

# Enhancing Students' Decision-Making Skills Through Class Exercises: A Bounded-Rationality Model Application

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**Abstract.** Decision-making skills are critical managerial skills yet remain pedagogically challenging. Within a bounded rationality decision-making model framework, we design a ready-to-use class activity integrating content from multiple courses, such as Organizational Behavior, Human Resource Management, and Strategic Management. The activity creates a “hands-on” and “mind-on” opportunity for students to apply the previously learned knowledge to solve a real-world organizational issue — selecting a new CEO. We examined the effectiveness of the activity by testing several teaching outcomes using a sample of 44 undergraduate students. Our results suggest the activity is beneficial to students in practicing managerial decision-making and in increasing their self-efficacy for HR ideas, self-efficacy for teamwork, teamwork preference, and interest in Human Resource Management topics and practice.

**Keywords:** pedagogy, classroom activity, CEO selection, Human Resource Management.

## 1. Introduction

In a business setting, managers are trusted with decision-making to address operational and strategic problems, such as allocating funds, arranging logistics, implementing policies, hiring talents, responding to crises, and more. Managers must analyze available yet limited information and engage in critical thinking to make sound decisions. Thus, developing decision-making skills in students is an important learning objective for management programs in business schools (Dachner & Polin 2016; Neely & Tucker 2013). As a result, higher education has become highly relevant in preparing students to meet future challenges and stay competitive in the business world (Laguna-Sánchez *et al.* 2021).

Dewey (1938) advocated that “all genuine education comes about through experience” (p. 25). Although the well-structured college curriculum allows students to advance their understanding and comprehension skills while taking introductory courses (Barclay 2018), it remains challenging to develop the higher-

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level skills of Bloom's taxonomy, such as analyzing, evaluating, and creating. To overcome or at least mitigate this challenge, educators suggest that experiential learning promotes learners to be actively engaged and achieve higher-order learning outcomes (Dachner & Polin 2016; Wang & Chia 2021). Cannon and Feinstein (2005) recommended that individual faculty incorporate class activities to accomplish this. Since human resources are the heart of any organization, hiring the right candidates for the right positions is crucial for an organization's success. Selecting the right Chief Executive Officer (CEO) is even more paramount as the CEO will ultimately affect the firm's performance. Given the long-lasting impact of such a hiring event, it is critical to incorporate thoughtful and effective decision-making into students' learning and develop exercises that reflect these organizational events.

We present students with an exercise to enhance active learning by integrating theory and practice. In this exercise, each group of students is presented with a unique company scenario and six CEO contender profiles. They assume the board of directors' roles and navigate the decision-making process to select a new CEO. Students can face several challenges in this decision-making exercise, as in the real business world, such as limited information, time constraints, and judgment biases (Schepker *et al.* 2018). Through this exercise, students will gain a "hands-on" and "mind-on" active learning experience to help them develop the confidence to make sound managerial decisions.

## **2. Theoretical Background and Pedagogical Framework**

Decision-making, considered as a means rather than an end, is a fundamental process of choosing one out of at least two alternatives in problem-solving at both individual and collective levels (Crozier & Ranyard 1997; Pollard 1987; Szymaniec-Mlicka 2017). Decision-making is inevitable. Even the avoidance of reaching a decision is a decision itself (Pearce & Robinson 1989). In today's fast-changing business environment, managers must constantly make appropriate decisions to solve complex problems. According to Hastie (2001), good decisions are those that can be effectively chosen from the available options in a given situation to achieve the goals and objectives of the decision-maker. Yet, decision-making can be stressful due to decision conflicts, arousing decision-makers' anxiety and other unpleasant physiological and psychological symptoms (Janis & Mann 1977). Moderate stress levels are ideal for collecting and analyzing information to exercise sound judgment (Bachkirov 2015; Janis & Mann 1977), while too little or too much stress can be detrimental to making the right choice (Hengen & Alpers 2021).

## 2.1. Rational Decision-Making and Bounded Rationality

A prominent area in the decision-making literature centers on the rationality assumption (Certo *et al.* 2008). Human rationality is often considered a unique attribute that distinguishes human beings from other species and has been marked as one of the most significant accomplishments of humankind (Shafir & LeBoeuf 2002). Indeed, the rationality assumption has been recognized as “the most common and pivotal assumption underlying theoretical accounts of human behaviors in various disciplines” (Shafir & LeBoeuf 2002, p. 492).

According to the classical rational decision-making model, individuals select rational choices and make an optimal decision to maximize their interests when given a chance to choose from alternatives (Von Neumann & Morgenstern 1944). The underlying assumption is that the decision-maker is rational and has complete information. As a result, the decision-maker can identify all relevant choices unbiasedly and choose the one with the highest utility. Such a rational approach may be most beneficial, especially when a decision's magnitude of impact is colossal. For many years, social scientists and scholars considered the rationality assumption an appropriate approximation for modeling and predicting human behaviors (Shafir & LeBoeuf 2002). For example, research finds that top managers tend to adopt the formal rational approach when decisions significantly affect various organizational departments (Nooraie 2008).

Despite the significant role that the rationality assumption plays in the decision-making literature, scholars have questioned this assumption, and suggested the belief that organizations rely on this formal rational approach may be naive. Perfect rational reasoning would be effective in dealing with theoretical problems but becomes incapable of explaining human behaviors in reality (Arthur 1994). Indeed, given the less-than-perfect environment, decision-makers' different backgrounds, and limited information-processing capabilities, making optimal decisions is difficult (Edwards & Tversky 1967). In support, Nooraie (2008) found that, due to limited resources and experience, smaller companies and junior managers are less likely to implement the rational model. Most decisions do not follow the rational decision-making model, as people are usually content to find an acceptable or reasonable option rather than an optimal one (Bazerman & Moore 2008).

Due to the dissatisfaction with the rational decision-making model, Simon (1957) introduced the concept of bounded rationality, which assumes that decision-makers make imperfect decisions owing to several constraints, such as limited time and information. The concept of bounded rationality is an alternative normative approach involving satisficing — choosing a “good enough” course of action rather than searching endlessly for an optimal one (Simon 1956, 1957). In this model, a decision-maker's cognitive ability is constrained and influenced by a wide range of factors, such as complexity, resource availability, personal goals, skills, values, evaluation criteria, etc. Bounded rationality suggests that decision-

makers can make better decisions if they have adequate resources (Certo *et al.* 2008). Decision-makers will choose the first satisfactory course of action, even though it may be suboptimal (González-Valdés & de Dios Ortúzar 2018; Simon 1979). Conlisk (1996) noted that bounded rationality thinking is important and has been successful. This model should be incorporated into decision-making to achieve suboptimization when optimization is infeasible. Considering the rational model's limitations, many scholars adopted Simon's (1957) bounded rationality in various fields, such as accounting, economics, gaming, management, marketing, transportation, web searching, etc. (e.g., Chen 2013; Mansourian & Ford 2007; Manzini & Mariotti 2009; Morales Burgos *et al.* 2020; Munier *et al.* 1999; Su 2008; Xue *et al.* 2019). Scholars noted that shifting from the rational choice model to the bounded rational model has led to a more realistic portrait of the managerial decision-making process (Aharoni *et al.* 2011).

## 2.2. Managerial Decision-Making Process

Managerial decision-making is “the act of seeking information, interpreting information, and based on such perceptions, arriving at a conclusion in relation to strategic issues” (Simon & Thompson 1998, p. 7). Managers generally apply decision-making for three primary purposes: problem-solving, goal attainment, and political appeasement (Simon & Thompson 1998). The types of decisions that managers make may vary as well. For example, some minor decisions may be operational or tactical and can be made relatively quickly, whereas other decisions involve significant resource allocation and take longer to complete (Certo *et al.* 2008). The success or failure of decision-making largely depends on the decision-making process (Dean & Scharfman 1996).

Drawing from the two-process theories of reasoning (Epstein 1994; Evans 1984, 1989; Levinson 1995; Sloman 1996), Stanovich and West (2000) proposed two distinct cognitive systems in decision-making — System 1 and System 2. System 1 has been described as “fast, automatic, effortless, and often emotional” (Certo *et al.* 2008, p. 114) and is rather similar to a decision-maker's intuition or instincts. Conversely, System 2 is depicted as the slow, deliberate, and rational process that propels decision-makers to seek and analyze new and missing information before reaching a conclusion (Kahneman 2003). Both System 1 and System 2 are critical in managerial decision-making and often work in tandem. Many experienced managers use System 1 to make decisions when it is sufficient and practical and later confirm their intuitive decisions with the comprehensive System 2 processes of due diligence (Certo *et al.* 2008; Chugh 2004),

The comprehensive decision-making processes can consist of sequential activities, from identifying the problem to discovering the course of action (Nutt, 1984). Typically, these activities can be grouped into three major phases: identification, development, and selection (Mintzberg *et al.* 1976). A comprehensive strategic decision-making process requires decision-makers to