

# Priority Directions of Economic Risk Management in the Sphere of Communication and Informatization in the Process of Formation of Information Society in Uzbekistan

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**Abstract:** *The article is devoted to the problems and priority areas in the management of economic risks in the field of communication and information in the formation of the information society in Uzbekistan. At the current stage of market relations, the quality of organizations and enterprises is directly proportional to the effective implementation of information technologies. With the intensive development of information technologies, the volume of data exchange significantly increases, which leads to new problems in production management. High competition in the market of information technologies contributes to the emergence of specific risks that are important for innovative sectors of the economy. The key point in risk management in the information and communication sphere is its assessment. In our view, these estimates have quantitative and qualitative characteristics. The essence of the proposed risk management scheme in this article is that the main objective of risk management is to organize regular monitoring of risks associated with risks and risk indicators, rather than insurance and risk forecasting. The content of risk indicators is that when elements of an economic entity slip into the risk side, they begin to give certain signals. Risk indicators are the set of aggregate economic indicators which allow monitoring of the local manifestation of various risks and, if necessary, respond properly to certain risks in order to achieve the desired results. Based on signals from risk indicators, a risk assessment methodology is revealed which includes synthetic, qualitative and quantitative assessment. The concluding part of this article contains several proposals on how to manage risks in the field of info-communication and information in the formation of the information society. The main conclusions of the article can be used as a theoretical, methodological and practical basis in the enterprises of information and communication sphere, as well as in other spheres.*

**Keywords:** *information and communication technologies, risk management of information and communication system, quantitative assessment, risk indicators, market economy, information society, state regulation, evaluation of the effectiveness of the risk management system at the macroeconomic level, synergetic effect, balance liquidity analysis.*

Revised Manuscript Received on May 05, 2019.

(Bukhara, Uzbekistan)

## I. INTRODUCTION

The tendency of the development of the world community over the last decade shows that humanity is moving into a new socio-economic system, which is called a consistent "information society". Currently, domestic and foreign scientists are actively exploring the socio-economic and technical problems of creating such a society. Therefore, the problem of informatization of the society and creation of its material and technical base is one of the priorities of economic and social policy of the government of Uzbekistan. Since this direction will not only serve to transform the country into an information society, it is also the leading branch of the economy that contributes to the development of the country to the level of the developed countries. The revolutionary importance of information and communication technologies (ICT) influences the activities of state bodies and institutions of civil society, economic and social spheres, science, education, culture and people's lives.

This technology will help people use their potential and achieve additional goals that will ensure sustainable economic growth and serve prosperity, democracy, peace and stability. As the experience of modern advanced states shows, the development of modern enterprises in the sphere of communication creates conditions for raising the level of development of the country as a whole.

Global information networks, capital, labor and market networks are integrated with technologies, profitable missions, people and regional proximity. Information has become an economic factor, and investments in the information space are constantly growing.

The structure of countries is formed by a distributed database, which has information technology and various sources. Information technologies, as a new industrial product - are equipment for information processing, information processing processes, information analysis processes. In the economy there are new spheres of collective production, they include the process and means of creating, disseminating, processing and verifying, accepting (consuming) information. They are increasingly attracting the majority of the working-age population.

Information technologies along with effective organization of works in the field of economy are actively used to expand the range and improve the quality of services offered by the industries.

The competitiveness of some companies and national economies, the accessibility of the country to domestic and foreign investors largely depends on the level of development of information infrastructure and information services.

National sources of information have become one of the most important components of economic and social development, and it consistently determines the level of global competition of some states.

Today, the efficiency of enterprises is achieved through the effective use of information technology in improving the competitiveness of products. The experience of economically developed foreign countries shows that it is necessary to pay special attention to modern production in the field of information and communication technologies, their introduction at enterprises, expansion and deepening of scientific research in this field.

## II. THEORY

Theoretical and methodological issues of ICT formation, development and management are studied by scientists of many countries and foreign researchers. Economic and organizational issues of the sector development in transitional economy are considered in the scientific works of L. E. Varakin<sup>1</sup>, M. A. Gorelik, L. D. Reiman and others.

Among the scientists of our country research works of domestic scientists are widely popular, such as A. Aripov, T. Iminov, [2, p. 40-62] B. Begalov<sup>2</sup>, T. Budaeva<sup>3</sup>, M. Mahkamova<sup>4</sup>, M. Makhmudov<sup>5</sup>, Kh. Mukhitdinov<sup>6</sup> and others, where both social and network problems related to

<sup>1</sup>Varakin L. E. Introduction to the theory of infocommunication development. - Proceedings of the international Academy of communications, 2000. - No. 2.

<sup>2</sup>Begalov B. A. formation of information and communication market and development trends of econometric modeling: dis. Abstract... dock. Ekon. sciences'. - T: TUIT, 2001. - 300 s;

<sup>3</sup>Butkeeva T. M. Minimum tariff boundary as a result of expense management. XIII STC "Telecommunication technologies of XXI century". - T: TEIS, 2001.

<sup>4</sup>Makhkamova M. A. current state of innovative development of information and communication technologies of the Republic of Uzbekistan // news TUIT. - Tashkent, 2008. - No. 1.-S. 104-107.

<sup>5</sup>Mahmudov M. M. the Role of communication and information industry // Economic Bulletin of Uzbekistan. - Tashkent, 2003. - No. 6.p. 17-20.

<sup>6</sup>Mukhitdinov H. A. Financial aspects of telecommunication services market development (by the example of "Uzbektelecom"JSC). Diss.Ph. D.-T.: GSOM. 2006. - p.159.

<sup>7</sup>Ozhegov S. I. Dictionary of Russian language. Moscow: Russian language publ., 1982.

the development and improvement of information communication in the field of communication and informatization have been considered.

Methodological and theoretical foundations of the emergence and development of risk management, risk management theory are considered in the works of D. Vishnyakov [5, p. 17 - 32] K. Baldin, H. Vorobeva [3, p. 14-32], S. Vasin., V. Shutov [4, p. 9-25], V. Granaturov [7, p. 10-25] L. Goncharenko [8, 10-26], S. Egorov [10, 10-25], N. Ermakovoy [11, p. 6-61], Sh. Zainutdinova [12, p. 3-26], L. Mamaev [13, p. 12-28], Gaps [14, p. 6-24], V. Stupakov, G. Tokarenko [15, p. 20-35] A. Fomichev [16, p. 7-33].

I. Nikitin suggested information on the processes of analysis and risk management with an emphasis on activities in the field of information technology [14, p. 6-25].

There have been formed and given definitions of the financial environment, business risks, and theoretical knowledge about the application and development of risk management methods are developed in the work of G. Taktarov [16, p. 20-45].

[Works by A. Shapkin [19, pp. 15-50] give a broad explanation of economic and financial risks, including investment portfolios, their assessment and management tasks.

In the sphere of insurance of risks, it is possible to separately note the research works of B. Aliyev [1, p. 20-45], A. Gvozdenko [6, p. 44-58], G. Chernov [19, p. 95-100] and others.

At the same time, the problems of improving the management of economic risk in the communication and information sector of the Republic of Uzbekistan have not been sufficiently studied in the context of the creation of an information society.

The commercial feature of the activities of subjects, that is, the concept of "business risk" is widespread in foreign literature. In the dictionary of the Russian language this term is interpreted as "probable risk, risky to act, pursuing for good luck"<sup>7</sup>. However, such a linguistic interpretation of risk is not enough to describe the company as an important category of modern management in the enterprise.

With regard to business, that is, to economic activity in a market economy, the meaning of the risk becomes broader and multidimensional, having many different, and in some cases opposite bases. In particular, V. V. Cherkasov [18, p. 60-75] confirms that by the beginning of this century in the economic literature there were more than 40 types of classification characteristics of risk and more than 220 of its types. In the following decades, intensive research in the field of risk management significantly expanded previous risks, including the range of risks caused by the global financial and economic crisis of 2008 and subsequent years.

In a market economy, risks are considered from the standpoint of classical and neoclassical theory in the aspect of management. In the first case, risks are compared with mathematical assumptions that may arise as a result of implementation of decisions taken under conditions of

market uncertainty. And in the second case, it is limited to estimating the probability of deviation from the goals.

This is not only the expected profit and benefits from the implementation of decisions, but also takes into account the magnitude of the probable deviations.

Although mathematical methods for assessing entrepreneurial risks are not decisive, the economic literature does not sufficiently discuss this issue, as well as a debate about the objective nature of risk. Supporters of the objective concept believe that risk is an objective phenomenon, since its size reflects a quantitative assessment of the uncertainty and ambiguity of the real market [5, p. 100-146]. At the same time, there is another controversial point of view, according to it, the risk is subjective, since the subject takes into account the consequences of choosing one or another alternative, i.e., risk is anxiety, choice of behavior in view of the threat of possible consequences.

A significant and serious increase in the flow of information data, processed in the management decisions and intensive development of information technologies has led to new problems in the field of management. The competitiveness of the information technology market, first of all, involves a serious risk, which, among other things, represents a lucrative risk to consumers, especially for innovative sectors of the economy, and specific risks that must be taken into account in making important strategic decisions.

### III. DATA AND METHODS

Considering the above, we have cited various types of risks in economic literatures. They are grouped by different characters. However, this grouping of risks, in principle, is based on a causa-and-effect approach. Unfortunately, in the reviewed literature there is no classification of risk management methods. Obviously, all forms and methods of risk management depend on the nature of their manifestation, but we believe that such an approach to classification is a serious and significant shortcoming of the theory of risk management.

Therefore, we propose a new classification group, which includes the division of all risks into two large groups.

The first group is the risks associated with the activities of the state and its structural units.

The second group is the risks directly related to the activities of economic entities.

At the same time, it should be noted that the effectiveness of risk management and the sphere, depending on the above classification, are related to the correlation between state regulation and self-regulation at a certain stage of economic development.

This issue has not yet been considered by the risks management. At the same time, the balance of risk situations that regulate management and self-regulation processes, develops the concept of risks and sustainability of economic processes, and formulates a completely new view of their impact.

In modern interpretation of the risk theory, the concept of "risk" is understood as a "threat". We believe that this is a limited understanding. Suppose, for example, that the information space is a collection of chaotic and

unsystematic elements. Then, if we understand risk as a threat, the risk management process is simply tracking behavioural elements and trying to direct them in the right direction. In this case, we do not deepen into the essence of the movement, but rather focus on the deviation from the direction of movement that we prefer.

Analysis of modern views on the theory of risks shows that at present the risks are characterized mainly from the cause-and effect point of view. We believe that this approach reflects only the form of risk and does not reflect the essence of this economic situation.

Therefore, we recommend a new description of the risk category. That is, risks are not a threat, but an external manifestation of the consequences expected by the chaotic movement of the elements of the information and communication system, which is of a holistic nature.

The definition of this risk concept, proposed by us, having a comprehensive nature, can be fully implemented in the emergence and development of the information space and information and communication systems. Speaking about the impact of the information system on the formation of information space, it is necessary to note one more aspect of the information process. These procedures are carried out by many business entities under individual programmes. In market conditions, their main driving force is profit. But such a classic model is only for the early stages of market relations development. With the development of society, the need for state regulation of economic processes is becoming more obvious.

It is this aspect that functions as one of the central tasks in the formation of the mechanism of the information society and its investment climate. In this situation, everything seems to be just as simple. It is clear that the issue should be solved only by determining the share of the state influence, and leaving the rest for information and telecommunications enterprises for self-regulation. But theoretically and practically point of view, it is very difficult to do. Because the information and communication process will live and develop as a living organism, which will constantly evolve and change with the emergence of new political, economic, social and technical realities. Its implementation in the information space is indirectly expressed as a result of economic activity of the subjects of information and communication system. In fact, the mechanism of economic relations has a strong influence on the contradictions between state regulation and self-regulation. Therefore, the effectiveness of the mechanism for the formation of the information society is determined by the level of coordination of the interests of society, state and direct economic entities in the information and communication system, and not the shares and "shares" of participants in information and communication processes.

Let's look at this in two ways. The first is a classical market economy, and the regulatory effect of the state is limited. In this case, the individual movements of economic structures are practically aimed at different purposes, due to the lack of all the necessary norms between the subjects

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there is uncertainty, abstractness. This is the perfect environment for the emergence of risks.

Second, a rational mechanism of state regulation is ensured. In this case, the state focuses on the economy, sending signals to market participants for different purposes. These signals may vary in different formats, but in any case they will take the form of a normative document in the form of a decree or regulation. Full observance of primary economic structures in the course of their activity to these signals of the state creates harmony and conformity in mutual relations. As a result, order will take up the place of uncertainty and imbalance. This has a positive impact on their economic performance and, most importantly, minimizes potential risks.

Usually the main reason for such a positive situation is the regulatory mechanism of the state. In fact, this should first be interpreted as the introduction of self-regulation of economic risk management by business entities. In other words, the mechanism of warning from economic risks in the activities of an economic entity receiving a legal signal from the system of state regulation operates without external influences, so regulation takes the place of chaos in the form of a concrete demonstration of uncertainty and abstraction. This procedure can be described as a "synergistic effect"<sup>8</sup>.

That is, the coordination of state regulation and self-regulation mechanisms of risk management processes corresponds to the basic principles of synergetic. An important feature of synergetics of risk management is that it represents a gradual activation of economic activity of the information communication system objects, when a critical mass of additional resources is added to a significant reduction in the risk level.

In addition to the administrative and legal signal, the state can use various forms of economic incentives to reduce the level of risks, which can mean a specific "recession" of the information and communication system. As a result, economic systems that have received a real or potential source of resources that are sufficiently intense are, in principle, more sensitive to the degradation of economic risk, rather than in a linear form. In other words, the main growth of the information and communication system is aggravated by its intensive development.

In this direction, the most important results concerning the spontaneous emergence of ordered structures were obtained by foreign scientists in the early 70s. They are related to the research of Professor Ilya Romanovich Prigozhin, Nobel prize Winner (1977) and co-author Isabella Stengers of the University of Brussels Irkin. They proved that different forms of self-organization can be observed in the same systems under different conditions. In relation to risk management processes, this is as follows. With a smooth increase in resources due to the regulatory impact of the state, economic systems inevitably pass the "critical threshold", in which there is a significant reduction in the

level of risks and the associated intensification of all economic processes.

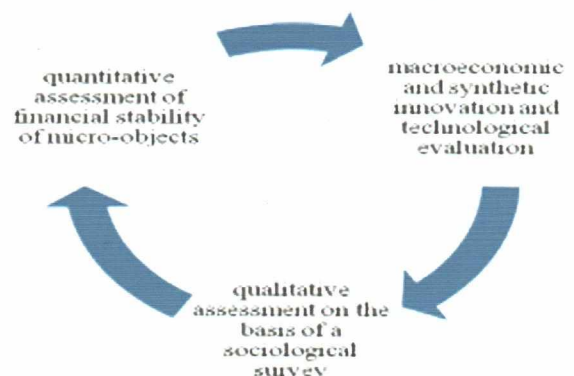
Nevertheless, in the context of risk reduction under the influence of government regulations, a sharp increase in the activity of information and communication structures is evidenced by the achievement of coherence in the economic interests of local objects of the state and information and communication system. testifies to the achievement of consistency of economic interests of local objects of the state and information and communication system. In fact, this leads to the maximum coordination of economic benefits with a step-by-step direction and is called synergetic as an attractor<sup>9</sup>. And in the cases considered by us, under the class of attractors, we mean the area where economic risks are minimized as a result of a combination of interests of the state and economic entities.

As a result, the sector will attract more and more subjects of information and telecommunication systems, and the incoming entities will expand their activities and reduce risks.

### IV. MODEL

If we look at the current classification of risks, we see that the risks associated with government's activities are at the forefront. Moreover, public opinion is based on the idea that public actions can damage business. But this conclusion cannot be confirmed. The fact is that the state is interested in business development and seeks to reduce its risks through its macroeconomic instruments and create favorable conditions for the smooth and stable operation of business structures.

As we have already said, there is no need to resist risks, but on the contrary, it is necessary to determine the risk arising from economic, social and other processes, and to study its nature and how accessible it is to the conditions of stability. And this means the defining aspect of risk management in the information and communication sphere, that is, its assessment. In our opinion, these estimates are quantitative and qualitative. Taking this into account, we recommend three main evaluation blocks (figure 1).



**Fig. 1 Block diagram of the methodology for assessing the risks of the information and communication system. Source. Developed by the author**

<sup>8</sup>Synergy - from the Greek. Synergeia – cooperation, support, complicity <http://ru.wikipedia.org>

<sup>9</sup>From lat. t - attract.

The first block is an assessment of the effectiveness of the risk management system at the macroeconomic level. This is a traditional assessment of the effectiveness of risk management system in the information and communication system through a set of state and internal communication systems. It is expressed in a standardized system of statistical macroeconomic and network indicators. The sources of such information are the usual statistical bulletins, as well as information and analytical materials available in Uzbekistan. In addition to macroeconomic criteria, the description of the information and communication system is complemented by a synthetic assessment based on the specific characteristics of the technology and technology of information and communication processes. Generally speaking, technological features are common to all industries, but in the context of the information space they have extremely important and decisive advantages. Currently, the main areas of risk are concentrated in this area, since competing information and communication systems are developing so rapidly that even unnoticeable inhibitions in innovative and technological processes can lead to irreparable economic losses. There is no need to reveal the methodological aspects of evaluating this unit in this study, since the dynamics of macroeconomic processes are well known in the public domain, and innovation and technological processes occur in the context of chronic changes in indicators.

The second class is of a qualitative nature and is based on surveys among respondents. For this we have answers to questions that are specially designed by us:

- organization of risk management in information and communication systems;
- management process of process;
- classification of economic (commercial) risks of information and communication systems;
- risk management system of the information and communication system;
- information risk management.

The methodology of sociological research, survey and processing of materials obtained from the survey is well known to everyone, so we do not focus on this aspect of our methodology. In addition, the third block of our methodology seems to us even more interesting, as it economically assesses the risk of micro-object risk management directly from the information and communication industry. This block analyzes the level of risk of destabilization of the level of financial stability and the economic situation.

Modern risk management theories are based on the estimation of possible losses in dangerous situations. In addition, the methodology we propose is based on the fact that the elements of the economic system are based on the incoherent nature of its objective orientation towards stabilization. We believe that the movement and the amount of each element of the system should ultimately lead to self-organization and self-regulation. However, in practice, this stabilization process takes a long time, with additional external and internal influences, and the longer the regulation process takes place, the more the economic entity is so damaged. Therefore, in our opinion, the task of risk

management is to control the movement of elements of the economic system, coordination and regulation of their movement.

## V. OBTAINED RESULTS

We propose to monitor the behavior of elements of the economic system based on risk indicators, which reflect the systematic ranking of evaluation indicators that characterize the results of the overall life of the system. During the movement, the elements of the system fall into the zone, which are determined by the degree of damage that they experience in the unmanned movement of elements. Theoretically, the number of these zones is infinite in degree of graduation. Therefore, we single out only four areas of qualitative assessment of business risks that are relevant to the outcome of uncoordinated elements in the development of the information exchange system (figure 2).

<i>Positive risk-indicators of movement</i>	<i>Negative risk - indicators of movement</i>		
Risk-free zone	Acceptable risk zone	Critical risk area	Catastrophic risk zone

Fig. 2 Areas of business risk of subjects of information and communication system.

Source: developed by the author.

Risk - free zone-risk indicators are an area where elements of the system signal that there is no real reason for normal behavior or loss.

The acceptable risk zone is the area where the risk indicator signals begin to decrease in the normal operation of the system elements, which retain their own economic feasibility of activities within it.

A critical risk zone is characterized by signals from risk level indicators of unbalanced behavioral losses of system elements, leading to loss of expected income (profit).

The zone of catastrophic risk is a zone of formation of risk indicator signals about possible catastrophes and cataclysms in the movement of elements of the economic system that exceeds the critically high dimensions and to the maximum extent is equal to the value of all property, which leads to a complete loss of capital as a result of bankruptcy.

Risk indicators of the information and communication system and its objects are similar to those of other economic systems from the economic point of view. Here are some of the risks that arise due to the specific movement of technological elements of the information space. The economy, the movement of economic elements, the movement of financial resources, their availability, placement and use should be strictly determined by risk indicators. Their signals allow to assess the risk of the consequences of the results of operations: the risk of assets and liabilities, solvency and the risk of loss of financial stability.

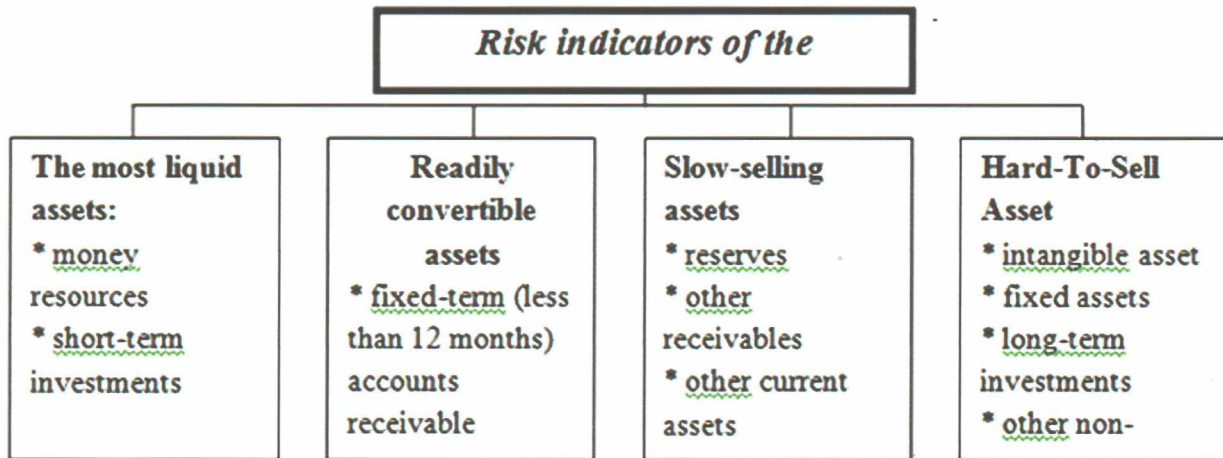


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It is advisable to take the actual deviation of their proposed values as a scale of financial indicators with risk indicators.

The structure of assets is the risk deficit of the signal by their groups, and its result is the loss of the value and timing of cash flows of assets and, as a consequence, default

The company's assets are divided into four groups by their liquidity, i.e. the speed of movement of this element during its implementation (Fig. 3).



**Fig. 3 Classification of assets by liquidity risk level.**  
Source. Developed by the author

The result of an unsatisfactory level of liquidity of an asset is the conditions for occurrence of other risky situations, in particular, solvency and financial losses. The risk of loss of solvency means that the company cannot repay its financial obligations in a timely manner. Risk-

based risk indicators signals can also be presented as absolute and relative indicators.

The indicator of the solvency (balance sheet) is the risk indicator of balance sheet assets and liabilities (table 1).

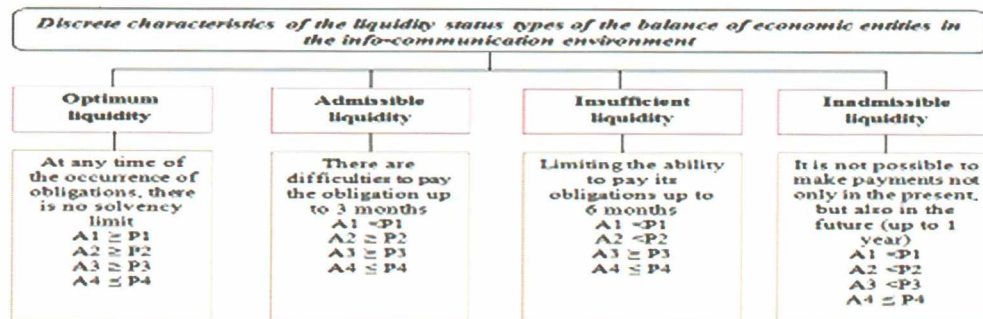
**Table. 1 Indicative risk characteristic for identification and comparison of the type of liquidity of the movement of assets and the capital of economic systems of information and communication system**

<i>Balance sheet assets</i>		<i>Balance liabilities</i>	
<i>A1</i>	The most liquid	<i>P1</i>	The most urgent liabilities
<i>A2</i>	Quick assets	<i>P2</i>	Short-term liabilities
<i>A3</i>	Slowly sold assets	<i>P3</i>	Medium-term liabilities
<i>A4</i>	Hard-to-sell assets	<i>P4</i>	Long term liabilities

Source: developed by the author.

The provision of information about the movement of elements of a balance-sheet asset by risk indicators is expedient for the sale of it in a discrete form when

comparing the terms of payment of information and communication subject obligations with its intensive implementation.



**Fig. 4 Discrete characteristics of the liquidity status types of the balance of economic entities in the info-communication environment**

Source: Developed by the author on the basis of accounting standards and solvency criteria, legislatively established in Uzbekistan.

This allows identifying four types of balance sheet liquidity: optimal, acceptable, inadequate and unacceptable liquidity (Figure 4).

The financial sustainability of business entities in the information and communication system is controlled by the risks and behavior of financial elements, depending on their

stability. At the same time, the risk indicator should be programmed to monitor cash flows in terms of sufficient sources of funding to recover the costs incurred by the business entity. The following risk indicators were used to assess the degree of financial stability risk in the proposed methodology (Table 2).

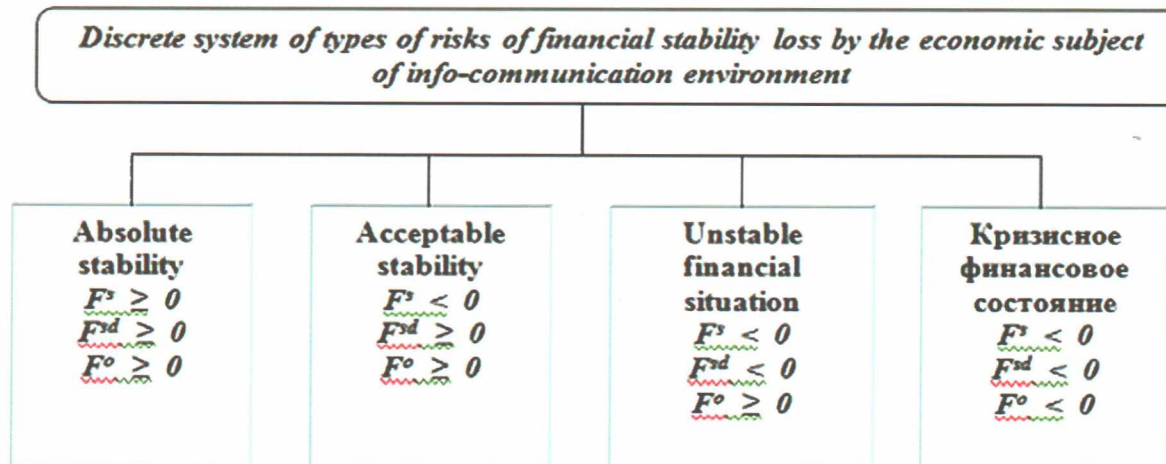
**Table. 2 Risk indicators of the movement of reserves and costs and sources of their funding**

	<i>Indicator</i>	<i>Balance line code</i>
<b>R</b>	Reserves	page 140 of the balance sheet
<b>SOF</b>	Sources of own funds	page 480 of the balance sheet
<b>LTA</b>	Long-term assets	page 130 of the balance sheet
<b>LTL</b>	Long term liabilities	page 490 of the balance sheet
<b>CA</b>	Current (circulating) assets	page 380 of the balance sheet
<b>LTLD</b>	Long-term loans and debt	page 570 + page 580 of the balance sheet
<b>OCA</b>	Own current assets	page 480 + page 570 + page 130 of the balance sheet
<b>STBF</b>	Short-term borrowed funds	page 600 of the balance sheet
<b>A/P</b>	Accounts payable	page 601 of the balance sheet
<b>OLTS</b>	Own and long-term sources	page 480 + page 570 + page 580 of the balance sheet
<b>TASF</b>	Total amount of sources of funds	page 780 of the balance sheet
<b>AB</b>	Asset balance	page 390 of the balance sheet
<b>FC</b>	Surplus or lack of OCA for stock formation	$FC = OCA - IC$
<b>F</b>	Surplus or lack of own and long-term borrowed funds for stock formation	$F = OLTS - 33$
<b>F</b>	Surplus or deficit of total value of inventory sources	$F = TASF - 33$

Source: Developed by the author on the basis of the author's solvency criterion, established by the author in accordance with the accounting standards and legislation of Uzbekistan.

Analysis of risk indicators allows to determine the nature of financial elements and the risk of loss of financial stability by the subject of information and communication

system: absolute stability, stability, unstable financial situation and crisis financial situation (figure 5).



**Fig. 5 Discrete system of types of risks of financial stability loss by the economic subject of info-communication environment**

Source: Developed by the author on the basis of accounting standards and solvency criteria, legislatively established in Uzbekistan.

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In principle, absolute stability of risk indicators can be fixed rarely. It characterizes a situation when only own funds form circulating assets (current assets).

Acceptable sustainability characterizes a situation in which own current assets and long-term sources are equal to or below the value of stocks.

With an unstable financial condition, the movement of elements characterizing solvency is disrupted, but there is still the possibility of restoring the balance as a result of replenishment of own capital by attracting loans and credits, reducing receivables.

The financial crisis is characterized by complete dependence on borrowed funds and is very close to the risk of bankruptcy. In this case, cash, short-term financial investments and receivables do not cover short-term debt. Replenishment of reserves is at the expense of funds generated as a result of late repayment of accounts payable.

When using risk indicators in tracking the movement of elements of economic systems and determining the type of risks of loss of financial stability, the aggregate application of absolute and relative parameters - financial ratios - is necessary.

Liquidity ratios characterize the dynamics of the structure of assets considered to cover the liabilities of the business entity (liabilities) and allow for a detailed analysis of the liquidity of the balance sheet in order to assess the risk of loss of solvency. At the same time, the risk indicator should record the deviation of actual results from normative or recommended values (Table 3).

Risky indicators of financial elements of economic entities of the information and communication system are determined by the risk of losing their solvency.

However, it is not enough to determine the likelihood that liquidity can be repaid in itself for a more accurate and reliable assessment of the risk of loss.

**Table. 3 The formula of calculation and the normative sum of the standards of liquidity risk (solvency)**

<i>Indicator</i>	<i>Calculation formula</i>	<i>Restriction</i>	<i>Note</i>
Current liquidity ratio (solvency)	$\frac{CA}{STBF}$	$\geq 1,25$	Shows how much the current asset accounts for 1 sum of short-term liabilities
Absolute liquidity ratio	$\frac{A1}{STBF}$	$> 0,2 - 0,5$	Shows how much of the short-term debt can be repaid in the near future at the expense of cash and short-term investments
The ratio of the critical evaluation	$\frac{A1 + A2}{STBF}$	$> 07 - 08$	Shows what portion of short-term liabilities can be covered immediately from cash, short-term investments and receivables

*Source: Developed by the author on the basis of accounting standards and criteria of solvency, legislatively established in Uzbekistan*

An assessment of the risk of financial stability and independence is conducted to answer the following questions: how dependent are the financial aspects of the enterprise's participation in the collection of debts and what is the dynamics of these relations? As in the previous case, here the estimation method is based on comparing the current results with the recommended (normative) values (Table 4).

It is important to take into account the fact that each of the elements of the risk of the information system of communication with the consequences of its economic activity, using balance liquidity, solvency, financial stability and independence, absolute and relative benchmarks, has a very unprecedented perception.

**Table 4: Formulas and normative sums of calculation of standards of stability of financial risks**

<i>Indicator</i>	<i>Calculation formula</i>	<i>Limitation</i>	<i>Note</i>
Share of working capital in assets	$\frac{A1 + A2 + A3}{AB}$	$\geq 0,5$	
Coefficient of ratio of own and borrowed funds	$\frac{SOF}{LTL + STBF}$	$> 1,0$	Shows how much of own funds account for 1 sum of borrowed funds
Financial independence ratio	$\frac{SOF}{AB}$	$\geq 0,5$	Shows how much dependence on borrowed funds
Coefficient of sufficiency of working capital by own sources	$\frac{SOF+LTL+LTA}{CA}$	$> 0,2$	Shows which part of current assets is financed from own sources
The ratio of financial stability	$\frac{SOF + LTL}{LTA + CA}$	$> 0,6$	It shows which part of the assets is financed by sustainable sources (own funds and long-term liabilities)

*Source: developed by the author on the basis of accounting standards and solvency standards established by law in Uzbekistan.*



However, consistent monitoring and analysis of their behavior through risk-based indicators allows them to determine their relevance and interdependence on the basis of objective law. This means that the process of monitoring and recording a deviation from a risk-based risk regime in this area should provide an integrated monitoring scheme.

These indices groups are unsteady and stable, because they are intended for a certain period, so that's why it is a one-time.

Therefore, in order to further increase the reliability of the assessment, we will analyze the information presented in the methodology we proposed in various dynamic scenarios. This will allow you to study the risky situation and growth dynamics, as well as the impact of risk factors and their impact on business results.

Reference analysis of the literature on risk management serves as a basis for considering the prospective methodology proposed by L.V. Dontsova and N. Nikiforova [9, p. 130-140] for the introduction of a complex assessment model of the risk of financial insolvency of enterprises, according to which Business entities are categorized according to the criteria which are subject to evaluation.

These classes have the following meanings:

- Class 1 - Absolute financial stability and absolute solvency;
- Class 2 - normal financial position;
- Class 3 - a troubled financial condition with high risk;

- Class 4 - unstable financial situation with the risk of bankruptcy;
- Class 5 - The financial crisis with the highest level of bankruptcy (Table 5).

Although this model is part of our methodology, we believe that it needs to be sufficiently sensitive in the case of certain economic entities, and we propose to implement this model in the case of information and communication systems.

However, including this model in our methodology, we nevertheless believe that it needs a sufficiently deep verification of the effectiveness of the example of specific economic entities, which we propose to carry out in this study, using the example of objects of info-communication environment.

Thus, the risk management scheme is based on a new understanding of the risk category, as a form of uncoordinated movement of the elements of the economic system. Therefore, the tasks of management are observation and fixation with the help of the system of risk indicators of motion of elements proposed by us and their deviation from given trajectories. The scheme contains two levels of management - state regulating on the basis of legislative and normative acts and micro-level - through the analysis of signals of risk indicators that react to the movement of elements of the economic system.

**Table. 5 Borders of classes of enterprises by L.V. Dontsova and N.A. Nikiforova in accordance with the criteria for assessing the financial condition**

Indicator	Class boundaries according to the criteria				
	1	2	3	4	5
Current liquidity ratio (solvency)	$\geq 1,25$ 19 points	1,20-1,15 18,7-13 points	1,14-1,09 12,7-7 points	1,08-1,03 6,7-1 point	$<1,0$ 0,5 points
Absolute liquidity ratio	$\geq 0,7$ 14 points	0,69-0,50 13,8-10 points	0,49-0,30 9,8-6 points	0,29-0,10 5,8-2 points	$<0,10$ 1,8-0 points
The ratio of the critical evaluation	$\geq 1$ 11 points	0,99-0,80 10,8-7 points	0,79-0,70 6,8-5 points	0,69-0,60 4,8-3 points	$<0,59$ 2,8-0 points
Share of working capital in assets	$\geq 0,5$ 10 points	0,49-0,40 9-7 points	0,39-0,30 6,5-4 points	0,29-0,20 3,5-1 points	$<0,20$ 0,5-0 points
Ratio of own and borrowed funds	$> 1,0$ 10 points	0,9-0,7 9-7 points	0,6-0,4 6,5-4 points	0,3-0,1 3,5-1 points	$<0,1$ 0,5-0 points
Ratio of working capital with own sources	$\geq 0,2$ 12,5 point	0,19-0,15 12,2-9,5 point	0,14-0,10 9,2-3,5 point	0,09-0,05 3,2-0,5 point	$<0,05$ 0,2 point
Financial independence ratio	$> 0,5-0,6$ 9,0-10,0 points	0,49-0,45 8,0-6,4 points	0,44-0,40 6,0-4,4 points	0,39-0,31 4,0-0,8 points	$<0,30$ 0,4-0 points
The ratio of financial stability	$\geq 0,6$ 5 points	0,69-0,6 4 point	0,59-0,5 3 point	0,49-0,4 2 point	$<0,39$ 1-0 points
<b>Class boundaries (points)</b>	<b>100-97,6</b>	<b>93,5-67,6</b>	<b>64,4-37,0</b>	<b>33,8-10,8</b>	<b>7,6-0</b>

Source. Dontsova L.V., Nikiforova N.A. Analysis of financial statements. - M., Deloiservis, 2004. Taking into account the author's correction based on the accounting report standards and criteria of solvency, legislatively established in Uzbekistan

## Priority Directions of Economic Risk Management in the Sphere of Communication and Informatization in the Process of Formation of Information Society in Uzbekistan

The methodology of assessing economic (entrepreneurial) risks proposed by us in this connection includes three relatively independent, but deeply integrated blocks: a macroeconomic, synthetic assessment; a qualitative assessment based on a sociological survey through a questionnaire survey of managers and specialists; quantitative assessment of financial sustainability.

### VI. CONCLUSION

1. Modern trends in human development indicate a legitimate transformation into the information society. Uzbekistan is steadily developing in this direction, creating the necessary legal, innovative, technical and humanitarian component of the information society.
2. The creation of an information society involves the creation of an information system and information exchange system, primarily its main components. These organizers have their own development economy, which determines the nature of the formation and functioning of information communications, processes and mechanisms for its management, including the risk management system.
3. Based on this definition, risk management indicators are the most important risk management tools. Based on risk-based signals, a risk assessment methodology has been developed that includes a synthetic, qualitative and quantitative assessment.
4. An important feature of the risk management synergy is that it represents a gradual activation of the economic activity of the information communication system objects with a critical mass of additional resources, which will significantly reduce the level of risk.
5. The main goal of risk management is not to deal with risky threats, but rather to anticipate this risk, to investigate its nature and its impact on the economic viability of the enterprise. This makes the risk assessment one of the main problems of risk management. Such an assessment should be of both quality and quantity.
6. Three main risk assessment units were recommended. These include: assessing the effectiveness of the risk management system at the macroeconomic level; assessment of the quality of risk management systems based on sociological research, quantitative assessment of financial stability.
7. In order to effectively apply this approach to risk management, a risk-indicator system was proposed. The content of the risk indicator is that when the elements of the business object begin to slip, they begin to give signals. Indicators of risk indicators are a complex of complex economic indicators that not only monitor local risks, but also allow for integrated monitoring in terms of outcome results under the influence of risks.

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