

STRATEGIC DECISIONS: HOW GOOD DOES IT FIT THE DECISION- MAKING PROCESS INTO THE STRATEGIC MANAGEMENT PROCESS?

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The complicated dance between the decision-making (hereinafter: DM) process, which is shaped by the individual psychological constructs and internal cognitive processes, and the methodological process of strategic management (hereinafter: SMP), which can be understood as a framework that defines decision context, raises pertinent questions about their coherence. The purpose of this study is to propose an integrative model of the strategic decision-making process (hereinafter: SDM), which links the cognitive processes of decision-makers with the rigour of strategic management and identifies and mitigates potential risks at each stage of the holistic process. To design the research, we used the "model paper" approach which seeks to build a theoretical framework that predicts relationships between research concepts. The developed comprehensive model connects four independent concepts, creating a holistic framework for SDM in organizations. The comprehensive model reveals a high degree of consistency between the SMP, knowable decision-making cycle and cognitive processes. Throughout the entire process, decision-makers need to be mindful of the interplay between System 1 and System 2 thinking. While System 1 thinking may provide quick insights and initiate creative thinking, it is important to complement it with the deliberate and analytical reasoning of System 2 thinking, which can be supported by a proper application of different strategic management tools and methods.

Keywords: Strategic management process; Decision-making process; Integrative concept; Strategic decision-making; System 1 and 2 thinking.

INTRODUCTION

Decisions are the coin of the realm in management. They determine whether an organization succeeds or struggles. The essence of decision-making (hereinafter: DM) is an omnipresent activity, the one that is intricately woven into the fabric of managerial responsibilities and spans across professional and personal realms. Strategic decisions, as Kolar and Tušak (2022) emphasize, are particularly consequential, charting the course of organizations' current performance and long-term market positioning. Herein lies the profound impact of

managerial decisions that place DM as a distinguishing activity of managers.

Recent research by Rogers and Blenko (2013) underscores the pivotal role of DM efficacy in separating exemplary organizations from their contemporaries. Larsen (2016) quantifies this challenge, presenting an astounding figure of the billions of decisions made annually by managers — a process that, Aminov, et al. (2019) argue, consumes a vast proportion of managerial time and resources, often inefficiently. The culprits of inefficiency range from diverse organizational pitfalls to cognitive

deficiencies as De Smet et al. (2019) elucidate, citing issues such as convoluted DM paths and information overload, which alone rack up significant economic costs for Fortune 500 enterprises. The disparities between successful and less successful organizations, Rogers and Blenko (2013) contend, can often be attributed to the calibre of strategic decisions made which is a competence that is surprisingly scarce among organizations. The task is further complicated by the complexities brought forth by modern business dynamics (Müller-Stewens, 2020), making the strategic decision-making (hereinafter: SDM) process a balancing act between navigating external environmental factors and aligning them with an organization's internal mechanics. Consequences of inadequate strategic decisions can precipitate organizational declines or even total collapse.

The intricate dance between the cognitive DM process, which is shaped by individual psychological constructs of decision-makers (internal cognitive process) and the methodological process of strategic management (external convention), raises pertinent questions about their congruence. This interplay, as Müller-Stewens (2020) contend, is influenced by the psychological attributes and personal convictions and competencies of decision-makers, which are critical elements in the formulation of strategic pathways. Given how unreliable human judgment is, all evaluations are susceptible to errors. These errors can stem from known cognitive biases or they can be random errors, sometimes called "noise" (Kahneman et al., 2021). As Alhawamdeh and Alsmairat wrote (2019) managers are affected by several factors in their SDM for organization. These factors will directly and indirectly affect the well-being of the organization.

The SDM process is deeply affected by the interplay between two cognitive systems, namely System 1 and System 2, as delineated by Kahneman (2017). System 1 (also System-X, intuitive or heuristic system), which operates quickly and automatically with little to no effort and no sense of voluntary control, can have an outsized impact on strategic decisions. It facilitates rapid sense-making and DM in complex situations where immediate action is required (Gonzalez-Loureiro & Vlačić, 2016; Kahneman, 2017). This capacity for fast, intuitive judgment allows managers to react swiftly to market changes and exploit arising opportunities, which can be particularly advantageous in fast-moving industries or situations where innovation and competitive advantage are closely tied to the ability to anticipate or create trends and disruptions. In this respect, System 1 thinking, which is associated with the use of heuristics in DM

processes, can be a source of strategic insight and inventiveness, as it enables a visceral understanding of nuanced environments that may elude more structured, analytical approaches, especially if the decision-maker has experience in the domain of DM (Klein, 2015). On the other hand, System 2 (also System-C or analytic system) is characterized by slower, more deliberate and conscious thinking. It is the system we engage when we need to do complex computations, weigh options judiciously, or when we need to control ourselves (Gonzalez-Loureiro & Vlačić, 2016; Kahneman, 2017). In the context of SDM, System 2 is crucial in systematically evaluating the long-term implications of decisions, assessing risks, and ensuring that the choices made align with the overarching strategic goals and values of the organization (Bayo & Akintokunbo, 2022).

The interplay between these two systems is at the heart of the balance that modern organizations must achieve for SDM. System 1's biases and heuristics can both positively and negatively influence strategic decisions. For instance, cognitive biases such as overconfidence, underestimation of risks, or anchoring on certain pieces of information can lead to strategic missteps if not properly checked by more reflective thinking. Paradoxically, these same intuitive processes that may lead to biases can also enable the kind of visionary thinking that propels organizations beyond conventional strategy boundaries. Since various authors (Calabretta et al., 2017; Negulescu, 2014) state that both cognitive systems can be used and have been used in the SDM process of managers, we will investigate what can be the threats and risks of their use in the process of strategic planning and implementation of strategies.

Therefore, the article aims to propose an integrative model of the SDM process, which aligns the cognitive psychology of decision-makers with the rigours of strategic management, recognizing and mitigating potential risks at every stage. With a developed integrative model, we will (1) properly connect the individual successive phases of both processes to the holistic SDM process and (2) define the risks which arise from using different cognitive styles in individual phases of the holistic process.

THEORETICAL BACKGROUND

Decision-making process

In general, DM is a process that includes not only the current decision, which manifests itself in the choice of an alternative, but also includes all

activities that take place before and after the choice of an alternative. Before the choice, these activities are related to the identification and study of the decision problem, the definition of goals, the collection of information about alternatives and the formulation of criteria. After the selection, it is mainly about activities related to the realization of the decision and the monitoring of its consequences. The DM process is thus a more or less systematic process of gathering and organizing knowledge, in which we should obtain enough information for a suitable decision, reduce the possibility of overlooking something essential and be aware of the risks and consequences of the decision (Bohanec, 2012). The DM process undoubtedly has a great influence on the quality of decisions, because if we follow an orderly process in DM, the probability that the decision will be appropriate is greater than if the DM process is less orderly or even random (Rozman & Kovač, 2012).

DM is a cognitive (mental) process, which depends on our perceptions of the external environment or perceptions related to the object of DM. Cognitive processes are mental abilities that enable an individual to understand and recognize things that surround him and are related to a problem. DM process therefore depends to a large extent on the cognitive abilities that the manager uses when he judges various contents important for DM, when he

makes decisions and when he implements the decisions made. The connection of the mentioned processes forms the cognitive style of the individual, which manifests itself in DM (Gonzalez-Loureiro & Vlačić, 2016). Even though, based on modern research, it is possible to identify several types of DM processes in organizations, the DM processes at the individual level can be classified into two basic forms, intuitive (System 1) and analytical (System 2) (Kahneman, 2017).

Defining the DM process is mainly dealt with within the rational choice theory (Rozman & Kovač, 2012), which tries to structure the entire process into successive stages of the procedure, which should be taken into account when we are faced with solving a decision problem. Elbanna et al. (2020) define the DM process as the "process by which a strategic decision is formulated and implemented, that is, the process that leads to the choice of goals and means and the way that means are effectively deployed". The DM process is defined differently by different authors, and it includes a different number of phases or steps in the DM process (Bohanec, 2012; Negulescu, 2014), which, however, can be harmonized with each other depending on the content of each phase. Thus, different definitions of the DM process by stages are presented in Figure 1.

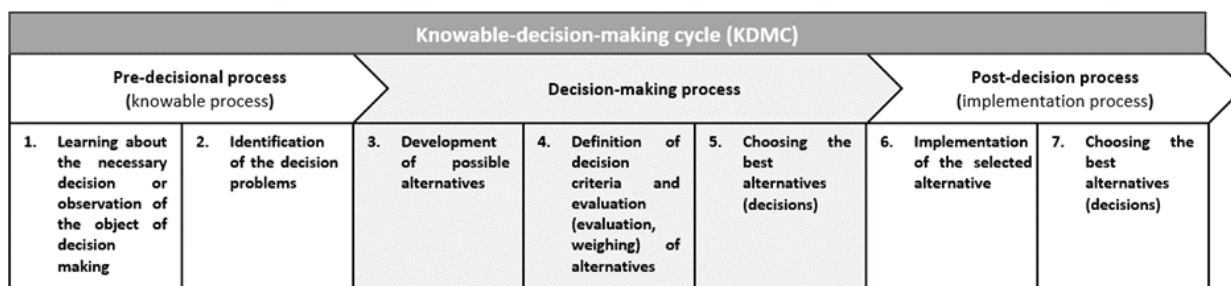


Figure 1: Phases in a DM process (knowable-decision-making cycle - KDMC).

Figure 1. presents the DM process in the broadest sense. The process structured in this way consists of seven consecutive phases, through which the entire process should go to be able to (1) recognize and understand the problem, (2) arrive at a rational decision, (3) implement the chosen decision and thereby solve the decision problem. From Figure 1 it is also evident that many authors include the implementation, monitoring and control of the decision in the DM process. Rozman and Kovač (2012) argue that following these two steps is essential to determine the appropriateness of the decision, as well as the effectiveness of its

implementation. However, as they claim, these two steps are no longer a DM process in a narrow sense, which is also agreed by Bohanec (2012). According to Rozman and Kovač (2012), the implementation of the chosen decision and the evaluation of the decision should already be the beginning of a new DM process. By including these two phases in a comprehensive process, they named the entire process the knowable decision-making cycle (hereinafter: KDMC), where the DM process in a narrow sense ends with a decision being made. For completing the model of SDM, the decision implementation phase needs to be included, because

how well decisions are implemented and managed appears to be vital for decision success. It seems that the key reasons for unsuccessful decisions occur mainly during the implementation of decisions rather than during decision adoption.

Developed KDMC delimits the comprehensive process into three sub-processes and thus clearly defines that part of the comprehensive process in which the DM process actually takes place. Thus, in the pre-decisional (knowable) process, cognitive (mental) and other processes should take place, in which the decision-maker is primarily concerned with learning about the DM problem and thereby recognizing deviations or gaps between the desired and actual situation, or identifying some opportunities or threats of the external environment, analyses the identified decision problem and got familiar with him. An identified and structured decision problem is sufficiently defined in such a way that it is possible to enter the DM process, through the phases of forming possible responses (alternatives) and checking their suitability, feasibility and potential success. In this sub-process, the decision-maker ends with the adoption of a decision. In the post-decision (implementation) process, the decision is implemented and the effects of the adopted decision are controlled and evaluated. The implementation process is mainly related to the efficiency of the use of resources for the implementation of the decision and the evaluation of the effects.

Empirical evidence suggests adherence to well-defined decision processes leads to higher-quality choices (Elbanna et al., 2020). Structured routines help avoid cognitive biases, consider more options comprehensively, and achieve consensus through transparency and accountability (Rozman & Kovač, 2012). However, processes must also cultivate flexibility for intuition to surface unexpected opportunities amid uncertainty and change. Although there are certain limitations in the use of both cognitive styles, which will be discussed in later chapters, it can be argued that in the case of the DM process in strategic management, the dominant use of the rational cognitive style is more appropriate. One of the basic assumptions about management in general and DM in particular is that rational processes yield choices which are superior to those coming from intuitive processes (Elbanna et al., 2020).

Strategic management process

Just as the concepts, models and methods of strategic management changed over time, different views and understandings of what strategy has also emerged and developed. Despite this, the fundamental value of an organization's strategy should be that it theoretically provides the organization with a way to coordinate activities, messages and decisions across groups of individuals towards achieving shared long-term aims (Mackay et al., 2020). From its beginnings till the present time the concepts of strategic management were changed due to the (1) historically specific characteristics of the business, economic, political, social, environmental, technological, legal and other important environments in which the process of strategic management took place and (2) the rapidly growing development of knowledge, methods and models of the profession and science of strategic management. Present-time strategic management is mainly characterized by the global economic crisis, which was caused by the collapse of the financial sector at the end of the first decade of this century, by the problems of national economic systems (Greece, Italy, Portugal), political threats (Syria, Ukraine, Izrael), major social challenges (migration, Brexit, populism, social networks), climate changes (air pollution, floods, fires), extensive use of modern information technologies, which, among other things, enabled the development of new business models based on the sharing economy, also called collaborative consumption (Airbnb, Uber) and global health challenges at the beginning of the last decade (epidemic of COVID-19). All these phenomena had a significant impact on the development of modern strategic management, which in the future should focus on a comprehensive understanding of corporations and the economic impact on other social and life subsystems and broader corporate social responsibility. Topics such as big data, digitalization and sustainability are at the fore in modern strategic management (Grant, 2018; Loonam et al., 2018; Mackay, et al., 2020).

Strategic management skills are useful for all those who plan and direct organizations, regardless of the size and scope of the business and the sector of operation: private, public or voluntary. Müller-Stewens (2020) argue that although that there is a large number of different forms of methodological support for strategic management have been developed in the last few decades, only a few dozen

of them and the simplest ones are in wide use. Rigby and Bilodeau (2018) found out that the number of tools used in the strategic management process (hereinafter: SMP) has had a marked negative trend over the last 15 years and that strategic planning is still the most popular tool used worldwide in strategic management.

Thus, the process of strategic management can roughly be divided into the processes of strategic

planning and strategy implementation, and it is necessary to emphasize the importance of the strategic planning process, as it is the one that forms the basis of future actions and operations. Strategic management models vary in phases and sequences but involve planning, implementing and controlling at their core. This provides direction for subsequent activities and processes. Thus, at the most general level, the process of strategic management could be defined as shown in Figure 2.

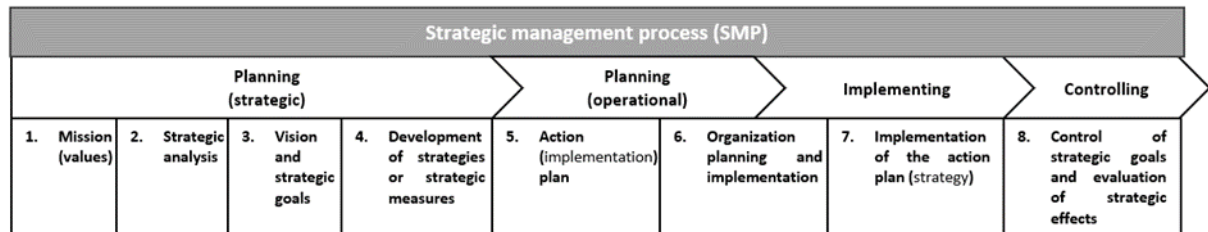


Figure 2. Strategic management process (SMP) at the most general level.

Figure 2 presents the SMP at the most general level with the sub-processes or phases of this process. From the review of the studies of the authors who were involved in the definition of this process, it can be seen that they all follow the fact that the entire process is composed of the basic (fundamental) organizational processes and that it takes place in three sub-processes: planning, implementation (execution or realization) and control (Bayo & Akintokunbo, 2022; Kolar & Jurak, 2014; Planellas & Muni, 2020; Rozman & Kovač, 2012). Many differences between individual authors can be found precisely in the number and naming of sub-processes or phases that they state within individual fundamental organizational processes, as well as their location in the individual organizational process. Thus, some authors place the process of identifying or defining the mission as the first in the process of strategic management, some after a strategic analysis and some, not at all classified as a phase in the process of strategic management. Some authors also define it as a phase in the process together with vision and/or goals. Rozman and Kovač (2012) write that the mission statement is one of the most important documents of each organization, but that it is not part of the strategic planning process, since the mission statement is supposed to be the fundamental document of the organization and as such should not depend on planning. Regardless, in the presented process, the mission is classified as the first phase of strategic planning, as it defines the purpose of the organization and thus answers one of the

fundamental strategic questions "Why is the organization present in a certain environment?". The authors are more or less united in the meaning and placement of strategic analysis in the process of strategic management. Also, everyone points out that this consists of the following basic analyses: analysis of the (external) environment of the organization and analysis of the business or internal environment of the organization. Various authors have developed a whole series of methods and techniques to determine the characteristics and rules that define the external and internal environment of the organization (Planellas & Muni, 2020). The insights from the strategic analysis should create an important basis for deciding on the strategic vision and strategic goals ("What should the organization do in the future?") of the organization and, of course, the choice of strategies ("How will organization achieve these goals and thereby realize the purpose?") with which the vision and strategic goals should be realized and the mission of the organization established. According to Rozman and Kovač (2012), this should complete the process of strategic planning. The processes of preparing action plans and the process of organizing (planning and implementing the organization) should be processes of operational rather than strategic planning. Likewise, the process of implementing or realizing the strategy is not a process that is directly implemented, but the implementation of the strategy depends on the direct implementation of projects and activities that are part of the operational (action,

implementation) plan, where we primarily deal with the effectiveness of their implementation. The process of strategic control, however, is primarily aimed at determining successfulness, in which, in a comparison between the planned and actually realized, we determine if we have chosen the right goals and strategies in the planning process. The process of strategic management presented in this way is general and therefore very simplified, but the purpose of its definition was mainly to establish and recognize the mutual relations between strategic management methodology and the DM cognitive process.

Definition of strategic decisions

Strategic decisions are the most important product of managerial efforts, and strategic choice is the most critical variable in strategic management and can influence the success or failure of organizations. Unlike many other organizational decisions, strategic decisions deal with the long-term future of the entire organization and have three distinct characteristics; (1) they are rare (2) have consequences and (3) guide the organization's future performance (Bayo & Akintokunbo, 2022, p. 57). SDM is an attempt to plan the long-term future of the organization and increase the chances that the organization will be successful (Alhawamdeh & Alsmairat, 2019). Harrison (1996, p. 46) set five criteria for identifying and making a strategic decision; (1) the decision must be aimed at defining the relationship of the organization to its environment, (2) the decision must take the organization as a whole as the unit of analysis, (3) the decision must cover all the main functions performed in the organization, (4) the decision must ensure limited leadership for all administrative and operational activities of the organization and (5) the decision must be critical to the long-term success of the entire organization. Also, Papadakis and Barwise (1998, p.1) stress out five characteristics of strategic decisions; (1) they are usually big, risky, and hard to reverse, with significant long-term effects, (2) they are the bridge between deliberate and emergent strategy, (3) they can be a major source of organizational learning, (4) they play an important role in the development of individual managers, and (5) they cut across functions and academic disciplines.

When defining strategic decisions, the authors mostly deal with the definition of criteria that determine strategic decisions or with consequences of such decisions for the organization. Some

authors also emphasize the role and approaches of managers in the formation of strategic decisions, but only a few suggest the integration and treatment of manager's cognition. The SDM process is mostly considered a single process and thus assumes that the cognitive process of individual managers follows the methodological definitions of the SMP (Ahmed et al., 2014; Bayo & Akintokunbo, 2022). The methodology of strategic management envisages a sequential process that takes place in successive stages in the planning and implementation of organization strategies, within which managers can use different tools and methods (Müller-Stewens, 2020; Planellas & Muni, 2020).

The most common understanding of the DM process is based on classical economic theory, namely the theory of expected utility and the model of the rational agent (*homo economicus*), which was not intended as a psychological model, but as a logic of choice based on the axioms of rationality (Kahneman, 2017). The DM process understood in this way is therefore normative and also takes place in different successive phases (Koziol-Nadolna & Beyer, 2021; Negulescu, 2014). Even though the DM process can be understood in a normative sense, it is important to take into account that the DM is first of all a cognitive process and that many studies have discovered and proven numerous deviations from the axioms of classical economic theory, which are defined as anomalies of the rational choice model and are caused by various biases affecting the DM process (Thaler, 2019) and boundaries of human rationality (Kahneman, 2017; Simon, 1976). All these anomalies, however, can lead to serious and systematic errors in DM processes (Kahneman, 2017) and can occur in every successive phase of a normatively designed KDMC, largely depending on which cognitive style is used (Kahneman et al., 2021).

For the purposes of this study, a strategic decision will be understood as the result of a cognitive DM process that takes place in accordance with the methodology of SMP.

RESEARCH DESIGN AND METHODS

To design the research, we used the methodology supported by Gilson and Goldberg (2015), when they explained the writing of a conceptual paper that provides a bridge or connection between different concepts and scientific disciplines. The

method approach was the "model paper" which seeks to build a theoretical framework that predicts relationships between concepts. A model paper identifies previously unexplored connections between constructs, introduces new constructs, or explains why elements of a process lead to a particular outcome (Jaakkola, 2020).

In that manner, based on a review of representative sources, (1) a general understanding of DM and its importance for the successful management of corporations and other organizations is presented, (2) the construct of the DM process at the most general level is defined, (3) the concept of the SMP is defined, which includes all phases of the organizational process, and (4) the meaning and concept of strategic decision is defined. Based on the described conceptual frameworks (5) a model will be built that establishes appropriate relationships between the DM process as a cognitive (internal) process and the (external) methodological concept of the SMP. It will also be shown, the possible use of individual cognitive DM styles through the different phases of both processes and the risks that arise from that.

FINDINGS AND MODEL DEVELOPMENT

Strategic management is distinguished by its focus on the SDM process and the decision itself (Bayo and Akintokunbo, 2022). Organizational strategy provides a DM mechanism and frame of reference with which to evaluate and, if required, choose between available options (Mackay et al., 2020). This concept is supported by various studies in the literature on strategic decision-making, highlighting the importance of rational thinking (Elbanna et al., 2020) and the desire to achieve the best outcome.

The comprehensive model of the SDM (Table 1) process connects four independent concepts, creating a holistic framework for SDM in organizations. Firstly, the model incorporates the process of SMP, which is an external expert convention or methodology representing a normative viewpoint on how strategic management should occur within organizations. Secondly, it incorporates the KDMC, an internal cognitive process heavily influenced by the individual decision-makers' characteristics such as cognitive abilities, cognitive characteristics, knowledge, and experience. Additionally, the model integrates the "dual process" model of reasoning, which describes the DM process as a

result of two cognitive styles: system 1 (intuitive-experiential cognitive style) and system 2 (analytical-rational cognitive style). These cognitive styles interact and influence DM behaviours. Lastly, the model incorporates various methods and tools that can be utilized for strategic analysis, planning, and strategy implementation. Methods and tools which we can use in SMP extend the decision makers' rationality and can be understood as (1) analytical tools similar to a mathematical process, and (2) frameworks in the form of mental models to solve complex topics by naming the most important influencing factors and their correlation with the object of the decision or (3) as using process flow models which add structure and systematic approach to strategy work (Müller-Stewens, 2020, p. 217).

Examining the comprehensive model (Table 1) reveals a high degree of consistency between the SMP and KDMC. The phases or sub-processes of both processes align in the same order, emphasizing important relationships between them. The SMP internalizes the KDMC, implementing it through management processes. At the highest level, the SMP is divided into planning, implementation, and control, which align with fundamental organizational processes and management processes (Manser et al., 2015). Strategic planning encompasses the pre-decision (knowable) process and the DM process. On the other hand, operational planning, implementation, and control correspond to the post-decision (implementation) process, focusing on creating favourable conditions (action plan and organization plan) and executing strategies (Rozman & Kovač, 2012). Moreover, within the developed model, it becomes evident that System 2 should be utilized throughout all phases of the holistic process. However, System 1 finds its relevance in the SMP during the development of its mission, values and vision, as well as in planning and implementing the action plan. Even in these instances, it is crucial to approach intuitive solutions with a conscious awareness linked to System 2 thinking, ensuring thorough evaluation and potential improvements. Such a comprehensive model of SDM recognizes the pivotal role of cognitive styles, namely System 1 and System 2, at different phases of the SMP and DM process (Figure 3). These cognitive systems significantly impact decision outcomes and the overall effectiveness of the DM process.

Table 1. Comprehensive model (concept) of the SDM process.

Strategic management process (SMP) (external methodology)			Knowable-decision-making cycle (KDMC) (internal cognitive process)			Possible strategic management tools and methods
SMP sub-process	Planning type	SMP process phase	KDMC sub- process	KDMC process phase	Preferable cognitive style	
Planning	Strategic planning	Mission (values)	Pre-decisional (knowable) process	Learning about the necessary decision or observation of the object of DM	Systems 1 and 2	Abell's tree dimensions ¹ ; Yin-Yang vision (values development) ¹ ; Golden circle model ¹ .
		Strategic analyses (external and internal)			System 2	External environment: Inter- organizational relations – eco-system ² ; Social network analyses ³ ; PESTLE Analyses ¹ ; Porter's five forces ² ; OT analyses ² ; Uppsala model ¹ ; Competitive, functional and generic benchmarking ³ ; DuPont scheme ³ .
				Vision Strategic goals	Identification of the decision problems	System 2
		Strategy development Corporate (comprehensive , Competitive (business) and Departmental (functional)		DM process		Development of possible alternatives
	Definition of decision criteria and evaluation (evaluation, weighing) of alternatives		System 2		Cost/Benefit analyses ⁵ ; Expert modeling ⁴ ; Decision tree building ⁴ ; Multi-Attribute Utility Theory – MAUT ⁴ ; What-if analysis ⁴ ; Sensitivity analysis ⁴ ; Monte Carlo simulation ⁴ ; Selective interpretation ⁴ ; Pacifico method ⁵ ; Black swan theory ¹ ; Risk- reward analyses ³ .	
	Choosing the best alternatives (decisions)		System 2			
	Operational planning	Action plan (planning)	Post-decision (Implementation) process	Implementati on of the selected alternative	Systems 1 and 2	Business model canvas ³ ; McGrath transient advantages ¹ ; Strategy maps ³ ; Activity-based costing ³ ; 4P's for marketing ³ .
					Organizing (planning and implementing)	System 2
	Implementing (strategy execution)	Action plan (implementing)	Post-decision (Implementation) process	Monitoring and evaluating the decision	Systems 1 and 2	Project management methodology ⁵ ; Mintzberg crafting strategy ¹ .
					Strategic control (evaluating)	System 2

Note: ¹Planellas & Muni, 2020; ²Kolar & Jurak, 2014; ³Van der Berg & Pietersma, 2015; ⁴Bohanec, 2012; ⁵Rozman & Kovač, 2012.

During the strategic planning phase, the initial step (pre-decision process) involves defining the mission and values of the organization. While this phase is not explicitly defined by the KDMC, Planellas and Muni (2020, p. 9) argue that it sets the foundation for subsequent DM processes. At this stage, System 1 thinking may come into play as managers rely on their experience and organizational knowledge to articulate the mission and values. System 1 thinking is particularly suited for generating initial ideas and developing a broad understanding of the organization's purpose (Mosier et al., 2018). In the subsequent phase of strategic planning, which encompasses strategic analysis and the definition of the organization's vision and goals, System 2 thinking takes centre stage. Researchers such as Mackay et al. (2020) highlight the importance of deliberate, analytical reasoning when formulating strategies, evaluating their potential, and aligning them with the organization's vision and goals. System 2 thinking allows decision-makers to carefully consider available options, critically study data, and make informed decisions (Norman et al., 2021). Strategic analysis involves gathering and examining relevant information, identifying key challenges and opportunities, and assessing the internal and external factors that may influence decision outcomes (Grant, 2018). Through the systematic application of analytical tools and frameworks, decision-makers can structure their thinking and enhance the quality of their strategic analysis (Christensen et al., 2018). This analytical approach enables managers to identify potential pitfalls, uncover hidden assumptions, and mitigate biases that may skew decision-making outcomes (Kahneman, 2017).

The KDMC in no phase specifically envisages defining the goals of the decision, as we can see in the SMP. However, as Bohanec (2012) states, it is precisely the phase that he calls "identification of the decision problem", which includes the identification and analysis of the decision problem, is the phase, where we must identify the goals and rank them in order of importance. The process of strategy development is fully compatible with the DM sub-process, since in the process of strategy development we formulate various strategies or measures, evaluate their potential for the realization of goals, and finally make a decision as to which strategies should, realize the vision and goals of the strategy. As Planellas and Muni (2020, p. 22) state, "Strategies are decisions; without a decision, there are no strategies".

Operational planning, implementation and controlling are part of the post-decisional (implementation) sub-process of KDMC and as such they are not any more part of the SDM process in a narrow sense but of the newly established operational DM process (Figure 3). Implementation of selected alternatives is the phase that comes after the strategic decision and if these decisions are not implemented, the strategy will have no impact on the organization. When transitioning to the implementation phase, both System 1 and System 2 thinking remain relevant but in different capacities. As proposed in Table 1, during the proposing phase of future operational approaches, System 1 thinking may arise as managers generate intuitive solutions based on past experiences and tacit knowledge. This intuitive thinking can spark creative ideas and alternative approaches to problem-solving. However, during the selection and retention steps, System 2 thinking becomes crucial. Decision-makers need to consciously evaluate and select the most promising proposals using analytical and rational considerations (Müller-Stewens, 2020). The use of appropriate methods and tools, as incorporated in the comprehensive model, enables decision-makers to rationalize and structure their choices (Table 1). Various analytical techniques, such as decision matrices, cost-benefit analysis, and risk assessment, can be employed to guide the selection and evaluation of alternatives (Christensen et al., 2018; Grant, 2018). By utilizing System 2 thinking, decision-makers can ensure that their choices align with organizational objectives and optimize future outcomes.

Once the action plan is in place, the organization must check its organizational structure and its internal processes if they are in line with the comprehensive idea of its future development. In the sense that "structure follows strategy", the organizational structure must be aligned to support the implementation of the strategy (Müller-Stewens, 2020). Due to the complexity of reorganizational processes and the fact that we are mostly dealing with people (finding and placing the right person in the right place) and due to the many biases, that can influence personnel decisions (Kahneman, et al., 2021), the entire process of reorganization must be consciously, analytically managed and rational (System 2).

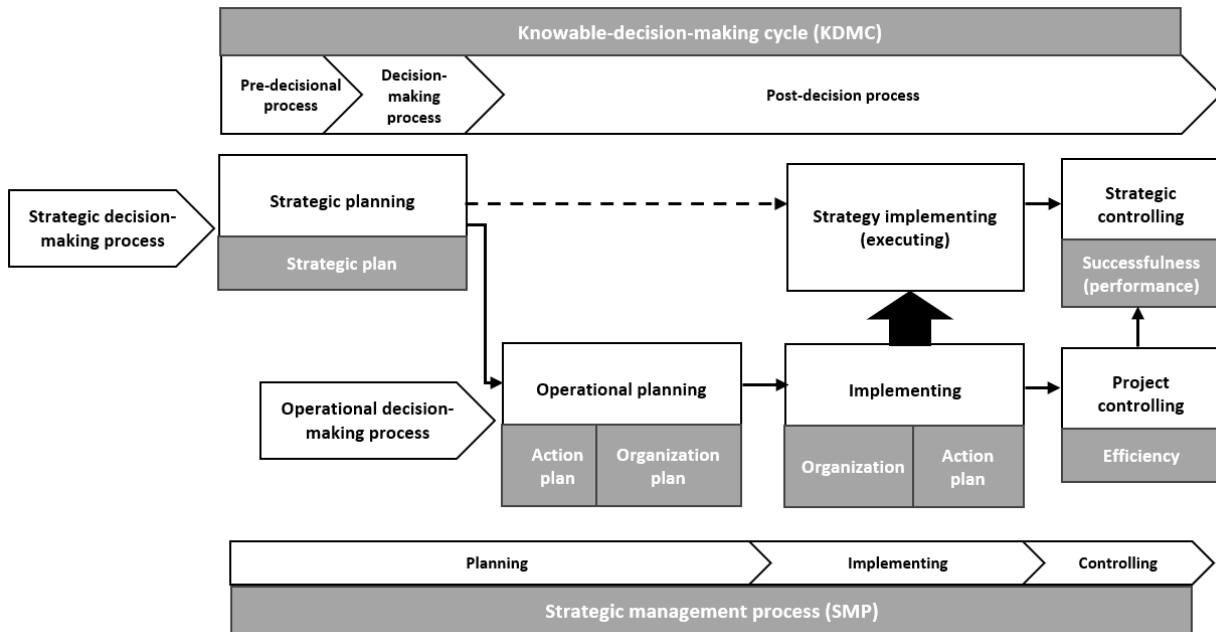


Figure 3. Comprehensive model (concept) of the SDM process from a process perspective.

In terms of process, all the conditions for starting the implementation of the strategy are now provided. The implementation of the projects, activities and initiatives collected in the action plan is the beginning of the implementation of the strategy, since the strategy is not implemented directly, but indirectly through the implementation of the action plan (Figure 3). In the process of implementing the action plan, the planning process is re-established, but this time it is about planning projects, activities or initiatives, the planning of which mainly involves the use of project management methodology and the management of a strategic multi-project environment. In this process, managers also make decisions, but in terms of their scope and importance, these are operational decisions that are shorter-term, have a limited impact mostly only on the results of the project, activity or initiative, and often include routine tasks (Planellas & Muni, 2020). Many of these decisions are related to the experience and acquired knowledge of managers, which is why System 1 thinking is used to a large extent. However, the capacity of System 1 is now already upgraded with knowledge gained from the analysis of decisions made and System 2 thinking in the project planning phase. Since the implementation of the strategy (action plan) involves a longer period, during which there will probably be many changes in the external environment, managers must repeatedly make quick decisions to adapt the strategy to new circumstances. These changes are often related to

changes, cancellations or introduction of new implementation elements in the action plan, but sometimes these changes are so extensive that even strategic decisions (strategies) or strategic goals must be changed. These situations often require immediate action, with imperfect knowledge, where managers rarely consider more than one option at a time and decisions emerge from System 1 by recognition and/or making sense of the problem situation (Mosier, et al., 2018). In these cases, managers often use System 1 in judging and designing solutions, but decisions based on this can only be valid on the condition that the manager has extensive experience and knowledge gained in similar problem situations in a particular domain (Kahneman, 2017).

In the context of strategic control, System 2 thinking plays a significant role in assessing performance and monitoring the realization of strategic goals. This analytical-rational approach enables decision-makers to compare planned goals with actual outcomes and evaluate the success of their strategic decisions. Strategic control involves measuring and monitoring key performance indicators, analysing deviations from planned targets, and making necessary adjustments to ensure strategic goals are met. Through the systematic review of performance metrics, decision-makers can identify areas of improvement, diagnose underlying issues, and adapt their strategies accordingly. By applying System 2 thinking, decision-makers can critically evaluate

performance data, identify patterns, and discern trends that may inform future strategic decisions.

Throughout the entire process, decision-makers need to be mindful of the interplay between System 1 and System 2 thinking. While System 1 thinking may provide quick insights and initiate creative thinking, it is important to complement it with the deliberate and analytical reasoning of System 2 thinking. The comprehensive model acknowledges the importance of balancing both cognitive systems to ensure decisions are well-informed, critically evaluated, and aligned with organizational objectives.

DISCUSSIONS

Within the presented comprehensive model, the SDM process is responsible for establishing the strategic plan, while the operational DM process creates the conditions necessary for implementing the strategies (Figure 3). This demonstrates how the two processes, through the KDMC phases, complement and intertwine with each other, contributing to the realization of both short-term operational decisions and long-term strategic decisions.

Regarding the incorporation of System 1 and System 2 reasoning within the KDMC implementation, it is critical to consider the benefits and limitations of each approach. Research has shown that a higher degree of rationality in SDM is positively associated with decision effectiveness, while the relationship between intuition and SDM effectiveness tends to be negative (Bayo & Akintokunbo, 2022). Formalized rational DM processes have been found to have positive associations with firm performance, strategic decision quality, and implementation success (Al-Hashimi et al., 2021). The planning mode utilized in the strategic management process, which adheres to rational-analytical thinking, is generally regarded as more effective in SDM (Bayo & Akintokunbo, 2022). The use of System 2 within the developed model is understood, consistent with Simon's theory, as bounded, due to internal and external limitations of decision maker, procedural (Simon, 1976), from the point of view of considering the DM process and the use of various DM models and tools, and extended (Kolar & Tušak, 2022), from the point of view of the use of external (social) resources in process.

Therefore, the comprehensive model supports the idea that System 2 thinking is primarily employed throughout the KDMC process during the

implementation of the SMP. The empirical evidence indicates that a rational-analytical approach is more effective in SDM. However, in the pre-decision and post-decision phases, the inclusion of intuitive reasoning (System 1) can be acceptable, provided it is limited and aware of potential biases. Creative intuition, as a System 1 process, can play a significant role in the initial stages of DM, particularly in generating innovative ideas for the mission, values, and vision. Creative intuition leverages the incubation period, allowing novel ideas to develop and unexpectedly surface to solve problems (Sadler-Smith & Burke-Smalley, 2014). DM involving judgment and intuition should be treated with caution. Internal signals of judgment completion and a strong sense of familiarity or rightness may inaccurately influence decision-makers confidence in the validity of their judgments without objectively aligning with their accuracy. A strong sense of correctness or familiarity is nothing more than an internal signal of judgment completion, and a pleasing sense of coherence, in which the evidence considered and the judgment reached feel right (Kahneman et al., 2021). Relying solely on unconscious intuition, conceptualized as automated expertise, may not yield clear benefits. Instead, intuition should be complemented with an exploratory-analytical approach to capitalize on the benefits it offers.

The modern business environment is very complex and unpredictable, and the future is largely unclear and ambiguous. Because of the above, contrary to the claims of some authors, predicting the future development of organizations needs more and not less rational-analytical approaches and therefore more and not less use of System 2 in the formulation of strategies. Of course, some management decisions are made without weighing quite so much information, but caution is needed, because strategic decisions usually involve distilling complexity into a single path forward (Kahneman et al., 2019).

CONCLUSIONS

The presented relationships between the two processes (SMP and KDMC) therefore indicate a large degree of consistency (Table 1 and Figure 3), with which we can confirm the statement by Rozman and Kovač (2012) that according to the process, mode and method of operation, management is defined as DM, which exists in every part of the management process. We can also agree with the statements of other authors (Harrison, 1996), who write that DM is a central management function

present in all organizational processes that strategic plans are created through DM processes, and that the managers are often called decision-makers. Of course, we can also support Simon's statement that the terms DM and management are synonymous, since, as Ahmed, et al. (2014, p. 84) pointed out, "the bases for developing theories of SDM are eclectic and require a multidisciplinary approach and do not differ from general DM theories, as these are not only the basis for the development of SDM theories, but decision theories are strategic in nature". Based on that, we can conclude, that the DM process as an internal cognitive process of managers fits very well into the external methodological process of strategic management.

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STRATEŠKE ODLUKE: KOLIKO DOBRO SE PROCES DONOŠENJA ODLUKA UKLAPA U PROCES STRATEŠKOG MENADŽMENTA?

Kompleksan odnos između procesa donošenja odluka (u daljem tekstu: DO), koji je oblikovan individualnim psihološkim konstrukcijama i unutrašnjim kognitivnim procesima, i metodološkog procesa strateškog menadžmenta (u daljem tekstu: SM), koji se može razumeti kao okvir koji definiše kontekst odlučivanja, postavlja važna pitanja o njihovoj usklađenosti. Cilj ove studije je da predloži integrativni model procesa strateškog donošenja odluka (u daljem tekstu: SDO), koji povezuje kognitivne procese donosilaca odluka sa rigoroznošću strateškog menadžmenta i identifikuje i umanjuje potencijalne rizike u svakoj fazi holističkog procesa. Za dizajniranje istraživanja korišćen je pristup „model paper“, koji ima za cilj izgradnju teorijskog okvira koji predviđa odnose između istraživačkih koncepata. Razvijeni sveobuhvatni model povezuje četiri nezavisna koncepta, stvarajući holistički okvir za SDO u organizacijama. Sveobuhvatni model otkriva visok stepen usklađenosti između SM, prepoznatljivog ciklusa donošenja odluka i kognitivnih procesa. Tokom celog procesa, donosioci odluka moraju biti svesni interakcije između razmišljanja Sistem 1 i Sistem 2. Dok razmišljanje Sistem 1 može pružiti brze uvide i podstaći kreativno razmišljanje, važno je da se ono dopuni promišljenim i analitičkim rezonovanjem Sistema 2, što se može podržati pravilnom primenom različitih alata i metoda strateškog menadžmenta.

Ključne reči: proces strateškog menadžmenta; proces donošenja odluka; integrativni koncept; strateško donošenje odluka; razmišljanje Sistem 1 i Sistem 2.