



Decision-Making Approaches

Literature Review APA Formatting Sample

Theory of decision making is a set of general proposals on the way and process of making business decisions (Turpin & Marais, 2004). It is a relatively young and important scientific discipline that has emerged as a result of the scientist's efforts to explain how individuals or groups decide or decide. Within decision theory, there are values, uncertainty, risks, information, as well as human perception, feelings, and logic. Decision-making alone has an interdisciplinary character because it relies on knowledge in the field of economics, psychology, philosophy, mathematics, and statistics. In the literature, we cannot come to terms with the research paradigms, theoretical concepts and methodological approaches to decision making.

The development of decision-making theory can be divided into three periods: Old Phase; Pioneer phase; Axiomatic phase (Peterson, 2017). Many theorists study the decision-making process and accordingly have a set of common, basic concepts. That is precisely why decision theory can be divided into two areas: Normative Decision-Making Theory, Descriptive decision theory. The normative decision theory came about in the mid-20th century. He deals with the ideals and principles of good or rational decision-making. He describes a perfect, rational decision maker whose goal is to maximize his / her own profit. In addition, it also contains numerous decision-making methods whose application is proposed in different circumstances, most often linked to decision-making with software. This approach assumes certain rules that would help people, if they adhere to it, to make the best decision in a given situation. Unlike a normative theory, the descriptive decision theory, which emerged in the 70s of the last century, is not directed at what rational entities should do, but what real entities actually do. The primary goal of descriptive theory is to understand and explain how individuals consider available information and how they come to some decision or choice. Although initially linked to the normative field and dealing solely with the question of the viability of the assumptions of rational decision-making, it expanded over time to the observation, analysis and theoretical interpretation of the actual choice and decision-making procedures. It recognizes the complexity and uncertainty of the environment and assumes that organizations solve this problem by avoiding uncertainty. One of the important events that underpinned a number of research into the decision-making process is the publication of the book "Theory of Games and Economic Behavior" by J. von Neumann and O. Morgenstern (1944). These authors have shown that each decision maker, acting in accordance with his preferences, implicitly complies with the principles of maximizing the expected utility and assigning the results of numerical value. In this way, postulates of economic utility theory, as well as the beginnings of the development of Game Theory, are set. With the development of economic utility theory, quantitative decision-making methods have also begun to develop. Decision-making tools were based on mathematical methods and models that support a logical and rational decision-making process. The greatest driving force in the development of decision theory is Operational Research, whose main goal is to make the most favorable decisions (Tsoukiàs, 2008). Today, the theory and practice of decision-making are represented in many areas that explore human behavior such as cognitive psychology, social psychology, a psychology of organization, economics, management, philosophy, and sociology. This is a very important research that is evolving and is witnessed by numerous scientific journals, professional associations gathering scientists and experts from the field of economics, as well as awarded the Nobel Prize in this field. HA. In 1978, Simon received the Nobel Prize in economics for his pioneering research of decision-making processes within business organizations. In addition, J. M Buchanan, J. F. Nash, D. Kahneman, and several other scholars were awarded the award for

their achievements, which are related to decision theories.

Wren's decision can be defined as a selection process that involves a number of consecutive interdependent steps that help us to reach a problem in a consistent, rational manner. Decision-making is a process that lasts longer or shorter, but in which there is a choice between two or more options to solve the problem. The decision making phases are: identification of problems; defining the problem; analysis of possible alternatives to achieving the goal and defining results; Choice of the best solution alternatives. Identifying a problem is an initial step in solving problems and making the right decision. This phase of the decision-making process is particularly important because the proper identification of the problem depends on whether the problem is solved. It encompasses: selection and classification of data and information; connecting and processing data and information, interpretation. Defining a problem involves clarifying the relationship between the elements that caused the problem, leading to a solution to the problem. This phase implies: Identifying component problems; Analysis of connection problems and other problems; Defining goals; Defining possible ways and ways of achieving set goals. Analyzing alternatives means calculating the results, or the effects that can be realized if it is realized. The chosen alternative must be the best or optimum, and the selection is made with regard to the costs, benefits, and the probability that the expected profitability will be achieved. The decision-making phase ends with the decision-making process in the narrow sense. However, the integral decision-making process also encompasses the implementation phase and control of decision-making. Managers, as well as other decision-makers, can behave in one of two ways: the Model of an Economical Man; Model of administrative man. The most important assumption of the economic man model is rationality, i.e. the model indicates that decision-makers in the decision-making process are fully rational. This tells us that the decision-maker will make the choice when deciding on the alternative that will enable him to achieve the best result. Economists are the preferences of the default variable and therefore define the rationality using the logical-mathematical law of transitivity: if we like to spend more good A than good B, well B more than good C, then we love to spend good and more than good C. One of the most significant the representative of this theory is Max Weber, who points out that the rationale is only the manager who has all the information necessary for decision making, and that he has a clearly defined goal that he wants to achieve. That is why rationality can be subjective and objective. Objective rationality refers to the model of economic man, while subjective rationality points to the model of administrative man. The administrator of the administrative man is Simon. This model is based on the model of an economic man but suggests that he decides in everyday life on the basis of subjective rationality. Accordingly, the decision maker does not strive for the best possible solution, but is satisfied with a satisfactory solution because the fact is that people have limited cognitive abilities, limited opportunities to contemplate and consider all options, information, and knowledge about the future, as well as imperfect the ability and the ability to handle all available information.

When it is necessary to make a decision on choosing one of the many possible solutions to a problem, it is desirable to apply some of the multi-criteria decision models. This implies the process of choosing one of the many possible alternative solutions that set certain goals. It refers to decision-making situations in which there is a greater number of conflicting criteria, which allows for solving real problems. The presence of a number of criteria, in addition to positive, has also negative characteristics. Models become more complex, so there is a danger that the solution to the problem only includes some of the set criteria. The spectrum of multi-

stakeholder decision-making is wide, but all these problems also have some common elements: a greater number of criteria (function of goal, criterion function), or attributes of decision making created by the decision maker. Conflict among the criteria, as the most common case for real problems; Unsustainable (non-contiguous) units of measure for different criteria; A number of alternatives (solutions) for choice; The process of choosing a final solution, which may be the design of the best option from a set of predefined final actions.

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