of new technologies (EY - Global, 2019). The company has services in the field of blockchain or artificial intelligence, which is not represented on the Russian market.

The last company from the Big Four, **KPMG**, ranks second in the ranking of the largest audit firms in Russia (Russian Audit Market RAEX, 2019). A team of promising developments has been created in the Russian office, the tasks of which include (KPMG Russia, 2019):

- Development and testing of pilot projects using innovative technologies.
- Development, implementation, and support of products and solutions both in a standardized format and adapted to the specific needs of the client.
- Clients' advising on the implementation and use of innovative technologies.
- Application of technologies in solving risk management tasks.
- Clients advising on the creation of innovative potential within organizations, the development, and implementation of innovative strategies.
- Reviews and analytics on innovative technologies.

The provision of services in the field of new technologies is not a priority for the company: it seems that the company does not see itself as a provider of services in the field of new technologies. At the same time, a team of “promising developments” deals with cryptocurrencies and blockchain issues, corporate innovations, technology scouting, digital solutions for internal audit services, economic security, and compliance.

KPMG is the only company from the Big Four in the Russian market with a severe portfolio of products used in internal work based on modern technologies. Here are just a few of the products KPMG uses in its work:

- **Risk RADAR** - an analytical tool for identifying suspicious counterparties and transactions based on the analysis of data from internal sources of the client (CRM, ERP, and others) and external databases.
- **Site Surveyor** - a tool for intelligent air monitoring using UAVs (drones).
- **KPMG Ignite platform** - development of automation and growth strategies.
- **Loan Forensic** - predicts borrower fraud using machine learning technology.
- **CRS Tool** - an automated solution for bank compliance with legal requirements regarding CRS and FATCA (in development).
- **OSV-Monitor** - an automated conveyor for processing primary financial documentation, consolidating financial statements, and automated scoring of non-financial risk factors with integration into credit organization systems.

Using emerging technologies in its work, KPMG shows the fastest growth for 2018 among all the companies of the Big Four in terms of revenue (Russian Audit Market RAEX, 2019). The development of products for internal use based on artificial intelligence and other modern technologies has a positive effect on business development.

The Big Four companies are the only audit firms in Russia, offering services based on new technologies or using them in their work. Unfortunately, audit firms with Russian roots do not yet use new technologies in their work, actually missing out on business development opportunities.

The full potential use of artificial intelligence in work is currently difficult to assess. Most experts agree that the use of emerging technologies will completely change the way the business works today, including audit firms. The process of penetration of new technologies is just beginning, and it is impossible to make accurate forecasts of how the business will change.

At the same time, today, there are successful examples of the use of artificial intelligence in staff training, checking the correctness of filling out forms, automating sales, optimizing business processes. Based on these examples, we can conclude how the audit business can change in the next ten years. Next, we will look at successful examples of using new technologies in business.

### 5.3. Emerging Technologies in Accounting and Auditing

Analyzing the market of audit services in Russia, it seems that new technologies can be used only by international audit firms (Big Four). In search of information on the use of artificial intelligence, blockchain, or other modern technologies, audit firms analyzed the websites of the largest 100 audit firms, company press releases, and integrator websites. None of them mention that any audit firm except Big Four uses or offers services based on new technologies.

Several reasons can explain the lack of interest in audit firms in modern technology. First, the cost of data analysis specialists is too high, so companies refuse to use new technologies. The second reason is the high cost of technologies or their inaccessibility. The third reason is the lack of resources for using new technologies. Next, we will consider each reason in detail.

Firstly, we consider **the cost of data scientists** in Russia. In total, as of August 2019, on the site HH.ru<sup>13</sup> (the most prominent Russian site for job search), 407 data scientist and 815 data analysis vacancies were opened. Among the companies that posted vacancies, there was not a single audit firm. Despite the explosive growth of interest in data analysis in the world, in Russia, the demand for data scientists is lower than the demand for accountants, auditors, or business consultants.

Also, for further analysis, it is crucial to bring the data scientist salaries in Moscow (Moscow has the highest salaries in Russia). According to the Netologia (Russian analytical company), the initial data scientist salary in Moscow is 113 thousand rubles, an employee with experience from 1 to 3 years can cost from 147 to 183 thousand rubles, more experienced employees have salaries above 250 thousand rubles (Netologia, 2019). At the same time, 2499 auditor vacancies were opened in Moscow (7328 in Russia) with a salary of 90 thousand rubles, which is slightly higher than the initial salary in the field of data analysis (hh.ru, 2019).

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<sup>13</sup> <http://hh.ru>

A comparison of salaries and the number of open vacancies clearly shows that the demand for auditors is higher than for data science specialists. The cost of an experienced auditor is 90 thousand rubles per month, while the cost of one data analysis specialist is approximately 180 thousand rubles per month. Audit firms prefer to find two auditors than one data analyst.

At the same time, if we compare the salaries of data scientists in Russia and the world, we can conclude that Russian companies are in better conditions in terms of such specialists' costs. The initial salary of a data analysis specialist in the United States starts at \$ 90,000 per year, which is \$ 7,500 per month compared to \$ 1,500 in Russia (Netologia, 2019). The cost of specialists is acceptable for Russian companies, including audit firms. However, audit firms are in no hurry to hire data analysis specialists.

The second possible reason for not using new technologies in work is **the high cost of technology**. Indeed, ten years ago, the use of artificial intelligence and machine learning was available to several of the largest companies in the world. Using artificial intelligence required not only serious computing resources but also software that was not available to most companies.

However, after Google released the first version of TensorFlow, machine learning, and neural networking technologies became available to anyone<sup>14</sup>. Following the release of TensorFlow, there has been an explosive increase in interest in artificial intelligence and machine learning technologies around the world. Now everyone can build and train a model using a home computer and open-source software.

Also, there is a large number of freely distributed software today that allows anyone to build machine learning systems and use modern technology to solve many business problems. The following is a list of specialized software published on GitHub that anyone can download and use.

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<sup>14</sup> <https://github.com/tensorflow/tensorflow>

- **Chart of Account Prediction** - use of tagged data for the account name of each transaction (<https://github.com/agdgovsg/ml-coa-charging>).
- **Accounting Anomalies** - identifying anomalies in accounting ([https://github.com/GitiHubi/deepAI/blob/master/GTC\\_2018\\_CoLab.ipynb](https://github.com/GitiHubi/deepAI/blob/master/GTC_2018_CoLab.ipynb)).
- **Financial Statement Anomalies** - detection of anomalies (using R) before submitting documents to the tax (<https://github.com/rameshcalamur/fin-stmt-anom>).
- **Useful Life Prediction** - forecasting the useful life of assets using sensory observations and the development of functions (<http://www.firmai.org/documents/Aged%20Debtors/>).
- **AI Applied to XBRL** - A standardized representation of XBRL in AI and ML (<https://github.com/Niels-Peter/XBRL-AI>).
- **Forensic Accounting** - a collection of case studies on forensic accounting using data analysis ([https://github.com/mschermann/forensic\\_accounting](https://github.com/mschermann/forensic_accounting)).
- **General Ledger** - data processing in FirmAI (<http://www.firmai.org/documents/General%20Ledger/>).
- **Bullet Graph** - visualization of the Bullet Graph helps a firm track sales, commissions, and other indicators (<http://www.firmai.org/documents/Bullet-Graph-Article/>).
- **Aged Debtors** - an example of an analysis to identify debtors (<http://www.firmai.org/documents/Aged%20Debtors/>).
- **Automated FS XBRL** - a set of PDF files containing more than 700 pages of XBRL information (<https://github.com/CharlesHoffmanCPA/charleshoffmanCPA.github.io>).
- **Financial Sentiment Analysis** - analysis of the leverage of optimization in trade (<https://github.com/EricHe98/Financial-Statements-Text-Analysis>).
- **Extensive NLP** - comprehensive NLP methods for accounting ([https://github.com/TiesdeKok/Python\\_NLP\\_Tutorial/blob/master/NLP\\_Notebook.ipynb](https://github.com/TiesdeKok/Python_NLP_Tutorial/blob/master/NLP_Notebook.ipynb)).
- **PyEDGAR** - a library for downloading, caching, and accessing EDGAR files (<https://github.com/gaulinmp/pyedgar>).

- **Internal Revenue Service** - access and analysis of IRS files (<http://social-metrics.org/sox/>).
- **Financial Corporate** - Rutgers corporate financial data sets (<http://raw.rutgers.edu/Corporate%20Financial%20Data.html>).
- **Non-financial Corporate** - Rutgers non-financial corporate data set (<http://raw.rutgers.edu/Non-Financial%20Corporate%20Data.html>).
- **PDF Parsing** - extract useful data from PDF documents ([https://github.com/danshorstein/python4cpas/blob/master/03\\_parsing\\_pdf\\_files/AR%20Aging%20-%20working.ipynb](https://github.com/danshorstein/python4cpas/blob/master/03_parsing_pdf_files/AR%20Aging%20-%20working.ipynb)).
- **PDF Table to Excel** - create an Excel file from data in PDF ([https://github.com/danshorstein/ficpa\\_article](https://github.com/danshorstein/ficpa_article)).
- **EconML** - automated training and analysis of causal relationships (<https://github.com/microsoft/EconML>).
- **Auctions** - optimal auctions using in-depth training (<https://github.com/saisrivatsan/deep-opt-auctions>).

This list of software is only a small part of all the solutions for accounting, auditing, and solving business problems that anyone can download for free. This list does not include a large number of libraries and add-ons, which are also available free of charge for software developers in the field of new technologies. We see that there is enough opensource software, and the thesis about software unavailability is incorrect.

The third possible reason that makes it difficult to use modern technology in the audit business is **the lack of resources**. Indeed, to use machine learning technologies, it is necessary to have a sufficient amount of data on which the model will be trained. Large companies, such as the Big Four, have large amounts of data that can be used for software development. As of 2018, each Big Four audit firm conducted an audit in 827 companies in Russia on average (Ministry of Finance, 2019).

Most audit firms with Russian roots cannot claim the same number of audits conducted over the year. At the same time, each of the 50 largest audit firms conducts more than 100 audits per year. This amount is enough to build the most straightforward machine learning system (Goryacheva, Year of failed events, 2019).

Naturally, large-scale projects may require a more massive amount of data, for example, all the results of all inspections over the past 5-7 years. In any case, by law, audit firms in Russia are required to keep audit documentation for five years.

On the other hand, machine learning can be used not only in optimizing audits, but also in marketing, staff training, and market analysis. Audit firms can use free tools for collecting information directly from the Internet and other public sources. In this case, the amount of information directly depends on the audit firm's appetite.

We can say that resource limitation is a partial problem and is solved through the use of audit reports for a more extended period. Also, audit firms can jointly solve the problem of developing software based on modern technologies. It will allow not only to use the best methodological developments of several companies but also to develop a universal tool to increase the productivity of consultants and auditors.

Such factors as the high cost of specialists and technologies, technological limitations, and lack of data for building models do not affect the market for audit services in Russia. Today, audit firms have every opportunity to use modern technology to optimize their work and develop new services based on them. Of the more than 4,000 audit firms, only the Big Four companies use truly new technologies. There is considerable potential for the use of artificial intelligence, blockchain, and machine learning in the market of audit services in Russia.

In 2019, the President of Russia Vladimir Putin, in his annual speech announced the need to form a digital economy in Russia (Putin, 2019). This project involves the use of new technologies, innovative business models, increased labor productivity, educational reform, and others. The Russian digital economy project is a response to the Industry 4.0 project<sup>15</sup>, a high-tech development strategy for Germany, presented in 2011. At the initial stage, 200 billion rubles have already been allocated for the

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[https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM\\_Industrie%204.0.pdf](https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM_Industrie%204.0.pdf)



implementation of the project in Russia, so there is no doubt that the Russian economy will face severe transformations in the coming years.

Undoubtedly, the audit is one of the most conservative industries in the world. At the same time, when the economic model changes and new tools for a severe increase in labor productivity appear, even the most conservative sectors will not remain unchanged. Today in Russia, only the Big Four use new technologies to increase their productivity and provide services to customers. It is evident that Russian audit firms, which will be the first to use modern technologies in their work, will receive a huge advantage in the market.



## 6. Strategy development

Strategy development is the final stage of this work. The strategy of the blue ocean was used as the initial strategy development framework. This methodology consists of 5 steps, four of which are given in this part. The fifth stage is devoted to the implementation of the new strategy in practice, which takes a long time and is not the goal of this work.

The main focus of developing a strategy for the blue ocean methodology is the creation of customer value. Creating new customer value with the help of emerging technologies and innovative business models will allow the audit firm to gain a competitive advantage in the market. The new strategy can be used by the largest audit firms in Russia with the necessary changes, depending on the initial conditions.

### 6.1. Results of the regression analysis

Audit firms provide a wide range of services in the field of accounting, auditing, and related services. Analyzing the largest audit firms, it is clear that the share of revenues from the audit services varies in different firms. The volume of the market for audit services over the past ten years has not changed and amounted to an average of 16 billion rubles per year.

Before proceeding to the regression analysis, it is necessary to describe the available data. As mentioned in the section “Regression Analysis And Information Resources,” the data taken by the analytical agency RAEX, which conducts an annual rating of audit firms in Russia, was taken as a source of information (Russian Audit Market RAEX, 2019).

In total, the rating contains 100 audit firms in Russia, sorted by total revenue. *Table 11* presents descriptive statistics of the total revenue for the 2018 year.

The minimum level of total audit revenue among the largest audit firms in Russia amounted to 8.57 million rubles, the maximum - 10668.54 million rubles. The median revenue among the 100 largest audit firms in Russia amounted to 36.6, while the

average total revenue was 11 times higher. This is because six companies have revenues of more than 1 billion rubles, and all audit firms starting at position 40 have revenues of less than 50 million rubles. Therefore, the market for audit services is developed unevenly, and there is a strong influence on the market of the largest companies.

*Table 11: Descriptive statistics for total revenue, 2018*

Total Revenue, 2018	
Mean	388,717.15
Standard Error	147,339.67
Median	36,600.00
Mode	#N/A
Standard Deviation	1,473,396.75
Sample Variance	2,170,897,969,014.76
Kurtosis	29.89
Skewness	5.31
Range	10,659,954.00
Minimum	8,570.00
Maximum	10,668,524.00
Sum	38,871,715.00
Count	100.00

*Source: calculated using RAEX, 2019*

The revenue from audit services is distributed approximately in the same way. *Table 12* shows the descriptive statistics of the Revenue from auditing services of the top 100 audit firms in Russia in 2018.

As it is seen from *Table 12*, the mean and the median indicators differ by about 11 times, which indicates the strong influence of the largest companies on this indicator. Also, the Skewness indicator for audit revenues supports this conclusion. It is slightly different from the total revenue indicator, which indicates the same distribution of income from both audit activities and the total revenue of audit firms.

It is essential to mention that the total revenue from audit activities according to the data in the table is 26.947 billion rubles, which is much higher than the official figures for the volume of the audit market of 16 billion rubles (Ministry of Finance, 2019). The reason for this difference is that the analysts of the RAEX rating agency include in the audit not only mandatory and special-purpose audit services but also all related services provided to the company during the audit (Russian Audit Market RAEX, 2019).

*Table 12: Descriptive statistics of the audit share in total revenue, 2018*

Audit Revenue, 2018	
Mean	269,476.77
Standard Error	105,767.21
Median	24,745.63
Mode	#N/A
Standard Deviation	1,057,672.09
Sample Variance	1,118,670,245,437.47
Kurtosis	27.62
Skewness	5.22
Range	6,868,809.29
Minimum	3,649.97
Maximum	6,872,459.26
Sum	26,947,676.95
Count	100.00

*Source: calculated using RAEX, 2019*

The most interesting issue of the audit market is revenue growth. The descriptive statistics of the revenue growth of the 100 largest audit firms in Russian are provided in

*Table 13.*

In terms of revenue growth, the maximum value was 83.7% per year, and the maximum drop was 62.3%, mean and median values are approximately equal and amounted to 4.9 and 3%, respectively. The revenue growth is more evenly distributed than the total revenue or revenue from the audit services.

It is impossible to unambiguously interpret the role of audit services in terms of business development. The industry average, the share of audit services is 30% of total revenue over the past ten years. At the same time, there are firms with a high share of audit services in revenue, and with a share below the average, showing approximately the same revenue growth in recent years.

*Table 13: Revenue growth descriptive statistics*

Revenue Growth (%), 2019	
Mean	0.0495
Standard Error	0.0228
Median	0.0300
Mode	0.0680

Standard Deviation	0.2282
Sample Variance	0.0521
Kurtosis	2.2996
Skewness	0.6163
Range	1.4600
Minimum	(0.6230)
Maximum	0.8370
Sum	4.9470
Count	100.00

*Source: calculated using RAEX, 2019*

For strategy development, it is necessary to determine the role of audit services, because it is crucial to understand whether to focus on the promotion of audit services or whether it is better to focus on other services. To answer this question, we will carry out a hypothesis and evaluate the role of audit services through the prism of the development of the audit business. For analysis, we took the performance indicators of the largest 100 audit firms in Russia (Russian Audit Market RAEX, 2019).

To analyze the dependence of revenue growth on the share of audit services, a regression analysis is used, where the dependent variable is the annual revenue growth of the audit firm, and the independent variable is the share of audit services in the total revenue. As can be seen from Table 14, the coefficient of determination ( $R^2$ ) is less than one percent, which means the share of audit services in revenue does not explain the annual growth in revenue of audit firms.

*Table 14: Revenue growth regression analysis top 100 audit firms, 2018*

Regression Statistics	
Multiple R	0.0756
R Square	0.0057
Adjusted R Square	(0.0044)
Standard Error	0.2287
Observations	100.00

*Source: calculated using RAEX, 2019*

Also,  $p\text{-value} > 0.05$  from Table 15 shows that we should reject the null hypothesis and this model explains the absence of a relationship between the share of audit services in total revenue and revenue growth for the year. This means that audit firms are not growing due to the provision of audit services, but due to other factors.

*Table 15: Revenue growth regression analysis model for top 100 audit firms, 2018*

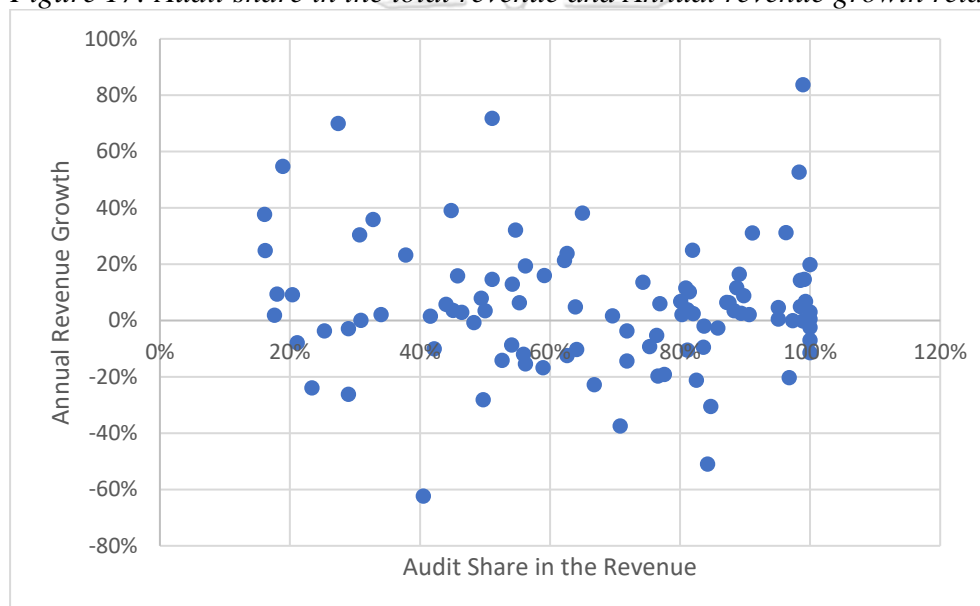
	Coefficients	Standard Error	t Stat	P-value
Intercept	0.09	0.06	1.47	0.14
Audit Revenue (%), 2018	(0.07)	0.09	(0.75)	0.45

*Source: calculated using RAEX, 2019*

To further verify the absence of influence of the share of audit services in total revenue, we will construct a Figure where, according to the x-axis audit share in the total revenue and y-axis, is annual revenue growth.

*Figure 17* shows this relationship between two variables.

*Figure 17: Audit share in the total revenue and Annual revenue growth relation*



*Source: plotted using RAEX, 2019*

As can be seen from

*Figure 17*, the relationship between the share of audit services in total revenue and revenue growth for the year does not exist. Audit firms with a low share of the audit are growing in the same way as firms specializing exclusively in mandatory audit services. Note that this analysis presents the 100 largest audit firms in Russia.

At the same time, the largest 50 audit firms have a significant impact on the market, so that we will conduct a similar analysis of the largest 50 audit firms in Russia (Russian Audit Market RAEX, 2019). The results of the analysis are shown in Table 16 and

Table 17. As can be seen from *Table 16*, the determination coefficient for the model is 0.0046, which confirms the absence of a relationship between the share of audit services in total revenue and annual revenue growth rate for the 50 largest audit firms.

*Table 16: Revenue growth regression analysis top 50 audit firms, 2018*

Regression Statistics	
Multiple R	0.0682
R Square	0.0046
Adjusted R Square	(0.0161)
Standard Error	0.2101
Observations	50.00

*Source: calculated using RAEX, 2019*

For the 50 largest audit firms, from *Table 17*, the developed model also has a p-value > 0.05, which shows that we should reject the null hypothesis, and this model does not confirm the relationship between the share of audit services in total revenue and revenue growth for the year. The share of audit services in the total revenue does not determine the revenue growth of the audit firm.

*Table 17: Regression analysis of the Revenue growth (top 50 audit firms), 2018*

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.012	0.084	0.147	0.884
Audit Revenue (%), 2018	0.058	0.122	0.473	0.638

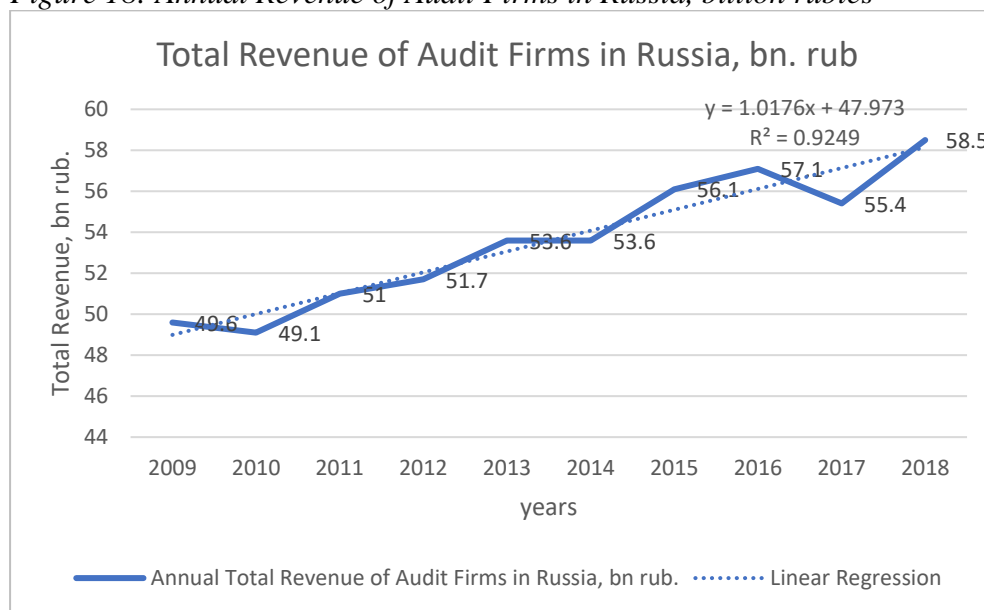
*Source: calculated using RAEX, 2019*

As can be seen from the results of the analysis (*Table 16* and *Table 17*), there is no sufficient reason to argue that the share of audit services in total revenue affects the revenue growth rate of audit firms in Russia. The regression analysis was also performed on data from the last five years for hypothesis testing. The results of the analysis show that the share of audit services does not affect the revenue growth of audit firms. Therefore, developing a new development strategy, audit firms can focus on any of the services, using auditing services as an entry point.

Next, it is necessary to build a forecast for the growth of the audit services market in Russia. For this purpose, we use a regression analysis: the year is used as an independent variable, and the volume of the audit services market in Russia in billions of rubles is used as a dependent variable. *Figure 18* shows the growth trend of the

Russian audit services market. The dashed line indicates the regression model built on a given market volume over the past ten years.

Figure 18: Annual Revenue of Audit Firms in Russia, billion rubles



Source: Ministry of Finance, 2019

As can be seen from Figure 18, the determination coefficient is 0.9249, which means the model accurately describes the change in the volume of the audit services market in Russia. According to the calculated model,  $y = 1.0176x + 47.973$ , the market for audit services annually grows by about 1 billion rubles, which is close to real indicators. If we build a forecast based on this model, we can conclude that the market will continue to grow by 1 billion annually.

Unfortunately, even though the model has a high coefficient of determination, it is difficult to use it in building forecasts for market development. According to the analysis, the economic situation in Russia is unstable, and future legislative reform may significantly change the market position. Despite this, an analysis of the market development over the past ten years gives positive expectations for the growth of the audit market in Russia.

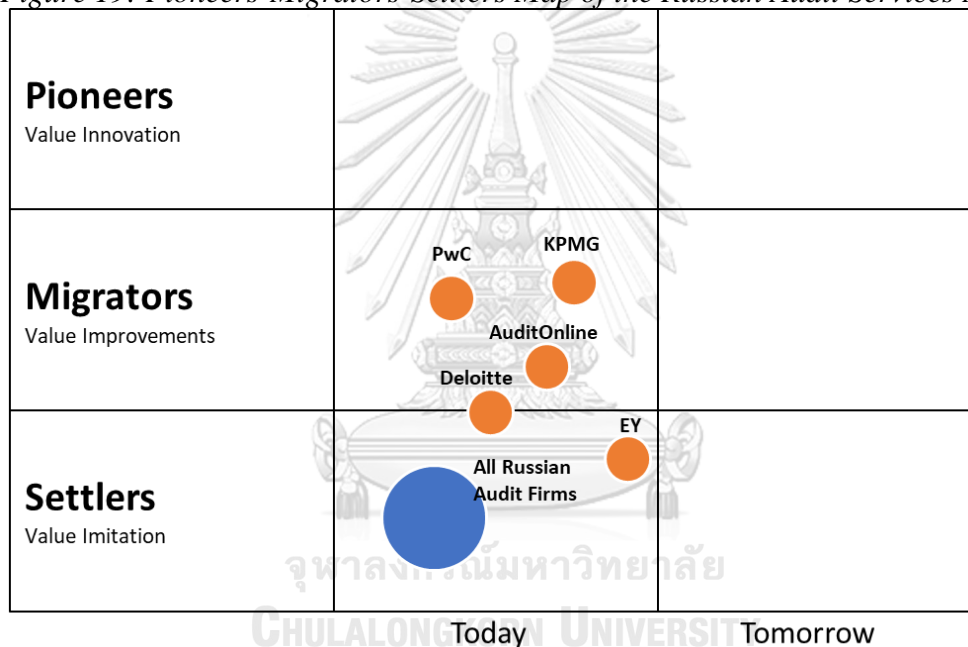


## 6.2. Pioneer-Migrators-Settler Map

The first step in developing a Blue Ocean Strategy is to build a Pioneers-Migrators-Settlers map. This tool allows the company to present the current state of the market from the position of the value provided. According to the analysis, only four companies in the Russian market offer new audit solutions: KPMG, PwC, Deloitte, and AuditOnline.

The Pioneers-Migrators-Settlers map is presented below Figure 19.

Figure 19: Pioneers-Migrators-Settlers Map of the Russian Audit Services Market



Source: adapted from Kim & Maugborne, 2019

The audit market is one of the most conservative industries. Any innovations meet strong resistance both from the side of the participants and from the regulatory authorities. That is why the innovative business model of AuditOnline has met with severe criticism from market participants. After checking the activities of the company, it turned out that most of the declared innovations were not true.

At the same time, we placed AuditOnline in the Migrators field because this model is innovative for the audit services market. Firstly, the use of the Uber model can significantly reduce the cost of audit firms to conduct audits in other regions of the

country. Secondly, the idea of remote auditing does not meet the current requirements of international auditing standards (the auditor must see the original documents and be present in person). However, business model optimization can provide a significant competitive advantage for the company.

EY is one of the leaders in the market of audit services, ranking second in the rating of the largest audit firms in Russia. At the same time, the company does not offer services based on innovative products in the Russian market today. There is also no mention of the use of modern technology in the development of new facilities or internal processes. The company specializes in Russian auditing companies planning IPOs in foreign markets. Given the challenging economic environment and sanctions, this specialization is losing its relevance for Russian companies.

At the same time, EY uses innovative technologies in the markets of Germany, France, England, and the USA. The company offers innovative products and services in critical markets for itself, trying to keep up with its competitors. At the same time, the provision of innovative services in other markets is currently not a priority for the company.

Deloitte is intermediate between Settlers and Migrators on the PMS map, offering both classical audit and consulting services, as well as services using modern technology as their basis. An important area for the company is the automation of business processes and decision-making processes. Within the framework of these specializations, advanced technologies are used. Deloitte in Russia does not provide unique services based on modern technologies, like other companies of the Big Four. That is why the company is located between Settlers and Migrators on the PMS map.

At the same time, on the company's regional websites is provided information on the use of artificial intelligence and big data in the company's processes. Deloitte focuses on Western markets, so the Russian market is not a priority for the company. On the other hand, Deloitte is hiring data scientists, which can indicate the appearance of such services in the Russian market soon.

PwC offers a vast number of services based on new technologies. The company offers Data analysis, Blockchain, Internet of Things (IoT), Process Mining, Cloud solutions,

AR / VR, Robotization of business processes (RPA), Cybersecurity, Visualization, and interactive reporting, Agile, and Drones. The range of services offered looks like a list of venture capital fund projects specializing in new technologies, rather than an audit firm. This extensive list may indicate that the company does not have a clear understanding of the use of modern technologies.

On the other hand, the company provides educational services for customers in the field of high technology. This suggests that the company is fighting for the title of a thought leader in the Russian market among other consulting firms. PwC is trying to move from the category of audit firms to consulting firms such as McKinsey, Bain, and BCG. The transition to the use of new technologies will allow the company to expand the list of services offered and increase the demand for “classical services” of an audit firm.

Such a spray of focus is hazardous for a business. According to statistics provided by the RAEX rating agency, PwC has the lowest revenue growth rate among the big four companies. An attempt to use modern technology without a strategy leads to a diffusion of focus, and, consequently, to a decrease in growth indicators and, possibly, loss of market positions.

The last company from the big four KPMG is not only the leader of the Russian market of audit services in 2018 but also has the highest percentage of revenue growth (16%) compared to the previous year. In absolute terms, the company's revenue grew by almost 1.5 billion rubles over the past year, which is a total record for all audit firms in Russia.

The Russian division of KPMG is a leader in the use of new technologies in internal processes and the optimization of services provided. Most of the innovations used by the company in the Russian market are used for domestic use. Solutions such as Risk Radar, Site Surveyor, Loan Forensic are used to optimize and improve the quality of existing services. At the same time, the CRS Tool is a platform for customers.

Today the most optimal use of technology is to optimize internal processes. Due to the lack of practice of applying advanced technologies in the Russian economy, the provision of services for the transfer of companies to modern technologies (blockchain,

big data, and others) is not yet in demand in the market. Examples of companies offering similar services today (PwC) show that this strategy does not bring the expected growth. At the same time, KPMG uses modern technologies to optimize internal processes, shows the most significant increase in the Russian market of audit services.

At the same time, with all the apparent advantages of using modern technologies in the market of audit services, none of the Big Four companies offers Value Innovation. Companies either offer consulting services on the use of advanced technologies for Russian business or optimize internal processes for existing facilities.

There are several possible explanations for the lack of innovation in the audit market. Firstly, companies are limited in using new methods of providing services with internal regulations and rules for the provision of services (for example, international audit standards). Secondly, the use of new technologies in any business is always a risk. The first users of products are still innovators who are willing to take risks. The audit business is one of the most conservative in the world, which is why firms try to avoid risky decisions. Thirdly, most of the new technologies have appeared relatively recently. For example, computer vision technologies for less than five years, so the practice of using emerging technologies in business has not yet developed.

Like the transformation of the classical circus into Cirque du Soleil, the audit business in Russia has similar initial data. For example, as was shown in the market analysis section, revenue from audit services has not been growing for the past ten years. Also, the real income of audit firms is falling, and requirements for audit reports are increasing. All this makes the audit business less attractive to start a business or potential employee. Perhaps that is why, to develop solutions based on new technologies, PwC conducts acceleration programs for startups.

At the same time, due to the difficult economic situation and the vast length of Russia, there are opportunities for creating new business models. This solution was presented by AuditOnline, which is discussed in detail in the Emerging Technologies section. Despite all the criticism and possible unfair presentation of information, this approach

to organizing a business is one of the most interesting in the world. The changing economy process as a whole notices a shift in the sharing economy and uberisation. This approach is one of the critical advantages of the audit firm AuditOnline.

The example of AuditOnline is interesting for two reasons. First, the company takes a new approach to find auditors. Following the example of Uber, the company created a platform where each auditor can register and find work in their region. This is an example of employees outstaffing in the audit market. Secondly, the company claims that it can conduct an audit remotely. As mentioned above, this information was not confirmed by the examination by a self-regulatory organization of auditors. According to international audit standards, the auditor must be physically present at the inspection site and see the original documents. From this point of view, the AuditOnline approach does not allow for a mandatory audit but can be used in the provision of other services.

The AuditOnline approach can be used as a competitive advantage in developing a new strategy. Uber business model allows to reduce the cost of opening offices in the regions, reduce taxes, and reduce the cost of services. A remote audit will enable companies to quickly get information about the state of affairs in the company, which can be used, for example, to monitor the activities of branches of large companies. In general, AuditOnline, despite all the inconsistencies with the requirements of international audit standards, is an excellent example of innovation in the audit business. The company's annual growth of more than 100% indicates the demand for services in the market.

Today in Russia, more than 4000 companies provide audit, accounting, and consulting services. At the same time, only four companies use innovative approaches in the audit business, which indicates a low level of competition when using new technologies. New technologies can not only reduce costs and improve the quality of services provided but also expand the list of services offered by the company. New technologies have great potential, and market leaders (Big Four) show great attention to innovative solutions.

Today, the audit business of Russia is at a turning point, and shortly a more significant number of companies will use the capabilities of new technologies. The Big Four use

new technologies to optimize existing business processes, improve quality, and provide new services. New technologies offer many options for reforming the market for audit services, which will give a serious competitive advantage for those companies that are the first to use them.

### 6.3. The Strategy Canvas

The strategy canvas is a straightforward picture, the current strategic landscape, and the prospects for an organization. The objective of this tool is to present the factors by which companies compete with each other. The authors of the Blue Ocean Strategy methodology also offer to examine every factor of competition, guiding leaders to discover the assumptions they unconsciously make while competing.

The first assumption is that **the audit is carried out at specific intervals**, usually before the annual financial statements are submitted. In the audit business, this period is traditionally called the business seasons, which is accompanied by a 12-14-hour workday for the auditor, huge workloads, and paperwork. The auditors work in the business seasons, having the rest of the time a free schedule or working on other projects.

The second assumption that exists in the market is that **only auditors can conduct audits**. This means that an audit can only be carried out by auditors who have a new auditor certificate. This certificate confirms the qualifications of the auditor and compliance with all legal requirements. The auditor is the bearer of knowledge: using the methodology with the help of spot checks, the auditor concludes the reliability of all statements as a whole. In reality, in practice in the Big Four companies, most of the audit is carried out by specialists of the first and second years of work, which is subsequently checked by certified auditors.

The third assumption is that **the audit is an essential service of audit firms**. Indeed, today an audit makes up an average of 30% of the total revenue of audit firms in Russia, for the Big Four companies in 2018, the share of the audit was 73% of the total income of the firm. Audit services are often the “entry point,” which subsequently allows audit firms to offer additional services to customers.

The above assumptions are fundamental to the Russian audit services market. These assumptions determine the boundaries of audit firms: audit firms hire auditors who, at specified intervals, audit the financial statements of companies. These factors determine the edges of the market for audit services.

We examined the underlying assumption defining the boundaries of the market. The next step is to identify market factors. Audit firms compete among themselves, focusing on the following factors:

1. Age of the audit firm;
2. Industry experience;
3. Design expertise;
4. Internal standards;
5. Status;
6. Customers;
7. Team;
8. Regional network.

Next, we consider each of the factors in detail.

The age of the company is one of the key competitive factors in the market of audit services in Russia. Each company from the list of 100 largest firms emphasizes its age, which indicates the reliability and stability of the audit firm. In practice, most of the largest audit firms have 20 or more years of work in the market, which reduces the strength of this competitive factor.

Industry experience is a critical factor in selecting an audit and consulting company. Clients are looking for companies that will not only be able to conduct an audit of decent quality but will also be able to offer some solutions to optimize the current activities of the company. Industry expertise can reduce risks for customers, get a higher quality of services, and "speak the same language" with consultants.

Project expertise means the provision of services as part of the solution to a problem. Often, clients are looking for a consultant who has already completed similar tasks and has positive feedback. Project expertise often leads to specialization: for example, EY

in the Russian market is a recognized expert in preparing companies for IPO. However, given the changing economic situation in the country, this service has ceased to be relevant.

Most audit firms state that in addition to meeting national requirements and international auditing standards, they conduct internal quality control, use a unique audit methodology, and use internal quality standards. In general, these statements are common to all audit firms because the law requires audit firms to conduct such events. In cases where the service provided is not regulated by law, the company may not use such a check.

Each company from the list of the largest audit firms in Russia is trying to raise its status through participation in ratings, accreditation in various organizations, participation in partnerships, or membership in international networks. That is why some audit firms include IT integrators in their group of companies as participants in order to increase the total revenue of the group of companies. In practice, the higher the audit firm in the ranking, the higher the cost of the services provided.

Clients are a crucial competitive factor in the audit market. Large companies indicate the level of trust and compliance with the requirements of the company. Some companies are ready to provide services at the cost level, in order to get a well-known client in the company's portfolio. On the other hand, competition for large customers is conducted mainly among the Big Four companies, which was shown in the market analysis section.

Each audit firm tries to present its team in the best light. The star team speaks of high-quality services and the best industry solutions. Audit firms represent CEOs, partners, heads of departments, regional offices, and practices in order to confirm the high level of service delivery. As mentioned above, the main work is done by ordinary employees, and clients rarely communicate directly with a partner or practice leader.

A regional network is an essential criterion for large clients for whom the availability of consultants in the regions is essential. That is why the Big Four companies have regional offices in almost every territorial district of Russia, providing high-quality



services in any part of Russia. There are eight federal districts in Russia (Central, North-Western, Southern, North Caucasian, Volga, Ural, Siberian, Far Eastern).

In an economic recession, one of the most critical factors of competition is the cost of the services provided. In the framework of this work, we do not consider this factor because any audit firm uses flexible pricing mechanisms to attract customers. Even the Big Four companies compete among themselves for large customers who use the cost of the services provided as one of the criteria for choosing an audit firm.

At the same time, it is possible to compare the cost of services only with similar typical services, such as audit or property valuation. In more complex cases, when using a set of services or implementing complex projects, a direct comparison of services is not possible. Therefore, it is necessary to remember that price is a significant competitive factor, but given that audit firms use approximately identical procedures, attract auditors from the open market and have a similar cost structure, the total cost of services is approximately the same for most companies from the list of Russia's 50 largest audit firms.

The following will be used as additional competitive qualities:

1. The use of modern technology;
2. A platform for the search for consultants;
3. Influencer marketing;
4. Information support for business.

The use of modern technology in the audit business is discussed in detail above in several sections of this work. Today, only four companies in the Russian market use technologies of artificial intelligence, blockchain, and big data in auditing activities. That is why the use of modern technology is a competitive advantage in developing a strategy.

One of the main trends of modern marketing rapidly gaining popularity is the use of key leaders to drive the brand's message to the broader market. This area is called influencer marketing, which today is widely used by both startups and large companies.

Nielsen reports 92 percent of people to trust recommendations from individuals — even if they do not know them — over brands.

Celebrities, famous people, or recognized experts in any field can serve as opinion leaders. Given that the audit services industry is extremely conservative, a business must use this tool very carefully. There are cases when companies broke off relations with brand ambassador because of misbehavior or unacceptable statements.

Partly audit firms use influencer marketing as a positioning tool. For example, representatives of the Big Four companies regularly make comments and reports at various conferences. The core difference is that these conferences and speeches are most often made within industry events and rarely reach customers outside the audit industry. Sometimes companies carry out promising events for current and future customers, but these cases are rare.

This tool allows companies to convey information about themselves, their expertise, and industry experience to a broad audience of potential customers. Using influencer marketing together with the Three Tiers of Noncustomers, strategists can develop an effective promotion strategy and attract new customers.

Information support of the business includes information materials, training, and business support on an ongoing basis. To date, audit firms claim to have industry experience and design expertise, but useful information does not go beyond the scope of the audit firm. Companies can publish a maximum customer review and a brief description of the service. On the other hand, the Big Four companies offer analytical reviews, comments, training programs and analytics that confirm not only industry experience, but also serve as an element in the formation of the image of a thought leader.

It cannot be said that only the Big Four companies provide informational support to the business. Most of the largest audit firms in Russia provide analytical information, reviews, and comments. The difference between the Big Four analytics and Russian firms in the depth of elaboration, design, relevance, and focus is not the problem or the target audience. Often this is either merely a reprint of other people's materials with

expert comments, or an interview for a business publication, or an analysis of data from open sources that do not have obvious practical value.

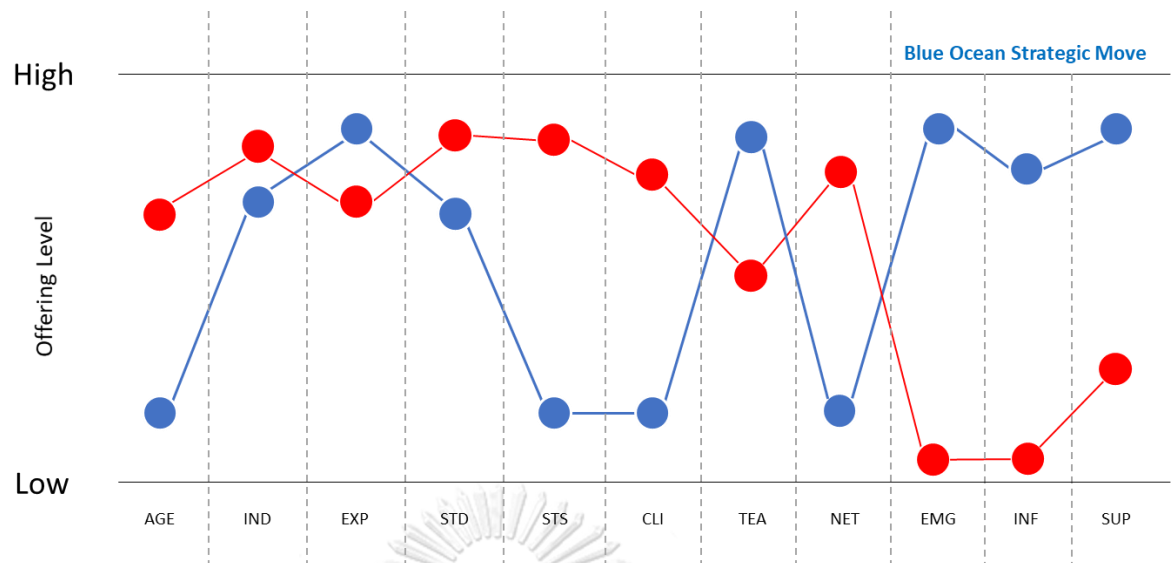
Building a strategy canvas allows the company to compare the current market offer with a new one based on competitive factors. The underlying assumption described above is limiting characteristics that define the boundaries of understanding of the audit market today. In the future, with the introduction of new technologies, the concepts of the digital economy, and digitalization, it is likely that the number of audit services will change more than is possible today.

List of factors used to build the strategy canvas:

1. **AGE** - age of the audit firm;
2. **IND** - industry experience;
3. **EXP** - design expertise;
4. **STD** - internal standards;
5. **STS** - status;
6. **CLI** - clients;
7. **TEA** - team;
8. **NET** - regional network;
9. **EMG** - the use of modern technology;
10. **INF** - influencer marketing;
11. **SUP** - business information support.

Developed based on these factors, the Strategy Canvas is presented below. The factors of the existing strategy in the market of audit services are marked in red. The critical factors of the updated strategy are marked in blue.

*Figure 20: The Strategy Canvas for the Russian Audit Services Market*



Source: adapted from Kim & Mauborgne, 2019

As can be seen from Figure 20, the existing strategy focuses on industry expertise, internal standards, status, and customer base. Also, audit firms consider the age of the company and the regional network to be a competitive advantage. Even though each company tries to emphasize the professional level of the team, the capabilities of this factor are not fully utilized, therefore on the chart, this factor for the existing strategy is placed at an average level.

Besides, as shown above, audit firms in Russia do not use modern technologies in their work. Therefore this factor is placed on the lower border of the strategy canvas. Also, companies do not use influencer marketing, so this factor is placed at the same level as the previous factor. The level of information support is at an average level, which means that often, information materials do not meet the needs of customers, and analytics is a data set.

Unlike the existing market strategy, the new strategy focuses on project expertise, new technologies, information support, team, and influencer marketing. The lowest priority was given to the age of the company, status, and customer base, which are the main priorities for existing audit firms. Industry expertise and internal standards have received an average offering level.

For existing audit firms, status is a competitive advantage and limitation at the same time. Companies with a history and high standards tend to avoid risk, so customers do

not expect them to use new approaches that may have a high level of risk. Modern technologies are perceived as innovations that can change the world, which is impossible to expect from a company with a history. Therefore, factors status and age of the company have the lowest offering level.

It is evident that modern technology will become the de facto standard for all companies, just like computers or the Internet. That is why the customer base factor also received the lowest offering level, implying that all companies will sooner or later use new technologies in their work.

Considering that all audit firms use international audit standards and meet all legal requirements, the quality of the services provided by all the largest audit firms in Russia is approximately at the same level. Therefore, this has ceased to be a serious competitive advantage in the eyes of customers. At the same time, in order to work in the market, it is necessary to comply with legal standards. Therefore this factor is at an average level.

Industry expertise is essential for large companies. As shown in the market analysis section, large companies select auditors between the big four companies. It is practically impossible for an average audit firm to get a company from the SSEE list as a client, at least because the board of directors of the company will not approve anyone other than the Big Four as an auditor.

For most medium-sized companies, industry expertise plays an important, but not the central role. When implementing standard projects, such as auditing, consulting, or tax optimization, the most critical role is played by the qualification of the consultant, and, consequently, the project expertise. On the other hand, it is vital to show that the consultant understands the problems of the client's business. In this case, industry expertise should be an offering factor. That is why this factor is at an average level in the strategy canvas.

One of the innovations of the new strategy is the use of influencer marketing. As opinion leaders, a firm can use not only external experts but also promote team members as opinion leaders and experts. This promotion can be organized not only with

the help of existing tools (comments, articles, analytical reviews) but also with the help of the factor informational business support.

It is about creating an expanded business information support platform. This platform will provide the ability to conduct accounting in the cloud, receive advice on tax optimization, legal advice, search for auditors, and accounting advice. The target audience of this project is small and medium-sized businesses that do not use the services of audit firms and do not have access to the information base of the best solutions.

This platform can also be used in the promotion of experts and teams. The value of using the platform is that experts can receive feedback from customers, which is absent when using corporate sites. Due to the feedback, it becomes possible to customize information and analytical reviews depending on customer requests.

The most crucial factor in the new strategy is emerging technologies. Using machine learning technologies will highlight the best business solutions and use them when building a recommendation system. Using a distributed system, auditors and professional consultants can find projects in their regions or work remotely, and a rating system will allow customers to choose the most suitable specialists for them. Accounting in the automatic mode will reduce the cost of companies looking for specialists or software. The use of the blockchain in accounting will allow the company to automatically confirm the reliability of operations during the audit, including audit.

The new strategy combines not only modern technologies but also solves the problem of finding specialists for clients. This strategy differs from the current market approach and has significant advantages in terms of cost and growth opportunities.

A company using the new strategy will be able to get away from the typical market restrictions. Firstly, using blockchain technology, it is possible to conduct an audit in an automatic mode, having confirmation of all operations. Secondly, it is not necessary to engage auditors to conduct an audit, since all statements can be confirmed automatically. In case of doubt about the reliability, the software can highlight outliers

for detailed analysis by specialists. Thirdly, verification of reporting can be carried out at any time of the year as soon as possible, which reduces the burden on auditors.

Also, verification of reporting is not the main task of auditors. Now, company specialists can devote more time to interesting tasks, leaving routine operations to the software.

## 6.4. Buyer Utility Map

Buyers utility map allows strategy develop to find opportunities for changes compared to the current market offer. Since customers often stop seeing a problem at any stage of interaction with a company or product, perceiving the problem as an industry standard, there are many opportunities for improvement.

Figure 21 shows a comparison of the current focus of audit firms and a new focus developed using the Blue Ocean Strategy.

Figure 21: Buyers Utility Map for the Russian Audit Market

	Purchase	Delivery	Use	Supplements	Maintenance	Disposal
Customer Productivity				●		
Simplicity	●					
Convenience		●	●			
Risk			●			
Fun and Image						
Environmental Friendliness						

● Current Industry Focus    ● Blue Ocean Offering

Source: adapted from Kim & Mauborgne, 2019

As can be seen from the graph, the current focus of audit companies is in one quadrant - Risk / Use, that is, the focus is on reducing risks when using company services. This

is achieved by internal quality standards, industry specialization, status, and other factors. This is not to say that ordering services or using our simple operations for customers. Coordination of the contract, payment, receipt of documents is accompanied by severe paperwork, negotiations, and additional approvals.

If the audit revealed any deficiencies or errors in accounting, the coordination of additional work, for example, to restore accounting, goes through all the stages of approval both at the client and in the audit firm. Besides, in Russian practice, auditors are often perceived as auditors than as consultants. Therefore, often, auditors do not meet support from staff during the audit.

The new strategy focuses on usability. The first thing a client encounters is an easy way to order a service. Clients can order and pay for the service through the site using various payment options, including bank transfer. Users get limited access to the platform right after registration. Full functionality is available immediately after payment.

In terms of use, the key focus of the new strategy is usability. Using international standards and legislative requirements for the provision of services, the risks of using the platform are comparable to the risks when ordering services from any firms from the list of the 50 largest audit firms. At the same time, ease of use will attract additional customers who previously refused the services of consulting companies.

Accounting, audit, consultants, tax optimization, and legal advice based on best practices are available to any client from their account. Given that the service provider does not spend more effort on providing services, the cost of additional services and functions is much lower than that of a classical audit firm.

This focus is vital for the audit business for several reasons. First, the income from audit services has not been growing for the past ten years, which, with inflation and rising costs, leads to a drop in real income. Therefore, companies are forced to look for ways to reduce costs and increase profits. The most significant cost item of any consulting business is personnel. Therefore, automation of some routine processes will reduce costs.



Secondly, the convenience and ease of use will attract new customers for the audit company. Considering that today, the share of audit in the total income of an average audit firm is about 30%, there is an extensive portfolio of services that can be offered in addition to audit. Such clients may include small and medium-sized businesses, innovative enterprises, and startups.

Moreover, modern technologies are changing the approach to doing business, which will undoubtedly affect the audit services industry. This trend can be observed today in Europe and the USA. Those companies that will be the first to use new technologies in Russia will receive a significant advantage. Today, Russia is moving into the digital economy. Most companies are thinking about moving information systems to the cloud; the sharing economy is called the primary trend of the economy. All these changes are happening today so that all sectors will change soon, including the audit business.

From the “3 Tiers of noncustomers tool”, a wide range of non-clients can be attracted using the new strategy. First of all, the new platform offers convenience and ease of use, which will attract new customers who have not previously thought about attracting consultants or audit firms. Among such clients are representatives of small and medium-sized businesses who are forced to solve financial problems on their own without the involvement of external consultants. Besides, this platform will be useful for all accountants and financial workers, where they can find all the necessary information for work.

Today, the main task of audit firms to provide high-quality services, reducing customer risks. Unfortunately, no one considers this process for the convenience of the client and staff, and many stages can be improved. These improvements will lead not only to attracting new customers but also significantly reduce the costs of audit firms.

## **6.5. Reconstructing Market Boundaries**

The six paths framework tool allows the company to consider opportunities where others see only the scarlet oceans of competition. This tool consists of six stages, each of which helps to open new opportunities for developing a search for free-market positions.

The first step is **to consider alternative industries**. Today, the task of an audit is carried out by external auditors, internal auditors, or state audit bodies. At the same time, it is possible to receive recommendations on improving accounting and tax optimization only from auditors. At the same time, there are a large number of books, magazines, and scientific articles that answer any particular questions. If the company wants to get answers to the questions, most often, it needs to resort to the services of consultants.

Existing software allows a company to keep accounting records, but in order to find a consultant or to solve a tax optimization problem, the company needs to look for answers outside of the software used. Users solve their problems using many resources and sources of information.

There are a large number of IT integrators who can implement and maintain software for solving business problems. At the same time, within the company, there should be specially trained people who will interact with the software. It turns out that to solve any business problem, there is already an alternative solution, but in order to combine all the solutions into one, it is necessary to spend a lot of resources and time.

Existing examples of the use of artificial intelligence technologies in the audit business are used by the Big Four companies and do not enter the market as a free solution. The pricing policy of the Big Four companies limits the number of companies that could use these solutions in the business. At the same time, these technologies are open; that is, any business can use them if they have the data and the necessary skills.

The second step is **the analysis of strategic groups**. The entire audit business can be divided into four strategic groups. The first group is the Big Four companies. Occupying about 50% of the market for audit services, companies regularly compete among themselves in terms of cost of services, or expertise and specialization. Besides, as can be seen from the analysis of the market, the Big Four are actively involved in the use of modern technologies in the audit business, including the provision of new services based on artificial intelligence and blockchain.

The next strategic group is the top ten companies in the list of the largest audit firms in Russia. These companies compete among themselves for customers, most often using the price factor of competition. Companies offer a wide range of services, most often competing for the title of an industry leader, for example, the best tax consultants.

The third group consists of companies from 11 to 50 from the list of the largest audit firms in Russia. These companies also mainly compete with each other in price. These companies can often see sizeable Russian business in the portfolio, but often this is an audit of subsidiaries and branches.

The fourth group is all the remaining audit firms. They serve a large number of companies in the regions, as well as small and medium-sized businesses. The advantages of these companies are of low price and regional proximity. Often, such companies can significantly reduce the cost of services, which affects their quality.

In the framework of this work, the second and third strategic groups are competitors in the development of a new strategy. At the same time, the availability of the platform in the regions will allow it to compete, including at a price, with the fourth group of audit firms in Russia.

The third step is to **consider consumer groups**. The classic theory of B2B sales suggests that when making a purchase decision, various groups of individuals are involved in the decision. Thus, we can talk about the following consumer groups:

- accountants and employees of financial departments;
- owners of small and medium-sized businesses;
- CEO, CFO, COO;
- Startups founders.

The leading group of users when developing a new strategy are the owners of small and medium-sized businesses and the founders of startups. This group is practically not considered as potential customers by the most significant audit companies, which provides vast opportunities for rapid growth. Accountants are also a target group, but since the employees of accounting and finance departments are also the target audience for all audit groups, competition for their involvement may be higher than the cost.

The fourth step is to **consider additional products and services**. As noted above, there are a large number of products and services on the market that partially satisfy customer needs. Most of the products and services offered are complex or lack usability.

The proposed solution will be used by accountants, founders of innovative companies, and owners of small and medium enterprises. The platform allows clients to keep records, propose ways to optimize taxes automatically, and generate all the necessary reporting for the company and government agencies. The platform will independently offer the best solutions for optimizing taxation based on machine learning algorithms. In the future, with the development of the system, the best solution should be a complete replacement of the accountant and tax consultant.

The fifth step is to **analyze the functional and emotional attractiveness** of the industry for customers. Conducting accounting, tax accounting, and audit are necessary actions that rarely cause positive emotions among business representatives. Often, accountants spend much time at work preparing reports, and auditors in business seasons can work 12-14 hours a day, seven days a week.

The automatic accounting platform, which saves all operations using blockchain technology, allows the firm to quickly audit reports. This decision will be interesting both for accountants and representatives of financial departments and for auditors. Also, a simple interface, a recommender system, and ease of use will allow the platform to be used by business leaders and founders of startups to find answers to questions. Such a system will not only be attractive to users but will also be in demand among a wide range of specialists.

Step six - **shaping external trends over time**. Any industry is influenced by external trends, which over time, begin to have an impact on the business, including the audit business. As noted earlier, the Russian Government has embarked on a digital economy, which indicates the inevitability of changes and the use of new technologies in the future in various industries and fields. Seeing the future - from the value that the market offers today, to the value that it can offer tomorrow, managers can actively shape their future and claim the creation of blue oceans.

The use of new technologies is a trend that will shape the audit services industry in the future. The first company, which not only sees the possibility of new technologies but also creates a convenient platform based on them, will have a massive advantage over other players. It is the creation of such a competitive advantage that is the focus of this Blue Ocean Strategy.

Undoubtedly, this strategy should be tested in the real market. Even for a large company, it is impossible to predict which product or service will be in demand in the future, how exactly the market will change due to new technologies. That is why each thesis in this work requires verification in practice and making adjustments to the future strategy. In any case, it can be argued that the market for audit services is at a turning point, and today is the best time to use the new strategy to find points of rapid growth.

## **6.6. Auditor Independence Issue**

The problem of auditor independence is of particular importance for the Russian market. After the adoption of the Law “On Auditing” due to the lack of licensing and the imperfection of the legislation, any company could engage in audit activities if there were the required number of auditors in the company. This led to the fact that some auditors simultaneously worked in seven different audit firms, and the companies engaged in the sale of positive audit reports.

After the crisis of 2008, the Central Bank of the Russian Federation began an ongoing fight against money laundering. Over the past ten years, the Central Bank has revoked more than 50 banking licenses. Surprisingly, about 90% of banks whose licenses were revoked had a positive audit opinion. Undoubtedly, this situation did not suit the Central Bank, and it initiated a new audit reform.

The critical issue of the new reform should be the fight against unscrupulous audit firms and the independence of auditors. The new bill involves an extension of the powers and responsibilities of the auditor. At the same time, no one can guarantee that the problem with dishonest auditors will be solved.

The problem of independence and integrity of audit firms is relevant as never before. Not only small audit firms are criticized, but also Big Four companies (Reforming the Big Four, 2019). KPMG is losing customers in South Africa after allegations of ties to the Gupta political family. Deloitte is undergoing scrutiny in the United States and Malaysia over the scandal over the IMDB government development fund. PwC has received a two-year ban on activities in India in connection with the Satyam case. Even in the largest audit firms, there are opportunities for manipulation.

A possible solution to this problem can be achieved using modern technology. For example, blockchain technology allows the firm to save all transactions so that nothing can be hidden. Robotic Process Automation will enable the firm to analyze hundreds of thousands of documents in the shortest possible time, highlighting dubious operations. Machine learning technologies make it possible to identify fraud much better than humans quickly. Also, the development of Internet-of-Things allows conducting asset inspections by drones, which saves a considerable amount of time and resources.

The use of new technologies provides undeniable advantages for both auditors and the government. At the same time, the audit business is in no hurry to use new technologies in the market. The reason for this is most likely the high conservativeness of the audit industry. In any case, the transition to new technologies is inevitable. In the future, the audit will be carried out using artificial intelligence and robots, which will undoubtedly solve the problem of the dishonesty of some auditors.

## **6.7. Digital Platform**

Today, there are a large number of IT companies that can develop new software or customize ERP for the needs of the company. At the same time, such companies usually do not have sufficient industry expertise, and therefore cannot independently develop a platform for the automation of accounting and auditing.

Similarly, the development of information platforms is not a task for audit firms. Possessing the necessary expertise in the field of accounting, audit firms do not have the required IT staff capable of creating an information system to solve business problems.

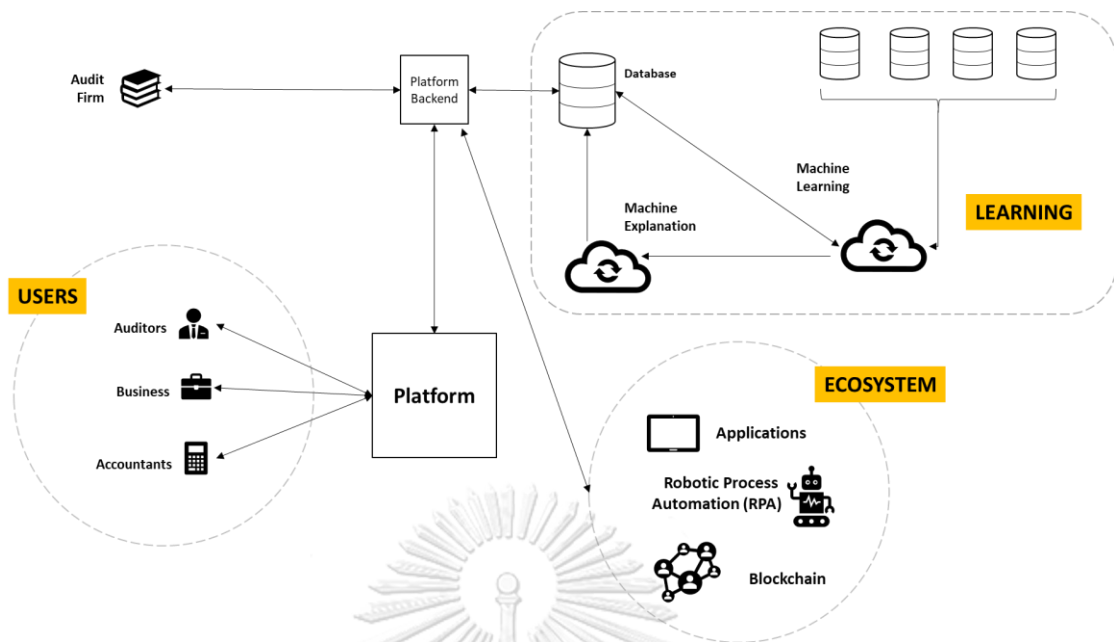
At the same time, the emergence and rapid introduction of new technologies force us to reconsider our approach to doing business. Big Data and artificial intelligence technologies are used today in industries that are far from information technology. Auditing is one such sector where companies are already using drones, machine learning, and Robotic Processes Automation.

It is evident that in the future, such an information platform will be one of the competitive advantages of any company, especially in the audit business. Modern technologies not only reduce the cost of services but also significantly improve their quality. As a result, we can assume that in the future information technology will be one of the most significant assets of any consulting company.

That is why, today, any consulting company, including audit firms, needs to focus on developing such an information platform. As shown in the section “Emerging Technologies in Accounting and Auditing,” the cost of specialists, the necessary resources, and artificial intelligence technologies and data analysis are available for audit firms in Russia. Therefore, audit firms that want to gain a competitive advantage in the future should invest today in the development of such an information platform.

*Figure 22* is shown the possible scheme of the Platform that can be used by auditing firms in Russia.

*Figure 22: Example of the Possible Platform scheme*



Source: author collection

As it is shown in

Figure 22, there are six big elements of the Platform:

1. Platform Frontend (website/applications);
2. Platform Backend (servers with all platforms logics);
3. Audit firm (owner and the main developer of the platform);
4. Learning block (part, that includes machine learning software, information collecting and analyzing tools, and databases);
5. Ecosystem (including tools, like Robotic Process Automation, Blockchain, Fraud detection, and other on-demand applications);
6. Users (Business, Accountants, and Auditors).

Despite the presence of a large number of elements, this scheme very describes the capabilities of the platform. Using an internal database and external sources of information, a company can use artificial intelligence tools to solve business problems. Based on the developed algorithms, the audit firm can build services and applications for users that will be available on demand. The interaction of users with the platform is carried out using the app or website (frontend). All platform logic is executed on the servers of the audit firm that owns the platform.



The development of such a platform can be carried out in stages, depending on the tasks of the audit firm. Besides, today, cloud services such as Microsoft Azure or Amazon Web Services have already solved some of the functions of storing information or using machine learning technologies. Audit firms may begin to use such services without possessing technological resources.

Also, audit firms can use this platform to solve current problems, for example, to automate marketing tasks or conduct audits. In this case, the economic effect of the implementation of such a solution may be less significant. At the same time, the risks of automating small tasks are much lower than developing a comprehensive solution.

## **6.8. Results Discussion**

The proposed strategy is not the only possible option of audit firms strategy in Russia. It is impossible to create a strategy that is equally suitable for all audit firms despite time, size, and other characteristics. Therefore, the solution presented in this work requires adaptation to the tasks and goals of each company.

There are also other approaches to developing a strategy. According to M. Porter, companies can choose the path of cost optimization, product specialization, or focus their efforts on specific market segments. Selecting any of these strategy options to reduce risks of implementing a new strategy because the company chooses one of the existing, proven development options.

As shown in section 9.1, the audit does not correlate with the audit firms' revenue growth. Therefore, a strategy based only on specialization in audit services will not contribute to growth. It is possible to specialize in other related services, but in this case, the company also does not go beyond the existing strategy of audit firms in Russia. Audit firms provide a wide range of services: specialization in one of them limits the company's ability to compete in the market with other firms.

The focus on a specific market segment is used when unique expertise in a particular industry is needed. Auditing services, accounting, and related services are provided under the legislation and international standards, regardless of industry. Therefore,

industry specialization does not significantly affect the choice of an audit firm, even though such expertise is an advantage in the customers' eyes.

The choice of a strategy based on cost reduction, industry, or product specialization allows the company to get a competitive advantage in the market but does not solve the problems existing in the industry. The issue of falling real incomes of audit firms, a high level of competition, and the reduction of the impact of changes in auditing legislation cannot be solved by developing a strategy based on the model of M. Porter. Audit firms that want to create a competitive advantage in the future should approach the development of strategy and completely reconsider their understanding of the business comprehensively.

As was shown in section 8, modern technologies can automate most of the processes of audit firms. The use of machine learning, drones, and RPA already show an increase in the audit firms' productivity by 50% and higher. Modern technologies can be used not only for process automation but also in decision making, which improves the quality of provided services.

The Blue Ocean strategy is one of the existing methodologies that allows company to look at the market through the eyes of the buyer. The basis for strategy development is customer value, which, together with cost reduction, allows audit firms to find new market opportunities for doing business. The main element of the new strategy is the value innovation (see section 5.2) when consumer value increases along with the use of an innovative approach.

The main advantage of the proposed strategy, developed with the help of the Blue Ocean Strategy, is “going beyond the limits” of the audit business and attracting clients who have never before used the services of audit firms. The new strategy combines the advantages of all approaches of the M. Porter model, offering customers high-quality services at an affordable price.

The primary market for audit firms today are companies and organizations that fall under the requirement of a mandatory audit. By offering related audit services, firms

try to maximize profits. However, in this case, audit firms compete for clients with other firms, which negatively affects real income.

In terms of the developed strategy, the audit firm enters a new market with the offer of new services. This transition allows audit firms to reduce the risks associated with the current market situation (high competition, a fall in real income, and others). At the same time, such changes in business usually lead to new risks associated with both the market and the strategy (more details below).

Using the proposed strategy, the audit firm will be able to attract new customers who previously were not clients of audit firms. Among these clients are small and medium-sized businesses that do not use the services of professional auditors. Automation and digitalization will reduce the cost of servicing each client, making this strategy economically viable.

The main feature of the new strategy is the transition from classic “manual” labor to automation of the main processes of audit firms. Accounting and auditing are carried out according to the rules defined by law and international standards. The presence of such rules will allow automating most of the accounting and auditing processes in the future.

The proposed strategy also has several additional characteristics. As can be seen from the diagram, interaction with customers, auditors, and accountants is available only through the central block “Platform,” which is a reflection of the concept of “one window,” which be a website with applications for smartphones. Such a solution significantly reduces the number of duplicate operations and errors. Also, the “Ecosystem” block is a catalog of modules that can be connected by customers on-demand. For developer, this approach allows it to introduce new functionality into the platform gradually. The “Learning” block is responsible for machine learning, enabling audit firms to develop recommendations for users, analyze data, find new ideas, and optimize the platform.

There is no doubt that most of the operations in the field of accounting and auditing will be automated in the future, and the profession of an accountant will be changed

entirely. The Big Four firms already pay great attention to modern technologies, using them to automate existing activities and providing services based on them. Russian audit firms, which today switching to using emerging technologies, will receive a severe competitive advantage compared in the future.

Audit firms should not only engage in the introduction of emerging technologies, reduce costs, and increase consumer value. To create a sustainable competitive advantage, audit firms should review existing business models and create a unique market proposition. We are talking about the development of not only a new strategy but also the development of a new business model for conducting an audit business.

It is important to note that such changes usually carry serious risks. Wrongly chosen target market, miscalculations in the planning, and mistakes in implementation of the strategy can lead to severe consequences in the form of losses. The proposed solution is a hypothesis that must be verified before being implemented.

Among the apparent risks is the unpreparedness of the market for the adoption of innovations. Despite the widespread penetration of the Internet, the state's digitalization program, and regularly emerging innovations, the market may not accept the proposed solution. Being the first in business means not only getting all the benefits of a pioneer but also taking responsibility for all possible risks.

Also, it is impossible to develop a strategy that works equally well regardless of time. Today, one of the promising areas is the use of emerging technologies in the audit business. There is a high probability of the penetration of new technologies into audit business in the future, which will reduce the advantages of the proposed strategy since audit firms will not receive the competitive advantage of a "pioneer."

This work also has several limitations. First of all, the Russian audit market has its unique characteristics, such as a high level of competition, a large number of audit firms, and a change in legislation about once every ten years. Also, the economic situation in Russia, directly and indirectly, affects the performance of audit firms. The inflation rate reduces the real profitability of audit firms, and the difficult economic situation does not allow to increase the revenue. Also, the Russian market for audit

services is not evenly distributed; large firms, including the Big Four, dominate the market. Audit firms also are not willing to take risks implementing new strategies and models.

The implementation of the proposed strategy has several primary advantages for the audit firm. The main advantage of using a platform is creating a new market and attracting customers who have not previously used the services of audit firms. This strategy avoids direct competition, which will allow an increase in the average revenue. It also allows serving more customers without a significant increase in the staff of the audit firm.

The use of artificial intelligence and machine learning technologies allow to create the best knowledge management implementation. Data collection of the platform use will improve the algorithms and therefore the quality of recommendations. Using cloud technology will allow the audit firm to scale the platform while maintaining quality and reliability quickly.

The modular architecture lets firm to improve the platform by adding new features and functionality. Blockchain technology saves all transactions. Thus it will be possible to make an audit remotely and quickly. Also, artificial intelligence and machine learning technologies will make the audit genuinely comprehensive and independent, which is the primary goal of the audit.

While writing this work, the author held consultations with representatives of several audit firms in Russia (all respondents are working by one of the 50 largest audit firms in Russia). None of the interviewed experts has confirmed the use of modern technology in the audit business. They also do not consider new technologies as the basis of the strategy and prove the focus on the current business model. This short survey also confirms the data on the level of use of modern technologies in the audit business in Russia.

The author is convinced that there will be a severe change in the audit business not only in Russia but also in the world shortly. The “manual labor” will be replaced by automated solutions and algorithms that can perform verification faster with higher

quality. Besides, a significant advantage of using technological solutions is their independence and disinterest in audit results. Implementation of the proposed strategy will allow not only avoiding existing problems in the market but also creating a sustainable competitive advantage, attracting new customers, and making accounting and auditing services available to any business.



## 7. Conclusion

Today is the best time to develop and implement a new strategy for audit firms in Russia. Firstly, emerging technologies allow audit firms to optimize business processes and create new services based on them. Secondly, the current economic situation in the country makes audit firms look for new growth points. Thirdly, future legislative reform will open up great market opportunities for the largest audit firms in Russia.

The best-known methodology for developing a strategy is the Blue Ocean Strategy. It allows the company to find free market space, avoid direct competition, and create new customer value. The new market strategy focuses on developing new customer value and creating a competitive advantage for the audit firm.

In this paper, we analyze the current market supply and find growth points that can attract new customers for an audit firm. As a basis, new technologies have been taken that allow the firm to develop an accounting platform where blockchain technology is used for each operation. This will enable the firm to confirm each transaction and conduct an audit in an automatic mode remotely.

This platform has many advantages, such as simplicity, convenience, and functionality. The development of such a platform for significant resources, which is possible for the largest audit firms in Russia. In 2019, the Russian Government approved a digitalization program, so the creation of a digital economy and the transformation of all sectors, including audits, are inevitable. Those audit firms that are the first to start the change process will receive a severe competitive advantage.

Despite all the advantages of using modern technologies, the audit business is waiting for a new legislative reform that could significantly change the market structure. The unstable economic situation in Russia and the fall in real income of audit firms seriously complicate the adoption of risky decisions. In this case, the risks of implementing large projects increase significantly, so the decision to develop the platform should be carefully evaluated.

Today, for the implementation of projects in the field of artificial intelligence, a large number of free software is available. Cloud technology has significantly lowered the threshold for entry, and today, companies that do not have substantial technological capabilities can access any hardware on demand.

At the same time, artificial intelligence technologies have appeared relatively recently in the public domain. Despite its high popularity, it is difficult to find a high-level specialist in the field of data analysis or cloud technologies in the Russian market today. As was shown in the section Emerging Technologies in Accounting and Auditing, the salaries of specialists outside Russia are several times higher. Therefore, IT specialists prefer to work remotely in foreign markets, choosing exciting projects.

Modern technologies have massive potential for audit firms in Russia. At the same time, the economic situation, the reform of legislation, and the lack of specialists within companies make their use complicated. To date, only the Big Four companies offer services based on artificial intelligence, blockchain, and machine learning. Russian audit firms that are the first to use artificial intelligence in business will receive a severe competitive advantage in the future.



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