

# Teaching Some Issues of Problem Solving and Decision Making in the Social Science

Nana Akhalaia<sup>1</sup>, David Jalagonia<sup>2</sup>, Nino Liparteliani<sup>3</sup>

<sup>1,3</sup>Gori University, Gori, Georgia

<sup>2</sup>Sokhumi State University, Sokhumi, Georgia

<sup>1</sup>akhalaia.n@gmail.com, <sup>2</sup>Dato1962@rambler.ru, <sup>3</sup>liparteliani69@rambler.ru

**Abstract**— Decision is universal phenomenon that accomplishes life of individuals, groups as well as institutions and organizations. Each of us have to make decisions during whole period of our life. We make ordinary, prosaic decisions like what to eat for dinner or very important or strategic decisions about choice of our professional career or decisions which have global implications. Decision Making (DM) is a sense of personal, family, economic, political and social life. Maybe that is why DM is a subject complicated and hard for analysis. It is problem which concerns represents of numerous and different branch of science and humanity, i.e. economists, political scientists, sociologists etc.

**Keywords**— *decision making; problem solving; decision sciences; definition of decisional problem; alternatives of choice; social sciences*

“Nothing is More Important” – Than Problem Solving and Decision Making The work of managers, of scientists, of engineers, of lawyers – the work that steers the course of society and its economic and government organizations – is largely work of making decisions and solving problems It is work of choosing issues that require attention, setting goals, finding or designing suitable courses of action, and evaluating and choosing among alternative actions. The first three of these activities – fixing agendas, setting goals, and designing actions – are usually called problem solving, the last, evaluating and choosing, is usually called decision making. Nothing is more important for the well-being of society than that this work be performed effectively, that we address successfully the many problems requiring attention at the national level (the budget and trade deficits, AIDS, national security, the mitigation of earthquake damage), at the level of business organizations (product improvement, efficiency of production, choice of investments), and at the level of our individual lives (choosing a career or a school, buying a house)”[1].

Problem solving and decision making are taught to a limited extent in many schools and colleges. Various formulas for the stages are sometimes included and other times not. Many reports call for students to be proficient in problem solving and decision making. The need for teaching critical thinking is often mentioned without the realization that critical thinking is really problem solving and decision making. Not much action results from these reports to

improve problem solving and decision making. Many businesses have various training courses for their employees. Government agencies have hurt rather than helped. To make a long story short, the teaching and use of today's body of knowledge of problem solving and decision making is very poor. As a result we are, as a nation, doing a very inadequate job of problem solving and decision making.

Decision is universal phenomenon that accomplishes life of individuals, groups as well as institutions and organizations. Each of us have to make decisions during whole period of our life. We make ordinary, prosaic decisions like what to eat for dinner or very important or strategic decisions about choice of our professional career or decisions which have global implications. Decision Making (DM) is a sense of personal, family, economic, political and social life. Maybe that is why DM is a subject complicated and hard for analysis. It is problem which concerns represents of numerous and different branch of science and humanity, i.e. economists, political scientists, sociologists etc. (3)

There are three forms of applied thinking that we all need: decision making, problem solving and creative thinking. Decision making is about deciding at action to take; it usually involves choice between options. The objects of problem solving are usually a solution, answer or conclusion. The outcome of creative thinking, by contrast, is new idea. Decision sciences refer to broad interdisciplinary field interested in all aspects of human decision making. The emerging field of decision sciences is concerned with understanding and improving decision making of individuals, groups and organizations. In general decision making sciences examines a process of decision making at multiple levels, starting with individual choice, then moving to the group, organization and societal levels. At issue is not only how decision makers “solve problems”, but also how they come to identify and accept such problems and learn from the results of their actions.

Decisions indicate our behaviors (6). Their quality influences on our daily life. That's why DM absorbs much times. Nobody is free from DM. Everyone makes decision almost permanently. We can define decision as a choice of any activity from the collection of different alternatives of other activities which are possible to do in determined time.

Decision can also mean a conscious refraining from any action. Each decision indicates any choice and choice needs at least two alternative ways of resolving problems which could be chosen. Each possibility of choice is correlated with decision-maker's collection of opinions and convictions according to results of decision.

DM analyze concentrates especially on DM process. We define this process as a series of acts which lead us to make a decision. The DM process is divided into stages. We can point following of them: (1) definition of decisional problem (diagnosis of situation); (2) collecting information; (3) analysis of possible variants of decision; (4) evaluation and comparison of the variants; (5) making a decision.

We live in the world of information. Information is a value that leads us to effective activity and makes easier DM process. Thanks information we can choose the most optimal decision. That's why information is a useable value. Every man searches, obtains, transforms and uses information. We need information before we make decision. It should concern two aspects: (1) alternatives of choice; (2) features of these alternatives. In the previous decade, we have experienced one of the greatest transformations in history in the way societies create, store, distribute and use information. In the late twentieth century, many social scientists and other social commentators came to characterize the world as evolving into an "information society". Central to this claim was the notion that new social uses of information, and particularly application of scientific knowledge, are transformed social life in fundamental ways. In the reality of information society the base research question is how is social culture and decision-making interrelated in the information society and with respect to phenomena such digital divides. The basic question from viewpoint of information technology is: what can the computer offer to decision makers and how it can support their work? Another question is what are threatens of growing information chaos for the process of decision making. Information is a critical aspect of decision making. Data processing, selecting information has a big influence on our decision. In the contemporary world we have problem with numerous and often opposite informations. Man has limited "information capacity". Too much informations is rather a problem. Computers can be very useful for us in DM process. They help us to select informations.

Political as a part of social choices are the specific type of decisions. Common parliament or presidential elections are the example of group choice in aspect of theory of DM but they are not in sense of social psychology. What is a social choice? Generally, it is an act of selection of available alternatives. Choice is made by individuals but it can have private or public character. Private choice concerns our ordinary life and implicates to meeting of the needs. But human being also makes decision in public sphere when his/her selection influence on him/herself and others. The theory of social choice concerns especially problem of social decision in democratic social relations. Democracy

guarantees collective DM. Even if individual makes decision he/she has to have democratic legitimization [2].

But distance between election (will of voters) and political decisions made by decision makers having democratic legitimization is very far. Theory of public choice tries to explain this problem, using economic methods in analysis of noncommercial or quasi-commercial phenomena. That's why it focuses also on political decisions, framing of public order as well as mechanism of providing public supplies. It is occupied in behavior of political parties, governments, parliaments and bureaucracy.

World in the 21th century is based on uncertainty, inconsistency, instability, risk, flexibility and fluidity of relations, identities and social structures. Contemporary civilization is determined 'postmodern' or 'postindustrial'. Modern world and its order and stability is running out off. We have to habit to live in the new reality characterized by fluid borders and identities. That's why social sciences have problem with a new paradigm of researches. Their predictable competitions are now limited. Science is not now convincing source of knowledge and information. Our knowledge is temporary as our reality. Tomorrow we can wake up in the new social, political and cultural order. Despite it social sciences try to describe and explain fluid reality.

Processes like climate change, technological innovation, rapid fluctuations in world markets change a linear, scale-free, and static worldview that has guided large parts of the scientific study of society, economics and politics. Its argued that understanding nature of contemporary world we need a new paradigm. Complex system theory is not just another theory; rather it is more general perspective of analysis. We use term complex system to denote a set of interconnected and interdependent parts. The most important features of the complex system are interconnectedness and the emergence, i.e. the fact that the whole cannot be reduced to the sum of components. It will be argued that a new science of complex system is needed and that this science will embrace the humanities and social science alongside the traditional natural and physical and engineering science within the framework of policy and applications of policy through design, implementation and management. Complex system science is highly interdisciplinary and multicriterial. [5]. Generally it is necessary to have knowledge in many disciplines, including mathematics, sociology, psychology, economics, and geography and so on. New computer technologies seem to be useful and helpful in analysis of data. Thanks them we can make many calculations. Finally we use them to DM process. Multicriterial decisional analysis is very popular in so different sciences as medicine, financial economy, management, production engineering, environmental sciences etc. We can use it also in social sciences and humanities.

REFERENCES

- [1] Herbert Simon Nobel Laureate "Research Briefings" (1986).
- [2] Mueller, D., Public choice III, Cambridge University Press, 2003.
- [3] Nutt, P.A., The economics of public choice, Edward Elgar, 2002.
- [4] Janis, I.L., Groupthink. Psychological studies of policy decision and fiascoes, Cengage Learning, 1982.
- [5] Coleman, J.S., Foundations of social theory, Harvard University Press, 1990.