

## Challenges of the Managerial Decision in the Context of the Economic Crisis Induced by the Effects of COVID-19

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**Abstract:** Managerial decisions have a particularly important role in organizational life. Often the organization survives and develops due to good decisions, made by managers at the right time. There are also times when the lack of an adequate managerial response, at the right time and at the right time, can lead the organization to a less desired direction of development, or even to the bankruptcy of the organization. To understand which of the decisions are the most efficient and appropriate to the development of their organizations, managers must first know the fundamentals of decision management. The purpose of this article is primarily to present the main features of the decision-making process, as well as the particularities and specificities of the decision. Secondly, the emphasis will be on the presentation of theoretical notions on the identification of the characteristics of organizations in a process of change, in a world subject to the phenomenon of globalization. The typologies of decisions in conditions of certainty and uncertainty will be analyzed, according to how aspects related to the management of decisions in conditions of risk will be discussed. Thirdly, the opportunity to manage organizational change through projects will be discussed, as they will play the role of real vehicles of change. The case study presented in this article highlights an approach focused on a comparative analysis, between the modalities of managerial response to the economic and financial crisis in 2010-2012 and the managerial response to the crisis generated by COVID-19, as it was felt during the year 2020. The idea behind this comparative approach between responses and managerial actions in the two types of crises is that there is a common action pattern of these managers. It is also desired to identify distinct elements and particularities of the economic-financial crisis from 2010 -2012, as well as distinct elements related to the particularities of the crisis induced by the effects of COVID-19. In the concluding part of this chapter, we want to highlight some possible types of business lessons that could be learned for the future by Romanian managers from the crisis induced by COVID-19, as well as identifying possible directions for action for the future.

**Keywords:** decision; uncertainty; management; crisis; COVID-19.

### Introduction

Any activity or decision-making process inevitably involves, in addition to a multitude of other aspects, a component of a logical nature, without which the managerial decision (regardless of the specifics of the field to which it is directed) is not conceivable. Most specialized works in the field of managerial decision involve, even if only tacitly, a series of topics of inductive logic and deductive logic, developments of propositional and functional logic (predicate calculus), such as polyvalent logic, fuzzy logic, the logic of decision (choice) and their multiple applications, for example, expert systems, neural networks, fuzzy systems, not to mention the logic of probabilities (including in the form of Bayesian logic). It is, in fact, a natural situation if we consider that the plurality of contemporary logic is due, in large part, to their applications, such as the application of logic in law (legal logic), as well as to the applications of logic in sociology or psychology, not only in the form of research methodology but also in the form of propelling specialized research. Not only recent research in cognitive psychology but also the field of cognitive science in general advocates the same idea.

Approaching a comparative analysis on the domains listed above, it was possible to identify (in addition to the specific elements of each domain) several similarities in terms

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of structures and logical techniques, which can be considered significant. From the multitude of categories approached in the comparative analysis, an area that aroused a special interest, through the consistency of the correlation ratio, was represented by the one related to the decisional logic. Analyzing the structure of the decision-making act from the perspective of using logical components, it was found that it has a similar basis, regardless of whether the decision belongs to different areas: legal, sociological, or managerial, and the list could go on.

Theories related to the use of logical foundations in the managerial decision have aroused, over time, the interest of famous specialists, both in the field of logic and management, which highlighted, in their papers, the role and advantages of using an interdisciplinary approach in the field of decision theories. Due to the significant advances registered in managerial science (strongly supported by the information wave related to the last years), research in the field cannot be considered as consistent at present, without bearing the mark of interdisciplinarity. This current trend is registered not only in the managerial field but also in some fields from a complementary register. Thus, the intersection between philosophy, logic, psychology, and artificial intelligence is based on fields such as cognitive science and psycholinguistics. Philosophy and artificial intelligence converge on areas such as logic, language philosophy, and philosophy of thought, while the interactions between electrical engineering and artificial intelligence converge on areas such as control theory, shape recognition, and robotics.

Considering the above-mentioned considerations, as well as countless other theoretical and practical examples, it can be concluded that the managerial decision uses and bears fruit, directly or tacitly, logical structures and techniques. In the various managerial register, starting from the management of projects or human resources within an organization, then passing through the spectrum of investment management or risk management, anywhere and at any managerial level (top management, middle management, etc.), are used, consistently and on a large scale, important chapters of logic, in which elements of bivalent or polyvalent logic, of inductive or deductive logic, of probability logic, fuzzy logic, Bayesian logic, etc. are intertwined (Bielitz, 1981). All these chapters mentioned above are involved in the logic of the decision and capitalized in the form of applications, direct or indirect, in the managerial decision.

One of the oldest and at the same time the most important problems of traditional logic, philosophy, and mathematics is related to the choice of a correct variant for solving various specific problems, identified in various contexts. It is important to mention here that decision problems are not purely theoretical, and as such do not belong exclusively to the field of philosophy, logic, or mathematics, they can be found in any field of activity. This aspect is real because the decision-maker uses, generally speaking, the same cognitive resources in identifying problems that require solutions and follows the same steps in decision making, regardless of its field of activity; therefore, the decision-making process has an inevitable logical component, but is not reduced to it. In fact, from the perspective of applicability, as well as of the ubiquity of the human element as a decisional factor, the decisional area can be considered as a universal one and not a restrictive domain, attributed exclusively to the purely theoretical investigation area, which it cannot neglect in an absolute.

One of the remarkable problems of modern management is related to the efficiency of managerial decisions, as well as their impact. Regarding this sensitive aspect, Druker appreciated in his thesis, that not only the intelligence or the intense work hours performed in the development of a remarkable idea are relevant, but especially the focus on obtaining efficiency in the work processes (Druker, 2010, p.8). The need to streamline the decision-making process (a mechanism) and its finality in the management area results from the concrete data itself, provided by the reality of the business environment, in which studies on human decisions show that only a third of them prove to be True good, one-third are probably neither good nor completely wrong, and another third are simply wrong. The factors of responsibility know this and analyze (on average after six to nine

months) the results of the application of their decisions on human resources in their organizations. If they notice that a decision did not give the expected results, they do not conclude that the person did not work well, but that they made a mistake" (Druker, 2010, p.14).

The main problem related to the decision and, more correctly, the attribution of the decision in a given situation is, in part, the level of information existing at a given time and, especially, the completeness of this information, meant to constitute the threshold of discrimination between available. Under well-defined conditions and in a limited spectrum of action, one can accept the idea that we can conceive a model of a decision based on the presupposition of certainty.

In fact, classical philosophy and, above all, monotonic logic flirt with such an approach. In such a decisional paradigm, the human decision-maker formulates, in the first stage, the problem to be solved identifies the possible solutions, analyses these solutions based on predetermined criteria, and chooses the variant considered to be appropriate for the respective situation. The main problem is related, here, to the fact that "such a model is adequate for the description of human behavior in conditions of completeness of knowledge. The real decision situations, in their great majority, do not satisfy this condition" (Zamfir, 2005, p.13). It is related to the establishment of the discrimination threshold between the available options, to finalize the decisions (in conducting the elections).

In these conditions, it can be concluded that in most cases we are in the model of thinking with a sufficiently limited spectrum in terms of absolute rationality. And this is because monotonicity, as a philosophical idea has its limitations, as well as the very existence of a strictly monotonic model of thinking, has its shortcomings. One of the best explanations on this subject is given by the philosopher H.A. Simon, who emphasizes in one of his theses the complete lack of rationality of the human being, but only the absolute tendency towards this rationality (Simon, 1969). The author also develops a very interesting theory about how individual decision-makers (or groups of decision-makers) make decisions based on incompleteness of information, complete ignorance of reality. This leads to the overall idea of limited rationality (at least from an information point of view). The exit from this vicious circle of lack of rationality is seen by H.A. Simon through an increase in information accuracy, which will implicitly lead to an increase in the efficiency and effectiveness of the decisions taken by the decision-maker. Also, the mechanisms of limited rationality can be improved by approaching models more appropriate to reality, and here we refer to decision models in conditions of uncertainty and limited knowledge.

### **The decision in the condition of uncertainty**

From the perspective of decision theories, uncertainty is divided into two distinct components: ontological uncertainty and cognitive uncertainty.

Ontological uncertainty is based on the assumption of the existence of a deterministic universe, in which future events can be predicted, but not with certainty, but probabilistically (Zamfir, 2005, pp.27-29). In this sense, within the ontological uncertainty, the best term assimilated to this concept is the term indeterminacy. In such an approach with strong probabilistic springs, it will be selected not the best solution (as in the classical reasoning models), but the solution with the highest probability of being good. Practically, this approach corrects the model of rational choice in the absolute sense, introducing the probabilistic springs of a selection of the most probable variant. In this variant of considering the partially deterministic universe, the monotonic reasoning does not guarantee the success of the decision itself, but identifies, from a probabilistic perspective, the choice of the best variant.

Unfortunately, this model of ontological uncertainty, although superior to the classical decision-making model under certain conditions, also has a sufficiently limited area of action. This restriction of the sphere of action is due, to a large extent, to the incomplete knowledge that the decision-makers possess (both from an informational point of view, as well as from the cognitive limitations). All these constraints do nothing but generate approximations, more or less relevant, for the predictions on the decisions taken by a decision-maker, in the situation of choosing. From such a perspective, it can be assumed that, in the hypothetical situation where the universe would be strictly deterministic, the decision-maker still could not make absolute predictions (but only probabilistic), due to his incomplete knowledge.

Under these conditions, the decision model closest to the nature of the human decision-maker is that of cognitive uncertainty. This concept highlights the relativism of the treatment of probabilities in the decision-making process by the human decision-maker, due to the psychological, educational, informational, etc. springs. Cognitive uncertainty is related to the nature of the knowledge and information that the decision-maker has at a given time and not to the ontological limit of determinability (as was the case in the model presented above). Very important for the decision model of cognitive uncertainty is the fact that the associated probabilities have a subjective value, they are related to the perception of the decision agents and not to some objective conditions that could decrease the uncertainty of the decision. From this perspective, it can be stated that probabilities, as estimates of uncertainty, have a cognitive character, being dependent on the subjective approach of decision-makers.

Another interesting feature is related to the fact that, unlike the ontological uncertainty (which can be considered as a given), the cognitive uncertainty can be improved by increasing the knowledge and/or information base of the decision-maker. Also, for the decision in conditions of uncertainty, it is important to mention that the result obtained from the decision-making process is certain, only its realization has a probabilistic character (regardless of whether we are talking about uncertainty, in the ontological or cognitive sense). From this perspective on the certainty of the recorded result, one can conceive the approach of the decisional model in conditions of cognitive uncertainty similar to that in conditions of certainty.

In this sense, it is considered a complete list (set) of variants from can be decided, called, and exhaustive. In the conditions in which the list is complete, regarding the variants from which it can be decided, assuming at the same time that they exclude each other (calling them exclusive), the question arises of choosing the best variant from the presented list. If an event is defined as the occurrence of a certain phenomenon or situation, then by certain events will be meant events that have already occurred (or will occur in the future with certainty), respectively uncertain events (which are likely to occur, but are not part of the first category).

In conclusion, it can be stated that, within the decision models of cognitive uncertainty, the decision-maker can choose the best solutions (and, implicitly, can make the best decisions), based on the level of knowledge and information available to a certain moment given. Such an approach leads to a very interesting conclusion, namely that, by increasing the skills and/or information baggage, the decision-maker can change his discrimination threshold regarding the choice of a better decision-making option (in the sense of efficiency), possibly different from the one initially assumed. Basically, it is possible to modify the conclusions of reasoning based on the addition of new premises, additional to those initially assumed, which is, in fact, an important step in moving from monotonic reasoning to non-monotonic reasoning.

### The logic of probabilities in the managerial decision. The decision at-risk condition

Probability logic refers to the logic of inferences with premises and conclusions that have a probabilistic character. Perhaps one of the most interesting definitions attributed to probability is the one given by academician Mircea Malița: "probability is a kind of mental thermometer, which measures uncertainty, instead of temperature" (Malița & Zidăroiu, 1980, p.51).

The promoter of probability logic is considered G. Boole, who advanced, for the first time, the thesis of approaching propositions about events, instead of approaching through events (Enescu, 1985, pp. 190). In this sense, modal operators of the type "it is possible p" and "it is probable p" can be defined, there being similarities between the two sentences, without which they can be confused.

If a quantitative relationship is introduced, the two sentences can be transformed according to the model:

"It is probably  $m/n$  that p" (where  $n > 0$ ),

respectively:

"It is possible p to the extent  $m/n$ ".

Basically, through such a development, it probably introduces degrees of possibility.

Another approach to the logic of probabilities is given by the concept of truth. From the perspective of probabilities, it will be possible to talk about "degrees of truth", the uncertainty, respectively the certainty, being represented by percentage values between 0% - 100% or between 0 - 1 (in numerical form expression). Usually, in the numerical matrix, there is the convention that by 1 is meant truth, certainty, while by 0 is meant false, uncertainty.

At the propositional level it can be stated:

- "it is 100% probable that p" means "p is true", in the sense of certainty;
- "is X% probable that p" (where  $0\% < X < 100\%$ ) has an uncertain meaning;
- "is 0% likely to be p", i.e. "p is false", in the sense of impossible.

From another probabilistic perspective of the occurrence of the events, if it will be noted with:

- S - event is sure,
- $\emptyset$  - event is impossible,

We will affirm that events X and Y are contrary if:

- $X \cup Y = S$ , respective
- $X \cap Y = \emptyset$ .

The theory of the statistical decision considers the taking of some decisions in the presence of the statistical information that gives a "light" on the indeterminacy contained in the given problem, regarding the discrimination threshold. Knowing the possible consequences of taking different decisions requires a quantitative expression of the qualitative information previously held.

For a better understanding of the importance of using probability logic in a managerial decision, it is probably useful to highlight the role that this type of logic plays in decision-making processes. We have already discussed the fact that there are decisions in conditions of certainty (the fewest in the life of a manager) and decisions in conditions of uncertainty (which unfortunately are among the most commonly used in the managerial decision).

A particular case of decision is that in conditions of risk (which is a particular class of decisions in conditions of uncertainty). In the risky decision, although we are confident that we can reach the final results estimated from the beginning, we still have reservations

about the way in which we must act. At the same time, the results that we estimate can be achieved can no longer have a perfectly predictable form, but only a probabilistic one. We are therefore faced with a logic of calculated probabilities of achieving results, which is nevertheless very useful in risky decisions (Blake, 2008; Bratianu, 2015; Hastie & Dawes, 2001).

The fundamental difference between the decision in conditions of uncertainty and that in conditions of risk, however, would be that the uncertainty cannot be calculated, while the risk can be calculated (through its associated probability and using the elements of probabilistic calculation). Uncertainty induces a state of fear due to knowledge dynamics and thus the outcome of the decision process is different than of rational decision-making (Bratianu & Bejinaru, 2020; Bratianu & Vatamanescu, 2018). Therefore, like the other types of particular logics, the logic of probabilities has its important and independent place in the theory of decision in risk conditions (so much used in crisis management).

### **The managerial decision in the society of globalization**

In addition to the beneficial, multiple, and directly quantifiable effects of economic development, modern society behaves as a social system and, implicitly, is subject to entropic effects. The second principle of entropic thermodynamics states in principle that a thermodynamic system in stable equilibrium (i.e. it is considered that the system does not absorb or emit energy) will automatically pass into a higher entropic state. Which means nothing more than an accelerated increase in the degree of structural disorder.

Transposed economically, this principle would be translated more simply by the fact that left to chance, the entropy increases uncontrollably leading to the important destabilization of an economic system or even its collapse. Here also appears implicitly the urgent need of the systems to have efficient management, for the control of the entropic disorder layers of the system. Knowing these fundamental principles that come from the field of physics, but which also have important applications in the field of economics, economist Joseph Stiglitz talks extensively in his theses about limiting the effects of Keynesian theories, especially in crisis economics. In the crisis economy, the disharmonious effects of the imbalance of an economic system can be felt acutely not only at the level of the directly affected system but also of the adjacent related systems. Another interesting perspective that Stiglitz brings is related to the interconnection of systems in the global economy and especially to the degree of impact of related markets on the severe impact on a given market. In these situations, the effects can be felt directly in the change of the way of articulating the demand with the supply, of influencing how the "invisible hand of regulation of this market" works. Effects of this type can produce profound imbalances, which almost inevitably lead to significant unemployment, or to a change in the export-import balance of a nation (Stiglitz, 2010, p.302).

The recovery of such an economy affected by the crisis cannot be achieved easily or in the short term. There are, of course, concrete models of economic recovery that propose as a solution important changes in the economic paradigm of development, proposing to focus on development models based on an inductive knowledge, with a constructivist development base and predominantly qualitative (Rousseau, 2006, p.256).

This new model of "evidence-based management" is already successfully applied in high-performance management systems, at the social level (especially in the US and Western Europe), being already considered by many specialists as the "spearhead" of modern. This shift of emphasis, at the level of conceptual approach, towards a new management system, is not singular. The paradigmatic change mentioned by Rousseau (the transition from the quantitative to the qualitative paradigm), is, in fact, the transition to a new form of approach to management systems, defined as a "new management paradigm" (Gareis, 2005, p.32). According to Gareis' approach, the "new management paradigm" is an essential condition for achieving excellence and performance in project-oriented companies and organizations. Starting from these premises of change, essential for

avoiding the bad experiences of the economies of less developed or developing countries, subject to globalization, the identified solutions, at a modal level, can be developed on two fundamental axes:

1. increasing the system of taxes and duties, correlated with a strict financial policy (such as those practiced by international financial bodies, for example, the IMF, the World Bank, the EBRD, etc.); this method has a high degree of risk in terms of the development of adverse reactions in the economic and social environment, manifested, for the most part, either by economic chaos and social movements;
2. the development of a management system adequate to the society and its specific needs, starting from the premise that society is the most complex form of the social system (Gareis, 2005).

Obviously, in the context of accelerating economic development, but also the emergence of problems specific to globalization, such as uncontrolled migration of labor in the transnational space, "clash" of cultural and religious models, escalation of terrorism and new security measures adopted, require the adoption of a global managerial solution (s), constructive and complex, focused on strategies and programs. Also, special attention must be paid to systemic development to maintain a balance between quality, functionality, and productivity (Butum, Nicolescu, Stan & Găitănar, 2020, p. 1). This systemic development perspective can best be operationalized through development programs and projects. Thus, analyzing the above, it can be concluded that the convenient solution, which can be rationally selected from the perspective of both social costs and economic efficiency, is the development of a project-oriented society.

### **The efficiency of project-oriented organizations in a society subject to globalization**

From the above, it can be concluded that the effects induced by globalization in the international economic space are multiple and complex. According to the principle of symmetry, certainly applicable in social systems, the answer given by modern management systems (adapted to the challenges posed by globalization) can only be conceived as complex and correlated with market requirements. Each of these two characteristics will be treated separately below.

Regarding the complexity, from the perspective of project management, this notion presents three patterns: the complexity of the fight, the factual complexity, and the interaction (Geraldi & Adlbrecht, 2007, p.34). The complexity of the fight refers to the solution of some problems that appeared within the projects, to the creation of something unique, or the management of the situations with a high degree of uncertainty. The activities that contain such a type of complexity have a very wide horizon of evolution, with multiple possibilities of modification, not offering to the decision-makers very generous information about the solutions to be applied. Although time is not an implicit variable (which can be taken into account in such a type of complexity), it cannot be a very important period of time for the manager to check all the possibilities for analyzing activities, the decision is often based on expertise and know-how.

Factual complexity involves managing a huge volume of interdependent information (like social systems), in this type of complexity there is no possibility to collect, analyses, and prioritize information, to assign a decision that can benefit from a clear overview. In this situation, managerial decisions require the use of IT methods of prioritization and information management. In the absence of such modern managerial tools, the possibilities of interrelating activities often become fuzzy. The complexity of the interaction is the best example of the effects of globalization, appearing in the interface area of different areas, such as politics, multiculturalism, multilingualism, etc. This type of complexity is characterized by transparency, multiple references, and empathy, being, most often, applied in the study of social systems.

Regarding the correlation of the new managerial systems with the market requirements, we return to the paradigmatic concept identified previously: "the paradigm of the new management". This new type of paradigm, specific to the project-oriented society, is based on concepts: customer orientation, process orientation, project team orientation, competitiveness orientation, encouraging continuous changes in the production flow (Gareis, 2005, p.32).

Like project-oriented organizations, the project-oriented society is constantly subject to change, implicitly appearing in the need to manage these changes. According to modern theoretical models, change in the project-oriented society presents, like organizational change, the four distinct well-known stages: defining the new environment, learning the new environment, supporting the new environment, modeling the new environment (Dinsmore & Cabanis-Brewin, 2006, p.324). The specificity of these stages in the project-oriented society consists in the fact that, due to the rapid changes of the economic environment, they are transferred at a sustained pace at the level of society, exceeding in speed, complexity, and scope the classical organizational model. Due to the rapidity of the changes that occurred at the level of the society, as well as their complexity, suspicions can often appear on the veracity of the analyzed data, useful to carry out the decision-making process. Thus, the information recording system, assimilated to the managerial system, must rationally follow the specific changes that have occurred in the social environment, avoiding the paradox of irrational objectivity (Chapman, Ward, 2005, p.465). In this sense, the observation of changes in the project-oriented society must be made without falling prey to obsessions related to the objectivity and veracity of the analysis data referred to.

Along with the specificities identified above, in the theory of change, an extremely important role is played by the application of maturity models in the project-oriented society. If the classical maturity model presented development on five levels (Kerzner, 2005, p.41): common language (level 1), common processes (level 2), common methodology (level 3), benchmarking (level 4), and continuous improvement (level 5), the specific model for the project-oriented society also presents a sixth level, entitled interconnectivity. Unlike the simple organization or even in relation to the project-centered organization, the project-oriented society cannot develop outside a close interconnection between all its component elements. Also, in this type of society, there are specific problems, related to multilingualism, multiculturalism, etc., so that the definition of levels 1 and 2 is not as simple as in a classical organization, they have specific forms.

### **Future development trends of the project-oriented organization**

One of the most challenging topics of discussion, addressed by most decision-makers, of global reference, refers to the forecasts on the evolution of the globalized economy in the next 20 years. The questions raised are many, and the fears expressed are serious enough. Will globalization be able to make up for current social inequities or will it deepen the gap between rich and poor nations? Will transnational labor migration intensify or decrease? Will environmental policies, proposed for implementation, be effective to avoid the impending global ecological catastrophe? What we know for sure is that the possible answers to these questions are very difficult to express in terms of certainty.

What is certain is that global long-term development policy has four major priorities: eradicating absolute poverty, minimizing the risks of globalization in developing countries, mediating inequalities at the level of countries and regions, strengthening human rights and human development (Kirkpatrick, 2002, p.20). In the current context of accelerated global economic development, it seems unbelievable that at the opposite end of this effect of globalization is extreme poverty in some countries around the globe. On the other hand, the informational era, also called knowledge, is heading towards its peak, leaving room for another, post-informational one. The mentor of current modern management systems, Professor Steven Covey, calls this new era the "age of wisdom", in



which, by referring to universally valid principles, the successful society will travel from excellence to greatness (Covey, 2006, p.13).

Given these concepts, will the project-oriented society be able to move towards greatness? It seems that, for this question, the premises of a favorable answer are sufficiently consistent. More and more companies are beginning to develop performance, by transferring or adopting successful models, usually identified within project-focused organizations. Specific benchmarking techniques are increasingly used by companies that have so far, they did not question design. Globally, organizational goals are becoming increasingly correlated with society's goals.

Programming and programmatic documents are beginning to gain ground in developing economies, which until recently did not use such tools. The cascading development of computerized models of managerial decision, as well as the frequent use of information technologies and professional software dedicated to the management, in general, and project management, in particular, are just as favorable premises for the development of project-centered society. In fact, in summary, the transition of the project-oriented society to greatness requires the efficient application of the programming principles, as well as their transposition from the global level to the societal level.

### **About change, opportunity, and the need for projects**

The organizational environment is subject to change. Change is a natural process by which evolution and progress are made. In principle, change does not appear as an option but as a necessity in itself for the evolution of a system, whether it is biological, organizational, informational, etc. Without going into details at this level about the steps needed for change, we will discuss the opportunity and meaning of change. The opportunity for change - arises when those critical conditions that encourage change are met. Firstly, there is a need for an external environment conducive to change that can take many forms: organizational, political, economic, social, etc. Secondly, there is a need for an internal climate favorable to change that focuses on visionary leadership, decision-making power, bringing together a critical mass of employees to initiate / support change.

Organizational change becomes appropriate only when the internal organizational environment is correlated with the conjuncture created by the internal organizational environment. In other words, the opportunity for change arises when the system is ready. We bring to your attention perhaps one of the best definitions given to a system by R. Gareis, namely "the term system can [...] designate everything that allows the differentiation of the internal environment from the external one. The difference between exterior and interior determines a certain order that does not change in any way, but through an internal structure, characterized by the type of its relations" (Gareis R., 2006, p.40).

The meaning of change - is determined by the initiators of change. These initiators of change cannot be found in the form of organizations, but in the form of people with a leadership position within that organization. There is no notion in this sense of the decision of an organization, but of the trajectory that the organization follows as a result of a decision being taken by a decision factor. Thus, we can conclude that organizations do not have opinions and do not make decisions. However, decision-makers in some organizations do this often enough.

Decisions made by decision-makers can be chaotic (in the worst case) or follow a predetermined trajectory, which is correlated with the direction of movement of an organization. Decisions must be strictly correlated with a development vision of the organization and put into practice through a plan. Starting from these premises, Rice appreciated in his paper that "every decision-maker has a reason for making his decision", in general, the decisions being followed by actions which leads us with the thought to the

notion of plan (Rice, 1983, p.58-65). Also, to reinforce this idea, Rice appreciated that. "All decisions are made with premeditation" and as a result, this "premeditation" pursues a purpose. Certainly, premeditation in achieving a goal, based on actions, naturally leads us to the idea of a plan.

In the modern age, all evolving structures need a plan. There can be no personal and organizational efficiency and performance without a plan. Perhaps sometimes, when the decision-maker is not focused on observing the specific typology that identifies a plan, he notices more (or not at all) the belonging of his actions or those executed by third parties within a plan. Having an anecdotal character, yet exceptionally radiographing the individual-plan relationship, Henry Mintzberg mentioned at the beginning of his work, as a motto, the words of Woody Allen "I was in bed in the heat and I wake up to be part of a plan" (Mintzberg, 2008, p.21). This "sudden" and involuntary belonging of the individual to a plan is even more strongly felt at the level of organizations.

At present, organizational efficiency or effectiveness cannot be conceived in the absence of development plans. The most pragmatic expression of organizational development plans is represented by projects. The educational environment does not make a distinct note in relation to the efficient and effective development of an organization. The structuring of the development plans and organizational action is currently done in the organizational environment through projects.

It should be noted from the outset that the term project has several meanings. In a similar sense, this time linking projects to project organizations, a new meaning can be given to the term project, namely "the project is defined as a non-repetitive process that achieves a new, well-defined amount within specialized organizations" (Opran & Stan, 2008, p.92). Viewed from the perspective of the project-plan relationship, the project definition can gain new meanings "a project is a plan that is broadly characterized by the uniqueness of conditions, such as setting objectives, time limits, financial, personal and other regulations related to other plans" (Gareis, 2006, p.32).

Most of the time the projects are assimilated with the organizational change. From such a perspective, managing change within an organization is often synonymous with managing the projects that impose and support that change. Thus, project management can be seen generically as change management.

It is well known that the organizational environment needs a change, maybe even a profound one. However, as we have seen in the above, change cannot be sustained without resources. And like all fields of activity, resources are not provided but they must be obtained. In the current situation generated by the global financial crisis, attracting resources for the development of organizations is vital, often being a problem for the survival of these organizations.

### **A comparative analysis between the crisis of 2008 – 2012 and the COVID-19 crisis**

Within the case study related to this article, a comparative analysis of the mode of action of the Romanian managers in conditions of the major economic crisis has been carried out. Two types of major crises were proposed for comparative analysis, which had an obvious impact on the global economy, as well as in particular on the national economy. It is about the economic-financial crisis from 2008 - 2012, whose economic and managerial effects will be compared with those of the economic crisis generated by the COVID 19 pandemic situation. The role of this comparison was to identify the degree of preparation of Romanian managers for managing both crises and especially if there were significant differences in the way managers behaved in both crises (in their capacity as top decision-makers for own organizations).

***The research method used in the case study was one of comparative analysis***

For the analysis of the economic-financial crisis from 2008 - 2012, an analysis of the main data of a personal study was performed, on a sample of 797 organizations in Romania. The collection, processing, and interpretation of these main data taken from Romanian companies were carried out through personal efforts between September 2011 and January 2012 (exactly during the end of this major economic and financial crisis). The full data of this study conducted in that period (mentioned above) were never published. Only a small part of these results was presented at an international conference. However, the specific information presented in this study was never presented or published. Therefore, it can be concluded that one can discuss original research, the results of which have been presented in this article have not been published so far.

For the analysis of the economic crisis generated by the presence of the COVID-19 pandemic and especially of the managers' reaction in crisis conditions, the analysis of secondary data from several recent studies (all with year-round data) was used as a research method. (2020). All studies analyzed in this article, to identify the economic and managerial effects in the economic crisis generated by the COVID-19 pandemic, were conducted by organizations with high credibility globally (European Commission, Government of Romania, National Institute of Statistics) and large volume samples (several thousand organizations).

One can thus speak of an approach perspective focused on data analysis with high representation at a national level.

***1. Characteristics of the managerial behavior of Romanian managers in the economic-financial crisis (from 2010-2012)***

As previously mentioned, the quantitative study was conducted between September 2011 and January 2012 through personal efforts, on a sample of 797 Romanian organizations, with the following distribution: 691 private companies, 59 public institutions, and 47 organizations non-governmental organizations. The margin of error calculated for this survey was + / 5%. From the perspective of the geographical positioning criterion, we have the following regional distribution of the sample: 359 companies from the Bucharest-Ilfov region, 161 companies from the North-East region, 154 companies from the North-West region, and 17 companies from other development regions of Romania (than those mentioned previous). Considering the number of employees, we obtain the following distribution of private enterprises (according to the national classification of company typologies, according to the number of employees): 318 micro-enterprises (having between 1 and 9 employees), 215 small enterprises (between 10 and 49 employees), 72 medium-sized enterprises (between 50 and 249 employees) and 31 large enterprises (with over 250 employees).

According to the collected data, 62.99% of the respondents are men and 37.01% are women. Here, too, the distribution of statistical data obtained in the survey, in terms of gender distribution, is correlated with the gender distribution (provided by the National Institute of Statistics, according to data from May 2012), in which the percentages representative at nationally, 64% are male managers, respectively 36% are female managers.

According to the data of the undertaken study, over 95% of the respondents are university graduates - 45.04% with bachelor's degree, 39.9% with master's degree, and 10.41% with a doctoral degree.

Regarding the degree of importance of decision-makers, we can mention that the research universe was made up of people with an important role in the decision-making structure of the organizations they represent. Thus, when asked to appreciate the importance of their decisions within the organization, 97.99% of respondents considered that the

decisions they make are very important or important, and only 2.01% of respondents considered their decisions in the organization as unimportant or neither important nor unimportant.

Asked about the type of leadership that people with a management position approach within the company, most of the managers surveyed (57.47%) answered that it is participatory, 32.25%–consultative, and only 7.78%–dictatorial. Correlated with the level of education, from the study data it could be observed that an important percentage (21.6%) of managers who appreciated the type of leadership they approach as a dictatorial one is represented by managers with a level of education of 12 classes or less. Compared to these data, the percentage of managers with doctoral studies, who appreciate their leadership style as a dictatorial one is only 2.4% (confirming that the level of education influences the type of decision within an organization). On the other hand, regarding the approach of a consultative leadership style, the differences are no longer significant (managers with 12 classes have an expressed opinion of 35.1%, compared to 30.9% - undergraduate studies, 31.8 % -master studies, respectively 38.6% - doctoral studies).

When asked about the influence that other types of people have on their decision, the majority of managers surveyed (91.22%) stated that decisions within the organization are, to a large extent, influenced by senior management and, respectively, by department managers. These figures support the idea that although managers advocate for participatory leadership, employees still do not seem to have any significant influence on their major decisions.

Regarding the acceptance of the existence of logical foundations within the managerial decision, within the item “Q4.1. The managerial decisions have a deep logical foundation, without which it is not possible to discuss a rational decision”, the managers participating in the survey were asked to express the degree of agreement in relation to this statement. Following the analysis of the data interpreted by the survey, it was observed that over 60% of the respondents agreed partially or totally with this statement, thus implicitly recognizing the deep role of logical foundations in the managerial decision.

Regarding the concrete approach in practice of the principles and logical foundations of the managerial decision, the respondents had to establish to what extent they agree with the following statement “Q4.2. In my managerial activity I constantly apply the fundamental principles and theories of logic”. The analysis of the survey data showed that the fundamental principles and theories of logic are, at the declarative level, applied in the managerial activity of over 90% of the respondents (36.14% total agreement, respectively 55.83% partial agreement). This subscribes to a dominant tendency within the subjects, that of appreciating the field of decision-making logic as an important one in a managerial activity.

Regarding the management of decision uncertainty, managers were asked to what extent they agree with the statement “Q4.3. Situations of decision-making uncertainty could be better managed if I had more knowledge of logic. "The great importance given to decision-making logic by managers is also confirmed by the fact that 62.86% of respondents confirm (22.33% strong agreement and 40.53% weak agreement) that more knowledge of logic could be useful in managing situations of decisional uncertainty.

Regarding the degree of knowledge of the theories and logical-decisional models within the managerial activities, a point of view of the questioned managers was requested in relation to the statement “Q4.4. Logical theories and models are little known and applied in the field of management. " The analysis of the survey data showed that almost 82% of those surveyed agree that these decision models, although very useful (according to previous statements) are little known and applied in management (37.39% strong agreement, respectively 43,66% weak agreement).

The survey managers were also asked about the role and importance of critical thinking in the decision-making process. Thus, ask about the level of agreement with the statement "Q4.6. Critical thinking is useful in the managerial decision-making process" over 91% of those surveyed highlighted the important role of critical thinking in the decision-making optimization process (where 60.48% had a strong agreement, respectively 30.49% a weak agreement).

Regarding the pragmatic action of asking for help from a specialist in the field of managerial logic, to the question "Q4.7. I would hire a logician within my organization, in the advisory working group, to help me in optimizing the decision-making model ", only 37.9% of those surveyed say they would use the services of such a specialist (6.78% agree) strong and 31.12% in weak agreement). It is interesting here the very large discrepancy between the utility given by managers to decision logic and critical thinking, but not the hiring of a specialist in the field to increase the quality of the management decision process.

## ***2. Characteristics of economic and managerial behavior during the economic crisis induced by COVID 19***

First of all, it should be mentioned in the analysis of this crisis by COVID-19, the fact that this economic crisis is in full swing, the information and documentary fund available was sufficiently small in terms of volume but also in terms of content. However, some very interesting features could be highlighted, which can be presented below.

The first research analyzed in our paper was entitled "Assessment of the impact of COVID 19 on the economic environment, in March and April 2020", was conducted from the Romanian National Institute of Statistics on a sample of 8831 nationally representative economic agents (from manufacturing, construction, retail, and services field of activity). According to this study, the secondary data analyzed showed that Romanian managers accuse an extremely high level of unpredictability of their business, in a climate of great decision-making uncertainty. Basically, they state that they are unable to predict the evolution of their business, given that in just one month (March - April 2020) the level of unpredictability reported by them has increased from 21.2% to 34.3%. (Report 1 COVID-19, 2020, p.2). According to these statistics, the economic crisis induced by COVID-19 was felt so strongly that practically 3 out of 10 Romanian managers lost practically predictability on the basic parameters of their own companies in less than two months from the onset of this crisis.

The same study shows that the evolution was so dramatic that in April 2020, 62.9% of managers could not make any predictions about the evolution of sales volume in their own business for the next period. Undoubtedly, one of the most severely affected sectors of activity of the COVID-19 crisis in the Romanian economy is the hotel and restaurant industry. Here the percentage of managers who estimated a decrease in the volume of their activities by at least 25% (compared to the situation before the crisis) or even the closure of their businesses increased from 92.9% in March 2020 to 94% in April 2020 (ibidem, p.6).

In the second research conducted by the National Institute of Statistics entitled "Trends in the evolution of economic activity in March-April 2020", there was conducted a study of more than 1.000 Romanian companies, considered to be representative of the Romanian Economy.

If the first research highlighted above, the basis of the analysis was focused on the perception of managers regarding the decrease in sales volume and turnover in the next period, the second statistical survey undertaken by the National Institute of Statistics at the level of months March - April 2020, focused mainly on how the Romanian managers surveyed perceive the risks and how they relate especially to future action scenarios regarding the management of investments and human resources. In this sociological

study, 43% of the Romanian managers surveyed stated that they could not make any predictions on the evolution of the number of employees for the next period of time (Report 2 Tendencies, 2020, p.1). Also, from the perspective of risk analysis analyzed in this study, the predominant opinion of managers was that the most significant decreases will be recorded in the sector of services provided by SMEs, where it was estimated at that time a decrease in the volume of services by over 50 % (ibidem, p.5).

From this point of view, the conclusions of the second study (which were presented above) only complete the points of view already highlighted in the first study analyzed previously. The perspective of lack of predictability and even panic of the surveyed managers is kept at the same high levels in both studies highlighted above, unequivocally marking the way in which the evolution of COVID-19 has impacted their businesses.

## **Conclusions**

The purpose of this article was to highlight both theoretically, and especially practically, the decision-making and action methods and typologies that Romanian managers have used in the two types of economic and financial crises analyzed. It should be noted that the economic crises analyzed, although they took place at 8 years' difference, had several common features, but also obviously some distinctive features.

During the first analyzed economic-financial crisis (period 2008-2012) the following aspects were identified:

- Managers placed particular emphasis on a leadership style of the participatory organization, the dictatorial style being adopted mainly by managers with a lower level of education (with a maximum level of high school education).
- There is a sufficiently good and optimistic perception of the way managers manage their organizations.
- Managers are open to a modern management style, as well as to new ideas, accept the role of decision-making assistance by people specialized in managerial decision and critical thinking.

It is true that they are not very enthusiastic about actually hiring specialists in the field of managerial decision support (logicians or experts in critical thinking) but they recognize their role in the process of optimizing the managerial decision. There is a positive outlook for the post-crisis society, which managers say is more optimistic than pessimistic.

Regarding the analysis of the secondary data from the second study, the following conclusions can be drawn:

- The level of concern and even panic expressed by the managers surveyed about the impact of COVID-19 on their own business is significantly higher than in the first study.
- The general perception is that the effects of the economic crisis generated by COVID-19 had a greater magnitude and were felt faster than in the economic-financial crisis of 2008-2012.
- The level of unpredictability of the evolution of the turnover, of the sales volume, and of the number of employees that will be made redundant during the COVID-19 crisis is significantly higher than during the economic-financial crisis from 2008-2012.
- An economic polarization of the negative impact on specific areas of activity (such as the hotel and restaurant industry) appears in the economic crisis generated by COVID-19, where the level of unpredictability on a future evolution reached 94% at the level of April 2020.

Both crises have in common a high level of unexpected and unpredictable evolution with which they surprised the Romanian managers. The two economic crises analyzed significantly impacted the business of the managers interviewed in all the studies analyzed in the case study.

All these observations lead us finally to the idea of a better professionalization of the management environment of organizations in Romania. Undoubtedly, there is room for more specialized support in assisting the managers of the organizations to obtain better efficiency and effectiveness of the managerial decisions (especially in crisis conditions). Also, a better understanding of how organizations affected by the economic crisis can survive can lead to a more appropriate managerial response in conditions of high unpredictability.

- Bieltz, P. (1981). Logica alegerii și decizia socială [Logic of choice and social decision]. In *Probleme de Logică*, vol. VIII, Bucharest, RO: Romanian Academy Publishing House.
- Blake, C. (2008). *The art of decisions. How to manage in an uncertain world*. London, UK: Financial Times/ Prentice Hall.
- Bratianu, C. & Bejinaru, R. (2020). Knowledge dynamics: a thermodynamics approach. *Kybernetes*, 49(1), 6-21. <https://doi.org/10.1108/K-02-2019-0122>
- Bratianu, C. & Vatamanescu, E.M. (2018). The entropic knowledge dynamics as a driving force of the decision-making process. *Electronic Journal of Knowledge Economy*, 16(1), 1-12.
- Bratianu, C. (2015). Developing strategic thinking in business education. *Management Dynamics in the Knowledge Economy*, 3(3), 409-426.
- Butum C., Nicolescu L., Stan S.O. & Găităranu A. (2020). Providing sustainable knowledge for the young graduates of economic and social sciences. Case study: Comparative analysis of required global competences in two Romanian universities. *Sustainability*, 12, 5364; <https://doi.org/10.3390/su12135364>
- Chapman C., & Ward S. (2005). *Managing Project Risk and Uncertainty*. Chichester, UK: John Wiley and Sons.
- Covey S. (2006). *A 8-a treaptă a înțelepciunii. De la eficiență la măreție [The 8<sup>th</sup> Habit. From effectiveness to Greatness]*. Bucharest, RO: ALLFA.
- Dinsmore C., & Cabanis-Brewin J. (2006). *The AMA Handbook of Project Management*. New York, NY: Amacom Publishers.
- Druker, P. (2010). *Despre decizie și eficacitate [About decision and efficiency]*. Bucharest, RO: Meteor Press.
- Enescu, G. (1985). *Dicționar de logică [Dictionary of logic]*. Bucharest, RO: Scientific and Enciclopedic Publishing House.
- Gareis, R. (2006). *Happy projects*, second edition. Bucharest, RO: Academy of Economic Studies Publishing House.
- Geraldi G., & Adlbrecht, G. (2007). On faith, fact and interaction in projects. *Project Management Journal*, 38 (1).
- Hastie, R. & Dawes, R.M. (2001). *Rational choic in an uncertain world. The psychology of judgement and decision making*. Thousand Oaks, CA: SAGE.
- Kerzner, H. (2005). *Using the project management maturity model*. Chichester, UK.: John Wiley and Sons.
- Kirkpatrick, C., Clarke R., & Polidano, C. (2002). *Handbook on Development Policy and Management*. Heatherley House, UK: Edward Elgar.
- Malița, M., & Zidăroiu C. (1980). *Incertitudine și decizie [Uncertainty and decision]*. Bucharest, RO: Scientific and Enciclopedic Publishing House.
- Mintzberg, H. (2008). *Ascensiunea și declinul planificării strategice [The rise and decline of strategic planning]*. Bucharest, RO: Publica.
- Opran C., & Stan, S.O. (2008). *Managementul proiectelor [Project Management]*. Bucharest, RO: Bren.

## References

- Report 1 COVID-19 (2020). *Evaluarea impactului COVID-19 asupra mediului economic, în lunile martie și aprilie 2020 [Assessment of the impact of COVID-19 on the economic environment, in March and April 2020]*, National Institute of Statistics, Retrieved from [https://insse.ro/cms/sites/default/files/cercetare\\_impactul\\_covid-19\\_asupra\\_mediului\\_economic.pdf](https://insse.ro/cms/sites/default/files/cercetare_impactul_covid-19_asupra_mediului_economic.pdf)

- Report 2 Tendencies (2020). *Tendințe în evoluția activității economice în perioada martie - aprilie 2020, [Trends in the evolution of economic activity during March-April 2020]*, National Institute of Statistics, Retrieved from [https://insse.ro/cms/sites/default/files/tea\\_impact\\_sars\\_cov2\\_r20.pdf](https://insse.ro/cms/sites/default/files/tea_impact_sars_cov2_r20.pdf)
- Rice, G. (1983). Strategic decision - making in small business. *Journal of General Management*, IX, 58-65.
- Rousseau, D. (2006). Is there such a thing as evidence -based management?. *Academy of Management Review*, 31(2).
- Simon, H.A. (1969). *Rational choice and the structure of the environment*. London, UK: Penguin Books.
- Stiglitz, J. (2010). *În cădere liberă [Free falling]*. Bucharest, RO: Publica Publishing House.
- Zamfir, C. (2005). *Incertitudinea - o perspectivă psihosociologică [Uncertainty - a psychological perspective]*. Bucharest, RO: Economic Publishing House.

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