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*With the right of manuscript*

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**The Ways to Improve the Methodology of Managerial Decision-  
making**

**A b s t r a c t**

**of the dissertation submitted to gain the academic degree of PhD in  
Business Administration**

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#### **The importance of research topic:**

In management system, improvement of the methodology of correct decision-making is fundamental. For a long time, there was an idea that the professional experience was main to make right decisions. Today, even successful managers feel that it is important to take into consideration scientific reasoning necessity of the decisions that will sharply increase confirmation of decision-making process, Its practicality and satisfaction with the obtained results which factually determines the necessity of conducting research in this field more deeply.

The question is how to manage an organization, what should be our reaction towards the environmental changes, which governing strategy we choose to deal with possible threats, how to use current opportunities to solve some issues effectively. Today, managers are faced with such problems that develop effective decisions. However, the proper methodology for decision making is importantly depended on the depth of managerial thinking, also its flexibility and speed. The point is that the depth of thought should reflect the causal links of factors acting in the environment; wider thinking determines the ability of the manager to see the current situation in the economic system with full length and not just its own things. flexibility of thinking reveals manager's ability to refuse stereotypes and find an adequate solution for reality. And the speed of thinking - this is the minimum loss of time before the decision-making process from the problem diagnosis. Also it should be noted that these characteristics of the manager greatly determine the effectiveness of the decision and the efficiency of organizational management at all.

According to our view, today, one of the most important causes of problems in the managerial system is the weakness of scientifically substantiated methodology for creation of the system, which often leads to the development of hasty and narrow-powered solutions. Naturally, such decisions

do not have a great potential of realization in practice, because in fact there is an action programme that contains mutually exclusive approaches to the issue, and realization of which the organization leads to unnecessary expenditure of resources and more to the fall of its productivity. This facts prove actuality of this dissertation topic again.

**The aim of the study.** The aim of the dissertation is to study the problems of managerial decision-making elaboration in management. In particular, what methodology is used by the managers in decision-making process; What are the factors that have a significant impact on the quality of the decision; How well their decision is made with the strategic objectives of the organization; What threats they see and what is main obstacle to make better decision; How much we can manage expected risks in terms of incomplete information; Find out how personal and group factors have affect on the quality of decisions which they make. As a result of this, we will formulate ways to improve the methodology of managerial decision-making which will increase reliability of the decision made and determine success of the organization with the final result. To achieve this goal, there were the following tasks:

- To represent the importance of the managerial decision-making in the management system. In particular, to prove that the process of managerial decision-making elaboration is directly related to management as a continuation of the process;
- To make up main stages of successful managerial decision-making and create an algorithm for the decision-making elaboration, which will make decisions correct;

- To determine what personal and professional qualities should have managers who must determine their correct action on the selection of alternatives and in general, quality of decision-making;
- To make strict distinction between positive and negative consequences of group elaboration in managerial decision-making. At the same time, we try to work out the principles that will reduce defective sides of the group decision-making process.

**The scientific novelty of the study.** The thesis is one of the first scientific researches in which the ways to improve the methodology of managerial decision-making elaboration is completely formed, in that case if we take them into consideration probability will increase and organization will become successful both in the current and in the future perspective.

In particular, the research includes:

- The main limitations of correct decision-making and correct analysis and compromise between them which enable us to meet the operational parameters of the organization which will approach desirable productivity;
- An algorithm for the development of a managerial decision, which will bring more credibility to success;
- To be analyzed all methods and models which are used in management science. The requirements are met, which are satisfied and systematized;
- The quality of group solutions is studied by the principle and the group of the contingents. In addition, there are proposed some directions that sharply increase the chances to make right decisions;
- Attitude of groups members in decision-making process towards "groupthink" and it is estimated that the less members, the more responsible they are to evaluate all decisions;
- Key features of successful, efficient strategies of managerial decision-making.

**The subject of study** is elaboration of the modern technology of the managerial decision-making, also its study and analysis in the practice from the position of economic field. And the subject of research: how successful and reliable is the quality of the decision, how it has effects on the productivity of the organization.

**The theoretical and practical values of the study:** The research has both theoretical and practical significance. First of all, it points to the fact that if existing studies are more likely to lead to complications of mathematical modeling of managerial decision-making, which in fact went beyond the practical use. Our aim is to simplify it to use all the managers freely, especially, when the decisions are made under the insufficient. Secondly, in fact most of the existing models do not pay attention to the personal characteristics of the manager and the methodology of managerial decision-making, as a single system in which the manager, except for the modeling of decisions, has a large role in environmental analysis, management of managerial risks, and it is the most important to comply with all decision-making strategic goals. This study is the author's attempt to fill these gaps.

The results of the research may also be used for teaching courses such as "Management Basics", "Project Management", "Managerial Decision-making", "Strategic Management", "Business Administration" etc.

**Methods of Research and the Author's Contribution.** The methodological basis of the research is the modern economic theory and the principles of management science as the basis of the decision-making methodology. The problematic issues, which discussed are in studied in terms of its theoretical justification and practical usage. To this end, there are statistical materials of anonymous surveys of dissertation which were used to assess the positive and negative sides of the group decision-making process and there are

data collected within the survey of small business managers (business owners) for business perspectives and successes.

During the dissertation the scientific researches of Georgian as well as foreign specialists are used. Including the works of the scientists of economics and management theory, such as: Abraham Maslow, Gregory Mankiw, Peter Drucker, Herbert Simon, James March, Henry Mintzberg, Harry Becker, Peter Senge, Richard Cyert and others. The authors of important scientific papers on organizational management problems among Georgian scientists, particularly the development of managerial decision-making and its methodology, such as: E. Baratashvili, G. Shubladze, D. Narmania, G. Shikhashvili, A. Abralava, L. Takaladze, Ts. Dudaui, B. Ramishvili, R. Mekvabidze, Sh. Veshapidze, G. Merlani, T. Ghambashidze, B. Gechbaia, N. Kikodze, I. Tsereteli, G. Shanidze, E. Julakidze and others. However, in their work, more attention has been paid to theoretical issues of development of managerial decision-making or individual management models and therefore less attention is paid to the improvement of methodology, as a system of managerial decisions, under modern conditions. Moreover, I would like to point out that in our view, decision making is a dynamic process and not just a solution. This side of the problem is almost never studied.

The author has contributed to the scientific study of given problem. In particular, the following scientific works were published during the work:

1. **Effective management of an enterprise and management of competitive priority.** Magazine "Goni", Kutaisi, publishing house "Mermisi", №2, 2014 P. 46-49.
2. **The aim and an algorithm for the development of managerial decision-making in management system.** Current problems of sustainable development of the national economy. International Scientific-Practical

- Conference, Tbilisi, TSU, Paata Gugushvili Institute of Economics, 2015, p. 303-305 (co-author).
3. **The basic requirements for the criteria of the managerial decision-making.** Current problems of sustainable development of the national economy. International Scientific-Practical Conference, Tbilisi, TSU, Paata Gugushvili Institute of Economics, 2015, p. 478 - 479.
  4. **Forms and basic methods of managerial decision-making.** Economic, Legal and Social Problems of Modern Development. International Scientific-Practical Conference. Kutaisi, ATSU, 2015, p. 66 - 67.
  5. **The role of economic information and communication in decision-making process.** Modern Engineering Technologies and Environmental Protection. International Scientific-Practical Conference. Kutaisi, ATSU, 2016, p.560-563 (co-author).
  6. **Improvements to the development of unprofitable decisions.** Akaki Tsereteli State University "Moambe", No. 7, 2016, p. 23-30.
  7. **Managerial decision-making as a complex organizational management act.** Economic profile, KU, No 16, 2016, p. 36 - 40.
  8. **Key features of successful strategic decisions.** TSU, Collection of Scientific Works of Paata Gugushvili Institute of Economics, vol. IX, 2016, p. 395-397.  
[http://www.pgje.tsu.ge/content/image/svvasdasvva/sromebis\\_krebuli/2016\\_Shromebis\\_krebuli.pdf](http://www.pgje.tsu.ge/content/image/svvasdasvva/sromebis_krebuli/2016_Shromebis_krebuli.pdf)
  9. **Ways to improve the group development of management decisions.** International scientific journal "Internauka". Kiev, №3, 2017, P. 71-73.  
<http://www.inter-nauka.com/issues/2017/3/2153>

10. **Ways to reduce "group thinking" and increase the quality of group solutions.** Journal "Business Engineering", GTU. No. 3, 2017, p. 256-258 (co-author).
11. **The strategy of conflict management in the organization.** International scientific journal "Actual problems of economics, sociology and law, No. 2, 2017, p. 18-20.
12. **Intensity of decision-making and managerial thinking deficit.** Economics, Business and Tourism: Current problems, achievements and innovations. International Scientific-Practical Conference. Kutaisi, KU, 2017, p. 317 -319.

There were colloquiums conducted on (12.11.2015; 18.01.2018) for a periodic assessment and monitoring of the work carried out by the doctorate. Revision of the dissertation was held at the Business Administration Department of the Faculty of Business, Law and Social Sciences (Report № 16; 02.04.2018); The experts: I. Tsereteli associate professor at ATSU; G. Shanidze associate professor at ATSU; T. Ghambashidze associate professor at the Georgian Technical University), Where the work was approved and recommended for the public defense.

**Structure of the dissertation.** The dissertation consists of one hundred and sixty-three printed pages. It covers: introduction, three chapters (ten sections) and the conclusion. The text contains five tables, ten figures, twenty diagrams and two appendages. There are list of references and bibliography (eighty) in the end.

The structure of the dissertation:

## Introduction

### Chapter 1. Theoretical and methodological basis for the development of the managerial decision-making

- 1.1. Managerial decision-making as a complex act of organizational management
- 1.2. Main stages of managerial decision-making
- 1.3. Basic models of management science and methods of decision-making

### Chapter 2. Impacting Factors on Methodology of Decision-making

- 2.1. Impacting factors on right decision and evaluation criteria of the alternatives
- 2.2. The role of economic information, communication and management analysis in a decision-making process
- 2.3. Management risks and critical tasks of the organization

### Chapter 3. Modern directions of the managerial decision-making and implementation

- 3.1. Improvement of the methodology of decision-making, according to the determination and indetermination of the economic system
- 3.2. Improving ways of group development of the managerial decision-making
- 3.3. Basic requirements for the managerial strategic decisions and their assessment indicators
- 3.4. Modern directions of right decision-making development

## Conclusion and recommendations

## References

## Appendix

## Main content of the dissertation:

**Summary of the dissertation.** In the first chapter of the dissertation, **Theoretical and methodological basis for the development of the managerial decision-making**, here is discussed the role and place of managerial decision-making in the management system, it is studied the main models of decision-making development and their methods. In particular, it is noted that the theory of decision-making is derived from the XVII-XVIII centuries. However, on it, as a complex of organizational management, it took into consideration only on the 50s of the 20th century. One of them who did it was Herbert Simon. In management sciences i.e. is considered as the founder of the decision-making theory. According to him, mathematical modeling of events in the management of the enterprise management and its systematization finally reflected in the decision-making theory, which will examine: Process of the decision-making, its techniques and the principles for optimal decision-making.

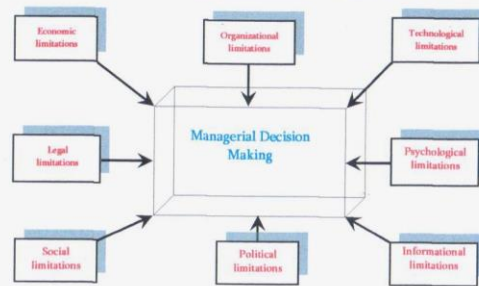
In the management system, such a great evaluation of managerial decisions is derived from the fact that there is no such a managerial decision that affects organizational management, and all the results of the managerial activity are closely linked to the decisions taken by a manager. Moreover, all managerial behavior can be explained in the context of the managerial decision, as the real essence of the management is revealed in the success of the decisions made.

There are quite different approaches to the theoretical development, specifically the evaluation of alternative options and the elaboration of a valid decision. However, in our opinion, all of them, at a much lower dose, will be reflected in three main approaches. These are intuition, judgment and rational decision. In particular, if the intuition is a human's ability to develop reasonable solutions based only on the available information, the chance of which is not higher than the right choice; Decision based decisions are based on knowledge

and past experience. Naturally, it is a variant of choice that can be achieved by considering them and with the intuitive sense; Nevertheless, neither its reliability is fully protected, when the managers take such a decision, it is similar to the previous one which was made by them; Simply put, the managers choose only an alternative that had success in the past, and as a result they deliberately (or unconsciously) lost chance to achieve better results. It's particularly evident in situations that are new to the organization; The rational decision differs from the fact that it, at the same time, relies on the economic analysis of the current situation, which supports to the reliability of the decision.

The fact is that all managerial decisions are the act of the manager, which creates activity of object and the proper behavior. All decisions can be considered as a complex act which is in certain limitations. Management Classics Peter Drucker draws attention to three important limitations (legal, political and organizational). In our view, at the modern stage of the development of society, except for those restrictions, the way to improve the managerial decision elaboration is necessary to add other aspects. In particular, successful decision should include economical, technological, social, psychological and information aspects (see Figure 1). Under such limitations, every decision, at a lower dose, will have its negative aspects. The thing is that we rarely accept such a decision that will not have any negative sides. when making a decision, the manager must be guided by the principle of preference. In the case of the final outcome, the decision made in the given case is the most favorable for the organization, it is worthwhile to close the eye on the deficiencies. We should try to find a compromise in which the operational parameters of the organization will be closer to the desired result.

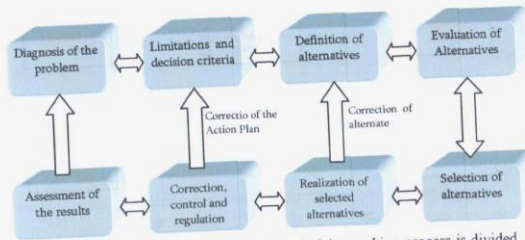
Figure 1.  
Managerial decision as a complex act and its limitations



The necessity of decision-making arises when a problem comes. That is, when the actual results of the organization do not respond to the aim, it means, some aspects of the work should be required to improve, in which we can use even modern information technologies. Still, as the agricultural practice proves, many times such a decision has not come true. In order to avoid such a dilemma, management science has designed a set of rules for managerial decision-making and their stages. That is because most of the decisions are not instantaneous, and it needs to take some time and divide the decision process into stages that are necessary to make the right decision.

It should also be noted that the quantity of stages of decision making is quite different from the view of different scientists. Based on their similarities and differences, we have developed a managerial decision-making not less than eight major steps, which at the same time serve not as stages as they offer, but also a certain spiral of permanent development, as the following algorithm (see Figure 2).

Figure 2.  
Algorithm of the managerial decision-making process



It should also be noted that when the decision-making process is divided into certain "stages", then they mean that these stages are fulfilled only with the proposed consistency. In general, we do not deny the decision making process and its certainty, but we can not agree with the position that the manager is going to have the first stage and then move on to another - after the expiration - and so on. Personal intuition and practical observations on decision-making "dictate" that these stages are often completed not consistently, but on the background of separate internal solutions and their contradictory results.

One of the directions of improvement of managerial decision-making is its modeling. Modeling is the process of events, or sampling objects, as systems which is based on their models. That is, modeling gives the possibility to study the object by considering a more affordable model.

It is naturally, the creation of a managerial model is not a simple task, especially when a difficult task must be decided. However, the better real situation is reflected in the model, the higher is its role in the successful decision making process. Therefore, the requirements to meet the models and all other related problems, in our opinion, are the following:

- **Model pragmatism.** The model should be well suited to the environment which we want to study. In fact, it should be an integral part of the study environment and not an unknown element. That is, the environment itself must support the function of the model.
- **Simplicity of the model.** The model should be so simple that it can be easy to understand. The fact is that it will not be able to fully reflect the reality, but it should still reflect the basic peculiarities of the environment. That is, to be close to modeling reality.
- **Model adequacy.** The model should keep the purpose of modeling and satisfy the requirements set out in its criteria.

In the second chapter of the dissertation, **impacting Factors on the Methodology of Decision-making**, the focus is on achieving the goal of finding possible alternatives, to identify them with the desired position and the decision-making process affecting all of those factors, to create a consistent, comprehensive plan of action to be achieved desirable productivity. That is to create a plan that fully reflects the reaction of the organization and its internal and external irritant.

It should be noted that an important feature of the modern economic system is the development of the decision-making intensity. It is due to the fact that organizations as the open systems have to provide an ideal adaptation to the rapid change in the environmental factors that it perceives through feedback and shows the deviations from the management object parameters that are one of the most important problems of modern management. The problem is that today the management process of the organization is more often created to resist the objectives and situations, in which correct solution determine the necessity to renew the managerial course. In the successful decision of such problems, for many objective reasons, there are managers' personal qualities that define their action and influence on the decision taken. That is, when all decisions are taken,

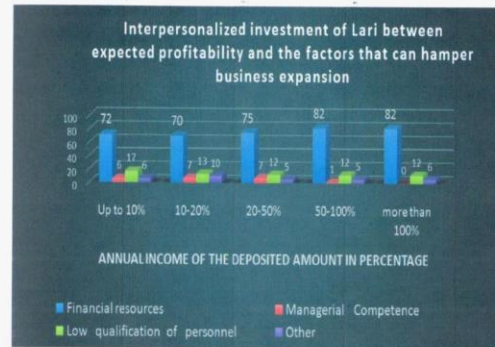


the personalities of the manager are in the role of a compromise that helps or hinder their choice of alternatives.

It is natural, the decision is effective when the organization is successful and its employees are satisfied with their working conditions. In our opinion, such a manager, along with many professional qualities, must have at least three personal qualities. such as: critical thinking, be purposeful and concentration on it and ability to evaluate their capabilities. In particular, if the critical thinking helps the manager to analyze the existing information and objectively evaluate the situation; Purpose and concentration helps to determine correctly the goal and the inner satisfaction of the adrenaline that is allocated to the moment of concentration; In general, the possibilities are the best strengths of the organization.

For the purpose of the development of these features in modern managers, A survey was conducted in the owners of small and medium enterprises (over 300) in Kutaisi and Imereti region (managers), the prospects of business and its disposal showed that today the problem of small and medium business development is "management deficit" than "Failure of Financial Resources". Otherwise, it is impossible to explain the results when 99% of respondents want to expand its business; 98% of them are probable - this is a stable and growing business, and when each lender investing in capital equals at least 50% more than the percentage of bank credit. This conclusion is further strengthened by the relationship between the expected cost of invested lari and the factors contributing to business expansion. It is clear from the fact that those respondents, who are expected to have a higher level of profitability, believe that their main controlling factor is "the lack of financial resources" (see Diagram 1).

Diagram 1.  
Interpersonalized Investment of Lari  
between the expected profitability and the factors that can hamper business expansion



However, it should be noted that this survey has revealed quite reliable perspectives. More precisely, that the younger is a respondent, the higher is the risk of lari which is invested in the capital, and the second - the younger is the respondent, lowering of the financial resources between the factors that are lower, and therefore, necessity of high qualification of managerial competence and hired personnel is increasing in achieving success (see. Diagram 2 and 3)

Diagram 2.  
Relationship between the age of respondents and expected cost of invested Lari

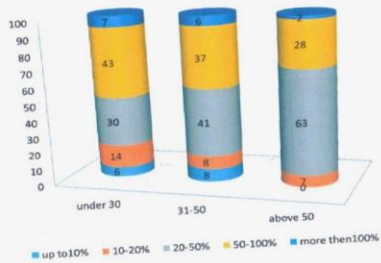
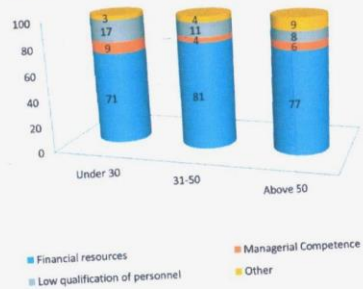


Diagram 3.  
Relationship between the age of respondents and factors of affecting business expansion



When making a decision we have to choose between several alternatives. However, only one of them achieves the desired goal of extremism. In other words, all the alternatives that can be used within existing limits may be called possible alternatives. And among them, the one that achieves the highest value of the desired criterion - optimal alternatives, or the basis for making optimal managerial decisions. So success is, first of all, depending on how correctly evaluation of the alternatives criteria will be chosen. In our view, the requirements for criteria that provide correct assessments are in the following (see Figure 3).

Basic requirements for criteria of managerial decision-making

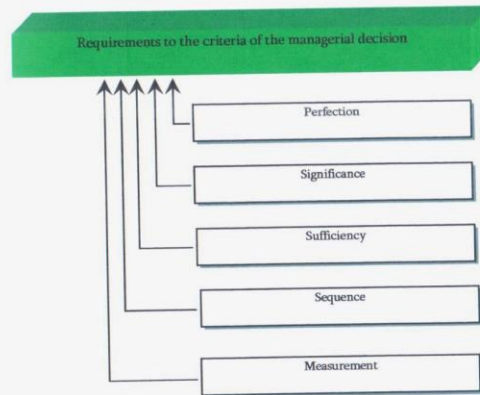


Figure 3.

Basic requirements for criteria of managerial decision-making

- **Perfection.** That is, all the criteria taken together should be able to accurately reflect the desired goal;
- **Significance.** That is, each criterion must have a clear, uneven (unambiguous) formulation;
- **Sufficiency.** Excessive things are bad and of course there are a number of criteria. It is better if they are evaluated by two or three general indicators.
- **Sequence.** If the evaluation of the managerial decision needs a number of criteria, it is desirable to structure them consistently;
- **Measurement.** It is desirable that all criteria have a quantitative indicator of their assessment.

From these criteria, it is practically impossible to provide its "measurement", especially when it comes to an ethical-legal assessment of alternatives. With the long-term success-oriented managers to evaluate the advantages and shortcomings of each alternative action, we must use such factors as: legality of decision and its ethics. Regrettably, managers, often, take into account only the economic possibilities of criteria that reflect the aspects of legitimacy and ethics of alternatives. It can not be misinterpreted by the organization.

One of the most important part of modern management is its informative provision, which envisages obtaining the necessary information to get a reasonable managerial decision. Only correct and accurate information can be made by a valid decision. The usefulness of information can be evaluated by factors such as quality, timing, perfection and relevance. The quality is the same as the accuracy and reliability of the information, the higher the accuracy and the reliability of the information, the better it is; The timeliness means that information is useful in real time, i.e. reflecting the current situation; Perfection of information gives the manager the opportunity to make an optimal decision.

However, it should be noted that the managers never have comprehensive information; The relevance is the same as the information and compatibility of information with the situations of the organization.

One of the important factors in the decision-making process that we should take into consideration is the risk that we mean the level of determination of the expected results of alternatives. It should be noted that the managerial decision-making theories separate the concepts of risk and vagueness. In particular, if the risk means that the probability of some of the results is more or less known, in terms of uncertainty, these probabilities are not known when making decisions. Nevertheless, the decision making process is still in the condition either known or unknown probabilities.

In the third chapter of the dissertation **Modern directions of the managerial decision-making and implementation**, which is dedicated to analyzing the issue, such as improvement of the methodology of decision-making, according to the determination and indetermination of the economic system. Improving ways of group development of the managerial decision-making. Basic requirements for the managerial strategic decisions and their assessment indicators. Modern directions of right decision-making development in particular, depending on how much the quality of information is provided in the system, decision-making process may be programmable and unprofitable. In fact, programmatic - these are the decisions that the managers have already made in the past to develop a set of rules, basic principles (programmes) that should be used in the relevant circumstances. And, unprofitable decisions will be taken into account when the situation is unexpected and the managers do not have sufficient information that would require appropriate rules.

In order to make an effective programmatic decision, first of all, it is necessary to evaluate the economic systems in which the organization has its activities. It is of great importance to the belief in the decision-making process

(i.e., the direction given to the program) - is correct. It should be noted that most of the decisions in the management system, which are taken into account with the operational management of the organization, are mainly programmed. For example, we have two projects (A and B) that require similar investments. However, expected profit is not specifically defined. It is represented by the following probabilities (see Table 1).

In this case, the alternatives are usually evaluated by the multiplication of its expected significance. Therefore, the expected profit for each project:

Table 1

Evaluation of Alternatives (conditional data)			
Project A		Project B	
Benefit, GEL	Probability, (%)	Benefit, GEL	Probability, (%)
3000	0.10	2000	0.10
3500	0.20	3000	0.20
4000	0.40	4000	0.35
4500	0.20	5000	0.25
5000	0.10	8000	0.10

$$P(a) = 3000 \times 0.10 + 3500 \times 0.20 + 4000 \times 0.40 + 4500 \times 0.20 + 5000 \times 0.10 = 4000 \text{ GEL}$$

$$P(b) = 2000 \times 0.10 + 3000 \times 0.20 + 4000 \times 0.35 + 5000 \times 0.25 + 8000 \times 0.10 = 4250 \text{ GEL}$$

Naturally, in this situation the advantages must be given to B-project. However, it should also be noted that this project is more risky because it has more fluctuations (A-project variation is - 2000 and B-project is - 6000).

Unprofitable decision is made when there are no rules for making template decisions that can be used in such circumstances. Moreover, managers do not even know exactly what they can achieve. The fact is that in such circumstances, it is impossible to keep certain rules. Rules that are not nearly

there. In other words, development of unprofitable decisions is in response to new opportunities and threats around which there is a great uncertainty.

In order to reduce likelihood of an expected error or increase the quality of decisions made in management science, there are two main models of methodology for making unprofitable decisions: classical and administrative. These models help the managers to identify the factors that they should be well-informed about to improve the quality of their decision. However, it is noteworthy that these models are not a ready "recipe" but are just guidelines that provide some assistance to managers to better understand the decision-making process.

Managers who apply the classical model to make a decision-making process provide many conditions. However, the basic essence of their condition is that the time (when the manager deems it) will be able to form an optimal solution, as if they could make all alternatives, "correct foresight" of the expected results and make the best choice from them. And, according to the administrative model, managers do not have access to any information requiring a decision. Moreover, even if all the information is easily accessible to the manager, many of them just do not have enough mental ability to properly evaluate it. Consequently, their decision-making is only "to find a satisfactory option".

In the west management practice, the evolutionary process of managerial decision implies the trend of development of collective adoption. This led to the development of democratization processes in management and on the other hand, complication of solving problems. It is not wrong to disagree that group decision making is better than individual decision making. The thing is that when people work hard to solve some problems, the probability that their chosen alternatives are wrong. First of all, they have the opportunity to use skills of each other, skills and competences, which will significantly improve their

ability to select alternatives and make decisions. On the other hand, group decision making enables them to develop more information and correct each other's mistakes. However, the group's decision making has also a defect, which is simply called "group thinking". It appears to be the most active in the actions of the groups which members make the decision not to carry out the perfect assessment of the information related to it.

Increasing the quality of group decisions depends on what kind of contingent of group is created. It is an awkward comparison, it can be said that there is a similar attitude between the group members as between business related goods. As it is known, the related goods can be divided into two types - interchangeable and complementary. Similarly, the "mutual exchange" are members of the group who do not avoid criticizing the wrong opinion of the leader (they are free to retain the position of the head of the organization and with no less effective results), while "complementary" are the ones whose presence in this group and generally their status is depended on the head. During the group development of the decision, these "complementary", as a rule, are united around the first supervisor and in fact blindly advocates his proposed action course and do not value of the decision. This support is often based on emotions rather than an objective assessment of the course of action. Therefore, the more likely that the group is composed of "interchangeable" individuals, the greater the chance of winning the right decision.

To neutralize group thinking, there is a technique known as "Devil's Advocacy". "Devil's Advocacy" - is a critical analysis of the selected alternative to find out its advantages and disadvantages before the decision is made. Usually, one of the members of the decision-making team plays the role of "Devil's Advocate". He deliberately criticizes and challenges the assessment of alternatives by the group and the best method of selection. Its purpose is to determine all the reasons that may be unacceptable to the selected alternative.

Cognitive bias and "group thinking" will raise the issue of how to make group decisions in such a way as to ultimately take decisions that will be based entirely on the objective assessment of all alternatives. Sometimes this is a fault of preliminary preparation for discussion, thinking about the subject of the discussion only begins in the review process; Often, the discussion does not preclude the clear formulation of the purpose of the meeting and the dialogue is in fact without direction; One of the most important problems is the person's defensive instinct, which depends on the expression of the opinion of the person and therefore the quality of his decision as a member of the group is low. For this purpose, we have the academic council and representative board of Akaki Tsereteli State University, In the staff of the Faculty of Business, Law and Social Sciences, and the Academic Staff of the Department of Business Administration, we organized an anonymous survey on the positive and negative sides of decision making. About 100 respondents were surveyed. The summary results of their survey are as follows (see Table 2).

Table 2

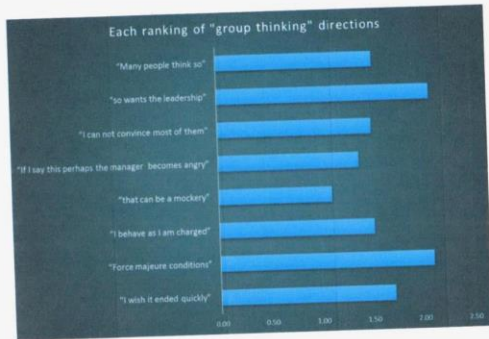
ATSU, "Group Thinking" Workshops			
No	Groups	The quantity of members in each group, person	The average arithmetic index of "Group thinking" (%)
1	Academic Council	18	9
2	Senate	38	21
3	Faculty Board	15	11
4	Department of B/A	30	18
	Total	101	16,5

It should be noted that the correlation coefficient is between the number of personnel in the group and the average rate of group thinking they are 0.96. Which actually gives us the opportunity to make a conclusion - the smaller is

quantity of members in the group, the more responsibilities they are to evaluate all decisions.

There are eight directions of "group thinking", which are developed by us (see diagram 4.)

Diagram 4.  
Ranking of "group thinking" directions



As it turned out, most of decisions are made in "Force-Majeure". The next point is the direction of the "group thinking" that can be summarized shortly - "this wants the managers" (though we can see it positive too); and the following - "I wish it ended quickly".

This survey showed us another result. Apparently, modern society, including high school students and professors, are quite bolder, because the last place among the "group thinking" directions, or the least important direction, is - "that can be a mockery."

It is also interesting that the individual groupings of "group thinking" in each group, which require more attention. In particular, for the academic council and faculty council, it is "Force Majeure Conditions," i.e. urgently to resolve issues. In our opinion, it is due to the urgent need for timely reaction to the Ministry of Education and Science of Georgia. Perhaps this is the reason for urgent response to many decisions of the university administration and the prerequisite for the "group thinking of council of the faculty direction. And for the Senate this is - "so wants the leadership", The department has three equal points of equal importance. Among these are the two above indicators ("so wants leadership" and "force majeure conditions") and the third - "If I say this perhaps the manager becomes angry."

The question is - how can managers improve their ability to make nonprogrammable decisions, decisions that allow them to resume, change, and in a favorable manner in which they have to work, which can result in the productivity of the organization? The answer to this question is quite simple - through the encouragement of organizational learning.

Organizational learning - This is the process through which the managers are trying to elevate the desire and ability of the group members to understand and manage the environment in which they work. That is, the core of organizational learning is the development of the creativity of the group members. The teaching theorist Peter Senz developed the basic principles that are needed to create a teaching facilitator. In particular, he has offered five conceptual decisions for organizational learning and development, which today are used by American and European managers as a cornerstone of successful group decision such as: goal-oriented people, goal-oriented organization, sophisticated minded models, teamwork and systemic thinking.

It should be noted that the efficiency of the decision depends not only on selection of alternatives, but also on how to bring it to the end, but depending on

how much the strategic primacy of the organization is provided. Therefore, one of the most important challenges for successful managers is not only identification of changes, but also to predict and react to them. In addition, the manager must always understand that the competitive battle is not only permanent, but it has a number of sudden changes that require an appropriate prediction. That's a solution to the problem of the decision-making, which clearly reflects the strategic vision of managers. Consequently, we can formulate four, the most important characteristics of a successful and efficient strategic decision such as integrity, continuity, accuracy and flexibility.

Integrity means that at any time, only one manual decision is applied, i.e. simultaneously implementing more than one decision may result in an invitation and disorder; Continuity implies that any strategic decision is not a moment, it is a process in which managers regularly check existing decisions, constantly correct and create new plans at all levels of the organization; Accuracy means that managers should not make any effort to find information that will help them to develop strategic management decisions; Flexibility - means a strategic decision to easily change or change if it changes the situation.

Thus, the development of the managerial decision-making affects the organization's desired goal and the information obtained from the external environment on the condition of the organization. The most important goal, which the managers should try to achieve, is the offering of the products (services) that will increase the productivity of this organization. In other words, the demanded goods (services) are needed, at the expense of the resource utilization, which is well sold and it will be effective. Consequently, one that needs to develop a successful strategic programmatic decision is that the manager should be confident that his decision will bring the desired result in the future. They are well aware of the least: the quantitative side, the time factor and the probability level. Without one element this process of predicting loses its

topicality. And as for ensuring strategic decisions of nonprofit decisions, in the absence of incomplete information naturally, the optimal decision-making decreases. However, in modern management science, there are a few descriptive models of the current situation, the correct use of which increases the likelihood of optimization. Among them should be noted:

**Carnegie model of Decision-Making.** This model is developed by Helbert Simon, James Marc and Richard Cyert, who argue that managers can choose between only the strategies that exist in the organization. Consequently, the winner becomes the managers' coalition who have the goals of the organization and their reach strategies.

**Model of Incremental Decision-Making.** This model is developed by Henry Monsberg. It focuses on the sequence of actions that are carried out throughout the decision-making process. In particular, all decisions are made of "petty" choices. If there is some choice of collision with some "barrier", the process is resolved. Such a termination means that the manager should return to another alternative and repeat the entire cycle to offer the organization a new strategic decision.

**"Garbage box" model.** According to this model (principal representative - James March), all decisions are the result of independent flows of events that arise within the organization. Such streams are: stream of problems, streams of potential solutions, favorable conditions of choice, and decision-making participants. These flows are called "atoms" for decision making. So, with this model the organization is a big "Garbage box" in which all these streams ("atoms") are intertwined. However, if the problem, alternatives, possibilities and decision-making participants accidentally meet each other at one point, the existing "atoms" have created a "molecule", then the problem can be solved by developing the right strategic decision.

**Conclusion and recommendation.** Therefore, we can conclude that successful managerial decisions will not only ensure the intuition of the managers, their discernment and experience, but also good and correctly directed methodology. However, this does not significantly reduce the important role of manager's competence in effective decision-making process. In addition, our aim is not to create a completely new methodology for decision-making, or new models of its adoption. On the contrary, in the light of the decision-making of modern technology, in the form of the proposed mathematical methods, quite beyond its practical use, have aimed to simplify and therefore, further research to see how a decision-making process in terms of the way so regulated, adjustments are made, on the one hand, and perfected the other hand, more reliable and usable, would make up the managerial decision-making methodology. For this purpose, the following conclusions and reconciliations have been obtained by our theoretical and experimental studies:

1. The managerial decision is synonymous with the entire process of management. In fact, gist of the management is revealed in the success of the decisions made;
2. All decisions have more than three, the most important characteristics. These are: goal; Alternatives and manager motifs. In particular, if there is no clear goal, such a choice can not be considered as a decision; If there is no alternative, there is no choice and the third - as a rule, every decision is made through the confrontation-assessment of the manager's motives. That is, its internal desire - to achieve success;
3. All managerial decisions can be considered as a complex act that is placed in economic, organizational, technological, legal, political, social, psychological, and informational restrictions;

4. Decision-making is not a dynamic process of sustainable development, rather than a coherent stance - the interconnecting system of solutions and their expected results;
5. Successful managers, along with many professional qualities, must have at least three personal qualities such as: critical thinking, purposefulness and concentration on it and ability to use their capabilities.
6. As a result of the anonymous survey which was taken place in Kutaisi and Imereti region, we can conclude that the problem of small business development today is more of a management deficit than the lack of financial resources;
7. Analyzing survey conducted in small and medium enterprises (managers) gives us the right to say that the next generation is more risky and feel the necessity of knowledge in success;
8. The main requirements for alternatives assessment criteria: Perfection, significance, sufficiency, sequence and Measurement. Most often, it is impossible to provide "measurement" as a criterion. Most often, it is here that there is an error in the "qualitative" evaluation of alternatives. Therefore, it is necessary to evaluate alternatives both in terms of economic position, as well as legitimacy and ethical side.
9. The evolutionary process of managerial decision-making implies a tendency to development of collective decision making, thus decreasing the likelihood that a decision is made to be biased or false. However, group decision making has its own drawback - "group thinking";
10. Specifically, it is hard to say what can prevent people in common thinking. However, the smaller number of members in the group, the more responsibilities they are to evaluate all decisions;
11. Successful, efficient strategic decision should have at least four qualities. such as: integrity, continuity, accuracy and flexibility.



12. Still the managers of well-organized organizations also encounter unexpected hamper environmental factors, although it is only a strategy to achieve a desired goal.