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The Problems of Risk Management of Investment Projects in Georgia and the Ways of Improvement

Specialty: Business Administration

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Annotation

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Introduction

“We are not rich enough to take risks!”

Paul Clark

The actuality of the problem. The constant demand of the community on social and economic development determines the importance of research on investment projects risk management. The necessity of managing these risks has become the orthodox truth for the modern economic system, which is an axiom that has moved into the category of unconditional reflexes.

The necessity of growth of investment activity, the steady increase of personnel qualifications, and the dynamism of economic processes creates the demand to improve investment process management. Furthermore, the urgency of converting the environmental changes, the ever-increasing demand for detalization, and the presence of corrupted parties in the methods of evaluating the efficiency of investments, determines the need for management of investment projects, and the importance of increasing risk analysis. With the lack of reliable statistical information and the complexity of access to insider information, the introduction of contemporary visions in the management process increases the likelihood of realizing new opportunities. Therefore, in order to address the tasks faced by participants of the investment process, it is necessary to recommend risk-oriented methods, which implies a complex approach to risk management of investment projects.

As it is known, risk management will foresee the events that we aim to avoid (business risk) or see what we want to get (business opportunities). That is, investment risk management helps us:

a) In the identification of unique risk risks (risks are changing with business growth);
b) In the identification of business opportunities;
c) In the development of mechanisms, which then guide our business into a risky environment / world.

Risk management is the most important aspect of business care and growth. However, it is the least discussed topic for businessmen. This could be provoked by an entrepreneur’s hereditary perception and the sense of risk. If their business fails, then this is private. If the sales fall, it directly strikes our budget. Nevertheless, understanding of risks and the impacts on which other risk management will generate are different.

If the business owner develops a way of systematic risk analysis and develops a risk management plan, then it directly means implementation of entrepreneurial risk management.

Thus, as risk management is important for the entrepreneur, so it is one of the biggest opportunities either for business to become a successful company.

Risk management of the investment projects is the most important component of the business strategy that helps the organization to accomplish their aims with the systemic perception of risk impacts and their management plan. It involves the methods and processes of risk management and capabilities in business.

Risk management also creates a way to detect inherited risk and capabilities. It contains the assessment of these risks, depending on whether or not it is possible to happen. In other words, risk management helps businessmen to answer the following questions:

1. What is the threat to their business?
2. How could this be possible to happen?
3. What can influence on their business in a near or distant future?
4. When should they start?
5. How to start?
6. How often should they overestimate their organization's risks?

It should be noted that investment processes are largely based on psychology. How we evaluate other people, make sense of their activities, what is the basis of our decisions and what impacts them, what is motivation, how our emotions affect our professional activities, how we collect information and how do we interpret them. We should notice that while analyzing economic processes beyond the classical economic factors, psychological and ethno-cultural factors, as a rule, become basic with other factors.

A strong side of the classic economic theory is that it places people's thinking and motivation in a "black box" and simplifies their chaotic and mysterious actions. That is provided by using those models that partly come out of the way that people see all the possible dignity and deprivation of their interests, and then take a rational decision. Such an approach might be effective and useful, but in most cases it has one defect - it neglects psychological and social factors affecting on behaviors. Human beings are not calculating machines. On the contrary, they are emotional beings being influenced by the current situation, local social networks and norms as well as the general mode of thinking. Each of these factors impacts the attitude of people towards what they want, whether it is possible or permissible. The new tools, which are built considering each humane factor, do not replace the current polit-economic attitude, which is based on the stimulation of each individual's personal interests, but fill and strengthen them.

Therefore, it is important to realize the issues of improvement of risk management of investment projects by implementing mental and psychological efforts.

The aims and objectives. The goal of the dissertation paper is to develop the theoretical and methodological base for the development of investment projects for risk management and to create effective mechanisms of risk management in Georgia and its practical realization. To achieve those goals, it is necessary to resolve the following tasks:

- Evaluation of the peculiarities of the subjective perceptions of the investment project risk and the analysis of the influence of this perception on investment projects;
- Analysis of existing risk management practices of investment projects and international standards in this field;
- Detailed analysis of the actual state of investment projects' risk management in Georgian companies based on information obtained from quantitative and qualitative research;
- Identification of the deficiencies occurred in the practice of investment risk management in Georgian companies and investigate the causes;
- Developing risk-management politics, in line with international standards in order to remedy errors and to eliminate their causes;
- Planning various activities to improve the culture of investment risk management in Georgian companies and giving recommendations to the private and/or the public sectors.

The object and the subject of the research. The object of the research is the existing practice of management of investment projects in Georgian companies, and research subject is the process associated with risk perception and managing risky situations in investment projects.

The theoretical and methodological basis of the research. The theoretical and methodological basis of the research is the International Risk Management Standard ISO 31000, researches of World Bank and European Bank of Reconstruction and Development. Besides, the basis for the preparation of our study has become the works of Georgian and foreign authors.

Many Georgian (L.Kokiauri, R. Kakulia, G. Gavtadze, L. Papava, N. Chikhladze, E. Baratashvili, G. Tsaava, N. Lazviashvili, V. Kakabadze) and foreign (H. Markovich, U. Sharp, P. Paboc, A., Damodaran, P. Berstein, G. Hitman, G. van Horn, K. Baldin, A. Shapkin) scholars have dedicated their work to our problem.

Investment project management is well documented in the writings of Georgian authors; we see a detailed analysis of its individual stages, but when we arrive to the risk management (that is why we considered not to separate the essence of the investment project and its meaning) they are often limited to the general regulations and they are stuck on the structural scheme of risk-management, which rarely meet the established standards in this field. Sometimes we meet a description of the risk assessment method, but we are less likely to find out the possibilities of the practice or realization of its use and research.

The role of investment projects in the works of foreign authors is typically reflected in the prism of universality of the mathematical apparatus, and less attention is paid to the influence of subjective factors. The generalization of the results obtained in neighboring areas is less likely to be integrated into the modern concept of risk management. Although researchers working on the issues related to the problems that we have addressed in the field of behavioral economics and practical management (R. Thaler, D. Kahneman, R. Lewis, D. Ariel) research may offer opportunities for effective solution to risk management, in the process of solving the complex approach to problem solving does not occur.

Scientific novelty. The main scientific novelty of the paper lies in the declaration of approaches that will enable companies to counter the vicious effects of future uncertainty with more effective measures than has been possible so far. Specifically, the methods of researching the economics of behavior, development policy, and cultural characteristics of the peoples synthesized here provide an original, effective lever for perfecting the risk management of investment projects.

Theoretical and practical significance. In fact, the following paper, in the Georgian economic literature, is the first attempt to quantitatively and qualitatively assess the actual state of risk management in Georgian companies. Thus:

• A policy for improving the risk management culture of investment projects and concrete steps for the implementation of risk management policy are formulated;

• An approach, in which mental models of thinking are one of the important determinants of the effectiveness of the risk management process, has been developed;

• An information base and a good precondition for organizing new theoretical and practical studies are created.

Approbation of the research. The dissertation was approved at the extended session of the Department of Finance, Banking and Insurance, the Faculty of Economics and Business of Batumi Shota Rustaveli State University on July 14, 2020.

The structure of the paper. The paper consists of an introduction, four chapters, nine subsections, conclusions, list of references and appendices.

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Chapter I. The modern concept of risks. Methodological foundations of risk management of investment projects

I.1. Concept of risks of investment projects

The constant metamorphosis of society, the amazing ability to adapt, and the unquenchable thirst for transformation make the perception of environmental processes diverse, so it should come as no surprise to say that there are different definitions of risk.

In some systems, the understanding of risk is based on probability theory and the notion of uncertainty, the probability of a certain event occurring. There is a risk in all manifestations of anthropogenesis, so its unambiguous explanation is impossible. The definition of risk depends on the field of its manifestation (e.g., for mathematicians - risk is probability, for insurers - the subject of insurance, etc.). It is no coincidence that we come across many definitions of risk in the literature. Choose from them those that are directly related to the investment activity or investment project risk assessment:

Risk - uncertainty about the value of the investment at the end of the period;

Risk - the probability of an adverse outcome;

Risk - possible loss due to accidental adverse events;

Risk - the risk of receiving losses arising from the specifics of various natural events or the activities of human society.

The most accurate definition of risk will be:

Risk - the rate of financial losses, expressed in a) failure to achieve the set goal; B) with uncertainty of the project result; C) subjectivity of the assessment of the forecast result.

The existence of risk is related to our inability to predict the future with 100% accuracy. Therefore, we must distinguish the main feature of risk: risk occurs only in relation to the future and is intertwined with planning and forecasting, or decision-making in general.

The variety of risk factors for investing can be divided into two broad groups:

1) Factors that we will conditionally call parametric, i.e. those that have defined values for a certain period of time, say, from 3 to 5 years;

2) Undetermined factors that are determined by the random development of an event.

In other words, determinants of factors can be formed by the impact of the investment and by their grace. In particular, the factors are influenced by the volume of investments, the duration of investments, the qualifications of managers, financiers, the use of risk management in the organization, etc. The investor cannot influence undetermined factors, at least in the short term.

From the point of view of financial management, the essence of risk derives from the basic concepts of financial management: cash flow concept, time value of money concept, risk and return compromise concept, capital value concept, market efficiency concept, asymmetric information, alternative costs and others.

The reasons for the risk of investing in an investment project are numerous: these can be changes in tax regulations, exchange rate fluctuations, etc. When designing an investment project, it is important to determine which risks are most likely and what they might cost. With this forecast we can answer the question: How to reduce the expected risks and losses associated with the sale of investment projects? This answer should include two sections: the first should indicate the organizational measures for risk prevention, and the second - its own risk insurance program.

I.2. Methodological foundations and practice of investment project risk management

The risk management practice of investment projects follows basically one line in planning risk management steps, different companies have chosen almost one path in this regard, and it passes the international standard of risk management at ISO 31000, but small differences are still noticeable. The following structure is considered to be the best option for combining the efficiency and completeness of the risk management process:

1) **Risk Management Planning** - This is an agreement on how we will handle risks; decide with the team what templates we will use for risk management.

At the same stage, they agree on the intensity of the meeting to discuss the risks. This is important because risks have the property of changing probability or impact (value) or both during the course of a project. Here we review the budget we will need for risk management. Finally, it is determined who will be responsible for managing the risk. For effective risk management, the company can benefit from outsourcing relevant services or can create its own risk management staff;

2) **Risk Identification** - At this stage, together with our team or invited experts, we try to identify all possible threats and opportunities related to our project. This stage must be carried out independently of the other stages. Because, here our task is to consider all the indefinite moments that may even characterize our project. Here we are not interested in the probability of this or that event, its impact on the outcome - our focus is only on the description of the risk event, so we go back to all the documents and analyze, check everything we have done so far;

3) **Risk assessment** - Investment risk assessment can be done in two ways: quantitatively and qualitatively.

A qualitative approach to the process of perfecting the identification of possible risks of the investment project helps us to classify risks, identify the sources of these risks and the factors affecting them, and present mitigation measures.

Quantitative approach involves the numerical measurement of the impact of uncertainty and risk factors on the efficiency of an investment project. The difficulty is that such factors in the investment project are less subject to formalization. Nevertheless, risk and uncertainty analysis is a very important stage of investment expertise.

The following qualitative methods are most commonly used to assess and take into account risks and uncertainties:

• Cost-effectiveness analysis;

• Method of analogies;

• Expert evaluation method.

From a practical point of view, it can be said that the first two of the qualitative methods of risk assessment (cost-effectiveness and analogies) are useful only at the initial stage of the investment analysis, when the description of the expected risks is carried out. As for the expert evaluation method, it also includes the quantitative result of the evaluation.

Different methods are used in the world practice of financial management to quantify the risks of SP. The most common of these are:

- Statistical method;
- Discount rate adjustment method;
- Efficiency criterion sensitivity analysis (net discounted income (same as net present value) (NPV), internal rate of return (IRR), etc.);
- Scenario method;
- Sustainability test method;
- Method of probabilistic distribution of payment flows;
- Decision tree;
- Imitation modeling.

There is no one-size-fits-all method for thoroughly analyzing and evaluating an investment project risk. All of the above methods have their advantages and disadvantages.

Qualitative methods help us to consider all possible risk situations and describe the diversity of risks of the investment project under consideration. However, the data obtained in this way have not so high objectivity and accuracy.

Quantitative methods allow us to make a numerical assessment of project risks, to determine the degree of influence of project factors on its effectiveness. Disadvantages of these methods can be attributed to: the need for a large amount of initial information over a long period of time (statistical method); difficulty in determining the law of distribution of survey parameters and results (statistical method, imitation modeling method); isolation of one factor change without considering the influence of others (sensitivity analysis, sustainability testing analysis), etc .;

4) **Risk Response Plan** - after analyzing the risks, a response strategy should be launched. There are five types of strategies:

- Risk transfer;
- Risk probability management;
- Managing risk outcomes;
- Risk avoidance;
- Risk acceptance.

5) **Risk monitoring** - effective risk management requires constant review of the institution structure and preparation of reports to effectively identify and assess risk, as well as to establish the necessary control measures and appropriate response measures. Monitoring also includes regular compliance and efficiency audits to identify opportunities to improve the structure and operations of the facility. As the organizational environment is constantly changing taking into account its internal and external factors, there is a need to make appropriate changes in the system of the institution;

6) **Developing a risk management culture -** it means creating an environment in the company that will facilitate risk assessment and mitigation, as well as active risk communication.

Strengthening the risk management culture in employees is the most important stage of introducing a risk management system in the company. For this we can use different levers:

- Receiving information about risks from employees;
- Identify the persons responsible for the main types of risks in the company;
- Incorporating risk management components into the individual development plan of employees;
- Linking risk management and budgeting processes;
- Encouraging employees who speak openly about unrealized risks;
- Disseminating information on key risks to employees.

Risk management is only 10% of the process itself, while 90% is culture.

I.3. Basic risk management standards and corporate risk management problems

Several modern schools of risk management have been established historically. However, over time the difference between these approaches has virtually disappeared.

There are three main areas in risk management theory:

- **American stream of Risk Management.**

One of the earliest references to the term "risk management" is in the 1956 Harvard Business Review. It was then that we were offered the opportunity to hire someone to work as a staff member to perform the functions of a risk manager - to reduce losses.

In the late 1980s Value at risk was developed to assess market risks - Value at Risk by J.P. Morgan. After a series of financial scandals, the most notorious of which was the bankruptcy of the American energy corporation Enron corporation in 2001, in 2002 they adopted the Sarnbein-Oxley law.

The Enterprise Risk Management - Integrated Framework (ERM) was published in 2004 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The last update of COSO ERM took place in 2017.

Companies listed on the American Stock Exchange are required to disclose detailed risk information (PWC, 2018);

- **Australian Risk Management.**

The first risk management standard in Australia was introduced by AS / NZS 4360 in 1995, later updated in 1999 and 2004. In 2003, the Australian Stock Exchange published the Principles of Corporate Governance, which named risk management as one of the top eight principles. The principles were updated in 2007, 2010 and 2014.

In 2009, the Australian Stock Exchange released a separate risk management tool as part of its Corporate Governance Quality Assurance Program. Almost immediately, the Australian standard for risk management was, in fact, fully reflected and laid the foundation for the world standard ISO 31000: 2009.

The Australian Stock Exchange also requests the disclosure of information on the risk management system, but does not request the disclosure of the risk itself and acts on the principle of "if not, why not";

- **European stream of risk management.**

The Association of Insureds of Industries (AEAI) was formed in 1974, later renamed FERMA (Federation of European Risk Management Associations). The European Risk Management Standard was published in 2002 and developed and approved by The Institute of Risk Management (IRM), The Association of Insurance and Risk Managers (AIRMC) and ALARM - The National Forum for Risk Management in the Public Sector.

Legislation in some European countries (e.g. Germany) requires disclosure of both: information related to the risk management system, as well as the results of independent audit work (Ferma, 2018).

As we have seen above, the Australian strategy-based world standard ISO 31000 has become a major vector of risk management in the modern world. It recommends that the company design, implement and continuously develop the infrastructure to facilitate the integration of the risk management process into overall management, strategy, planning, reporting, policy and culture.

Thomson Reuters and the Institute for Strategic Management Risk Analysis (ISAR) conducted an interesting study to identify new trends in risk management in non-financial organizations (ISAR, 2018). The study interviewed more than 300 risk managers and related specialists, including top experts from Australia, Germany, Switzerland, the United Kingdom, France, the Netherlands, the United States, Belgium, Brazil, Spain, Russia, Belarus and Kazakhstan.

A major finding for the study authors was the striking difference between business expectations and the capabilities of most modern risk managers. Company management requests risk information on a daily basis, precisely when making uncertainty decisions, and not once a quarter or six months. Many modern risk managers are not ready for the expectations of management - 70.5% of the survey participants noted that non-financial companies have a formal commitment to risk management and do not take risks into account when making decisions.

80% of the surveyed experts believe that modern risk managers should have not only basic risk management competence in the form of international standard ISO 31000: 2018 or knowledge of quantitative risk assessment methods, but also be good psychologists, be able to deal with mental traps, and most importantly, Must have field education. For example, when investing, a risk manager should be well versed in key investment processes and venture, if not direct investment features, while a manufacturing company risk manager should have an engineering education.

According to some experts involved in the study, in the future, risk management will be considered not as an independent profession, but as a management tool. At the same time, risk management competence will become necessary for financiers and entrepreneurs, and the risk manager will become less in demand.

A classic mistake in risk management is to keep risk management before creating a risk register, creating a risk map, and participating in risk management activities. The main problem with this approach is the disconnect from business processes and decision-making leadership. In the best case, a process similar to risk management is accepted by colleagues as a necessary formality, while in the worst case, this process is ignored altogether.

According to a survey, 77% of respondents focus on significant problems related to fragmented risk management in companies and insufficient integration of risk management into business.

In the survey, 65% of respondents reported a significant problem related to a low risk management culture. When developing a corporate risk culture, special attention should be paid to the individual characteristics of the human mind. One of the works that has greatly influenced the development of modern economic theory is the work of Daniel Kahneman and Amos Tversky. As a result of this work, we have the emergence of problems known as mental traps. Mental traps are systematic errors in the human brain that lead to misinterpretation of the situation and consequently to incorrect decisions. Even people who are aware of these traps cannot cope with these traps independently. Working with mental traps is a difficult and lengthy process.

It is incorrect to assume that the validity of a decision depends on a person's natural characteristics or industrial capabilities. Even the most talented specialists make mistakes. The task of modern risk management is to assist management in structuring the key decision-making process in such a way that the risks associated with the decision to be made are assessed in a timely manner.

Knowledge of mental pitfalls is not a guarantee that employees will not be affected. Training should be provided to company employees to reduce the impact of mental traps. This can be an introductory course for employees, online tutorials or programs for top managers.

It is true that ISO 31000: 2010 is adapted in many countries and used in the most important directions, but it still has a long way to go to fully meet the modern requirements of business.

Chapter II. Investigating the psychology of investment project risk. Influence of cultural peculiarities and mental traps on risk management

II.1. Psychological aspects of risk research

Perception of risk is a category of relationship with society, the environment, or our inner world, with which each of us has daily contact. Not everyone can act on an objective level of risk if it is based on its scientific assessment. The vast majority respond according to their own perception. Therefore, the study of risk perception by people becomes relevant.

Any decision-making process, including investment-related, is a reaction to information received from the environment. Obviously, this reaction will depend on the information generators on the one hand, and on the receiver of information on the other hand, how he perceives this or that event. Perception is a psychological category.

Psychological observations have revealed a different intellectual load of the term “risk” that varies depending on the context in which it is used.

There are three approaches in risk psychological research.

The first considers risk as a characteristic of a situational action, which expresses the uncertainty of the outcome of that action for the subject, and the possibility of undesirable consequences in the event of failure. Here risk is considered within the framework of the concept of situational activity and the theory of achievement motivation.

In situational activity, risk is always targeted at "situational activity" - risk is motivated, purposeful. At such times we say that there is a risk for something: to convince oneself, for money, and so on.

Situational risk, as a special form of manifestation of the subject 's activity, is related to situational activity, which is the subject' s ability to rise to the level necessary for the situation, to set the relevant goals of the task.

The second approach considers risk from the standpoint of a theory that clarifies between alternative actions as to which one to choose.

This position is related to calculating the probability of choosing from several alternatives incorrectly or unsuccessfully.

The third approach examines the relationship between individual and group actions in a risky situation and presents the socio-psychological aspect of risk.

All three approaches express risk as a predictive assessment of the likelihood of an unfinished situation ending unintentionally. Risk is not a descriptive (attributive) characteristic of a situation, but an evaluative category, which is inseparable from a person's actions, from his / her assessment - from the person’s self - assessment.

According to this definition, a risk situation arises only when the entity acting in that situation arises. We must not forget that a situation can be dangerous if the subject is forced to take part in it, and a dangerous situation does not have to be risky at the same time. The situation may be risky for one of the two entities operating under the same conditions, but not for the other.

Therefore, the concept of risk is intertwined with perceptions related to the entity's activities. It is defined as a characteristic of these actions. But this characteristic is not attributive but evaluative. Risk is the assessment of the ability to act, to achieve a result, to achieve a proper goal.

In addition to forecast estimates, uncertainty is a necessary condition of a risky situation. And, if we consider risk from a psychological aspect, then the main source of uncertainty is the subject itself. It is his prerogative to weigh the terms of action, the factors influencing that action, and their future consequences.

According to a number of researchers, all sources of uncertainty are subjective and conditioned by human ability to fail to take into account various factors that influence their actions and the consequences of these actions.

Quite an important task is to determine the degree of uncertainty, as well as to identify the factors that determine the criteria for decision-making (to act, to postpone an action, if to reject it at all) by the subject.

The determinants of decision-making criteria include: the importance of success and the price of failure of future action. If the importance is great, then the subject is ready to take risks, that is, to lower the decision-making criterion and act. In situations where the unintended outcome has a high price, there the decision-making criteria increase, the subject becomes more cautious in acting.

There is another factor - the subjective assessment of the costs incurred to achieve the desired result. The higher is the cost of the action, the higher the decision criteria.

A special group of factors acting on the selection criteria are the factors related to the personal characteristics of the subject. First of all, it is a propensity to take risks.
Therefore, psychological risk assessment should be conducted in the following areas:

1) Reflex study of capabilities and limitations;
2) Clearer systematization of sources of uncertainty and risk situation;
3) Investigation of individual-personal peculiarities of reflexive regulations of the subject's action in risky situations.

Intuitive understanding of risk can be multifaceted and cannot be reduced to multiplication of probability and outcome alone. Perception of risk varies greatly according to social and cultural circles. From a psychological point of view, risk combines the undesirable and desirable consequences that people associate with defined causes. Whether these cause-and-effect relationships reflect real risks or benefits - does not matter. Because, as we said above, people react according to their own perception of risk and not according to their objective level or scientific assessments. Scientific assessments of risk are replaced by the belief that people themselves are aware of the likelihood of any adverse outcome based on personal experience.

The disadvantage of the psychological approach is the excessive concentration on the subjective assessments of the individual. With the variety of perspectives used by people to form inferences, people's reliance on intuitive heuristics and familiar practice makes it almost impossible to find common criteria for comparing individual perceptions of risk.

Perception of risk varies by individual and group. At the same time, this perception reflects the real interests of the people and involves unintended consequences that often go unnoticed in technical risk analysis. Finding ways to improve risk management using a psychological approach can reveal public interests and values; Serve us as an indicator of public choice; Help us define a community interaction strategy; present personal experience in a form useful for scientific risk assessments.

II.2. Influence of cultural peculiarities and mental traps on risk management

From the middle of the twentieth century, scientists have actively begun to critically discuss, analyze, and comparatively study world culture. The globalization of world business over the last five decades has made cultural differences significant, essentially important for leaders, managers, and international and multinational corporations around the world.

If we want to select a person responsible for decision-making or evaluate the adequacy of expert advice or even want to make sure that our own assessments are objective, then it is impossible not to pay attention to the personal characteristics of people involved in the process, which are often strongly influenced by national characteristics.

The main dilemma of analyzing a person's cultural profile is what place we can assign him / her in the organization, how to choose the right and understandable cultural dimension for him / her and how to perceive his / her behavior.

Numerous dimensions have been proposed by cultural experts, although none of them have been fully successful.

Lewis model is the latest to gain worldwide recognition. After visiting 135 countries and working in 20 of them, Richard Lewis concluded that people can be divided into 3 categories that will not be based on nationality or religion, but on behavior. He called his typology linearly active, multi-active, and reactive.

With related to parents, teachers, and peers, we master the collective programs of behavior of our cultural group; embrace social advantages and limitations based on written or unwritten rules and laws. Often (but not always) a cultural group coincides with a nationality, a state. That is, we can talk about French, Japanese, Georgian culture. However, we may encounter significant variations within a single culture (e.g. Bavarians and Prussians, Milanese, and Sicilians), i.e. cultural groups are more than states. Strictly speaking, there are 200-300 national or regional mentalities that demand some uniformity and loyalty from their members.

These cultural programs contain many differences, yet they, as representatives of one genus, look more like each other than expected. The deepening of international contacts, especially in the field of commerce, introduced the businesses to the traditions of their business partners, their relationship style. They noticed that it is easy to find common ground with some people, while communication with some people becomes a test of nerves and strength. Usually, they try to adapt to their partner's forms of relationship. As a result, they develop a cultural mechanism that facilitates mutual understanding and empathy. Many may not deliberately change their behavior under the influence of another person's worldview, but frequent contact with people of other nationalities will soon make it clear that all of these nationalities can be divided into three major groups:

1. Representatives of the monoactive group act swiftly, establish step-by-step plans, chain of actions, follow clearly and explicitly set goals and achieve them;

2. Representatives of a multi-active group are happy to do several things together. These are heartfelt, impulsive, talkative, emotional people; relationships between people are very important to them;

3. Representatives of the reactive group are introverts, polite listeners who can adapt to the interlocutor; are prone to consensus and compromise.

People in one category understand each other well. There may be inter-ethnic contact points, but, unconditionally, belonging to one category makes things much easier. Representatives of different groups often disappoint and irritate each other.

But, we must remember that man by solution does not belong to one category. Behind the outward discipline of monoactive Germans and Swiss, there may be multifactorial emotions and excitement. Unemotional, reactive Koreans can be caught in a rage (like the Turks) for petty reasons. The personal qualities of a person may be contrary to the norms of the national curriculum. The Emperor Meiji was amazingly charismatic Japanese, Winston Churchill refuted notions of British patience by saying that he often cried in the presence of the people.

These deviations - or aberrations - indicate that people are open to new views, to worldviews.

Observing cultural differences in the decision-making process raises the issue of cultural affiliation and the influence of mental traps.

Mental traps are standard, automatic, and ineffective ways of thinking and reacting, causing a person to waste time and effort and at the same time fail to create anything useful and constructive even for them.

The problem with most people is that they do not believe in an accident until it happens. This is neither nonsense nor weakness, it is just human behavior. It turns out that people find it difficult to learn not only from the mistakes of others, but also from their own mistakes. This is the essence of mental traps.

Cognitive curvatures (excavations) based on achievement heuristics affect risk assessment. Liechtenstein, a pioneer researcher in this field, describes the truth of risk reasoning in both absolute and relative terms. For example, people can generally imagine which risks can cause more deaths and which cannot. But when asked for a relatively accurate calculation of risks, they overestimate the rare causes of death and, conversely, fail to assess the usual causes. His own studies showed that accidents were considered to be the cause of the same number of deaths as illnesses (in fact, even illness is 16 times more likely to be the cause of death than an accident). Murder was wrongly considered to be the cause of more deaths than diabetes and stomach cancer.

People refuse to buy flood insurance, even if it is well subsidized and worth it at a fair market price. According to Kanreiser (Yudkowsky, Eliezer, 2008: 91-119), a weak reaction to the threat of flooding can be caused by the fact that the individual cannot imagine a flood that did not occur in front of him. Residents of floodplains are captivated by their experiences. According to Burton, the number of floods reduced by the construction of dams and dams creates a false sense of security and reduces the scale of preventive action. It is true that dams reduce the number of floods, but the amount of damage caused by a single accident is so great that the average annual damage increases even more.

People do not seem to extrapolate the experience gained by moving small threats to the possibility of realizing more serious risks; conversely, the old experience with small hazards sets the upper limit of the expected maximum risk. A society well protected from small dangers does nothing to prevent big risks. An example is the massive construction that is taking place in flooded lowlands, after small floods were prevented here. A society affected by regular small threats considers these small threats to be the upper limit of potential risks.

In a 2005 book, Nassim Taleb described the Black Swan event. "Black swans" are particularly serious aspects of the problem of large-scale outcomes: sometimes the cause of much of the variation in the process is a particularly rare but large-scale event. Imagine a financial instrument that generates $ 10 with a 98% probability, but a 2% probability of losing $ 1,000. In the end the cost outweighs the income, but the tool looks like a solid profit. Taleb cites the example of a trader who had not lost a single quarter in 6 years, made up to $ 80 million, but then lost $ 300 million in a single disaster.

Another example is Long-Term Capital Management, an investment funds whose founders included two Nobel laureates in economics. The behavior of the markets during the Asian crisis in 1998 and the Russian default was unprecedented, which was very unlikely to happen according to the historical model used by LTCM. As a result, LTCM began to lose almost $ 100 million a day, losing $ 500 million in just one day (Taleb, 2005: 260).

The founders of LTCM later cited 1998 market conditions as a less likely event with a ten sigma deviation. But obviously, since this event happened, it was not so impossible. The misconception that it was possible to predict what happened in the past leads people to conclude that the future is also predictable.

The lesson of history is that troubles like "black swans" happen. People are surprised to find unforeseen catastrophes that lie beyond the historically expected distributions known to them. But why are we surprised by “black swans? Why did 125 LTCMs make a billion-dollar commitment when they only had $ 4.72 billion in assets? Wasn't this a guaranteed crash in the event of any major trouble?

The reason for such mistakes is mental traps. It is difficult to motivate people to stop the "black swans". Protection from them is difficult to perceive and measure, hence less rewarding. As a rule, such actions are negligent and reluctant labor. If expensive means are used to prevent these events, anyone can calculate this cost when it is virtually impossible to estimate the results. How do we talk about the effectiveness of an event when there are two alternative explanations for its composition: either the event taken is effective or nothing significant has happened. In such cases, it is not only difficult to assess the quality of the work, but also distorted by focusing on "heroic deeds". Historical books do not write about heroic preventive measures.

Chapter III. Analysis of the actual state of risk management of investment projects

III.1. The outcomes of the research on the actual state of risk management of investment projects

We conducted both quantitative and qualitative research (in-depth interview) to assess the actual state of experience in the field of investment risk assessment and management in Georgia.

We suggest that in Georgian companies, especially in medium and small businesses, the company's employees, both senior management and ordinary staff, would be less aware of risk assessment and management issues. Therefore, the given research can be considered as a means of verifying this opinion.

By selecting quantitative research methodology our goals were to obtain a data-laden image so that we could thoroughly describe and analyze the current situation. We must first mention the means by which the survey was conducted; we decided to conduct it online.

Before sending the questionnaires to the respondents, we decided to test it and conducted a pilot study. The assessment of the relevance of the research instrument led us to the conclusion that the number of questions provided in the original version of the questionnaire needed to be reduced.

The questionnaire was sent to companies that are particularly active in terms of management optimization efforts (they actively outsource the services of qualified companies for staff selection, financial or legal services or have their own structural units).

The questionnaire was based on the survey conducted in 2010 by KPMG International Cooperative (a Swiss company founded in 1987 by Peat Marwick International (PMI) and a subsidiary of Klynveld Main Goerdeler (KMG)).

Because investment risk assessment-management is a certain superstructure of industrial, operational, foreign exchange or other types of risks and their synthetic derivatives, so the questions did not focus only on investment risks.

The questionnaire was sent to companies operating in almost all sectors of the economy: energy, heavy industry, light industry, food industry, construction, real estate, agriculture, transport, tourism, information technology, telecommunications, education, healthcare, pharmaceutical manufacturing, services and retail.

The analysis of the answers gave us mixed results. On the one hand, respondents rated the level of risk management of the founders, directors, more positively than the employees of companies in developed economies (see Figure 3.1 and Figure 3.2). On the other hand, they noted that they do not have a risk management function at either the departmental or official level and do not intend to introduce it in the near future, nor they use outsourcing of these services (see Figure 3.3).

Diagram 3.1. Level of knowledge of risk management principles in the company's employees (in %)

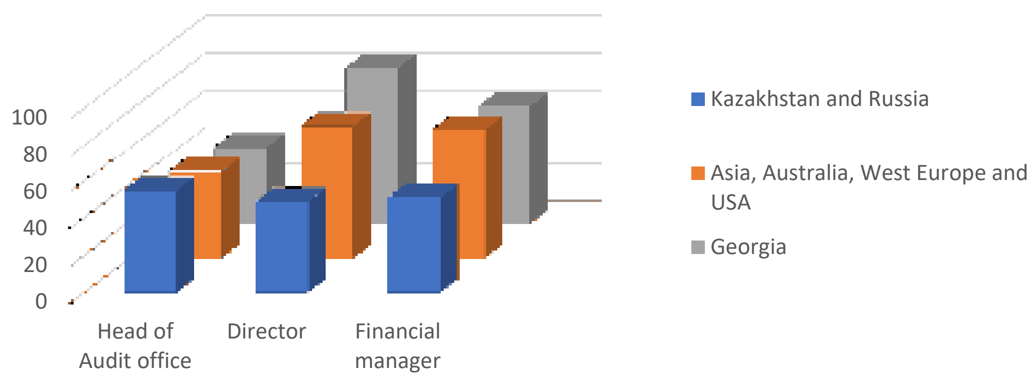


Diagram 3.2. Current state of risk management in the company according to the assessment of the company's employees (in %).

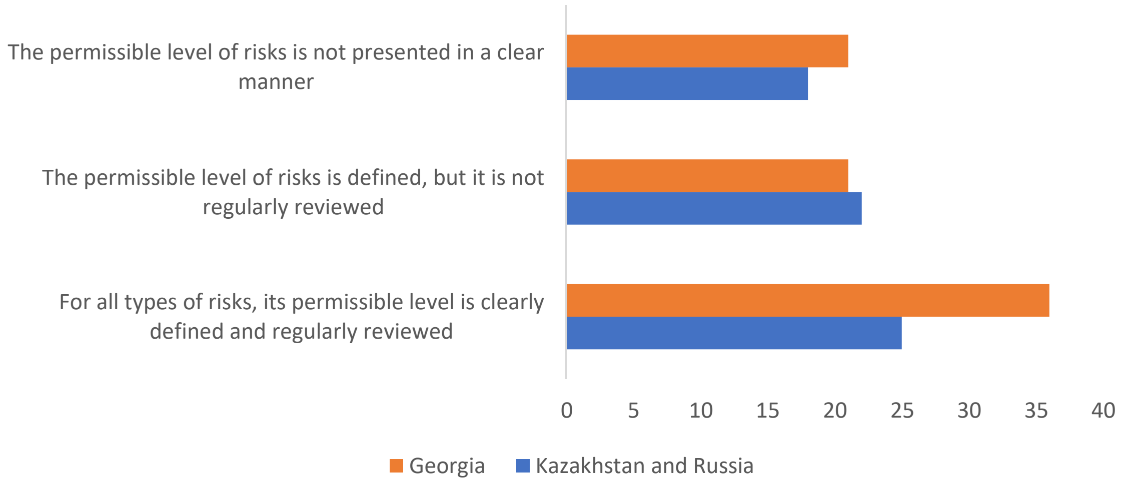
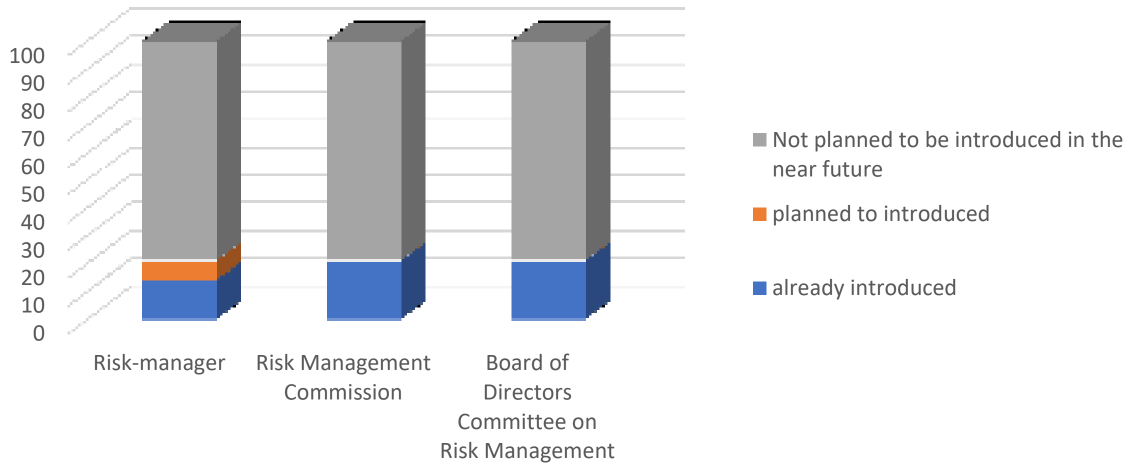


Diagram 3.3. Georgian companies in which there are structural units performing the function of risk management or their creation is expected (%)



To achieve more specific goals we decided to conduct a qualitative research. If we were interested in describing the general picture of risk management before in our country, at this stage of the research we decided to find out which area is the most complete risk management and assessment process. This required the selection of large companies that dominated their field. To make a reliable comparison, we selected companies from different fields that performed functions of different specificity. We decided to conduct in-depth interviews with senior managers. 5 of the pre-selected companies agreed to participate in this interview: Nikora, which is considered to be one of the largest food companies in the Georgian market; Silk Road Group, a leading private equity investor in the Caucasus and Central Asia. It is involved in such areas of the Georgian economy as transport, trade, real estate, retail, telecommunications and banking; Aversi, one of the largest pharmaceutical companies operating in Georgia; TBSC Consulting, a consulting firm based in Tbilisi; Liberty Bank, formerly known as the People's Bank.

The main questions that revolved around our interviews were: What is the situation in terms of investment risks and risk assessment and management in general in your company / Georgian companies in general? What is the cause of the current situation? What are the consequences of the existing problems (if, of course, the existing situation would be considered a problem)? What measures should we do to correct them?

Their responses revealed that: not only do companies have neither a position nor a service for risk management, but also a level of risk management at their level of function; In companies, the issue is not institutionally regulated - certain preventive actions, which involve the correct perception of risk and appropriate actions against them, depend on individuals; pre-planning has virtually no place, risk management cannot go beyond the level of responding to what has already happened, working to eliminate the problem is done only to transform the results and not to discover and eliminate the causes. Any success in this process depends on the experience of a particular manager, Georgian companies may have staff, who have the appropriate knowledge and experience to assess and manage investment risks, but often they are not directors or in other management positions. Implementing their experience is difficult because decisions are made individually by the founders or directors (often in companies, both positions are played by the same person).

The position of the respondents was interesting when naming the reasons for the current situation in the field of investment risk assessment and management. In their opinion, this situation was caused by:

- Lack of education;
- Lack of experience;
- Low degree of formalization of relations between persons of different positions or functions;
- Lack of corporate governance culture;
- Autocratic management of the company board - even in the presence of risk management, it had little influence on the decision-making process of the board;
- Georgians have a culture of dependence on the uncertainty of the future, which means more uncultured in terms of perceiving risks - everything that the future prepares us, good or bad, we blame God;
- We do not think about tomorrow, which is clearly shown by the low level of savings;
- We do not take into account operational risks, which are reflected in the fact that we rarely use insurance other than health insurance;
- We do not focus on low probability events;
- The level of financial education is low.

According to one of the respondents, investment risk management is a kind of top step. In order for a company to reach this level, it is necessary to formalize such types of risks as economic, political, operational risks. It is not serious for a manager to think about the probability of making a planned profit if he does not prevent internal thefts from employees (say, in supermarkets).

To the question, "Did you have a practice of using formal methods in the field of risk management?", Everyone answered in the negative. The Liberty Bank Financial Manager's answer is an exception, but the banking sector is a radically different vector from investment (and not only) risk assessment and management.

Banks, together with insurance companies, are the only economic entities where risk management is systemic. Banks and insurance companies calculate the allowable level of risk. Risk research is carried out in several directions and different structural units are created for this purpose: Credit Risk Committee, Operational Risk Committee, Assets and Liabilities Committee, Monetary Committee, Audit Committee.

We can list several reasons that raise the issue of investment (not only) risk assessment and management in the banking sector than in other sectors of the economy. These are:

1) The factor of the National Bank, the analogue of which companies representing the non-banking sector does not have a strong regulator;

2) Most commercial banks are created with the participation of foreign capital. The presence of foreign capital leads to an increase in the accountability of local companies. This will lead to an increase in the required information and analytics, and, consequently, an increase in the likelihood of identifying risks and managing them effectively;

3) Compared to other sectors of the economy, the banking sector cooperates more actively with international financial organizations. The latter, in fact, impose rather strict requirements on their relationship. Which in turn, makes company management systems effective, including in risk management;

4) Some commercial banks have listed their shares on international exchanges. Their financial statements are not only for the domestic (Georgian) market, but also for foreign, international entities that use the best qualified personnel for information analysis. It is they who must prove the security of their investments with us, which requires a high level of risk management. Additionally, the requirements of the stock exchange, which creates an even greater commitment to perfecting risk management.

Quantitative and qualitative research has answered a number of questions and enabled us to develop a framework of specific measures to improve investment risk management (discussed in detail in Chapter IV) that companies can also recommend when developing an investment risk management plan.

III.2. Management in Georgian companies as the main source of investment risk

In 2016, a study was initiated by the European Bank for Reconstruction and Development, which aimed to improve corporate governance standards in its operating countries (34 countries).

A separate report was dedicated to the assessment of Georgia. The study showed that our companies have a two-tier board system. In Georgia, too, the composition of the board in companies is equal to 4.7 on average, which is considered a small size and reflects the best international practice. However, small boards do not have the same effect in our country as in companies with best governance practices in Europe or the world. The reason for this is that the members of the councils are not selected according to their qualifications. In the main case, the qualifications of the members of the board of directors do not differ according to the fields. Qualification requirements for board members exist only for banks. Here, too, however, there is often no diversification - selection of members with different skills. In only two cases the Board of Supervisors include an audit, accounting or risk specialist when reviewing information on the members of the Supervisory Boards of the ten largest banks.

Research has shown that there is no requirement - regulation, that companies have independent directors on the board. Georgia got the worst assessment in this position.

Companies are required to disclose financial and non-financial information in their annual statements. However, often, this information does not correspond to the actual practice of the company. Most companies only publish financial statements. A small number of companies publish information about the general meeting of shareholders on the website.

According to the Corporate Governance Code of Commercial Banks, the Audit Committee should develop a special policy for the evaluation of non-audit services by external auditors. However, banks do not follow this rule. They should differentiate between external audit and non-audit services, but companies group advisory, consulting and auditing costs when publishing information. It is unclear what these funds belong to, because no other information about unaudited taxes is published.

According to the current legislation in Georgia, only banks are obliged to have an internal audit and an audit committee, although the law vaguely addresses the issue of staffing an audit committee. In some cases the Audit Committee is composed of only independent members of the Board and in some cases a majority of the members are not members of the Board. According to the European Bank for Reconstruction and Development, a committee composed of nonmembers to the Council is unlikely to be effective. Some companies do not disclose information about committee members at all. Information on Audit Committee meetings is also not published. There is no requirement for a "Code of Ethics" in the country. Therefore, companies do not have it.

The current institutional framework in our country shows that issues related to corporate governance need to be substantially improved. The very low liquidity of the Georgian Stock Exchange does not contribute to the introduction of better corporate standards. There are very few representations of international law firms and credit agencies in the country that typically help improve corporate governance. There is no "Corporate Governance Code". Even in commercial banks, the "Corporate Governance Code" is not mandatory and is less used in practice. We have little legal practice on corporate governance issues.

The shortcomings identified in the management of Georgian companies as a result of a study by the European Bank for Reconstruction and Development explicitly hamper the risk management process. However, here another issue arises, the problems of the management of the company may arise from the inexperience or lack of education of a particular responsible person, but quite often the root of the problems is not so much the employee as the wrong structure.

"Structure cannot make a person better, but the wrong structure can make even the best an incompetent, ineffective member of the organization, bring to the surface the characteristic, previously hidden, bad qualities and character and turn it into a cause of controversy, chaos, evil" (Toliashvili). A well-thought-out structure will take even the most outstanding employee to the maximum of his / her capabilities and create special conditions for self-expression.

The structure of the organization is a system of redistribution of responsibilities, power and functions, and its impact on people comes from decisions related to these three components.

Unclear responsibility is the first problem. The functions of each responsible person should be clearly defined according to the structure. The company's staff should be clear about the tasks assigned to them and the consequences. Otherwise, we cannot avoid wasting energy and time by employees. Eventually this will lead to an ineffective labor process, when previously successful people can no longer create value, adapt to a position with new, vague tasks, and become a source of trouble for others until they find themselves.

Even a position where tasks and outcomes are clearly defined allows for greater self-expression and personal or professional development.

Inadequate power creates a new spectrum of problems. Unclear responsibility distorts a individual's personality, his inner world, while inadequate power changes the person himself. Mutations of character, destruction of psyche, behavior out of context are the consequences of power incompatible with position.

Adequate power is a prerequisite for the harmonious action of the individual. At this time it is unlikely that the decision-maker will lose his perception of reality and will not be able to critically evaluate himself.

The last phase of the problems is incorrect definition of functions. Imposing the same function on different employees will lead to uncertainty and conflict. Such functions create an unstable environment for staff, which in turn is transformed into a chain of negative consequences.

With duplicate functions, it is impossible not to mention useless functions. Over time, some features may become less relevant. Staff loaded with similar functions even become incapacitated, lose motivation, and even leave the company.

Sometimes a company tries to use the skills of an employee and imposes tasks that fall within its competence but do not produce significant results for the company. Such a "humane" step is usually unproductive. A person does well what he knows, but fails to convince others of his need, therefore, fails to get support, and the results are delayed. This will be followed by a drop in self-esteem and psychological trauma.

It is impossible to organize our activities in such a way that after a certain period of time the organizational structure does not need to change. The necessity of these changes may be indicated by the following circumstances:

- Lack of initiatives from the lower echelons of management;
- Increase in tasks, whose addressee is difficult to find;
- Constant increase in cases of avoidance of expected tasks or transfer;
- Prolonging the decision-making process;
- Behavior as a rule of delay in reaction to ongoing processes.

Once we are sure that the structure needs to be changed, a careful concept needs to be developed to make changes to the structure. This concept should be built on the following steps:

- Description of the structure;
- Structure communication;
- Staffing of the structure;
- Activation of collegial bonds;
- Manage the post-launch period of the structure.

If we summarize the results of the specialists in the field of management and our observations, then the following are the causes of deviations from the acceptable results of the implementation of investment projects by Georgian companies:

- The difference between a de facto and a formal governance structure;
- Abundance of structures subordinate to the higher hierarchy;

- Submit more than one first-line task to one supervisor;
- Hierarchical weakening of the units responsible for the most important tasks;
- Grouping functions in departments not according to content, but according to the experience, knowledge and desires of their leaders (arranging the structure not according to strategy, but according to people);
- Combining marketing functions into one subdivision;
- Ineffective operation of collegial bonds and their abolition;
- Less involvement of lower management in generating ideas.

IV. Risk management of investment projects as a response to internal and external incentives of the company and the means of improving its management culture

IV.1. Formulation of risk management policy of investment projects in the company

Improving the risk management practices and culture of the investment project requires complex measures, such as the development of internal, corporate policy and strategy selection, as well as the emergence of external incentives to create a favorable environment for the risk management process in companies.

With this in mind, we consider it expedient for the company to take the following measures to organize the risk management of the investment project:

- Establishing a corporate culture of risk management - which means creating an internal value system and code of conduct. A key element of corporate risk management culture is the belief of company employees that risk management is a key part of their day-to-day operations;
- Improving the quality of risk analysis information;
- Use the results of risk analysis in strategic planning and management decision-making - this process should be based on the active support of subordinate managers in risk management by senior management;
- Prevention of risk management becoming a formality - this trend is observed in large companies in many developed countries;
- Unconditional review of the risk management system during financial crises or other significant fluctuations - it does not matter if these fluctuations lead to noticeable changes in the goals set by the company or not, the main thing is the prevention;
- Having as complete information as possible about potential risks and perceiving an adequate understanding of the consequences of those risks;
- Selection of effective and practical risk assessment methods for a given company;
- Determining the permissible level of risk;

- Strengthening cooperation between the companies' various services in the field of risk management;
- Bringing the company's activities in line with the requirements of the regulator;
- Participating in the risk management of the Company's counterparties.

In order to carry out these measures effectively, it is necessary to formulate and implement a sound policy. If you take into account the fact that Georgian companies do not have the practice of using formal risk management methods, and not a single department with a risk management function is found in the vast majority of companies, it would be desirable and necessary if Georgian companies benefit from the development and improvement of our risk management system, which will act as a kind of guide for companies in risk management of investment projects. These measures are in compliance with the international standard of risk management ISO 31000.

The structure of the algorithm developed by us includes the following key components:

- Investment project risk management objectives;
- Investment project risk management tasks;
- Investment project risk management principles;
- Participants and their functions;
- Risk management process;
- Risk assessment;
- Developing and implementing risk management measures;
- Risk monitoring;
- Developing a risk management culture.

IV.2. External incentives for the development of investment project risk management culture and the ways to generate them in Georgian companies

Clearly, the policy described in the first subsection of this chapter is a system of internal events of the organization and its prerogative of what form it will take, but given the importance of policy implementation, a chain of external incentives needs to be created to encourage or force companies to implement effective risk management events in the company.

If we look at the development of an investment risk management culture as a company's response to external stimuli, then the evolution of risk management can be represented in the following four stages:

- The first stage begins when the business process stakeholders decide to make an investment together, creating an embryonic risk management and reporting system for merit and efficient exchange of information;

- The company moves to the second stage if it has to deal with an external lender (bank, bondholders). Here are the first attempts to formulate information for external use, for which they use forms provided by creditors, forms or creates it themselves taking into account the tastes and interests of the customer;
- The third stage begins when a foreign investor enters the company. Culture crash creates a greenhouse environment for perfecting the risk management. The use of universal language mathematics is becoming more active. Risk assessment methods are dominated by sophisticated, mathematically based methods that seek to replace competent, internationally experienced management personnel who make a remarkable contribution to refining a risk management culture;
- Being on the fourth step is already the highest risk management pilot. To reach this level, the company needs external stimuli, such as listing on international exchanges. Here the processes of the previous stage are deepened. After all, several cultures become potential partners at the same time, everyone has their own perception and priority of risk, so we use more flexible and sophisticated methods when selecting risk assessment methods and preparing reports.

It is enough to look at these stages of development so that we are no longer surprised by the underdevelopment of risk management culture in Georgian companies. There are only a handful of companies listed on international exchanges (Bank of Georgia was the first Georgian company to be listed on the London Stock Exchange - in November 2006. TBC Bank took the same step in June 2014. Prior to that, in May 2012, Georgian Oil and Gas corporation has placed $250 million worth of Eurobonds on the London Stock Exchange at 6.875%, Georgian Healthcare Group shares were listed on the London Stock Exchange in November 2015), with local companies not heavily pampered by foreign investors. Even where foreign investors are actively involved, a better situation is not observed; as these companies are mainly belong to the post-soviet space, where they face with almost the same severity the problem of underdevelopment of the risk management culture as in our country.

The formation of a chain of external incentives is hindered by the low level of financial education of our society.

This circumstance is doubly problematic. The first is that there is a shortage of proper education in decision-making circles, and the second is that due to the lack of financial education of the whole society, the system of external levers of influence on companies is broken, which would motivate / enhance risk management in them.

In 2016, the National Bank of Georgia published the National Financial Strategy, the mission of which was to develop key principles and strategic directions to enhance financial education in Georgia, to ensure the financial stability of the country's population and to increase their well-being.

The realization of a financial strategy should lead to the integration of correct financial behavior into the mental model of society. Proper financial behavior implies an adequate perception of reality, the emergence of relevant expectations in society and the emergence of such pressure on the private or public sector, which on the one hand protects the interests of consumers and on the other hand improves the process of activities in companies.

However, another question may arise here: to what extent will the current financial education strategy be able to achieve the declared goals.

The main architect of reality in our society today is consumerism - a society based on the principle of "having more than to be" tends to increase spending in order to at least approach the ideal in their imagination by owning things. Buying a two-door refrigerator, taking out a modern Smartphone in installments, taking a loan to buy an old Mercedes, when you cannot fill the refrigerator halfway all year round, often do not have money to activate talk time on your Smartphone or do not use the car on weeks due to lack of fuel.

The impact of consumerism is growing in a society of low financial education. "Consumer booms motivated by it are mainly financed by banks and another serious threat is posed in the form of soap bubbles in consumer loans."

The "consumption" described will be more difficult for us than elsewhere, because the demanded items are 100% imported, so it becomes the main catalyst for the deterioration of the balance of payments.

Since 2016, the National Bank of Georgia has done serious work to implement the strategy of financial education, published a number of guidelines for various groups of society, but after reviewing them, we got the feeling that the main goal of the strategy is to bring new, more organized customers to the financial sector.

Consider, for example, the School-Bank program. It consists of 15 lessons and only the last lesson talks about cost reduction. It is also worth noting that this is the smallest lesson. Only one of the 11 booklets for students is about savings, also in the context of deposits, however at what cost we should save is not reviewed. Interesting is also children's comics, in which the word "saving" is not mentioned in any form (in circulation), instead it is mentioned 4 times, and it is only mentioned when talking about the bank, and 7 times is mentioned, which is completely different from saving and causes other emotions to the auditory.

In order to develop a relevant financial education strategy, it is necessary to decipher the mental-psychological tendencies of a particular society and find the sensitive points to which they respond more.

A report by the World Bank Group on Thinking, Society, and Behavior in 2015 showed that traditional measures of financial education are less effective; in order to increase their efficiency, it is necessary to introduce more specific and less unified methods, to develop a system in which the emphasis will be on the personal factor, its psychology, the mental model of thinking.

The report shows that poverty is not only associated with material deprivation, but also a kind of tribute paid in the form of thinking opportunities. The thinking of every human being, even the highest-level expert, is subject to social and cultural influences. Taking these factors into account will therefore be useful in any area of development in the policy-making process, and in the refinement of these processes.

It is true that this report is globally development-oriented and the authors did not aim to refine corporate governance or offer tools to support it; but, from our observations, the new approach to problem solving is fully in line with the development goals of the risk management culture of investment projects and replicates the new messages of the International Risk Management Standard, which urge us to concentrate more on personal factors.

Observation of the decision-making process has revealed three principles that define new approaches to behavioral and developmental policy development and implementation. First of all, people often make decisions automatically and not deliberately - this is called "thinking automation". Secondly, what people think and do often depends on what people around them think and do - this is called "social thinking". Thirdly, in a particular society, people have common views about the world around them, about themselves - this is called "thinking based on mental models".

The report documents that mind of people are limited in every segment of population, including the staff of World Bank. Developmental specialists are also characterized by thinking automatism, social thinking, and thinking based on mental models. This can lead to misconceptions about the underlying causes of behavior, and not show us possible ways to solve developmental problems.

The first principle is the automation of thinking._If we come out of the simplified situation used in different economic models, then the subjects of economic activity review all the information at their disposal and look to the future to make a well-thought-out decision today that will help them achieve specific and long-term goals. In fact, people almost never behave like that [7, p.53]. Usually people have more information than they can process. There are many methods of organizing information that are difficult to follow.

The second principle is the social thinking. Humans are social beings and are influenced by social choice, social networks, social self-determination and social norms. What matters to most people is what people do around them and how they fit into that group of people, and they almost automatically repeat other people's behavior. For many people, social choices such as honesty and reciprocity are noteworthy; they have an innate spirit of cooperation. From a collective point of view this can give us both positive and negative results; large-scale cooperation is also needed in a society with a high level of trust and a society with a high level of corruption.

The third principle is the thinking based on mental models. During the process of thinking, a person is not usually guided by concepts that he has developed himself before. Instead, he uses the concepts, categories, stereotypes, prototypes, identifying characteristics, cause-and-effect relationships, and worldviews formed in the surrounding society. All of these are examples of a mental model. The mental model influences on what a person perceives and how he or she interprets that s/he has perceived earlier. There are mental models that define the manner and content of talking to children, the types of insurance risks, money-saving goals, climate perception, and the causes of illness. Many mental models are useful, while others are useless and contribute to the transmission of poverty from generation to generation. The mental model is based on the perception of social interaction, which people often call "culture". Culture influences human decision-making as it emerges as a set of interrelated schemes that people use in the process of action and choice. Similar schemes act as tools that allow us to act on and define these actions.

To evaluate the impact on the development of all three types of thinking, the problems of small personal savings and high levels of household debt were discussed - these problems are common to all developed countries (perhaps the situation is not better in some countries where income levels are high). Economic policy is largely built on the view that an increase in the level of income is needed to increase the level of savings. However, in addition to typical variables such as price, income, and regulatory base, savings are influenced by other factors, including thinking automation, a widespread tendency to follow societal norms, and mental models. Experiments in Kenya, South Africa, and Ethiopia show the importance of these three factors in solving major developmental problems in humans.

Many Kenyan families have spoken of the lack of funds as a reason for not allowing them to invest in prophylactic items, such as mosquito nets treated with insecticides. Therefore, locked metal boxes with cards were distributed to the population, on which family members had to write the name of the prophylactic medical product. Researchers have achieved savings growth and investments in such goods have increased by 66-75 per cent.

This program was based on the idea that despite the existence of different options for spending, and in terms of spending cash at any time, people usually use "accounting in their imagination" when spending money. During which they determine the categories of expenditures and arrange their actions in accordance with them. The main thing in this example was that a metal box, a padlock and an inscription card allowed citizens to imagine spending money on preventive medicine products. This measure proved to be effective because "Accounting in Imagination" is a manifestation of "thinking automation" and the effect of categorization or labeling, when the object belongs to this or that category depends on how it is perceived.

Let us now consider the impact of social thinking. Traditional financial education enhancement programs have limited effects in low-income countries. In contrast, an attempt made in South Africa a few years ago (2013) to educate the population financially through a fun TV series was justified. The protagonist of this TV series was making financially unacceptable decisions. Those households that watched the series for two months showed little interest in gambling and very large installment payments. The households sympathized with the characters in the series, which made them more attentive to financial advice than when working with standard financial education enhancement programs. The success of these events has been driven by "social thinking" - identifying ourselves with others and learning from their experiences.

The Ethiopian population became a participant in the third example. The low-income population of Ethiopia often complained that they were psychologically less prepared for action. They said, "We do not dream of anything and we do not expect anything" or "We live with the present day."

In 2010, randomly selected households were offered one hour to watch films with optimistic content, including four documentaries about residents of the same region, which told how they had improved their socio-economic situation, set a specific goal and worked tirelessly. Six months later, the households watching this film had higher joint incomes and invested more in their children’s education. Surveys have shown that the films have widened the audience’s range of purposefulness and hope, primarily in terms of children’s education. Studies have shown how certain actions can change the mental model - a person's views on what can be achieved.

That is, the approach of Ethiopia, South America, Kenya should be exemplary in planning financial education development activities. It is the mental models of thinking and focusing on the psychology of the individual and taking into account its social specificities that should be considered when providing the developmental measures of the National Bank or another institution.

The outcomes and recommendations:

Our research provided the opportunity to draw the following conclusions:

1. For the first time in Georgia, we conducted a quantitative research to determine the actual state of risk management. That gave us primary information, turned out to be important not only for our research, but also useful for other researchers in the role of basic information. As a result of this research, the attitude of the management of Georgian companies towards the risk management process was unequivocally revealed;

2. We also, for the first time, conducted a qualitative research of the actual state of investment risk management in Georgia. Research has shown that:

A) There is no risk management in most companies at the level of function;

B) The issue of risk management is not institutionally regulated in companies; certain preventive actions, which involve the correct perception of risk and appropriate actions against them, depend on individuals;

C) Advance planning is absolutely absent;

D) Risk management does not exceed the level of response to what has already happened;

E) The crucial role in the risk management process belongs to the founder;

F) The elimination of the problem is done only on the basis of transformation of the results and not on the discovery of the causes and disappearance of them;

G) Georgian companies may have staff with appropriate knowledge and experience to assess and manage investment risks, but often they do not occupy the top managerial and/or managerial positions. To implement their experience is difficult because decisions are made individually by the founders or CEOs;

H) None of the surveyed companies and their Georgian subsidiaries or partner companies has ever used the formal methods of investment risk management;

3. By observing the international practice and the Georgian reality, we have identified four stages in the development of a culture of risk management of investment projects; outlined the preconditions that lead them to the transition from one stage to another.

4. The study revealed the main points in which the Georgian business sector sees the reasons for the underdevelopment of the investment risk management culture:

A) Low level of financial education;

B) Lack of experience;

C) Low degree of formalization of relations between persons with different positions or functions;

D) Lack of corporate governance culture;

E) Autocratic leadership - even if there was risk management, its influence would be less on the decision-making process by the board;
F) The culture of Georgians' attitude towards uncertainty of the future, which means the deficit of culture in terms of risk perception;
G) Failure to take into account operational risks, which is reflected in the fact that we have less use of other types of insurance besides health insurance;
H) Inattention to low probability events;
5. Based on the assessments of various experts and our research, we have identified shortcomings at the level of corporate management that hinder the improvement of investment risk management:
A) The members of the Supervisory Boards of corporations are not selected according to their qualifications. In the main case, the qualifications of the members of the board of directors do not differ according to the fields. Qualification requirements for board members exist only for banks. However, there is often no diversification - selection of members with different competencies;
B) There is no requirement of regulation for companies to have independent directors on the supervisory board;
C) The law does not oblige companies to set up supervisory board committees;
D) According to the Law on Entrepreneurs, supervision is not defined as the company's strategy or risk management as the main function of the Board;
E) The legislative framework regarding the duties of directors is not clearly defined;
F) The financial and non-financial information published by the companies in the annual reports does not correspond to the actual practice of the company. Most companies only publish financial statements. A small number of companies publish information about the general meeting of shareholders on the website;
G) Companies should distinguish between external audit and non-audit services, but companies group advisory, consulting and audit costs together when publishing information. It is unclear what these funds belong to, as no other information on unaudited taxes is published;
H) According to the law in force in Georgia, only banks are obliged to have an internal audit and an audit committee;
I) There is no requirement regarding to the "Code of Ethics", therefore companies do not have any;
J) The rights of small shareholders are not clearly defined in relation to a number of issues;
K) The very low liquidity of the Georgian Stock Exchange does not contribute to the introduction of better corporate standards;

L) There are very few representatives of international law firms and credit agencies in the country, which usually help to improve corporate governance;
M) There is a little legal practice on corporate governance issues;
6. The reasons for the deviation from the results obtained by the realization of investment projects by Georgian companies were assessed:
A) The difference between a de facto and a formal governance structure;
B) The number of structures subordinate to the higher hierarchy;
C) Subordinating more than one first-line task to one supervisor;
D) Hierarchical diminishing of the units responsible for the most important tasks;
E) Grouping the functions in the departments not according to the content, but according to the experience, knowledge and desires of their heads (arranging the structure not according to the strategy, but according to the people);
G) Ineffective operation of collegial circles and their abolition;
H) Less involvement of lower management in generating ideas;
7. The function of manager (in more companies) should be separated from the function of owner. This will lead to the emergence of accountable entities in the form of senior management who provide owners with a variety of information including risks;
8. We believe that, it is desirable and necessary for the management of companies to start actively paying special attention to such psychological categories as mental traps in risk management. For its part, the scientific community should also commit to equipping the company's leaders with the proper tools. Otherwise, they will not be able to perceive cognitive distortions in achieving the goal, extrapolate the experience gained by moving small hazards to the possibility of realizing more serious risks, and most importantly fix their own error;
9. Based on the foreign experience of the study of the impact of mental traps, we have presented a list of mental deviations in which the entrapping becomes a source of risk generation during the implementation of the investment project.
We think that the most powerful tool to reduce the impact of mental traps is to maintain a permanence of providing the information about them.
10. Since risk perception has emotional elements that are not fixed by purely consequential models, because individuals use information transformed into their own prism when perceiving and responding to events (which with high probably differ from objective reality), in order to successfully manage investment projects, it is necessary to conduct a complex study of Georgian psychological mood, which mental model we use in our thinking, which cultural characteristics we have, what mental traps we are prone to, which social factors determine our choices. Clearly, such research would be impossible for economists without psychologists and sociologists;

11. Economists need to become more active in researching cultural impacts on investment projects. Collaboration with psychologists and sociologists will reveal our cultural peculiarities in the management of business processes; clarify our place on the "mono activity / multi-activity scale" or in the information charts / pictures similar to the Lewis Cultural Charts diagram. On the one hand, this will mitigate the negative consequences of uncertainty while presenting a new product to Georgian consumers, and on the other hand, it will make our society more transparent and open to foreign investors;

12. According to the scarcity of risk management practices in the Georgian companies and the methodological basis for the implementation of these practices, we tried to formulate a risk management policy for investment projects. It is true that the introduction of this policy unchanged cannot be a guarantee of success for the company, but at least it will act as a guide in the world of risk management and will serve as a kind of scheme when planning risk management activities;

13. It is necessary for companies to gradually start introducing the international standard of risk management ISO 31000. This will be the best way not only to organize the investment process, but also to focus on the whole activity of the company;

14. Forasmuch as any standard implies the introduction of control mechanisms, the process of their implementation by the private sector is expected to be delayed, so it is necessary the state to synchronize activities with the required standards;

15. The development of the banking sector should become an example for other sectors of the economy either. An objective analysis is needed to understand what causes such a large difference between the banking and non-banking sectors in risk management and business organization in general. It is desirable that large and medium-sized businesses, like banks, to start forming numerous and accurate information. This will be the best way to identify sources of risk generation;

16. The uniqueness of the banking sector is also due to the factor of the National Bank. A kind of paternalistic attitude between national and commercial banks creates a favorable environment for the development of the sector. We think that the realization of a similar function will be a positive move for other business entities either. This regulator will:

A) monitor the establishment and implementation of ISO 31000;

B) increase the motivation of companies to make quantitative and qualitative information about risks transparent;

C) require large or socially important companies to develop an action strategy in stressful situations and submit a plan for settlement of liabilities in crisis situations;

17. There should be established counseling centers, where experienced consultants in the field of financial education will help the business sector to navigate huge streams of information, concentrate on the parameters whose change more accurately describes the future, and prove them that risk management is possible and the future is not just uncertainty.
18. Our attempt to use proven methods in other areas, in particular in the field of development policy-making, as a new means of perfecting investment project risk management, has turned out to be interesting. In our view, development is a complex, general category, and with proper adjustment, the poverty alleviation program can be turned into a successful practice to combat uncertainty in corporations;
19. We believe that a low level of financial education is a source of problems on which we can develop real leverage, we will be less dependent on international economic and political fluctuations in the process, and measures to eliminate it will be less perceived as restricting the freedom of business. However, when planning promoting activities of financial education, we need to avoid standard, less effective methods and be guided, even by methods dictated by development policy.

The above findings, research results and recommendations will hopefully make at least a small contribution to improving the risk management culture of investment projects, which will make, with the chain reaction, the business operating in our country more efficient, and each citizen richer and happier.

The approbation of the work. The main conclusions, sentences and recommendations are given in the author's (I. Margvelashvili) articles and in the materials of scientific-partial conferences:

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