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**IDENTIFICATION AND CLASSIFICATION OF RISKS OF**  
**ENTREPRENEURS IN THE DIGITAL ECONOMY**

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**Abstract**

The introduction and use of information technologies has a multidirectional impact on the most of entrepreneurs' risks. The digitalization of the economy, on the one hand, provides them with new opportunities for entrepreneurial activities implementation and promotes the formation of new businesses, especially in the field of information and communication technologies, reduces and sometimes completely eliminates certain types of risks (primarily associated with the negative manifestations of the so-called human factor), on the other hand, contribute to the emergence of new and (or) increase in the intensity of already known risks. When studying various types of economic activity, a direct relationship is found between the degree of use of digital technologies and the level of legal regulation of risk management relations between various types of business entities. The initial stage of risk management is to identify numerous and diverse business risks (the author identified about 60 typical risks) and classify them to ensure their systematic management. There are significant differences between the identified risks in the nature and strength of their impact on participants in economic and legal relations, due to the peculiarities of certain types of economic activity and the specific situation in the global, national and regional economy.

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## 1. Introduction

During the global economic crisis, intensified by the COVID-19 coronavirus pandemic, ensuring the efficiency of the economy becomes the most important task of public administration and business entities. Of particular importance is the preservation of economic stability, which is named one of the priorities of state policy, the main task of which is recognized as the implementation of a large-scale transformation program in the country, which seems to be multidirectional tasks, the simultaneous solution of which requires rapid testing of social, macro-and micro-economic processes, since systemic reforms can lead to significant changes in the business environment. Digitalization of economic processes taking place on the global, regional and national markets allows both state and municipal authorities and entrepreneurs to make decisions that are increasingly based on reliable current and projected information based on the analysis of all factors that affect business activity.

However, the use of digital technologies has a different impact on the manifestation of most of the risks of business participants. Thus, the risks of cash turnover (theft, damage, losses, forgery of banknotes, etc.) are reduced when entrepreneurs switch to a non-cash form of payment. However, such risks can be almost completely eliminated if the state and entrepreneurs use cryptocurrency and other blockchain technologies. At the same time, new risks arise simultaneously with the introduction of such technologies (Belke & Beretta, 2020). An important area of improving the efficiency and sustainability of business is the use of risk management technologies, including digital ones, by business entities. At the same time, the mandatory and important stages of their risk management are to identify all relevant risks and distribute them into groups depending on the degree of danger, probability of occurrence, and other criteria.

The study of regulations and literature revealed a large number of Risks and their varieties in the business sphere. The list of significant risks should include: economic, market, investment, interest rate, credit, currency, commodity, stock; risk derivatives, banking, financial, insurance, liquidity risk (balance sheet liquidity, market liquidity), country financial risk (actually country and the location or neighborhood with an unstable country risk, the risk of adverse changes in the economy; monetary, transfer, and sovereign risks). Strategic (risk of negative political events; risk accompanying the implementation of the strategy of long-term economic relations with partners and counterparties; risks of mergers of business entities or acquisition of one another; risk of sudden changes of the requests of counterparties; risks in the implementation of marketing strategies and rebranding; risk of implementing the strategy for the development and production of goods and services to the market). Operational (risk of losses resulting from incorrect organization of the current activities of entrepreneurs; risk of ineffectiveness of the procedures and measures of internal control; personal and personnel; risks of technological failures, misconduct of the personnel, unauthorized external effects), reputation, settlement, investment, property, organizational, project, program, regional, marketing, manufacturing, measuring, environmental (natural), group of legal risks (legal, legislative, regulatory, enforcement) and additional, in partial or full absorption of some other risks. Thus, in risk-oriented management, in addition to the listed risks at the level of an individual business entity, such risk groups as Hazard Risks, Emerging Risks and Compliance Risk can be distinguished, as well as a large group of risks associated with the introduction and use of digital technologies, for example, arising from unauthorized access to computer information, its disclosure or blocking, loss of information, risks of the consequences of spam attacks, and others. It is reasonable to recognize the allocation of such

groups of computer risks as the risks of network problems and failures of IT systems; the risks of failure to meet security requirements.

Analysis of Russian legislation and by-laws allows concluding that there are significant differences in the legal regulation of risk management in relation to different types of business. The relations of risk management in the sphere of financial services and, above all, in the activities of banks are fully regulated. The paradox of the situation is that, on the one hand, it is the banking sector that is characterized by the most active introduction and use of digital and other technologies. Their transition to the digital platform was supposed to make banks more stable to the impact of increasing risks. On the other hand, digital technologies are changing the conditions and nature of credit institutions so much that the very existence of banks in their traditional form is called into question. Indeed, at present, many domestic banks have already become IT companies, maintaining their branches mainly to meet the not yet completely changed needs of customers who prefer "live communication".

The most studied in the literature on management and business law are the problems of bank risk and its varieties. The megaregulator of the domestic financial market defined this type of risk and classified the factors that cause the onset of banking risk. Two types of factors were identified: external (imperfection of applied digital and other technologies, unfavorable economic environment) and internal (insufficient qualifications of employees and staff turnover, organizational changes and an increasingly complex organizational structure), which in practice often have an impact on the interrelated banks. Financial risk refers to the possibility of losses arising from the unfavorable development and modification of the relevant markets. At the same time, the content of this risk, its boundaries, and its relationship with related types of risks remain debatable (Apostolik & Donohue, 2015). Market risk is defined as the possibility that the characteristics of the economic condition of an object do not match the values expected by decision-makers under the influence of market factors. Market risk is considered as a type of financial risk with the allocation of such types as interest rate, currency, stock, commodity and derivatives risk. Based on the generally accepted content of the concepts of "market", "economic", and "financial", it seems more consistent to consider financial risk as a type of market and economic risk, and not vice versa.

Similar arguments can be made by analyzing the ratio of financial risks to their variety - liquidity risks, which include two subspecies: balance sheet liquidity risk, that is, the ability of a business entity to accumulate funds to fulfill its debt obligations to counterparties; market liquidity risk, which means the probability that the real transaction price may differ significantly from the market price for the worse. The legal definition of market risk fixes its manifestation in the form of losses of the bank from unfavorable changes in the market value of its trading portfolio and the exchange value of precious metals and foreign currency owned by the bank. The Bank of Russia has defined market risk as a generic concept, the varieties of which are interest rate, currency and stock risks (Letter of the Bank of Russia of 23.06.2004 No.70-T).

In our opinion, country risk reflects only territorial aspects of financial risk. It does not have a sign of independence in relation to other types of financial risk, being present in each of them as an integral element, and occurs when the organization's activities go beyond the borders of one country. This is why it is interesting to consistently identify six subtypes of country risk: the risk of location or proximity to an unstable country (which, for example, clearly demonstrates the long-term crisis in relations between Ukraine and Russia, the sudden conflict between the republics of Azerbaijan and Armenia), the risk of

negative changes in the country's economy, currency, transfer, sovereign and political risks. The subtypes of country risk mentioned here can easily be found in the content of other numerous economic, legal and managerial risks.

Strategic risk, which can not only strongly affect the market value of their assets, but also lead to a systemic onset of legal risks, is important in systematizing the risks assumed by business entities. It concerns all aspects of any business entity's activity, for example, starting with the creation of a commercial organization, its investment of capital in various projects, and the reorganization of a legal entity. Strategic risk has received a very complete legal definition due to its special impact on the stability of not only the bank, but also any other business participant. On the basis of the position of a business entity, under it we should understand the probability of losses as a result of mistakes in making decisions determining the strategy of business development (strategic management) and manifesting itself in the lack of consideration of dangers, potentially threatening the activities of the entrepreneur, incorrect or insufficiently reasoned definition of perspective directions of activities in which the entrepreneur can achieve advantages over competitors, lack or insufficient resources required (financial, material and technical, personnel) and organisational measures (managerial decisions) that must provide the achievement of strategic objectives of its activities.

In the economic literature, strategic risks are those that are located by the degree of decreasing elements of legal risks in their composition. These risks are:

- political changes, including in the sphere of legal policy and legal ideology, both changes in legislative and other normative legal acts, and law enforcement practice, primarily judicial;
- related to the implementation of a strategy for long-term interaction with counterparties and partners, for example, in the process of implementing an investment agreement or a joint activities agreement, which also includes a number of legal risks;
- related to mergers and acquisitions deals of commercial organizations;
- changes in customer preferences;
- implementation of marketing and brand strategies;
- implementation of a strategy for the development and release of a product or service to the market.

The size of the strategic risk of participants in economic activity depends on the type of market, since individual market segments differ markedly from each other in the degree of state regulation. At the same time, there is a clear excess of state intervention in the activities of entrepreneurs in almost all segments of the Russian economy, which reduces the level of business activity, the arrival of new participants, and the investment attractiveness of such markets, especially medical, pharmaceutical, financial, construction, and others. Analysis of the degree of state influence on business activity leads to a paradoxical conclusion: the redundancy of state regulations does not lead to a reduction of offenses in the economic sphere, and in some cases even contributes to their growth. The level of legality of entrepreneurs' activities remains insufficiently high. Thus, the clearly increased state control over banking activities, the frequent cases of licenses revocation from credit institutions reveal numerous facts of their illegal activities, the deliberate choice of strategies with unacceptably high levels of risks.

Operational risk is defined too broadly, including the broadest list of sources of negative consequences for a credit organization. This: the risk of losses resulting from inconsistency with the nature

and scope of activities of a credit institution and (or) the requirements of current legislation internal policies and procedures of bank operations and other transactions, violations by employees of a credit institution and (or) other persons (due to incompetence, unintentional or intentional actions or omissions), disproportion (insufficiency) of functional capabilities (characteristics) of the applicable by the credit organization information, technological and other systems and (or) their failures (malfunctions), as well as by the impact of external events.

Operational risk includes the risk of direct and indirect losses as a result of improper organization of the current activities of entrepreneurs, inefficiency of internal control procedures, technological failures, unauthorized actions of personnel or external influence. This definition applies to the risks of participants in any market segment. It is necessary to clearly distinguish between legal and operational risks, understanding the latter as the risk of direct or indirect losses as a result of erroneous actions of personnel, suspension or termination of internal operational processes, unstable functioning of systems (often arising, for example, in the process of introducing new or changing digital technologies used), as well as adverse external events, with the exception of violations of legislation by the entrepreneur.

The definition of operational risks proposed by the Russian financial megaregulator very conditionally distinguishes them from legal risks, since it restricts the latter only to cases of violation of legislation, although it is the sphere of operational risks that is subject to the active regulatory impact of local regulations on business processes. The manifestation of operational risks in most cases indicates not only violations of the law, but also inconsistency or incompleteness of local regulation by the participants of the organization and business activities implementation.

Reputational risk (risk of loss of business reputation of a credit institution) is understood as the risk of losses in a credit organization as a result of a decrease in the number of clients (counterparties) due to the formation of a negative public perception of the financial stability of a credit organization, the quality of its services or the nature of its activities in general.

Investment risk is associated with the choice of an object for investment by entrepreneurs in order to obtain economic benefits within a certain period. Calculated risk is defined as the probability of financial losses as a result of incorrectly chosen moment, form and term of payment, as well as errors of personnel in the performance of monetary obligations. Marketing risk is present in the characteristics of the market conditions in which a particular person carries out business activities (changes in demand, supply, and prices). Production risk is associated with the development of new equipment, digital and other technologies and the implementation of production activities. Transfer risk is the probability of loss, damage or damage of cargo or baggage, causing harm to passengers during their transportation. Organizational risk is caused by factors operating within a commercial organization. They can be the entrepreneur's strategy, operating principles, resource use, and level of management and marketing. Property risk means the probability of loss of property due to theft, sabotage, negligence, man-made and natural factors. Regional risk is associated with the characteristics of the region in which the entrepreneur's activities are planned or carried out, which determine the possibility of specific negative consequences, for example, the establishment of a special activity regime on the territory of certain subjects of the Russian Federation or municipalities caused by the COVID-19 coronavirus pandemic. Environmental (natural) risk is caused by the negative impact of natural forces on business activities. Personal risk comes from employees, the executive body, and

participants of a business society, since the results of business activities depend on their business and moral qualities. This type of risk is especially relevant when determining the business development strategy, tax policy, investment decisions, etc.

## **2. Problem Statement**

The problems of managing business risks are numerous and diverse. With this in mind, this paper examines only individual issues of this large topic. The problem was analyzed in two stages. At the first stage, the literature on economics, law, and management was studied thematically. The analysis of legislation in the field of digital economy is carried out. The problems, purpose, and methods of research are highlighted. At the second stage: the conclusions obtained during the analysis of literature and legislation were formulated, and the publication was prepared.

## **3. Research Questions**

The list of research questions for this article is determined by its topic. What is the impact of digital technologies on business risks? What are the types of business risks? What is the ratio and interaction of business risks among themselves? Does the list of risks and their nature depend on the types of business activity? Is the organization of risk management mandatory for entrepreneurs? What are the current issues of business risk research? What is the nature and types of compliance?

## **4. Purpose of the Study**

The purpose of this study is the determination of character of influence on the entrepreneurial risks of modern information technologies; identifying the most complete list of all typical business risks as a first step of forming the management system, conducting risks classifications, which are the subjects of entrepreneurial activity. It is also the establishment of the possible relationship between the use of digital technologies and the level of legal regulation of relations on managing business risks, determining the adequacy of the risk management of business entities changing and new challenges and threats to their business. Also, the distinction between risks according to the nature and strength of their impact on the business leaders; to determine the possible dependence of the risks on participants of economic and legal relations, due to the peculiarities of individual types of economic activity.

## **5. Research Methods**

Various methods were used in the research process. The main ones were analysis, synthesis, comparison, and generalization. The study of scientific literature revealed a wide range of business risks. Analysis of Russian legislation and by-laws has shown the level of legal regulation of risk management relations. The classification of business risks reflects their diversity and systemic nature. The comparison of business risks determined their correlation with each other, including the absorption of some risks by others. The study of compliance allowed us to determine its diversified nature and the acceptability of its use by all business entities.

## 6. Findings

The study of sources of Russian banking law and literature on risk management revealed about sixty types of risks and their varieties in the field of business (mainly financial) activities. Attention is drawn to the partial overlap of "zones of action" of different risks, which led to the appearance of the same risk elements in the composition of different risks, for example, financial country and strategic risks have a common type of political risk. A comparative analysis of the above-mentioned business risks with the accompanying legal risks shows that there is a direct and (or) indirect connection between them and their impact on the decision-making by business entities of both a "purely" commercial and legal nature.

In this regard, the possible classification of legal risks according to the main risk, part of which is legal risk: legal risk in the composition of credit risk (e.g., when not the return to uncollateralized or insufficiently collateralized loan due to the bankruptcy of the entrepreneur-borrower entails the inability to use legal means in the interests of the credit institution). Legal risk in the composition of the estimated risk (e.g. when an erroneous transfer of money resources on the settlement account of the bankrupt recipient will lead to the occurrence of legal risk in the form of the ineffectiveness of judicial forms of protection of the right by a subject of entrepreneurial activity to quickly return such funds); legal risk as part of a political risk (when the risk of neighborhood with an unstable country with a temporarily paralyzed state and municipal management system makes impossible the application of remedies, an effective and widely used in countries with stable public order). Similarly, the presence of legal risk in the composition of financial risk, currency risk, etc. It seems that there is insufficient understanding of the need for regulatory consolidation of types of risks and their features, in particular, economic and legal risks, by the subjects of law-making activity. The exception was the Central Bank of the Russian Federation, it sent to credit agencies for use the Recommendations of the Basel Committee on banking supervision "The internal control system in banks: principles of organization" (hereinafter – Recommendations) (Letter of the Central Bank of the Russian Federation of 10.07.2001 No.87-T).

The recommendations contain an important requirement. It is that significant risks that may have a negative impact on the Bank's goals achievement are identified and evaluated on an ongoing basis. This assessment should cover all risks assumed by banks on an individual and consolidated basis: credit risk, country risk and introduction of currency restrictions risk, market risk, interest rate risk, liquidity risk, operational risk, legal risk, business reputation damage' risk, and others. A comparative analysis of the legal definition of the concept of bank risk and the factors that cause its occurrence, with possible similar negative consequences of their impact on other business entities, makes it possible to significantly extend this definition of bank risk and its accompanying factors to all entrepreneurs and to form the basis for classifying the factors of business risks occurrence in general.

## 7. Conclusion

During the economic and legal research of business processes, it is necessary to take into account the consequences and prospects of the accelerating digital revolution (Schwab, 2017), the needs of economic entities in legal certainty and security. In this regard, the study of the contradictory relationship between legal certainty and market efficiency is of particular interest (Carosi, 2018). No less important is

the continuation of research of current issues of risk management: compliance (Popondopulo & Petrov, 2020) and measures to stimulate it (Toth, 2017). The continuation of competing risks (Caroni & Pierri, 2020), contractual risks, the fair distribution of which between the parties is reasonably recognized as the main goal of the contract (Kotb et al., 2020), changes in the types and intensity of risks at different stages of the "life" of the business: from its beginning (Klepitskij, 2020) to its termination. Taking into account the acceleration of changes in the business environment, caused primarily by the increasing introduction of digital and other new technologies in business processes, as well as increasing uncertainty and variability of the business environment, it is important for all business entities not only to identify typical risks, but also to ensure their readiness for the emergence of new risks, including such known risks that were not previously controlled by them.

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