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## The Role of Mental Models in Strategic Decisions: Comparative Field Research on A Sample of Iraqi Government And Private Insurance Companies in Baghdad

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### Abstract:

This research seeks to measure the role of mental models in their dimensions (equipment, implementation, interaction, compatibility, timing) in the strategic decision in its dimensions (identification, development, selection). The field of research consisted of three government insurance companies and seven private insurance companies in Baghdad. Obtaining the necessary data for the field aspect through questionnaires, personal interviews, and company documents, and the researcher adopted the descriptive analytical approach and the comparative approach, as a purposive sample was drawn of (63) individuals with the rank of assistant director and head of department in government companies from a population size of (71), while the number of The number of sample members for private insurance companies was (53) out of a population size of (69). A set of statistical methods were used to process the data, including (normal distribution test, exploratory factor analysis, Cronbach's alpha test, questionnaire reliability using the split-half method, percentage, arithmetic mean, The standard deviation, the coefficient of variation, the multiple regression coefficient, the interpretation coefficient R<sup>2</sup>, as well as the Pearson correlation coefficient. The data were analyzed using statistical programs (SPSS V.26, AMOS V.23), and the most prominent findings of the research were the existence of a correlation A significant impact of mental models and their dimensions and the strategic decision with its dimensions.

**Paper type:** Research paper

**Keywords:** Mental models, strategic decision, insurance companies.

## **1. Introduction:**

The future of business organizations today, in light of a dynamic, rapidly changing environment, depends on the extent of awareness and investment of their resources and assets in an optimal way to increase their competitiveness and the attempt to arm themselves with the cognitive approach represented by how to employ mental models to achieve the goals of the organization as a strategic weapon to achieve success and excellence, and that the real source of wealth in today's world is not capital. Not the land, but rather how to use mental models, as it is a gateway to strategic success. Organizations in general and administrative leaders in particular must deal efficiently and effectively in the process of investing energies and cognitive capabilities in the strategic decision-making process so that they can reduce failures and harness the capabilities and energies of the organizational community to achieve prosperity and progress. Mental models are widely useful in everyday life and understanding these concepts will help make wiser choices and do things better. Accumulating mental models is somewhat of a vision enhancer for managers. Regardless of a manager's job, the more tools he has at his disposal, the more With greater ease, he is more likely to be able to solve any problem that comes his way. The same applies to a manager's thinking if he has only one perspective through which he looks at the world, because it will severely limit his ability to make good decisions. Therefore, the secret of great thinking is simple: mastering more... Mental models and how to develop them when used in strategic management in general and strategic decisions in particular, as the decisions will be better, have fewer errors, and solve more problems.

It is normal for managers to make some mistakes, but there is not enough luxury to make a lot of wrong decisions, because every wrong decision costs time and money, so mental models are a set of frameworks that help in clear thinking and help in the maturity of a better decision-making and decision-making process. Adopting A mental model that trains the mind to think critically and help understand the problem and reach a solution better, and this is the secret of the success of organizations.

Fundamental differences have emerged in the way mental models are viewed, their meaning and value. We find that in advanced societies, people are more interested and concerned about the subject and are better cared for. the way in which it can be exploited and distributed, and such interests, cares and concerns are often less present in developing societies, strategic and rational decisions must be made relying on facts and data, using cognitive methods to deal with problems in addition to the mind Apart from the fact that models are the missing link in management research, the main problem with them is not that they exist, but that organizations have not yet benefited from the mental models available in the minds of their managers to provide intuition, experience, skills, abilities and Forms of thinking. This requires studying the connection between mental models and strategic decision-making, and to diagnose the research problem, the researcher conducted a field examination and analysis of three government insurance companies and seven private insurance companies, with a comparison between them, by reviewing the companies' reports and documents.

Aspects of scientific importance and academic and scientific fields benefit greatly from research, which is an important topic in knowledge management, organizational behavior, psychology, and science. The significance of research cannot be overstated. The nerves and their support, and the current research derives its basic importance from the importance of its variables and the extent of their novelty, especially the independent variable (models Mental), and the field importance of the research comes from the fact that it deals with important administrative and cognitive dimensions (mental models, strategic decisions) in government and private insurance companies, and their role in formulating solutions to the problems that companies suffer from. The presentation of influence relationships between the research variables emphasizes the significance, as it serves as a practical foundation for neighboring businesses. With the intention of proposing actionable recommendations to the surveyed organizations and disseminating them to other Iraq-based companies in the sector, the researcher

hopes to provide valuable guidance to decision-makers on how to leverage mental models for strategic decisions. Ultimately, the study's findings are poised to inform the management of the researched sector.

### **1.1. Literature Review:**

Many researches have examined the variable of mental models, as it falls within neuroscience, behavioral and cognitive sciences, and An exploratory research (case study) for creating internal mental models utilizing an adaptive network model and the Matlab programming language was provided in the paper by (Bhalwankara and Treurb, 2021). The creation of mental models was simulated and demonstrated to function as intended. Based on the produced representation, a formal numerical representation was obtained and implemented in a custom software environment created in Matlab. The study by Broek et al (2022) used a questionnaire (a time and place sampling approach) to explore the complexity of stakeholders' mental models of the social and environmental system, Given that it was found that fishermen's mental models were varied and complicated, and that they were centered on the causes of harmful fishing practices, Furthermore, there were regional differences in the mental model's complexity but not its substance, as migration status and hunting experience did not always correlate with either. Astorga (2022) conducted an analytical study of fourteen typical theories of mental models theory, which mentioned within the framework of the mental models theory approach. The study's findings suggested that mental models theory can aid in developing a logic that is somewhat more in line with how people actually think. The theory of mental models undoubtedly maintains that classical analogical logic has no place in reasoning. In this study, we simply questioned one aspect of mental models theory, namely that conditional logic is merely an extension of classical logic.

Several studies have also addressed strategic decision-making, given its significance for commercial organizations. In order to provide an analytical study, Raissi and Hakeem (2017) looked at how to determine the cultural elements influencing managers' strategies and the strategic decision-making process in the banking industry. Banks analyzed the data using structural equation modeling technology and used it to inform strategic decisions. The findings demonstrated a positive relationship between bank managers' knowledge and participation in the sustainable development management plan, as well as a positive relationship between the speed of strategic decision-making and the senior management team's beliefs, trends, and values, as well as the relationship between laws and culture. positively correlated with the level of rationality and strategic decision-making. A study by Han et al (2022) used artificial intelligence/machine learning techniques to analyze cooperative vehicle factions with organized behavior on multi-lane highways. The study's conclusions summarized the potential for ADS technologies to further improve road capacity, travel reliability, and traffic performance for a wider range of scenarios. This paper presents a multipath platooning algorithm with organized behavior through a hierarchical control framework that is both practical and complex. While Al-Ofiry's (2022) quantitative and qualitative study suggested that Ibb University should consider planning scenarios for strategic decision-making in the event of environmental uncertainty, and the findings did in fact arrive at a diagnosis of reality and general trends for strategic decision-making, the next step involved examining the forces and factors that both externally and internally influence strategic decision-making.

Numerous studies have also established a connection between mental models and strategic decision-making. For example, Tungju et al (2017) conducted an analytical examination of questionnaires pertaining to the traits of the senior management team and strategic decision-making, and utilized structural equation modeling and the questionnaire to test the mediating effects of psychological ownership and risk perceptions. The results indicated that risk perceptions and mental models function as a mediating factor and are influenced by the traits of the senior management team. Additionally, there is a moderating effect between the senior management team's characteristics and strategic decision making due to psychological

ownership and strategic decision making. According to the study presented by Liu et al (2021) to the senior management team groups, there is a positive influence of mental models on strategic decision-making. This was determined by an exploratory study that used video ethnographic data for two senior management teams and analyzed 20 issue discussions to diagnose the impact of mental models on strategic decision-making. In their study, Clifford et al (2021) sought to determine which external (social feasibility, institutional context, and scientific uncertainty) and internal (mental models) factors influence management's strategic decisions. They also discussed how to develop a conceptual framework for understanding management's strategic decisions by qualitatively analyzing the findings of earlier research. The outcomes showed Particularly in the case of transformational change, mental models are crucial in mediating how environmental change is understood because they influence managers' decision-making by causing some to interpret environmental change as unprecedented and others to see it as a natural part of the system's variability. Managers may become more conscious and self-reflective about the factors influencing their strategic decision making by addressing the entire spectrum of factors that influence strategic decision making.

Posing the primary query reveals the nature of the research problem:

Can managers of public and private insurance companies employ mental models in making strategic decisions?

The research aims to build a cognitive framework for the research variables (mental models in strategic decision) and their sub-dimensions by tracking the intellectual paths of solid administrative literature. This is accomplished by adhering to the theoretical frameworks presented by writers and researchers regarding defining the precise concepts of the main and subsidiary research variables, and arriving at the best ones after analyzing and interpreting their contents. The research seeks to achieve a set of goals related essentially to revealing the level and nature of the relationship between mental models and strategic decision, to remove ambiguity in this relationship, and test it in the field. The general goals of the study are to ascertain the extent to which mental models are used in governmental and private insurance companies; the extent to which strategic decisions are used in governmental and private insurance companies; and the degree and kind of mental model impact on strategic decision-making.

## **2. Material and Methods:**

The researcher relied on a set of statistical methods to reach the research results, relying on the program (Statistical Package for the Social Sciences), version 26, which is symbolized by the abbreviation (SPSS,26), and the second statistical program, which is (Analysis of Moment Structures), version 23. Which is abbreviated (AMOS, 23).

### **2.1. Sample and research population:**

After applying the sample size determination method using the table prepared by (Morgan and Krejci, 1970). The research population for government insurance companies consisted of 71 and 69 for private insurance companies, including assistants to the general manager, assistants to the managing director, and department heads. The sample size was 116 people for both groups. The questionnaire consists of two components: In the first section, questions related to personal information were asked (gender, educational level, age, years of work, and position). While the second part asked about the research factors (mental models, strategic decision). The results were analyzed using a Five-point Likert scale to formulate questions.

### **2.2. Hypotheses :**

The main hypothesis: There is a positive, statistically significant effect at the level of (0.05) for mental models in their dimensions on the strategic decision in its dimensions, and the following sub-hypotheses emerge from it:

- What is the level of use of mental models in the researched organization?
- What is the level of use of strategic decision in the researched organization?

- What is the level and nature of the relationship between mental models and strategic decisions?
- What is the level of influence of mental models on strategic decisions?
- Are there significant differences regarding the research variables in the companies studied?

### 2.3. Mental Models:

Researchers and writers have addressed the concept of mental models from different perspectives and points of view, so the researcher will address the concept according to these perspectives, which are: the perspective of cognitive representations and structures, as mental models are known according to this perspective as "a crucial pillar for constructing knowledge and pinpointing specific cognitive processes that facilitate learning and change" (Chermack, 2003). They are regarded as the internal cognitive structures that a person creates—either consciously or unconsciously—to symbolize a particular goal domain, such as an activity, event, object, or topic area. These are the conceptual frameworks that people develop as a result of experience and formal knowledge acquisition. They help people interpret and comprehend their surroundings in addition to helping them forecast the results of explicit behaviors (Westbrook, 2006). A type of mental representation that preserves the structure of what it represents is known as the perspective of mental representation. It is claimed that mental models can be especially helpful when understanding, problem-solving, or answering inquiries require the utilization of tacit physical knowledge. Received information (Vosniadou, 2019). Mental models, which are influenced by social, cultural, and environmental factors, are people's internal mental representations of the outside world that are constructed on the basis of their experiences, knowledge structures, and subjective perceptions of it. They consist of the person's presumptions, ideals, and convictions. These distilled depictions of intricate reality could be erroneous or lacking. They have a practical function of assisting people. to perceive, interpret, and navigate the world, particularly in circumstances involving uncertainty, judgment, and perception (Ho et al, 2022).

From the standpoint of assumptions and beliefs, a mental model is an abstract picture of a situation or system in a person's mind that represents the values, assumptions, and beliefs we personally hold. These represent the reasons behind our actions and are utilized in both deductive and inductive reasoning (Schaffernicht and Groesser, 2011). It is a complex web of beliefs that influence how someone thinks, perceives, and forms expectations for the future as well as how the world functions. It can also influence how someone perceives how something or someone functions, or how it can or should function in the world (Holtrop et al, 2021). In terms of diagrams and pictures, the mental model is defined as the internalized conceptions of how the world functions that are held within the mind. It limits one's ability to think and act, and the majority of the time, one is unaware of the mental models' influence on behavior (Fahad, 2012). They represent people's implicit and/or explicit understanding of how a particular aspect of reality functions, and they are deeply ingrained mental images that influence how people interpret the world and make decisions and behave (Builes, 2022).

According to this viewpoint, the team's shared mental models are the knowledge structures that each member of the team maintains in order to accurately interpret and anticipate the task, coordinate their actions, and modify their behavior in response to the demands of the task and team members (Narh, 2016). A team's perception shapes the team mental model, which develops over time and becomes a shared mental model based on individual team members' perspectives. As such, each team member forms the basis and genesis of the team mental model. To be more precise, there is such a thing as the team mental model. An emergent collective that develops dynamically from the bottom up via each team member's perception (Ments and Treur, 2021).

The significance of mental models is demonstrated by the idea that they are seen as a type of cognitive structure that underpins individual behaviors as well as thought processes and decision-making. Furthermore, as the theory of "confirmation bias" implies, they serve as the mechanism for filtering and storing new information as well as having a part in filtering incoming information. According to Jones et al (2011), "People look for information that fits their current understanding of the world, and the information they receive may completely reject it or reinforce preexisting mental models." Long-term memory mental models are especially significant for the study of cognitive anthropology, which investigates The ability of cultural knowledge to adapt through experience and learning over time is what makes it unique and dynamic, as Natalie (2011) points out in her literature. This ability to change is known as "how cultural knowledge is organized in the mind."

The mental model is characterized by its non-quantifiable, unreliable, ambiguous, and incomplete facts; it is also flexible and highly variable in both positive and negative aspects; it functions as a filter of information; and selective perception, which is the perception of only certain elements, according to Ford and Sterman (1998). When compared to the complexity of the real world, information is extremely limited. Large-scale models, which must account for constraints like working memory and match a given reality in order to derive logical consequences for it, rely on sources of information that are always available and cannot be found elsewhere. It is distinguished by its innocence and simplicity, but it is of crucial importance that people use to interact with different systems (Liu, 2013).

The skeleton of short-term orientation and reliance on prior knowledge gives rise to the mental model. The mental model is based on three main beliefs: (1) economic growth is what drives human prosperity and will never stop; (2) technological advancements provide enough energy capacity to keep up with economic growth and support our energy-dependent lifestyles; and (3) population growth is unaffected by an individual's actions and is therefore not a matter for concern (Higgins, 2015). There are other types, according to Dacy et al (2017), pointed out (1) the mental model for beginners: it lacks complex data, experience or knowledge to create a complete understanding of the process under consideration, and what determines the mixing of mental models may not be much Knowledge of the content, but the way in which the individual realizes its usefulness that enables him to act in the situation or problem, as the mental models beginning in the thinking process of any individual are clear, which may or may not be useful. And (2) the fragmented mental model: refers to the parts of information and understanding to formulate the initial framework of a mental model represented by the boundaries that include it, which are flexible and changing and are in themselves a continuous process. and (3) the actual mental model: observable in the actions or statements made. (4) Complex mental model: It is built through continuous reinforcement, repeated experience, and exposure to changing circumstances, as it contains deep knowledge and understanding of the process that is considered a model and absorbs new information quickly. It has been proven that individuals use simple ones for benefit sometimes, and using a mental model does not lead to Complex to increase the success of the goal at hand. And (5) Finally, the expert mental model: It is not only more detailed, but it is also more connected and has more complex, enriching, and adaptable levels of meaning than the novice mental model, as Ross (1986) and Siik (2007) found that models The expert mentality excludes unimportant details that enable them to make decisions with greater confidence, as experts identify what they do not want more effectively than beginners. Stagers concluded in (1993) that they are rigorous and sophisticated mental models, richer and more abstract, and reaching the level of "expertise" affects Speed and accuracy of decision-making, "According to the Vygotskian theory, socially expert mental models will be built through interaction with more capable people," as Henderson (2006) stated. According to Austin et al. (2020), the model The expert creates a compelling semi-structured interview protocol with the goal of extracting "mental models," which are composite models of the experts' beliefs.

#### 2.4. The dimensions of Mental Models:

According to (Ellis, 2006; Nandkeolyar, 2009; Sinval et al, 2020; Zamani and Pouloudi, 2022; Ransburg, 2022), all agreed that the dimensions of the models Mindset is:

➤ Equipment model: primary component of shared mental models is referred to as "technology/equipment mental models," and it is defined as the team members' shared understanding of the tools required to finish a task or project. This shared understanding takes into account environmental constraints and equipment performance, among other things. (operating procedures, equipment/system limitations, as well as potential equipment failure) is what equipment is represented by. It is regarded as the collective knowledge of team members regarding the devices, instruments, and technology they utilize to carry out their responsibilities.

➤ Execution model: A shared understanding of what needs to be done to finish a task that concentrates on the task-related aspects of the situation is referred to as a "mental model of the job/task." It also refers to an evaluation of how much team members have shared knowledge about the characteristics related to the task or job in terms of task procedures and strategies, contingencies, and scenarios. Relationships between task components and environmental restrictions.

➤ Interaction model: It is referred to as the "Team Mental Models" or "Team Member Model" and it focuses on the roles, responsibilities, and patterns of interaction among team members while representing the individual qualities of each team member, including knowledge, skills, and abilities. A team mental model typically concentrates on elements of the team (e.g., knowledge, abilities, attitudes, and preferences of teammates). Measuring the level of closeness among team members by having them answer to a structured questionnaire about their teammates and team procedures is one way to operationalize shared team knowledge. So... A high level of mental model overlap among team members should be indicative of a high level of team mentality.

➤ Compatibility model: Given that they are primarily focused on team-related aspects of the situation, necessitating teamwork rather than "on-task" behavior, and may be especially susceptible to shifts in interest, this model of shared understanding is known as the "mental models of group interaction" or "team interaction model." It includes the roles of team members, their responsibilities, interactions, information sources, interaction patterns, information flow, etc. Roles, communication routes, information flow, and role interdependence are examples of team interaction. The team interaction model, which depicts the duties, roles, and interactions of team members, is one of the many models that make up the individual's shared mental models.

➤ Temporal model: There are different categories and kinds of teams in teamwork, such as work teams that execute tasks that need to be completed quickly and at a higher level. from the members' cooperation. According to Marks (2001), teams fall into one of three highly specific categories based on the ten process dimensions that overlap: transitional phase processes (times when teams spend most of their time planning and/or evaluating activities to meet team objectives). These processes include mission analysis, goal-setting, and strategy formulation, and they usually take place during the time when teams reflect, assess, and plan future directions. They also include work phase processes, in which teams carry out tasks directly leading to the achievement of goals, interpersonal processes, which involve managing relationships between team members, and shared temporal mental models, which indicate a shared understanding of temporal aspects like deadlines or task durations. The extent to which team output satisfies or surpasses task requirements is referred to as team performance. The degree to which teams are able to plan their interactions is known as team effectiveness, and the degree to which team members are ready to continue working together in the future is known as team feasibility. The collective knowledge that team members have about time and other temporal elements pertaining to their surroundings is known as timing. The findings highlight the significance of the time dimension, which is directly related to team management since it enables members to create connections and team procedures among themselves.

The study of work primarily examines the temporal organization of collaborative work rather than the effects of time on the work product. The research on teamwork demonstrates that time allows teams to attain psychological safety and stability, especially when self-managed, and that time helps team members perceive team procedures and peers' abilities more accurately.

### **2.5. Strategic Decision:**

According to Mwangi (2012), a strategic decision is one that is made swiftly by the organization's senior management to take advantage of opportunities before rivals do. This improves organizational performance and gives the company the ability to offer profitable services and a variety of competitive advantages. Strategic decisions are uncommon and involve making snap decisions about organizational procedures, committing to valuable organizational resources, assessing the organization's strategic position, and figuring out the overall organizational direction that the organization is moving in. These decisions have an impact on the organization's ability to survive and thrive over the long run (Azamm, 2015).

Due to its fundamental and effective influence on business organizations, as well as its ripple effect on national economies, strategic decision-making is one of the major subjects that draws a lot of attention from scholars. The strategic choice encompasses all domains, the future, and the temporal dimension because the ideas it offers have the potential to increase an organization's efficacy, which in turn leads to its success (Shepherd and Ruddm, 2014). Making strategic decisions is crucial because it affects the organization's performance in a number of areas, particularly when it comes to competing with global competitors and world-wide market leaders for primary markets. Organizations' strategic leaders must implement plans that will generate the revenue required to maintain the organization in the market if they are to set themselves apart from their rivals. Business and reaching the satisfaction of shareholders (Jerez, 2020).

Strategic decisions are characterized by characteristics that distinguish them from other administrative decisions, and to understand the nature of these decisions, these characteristics must be addressed.

Al-Jassim (2013) mentioned the characteristics of the strategic decision: the size of the effect as a strong indicator of the variables of the decision dimensions in the strategic management plan, such as Comprehensiveness/rationality of the decision, threat and crises, as the reputation of the product or organization, which is negatively affected by negative publicity, can constitute a threat, given that organizations face rapidly changing environments, which requires organizations to interpret opportunities and threats accurately and effectively to enable them to make appropriate strategic decisions. According to Camps et al (2015), a strategic decision possesses three key attributes: complexity, which arises from a situation that is not straightforward and involves numerous variables; uncertainty, which arises from the decision maker's lack of knowledge about potential outcomes resulting from the multitude of available alternatives and asymmetric information received at the wrong time; and rationality. In order to arrive at predetermined goals, the decision maker weighs the pros and cons of each potential course of action. It is expected of him to possess in-depth knowledge of the pertinent issues, as well as the resources and skills necessary to choose the option that offers the most value.

A single person, usually an effective CEO or entrepreneur with a clear vision and the capacity to convince others to embrace it, makes some strategic decisions, according to Wheelen et al (2018), The three approaches to strategic decision-making that Mintzberg claims are most popular are: Quinn introduced a fourth mode, logical progression, to correspond with entrepreneurship, adaptation, and planning: The strategy is created by a single, capable person in the entrepreneurial mode; opportunities and issues are given secondary attention, and the company's expansion is the primary objective. Interactive solutions to current issues, as opposed to research, are what define the adaptive mode. The approach is divided and refined to progressively ascertain the organization's future course.



The planning mode entails gathering relevant data in a methodical manner in order to assess the circumstances, produce workable backup plans, and choose the best course of action. logical progression: a combination of adaptation and planning, with a smaller role for the pioneering mode. In this case, top management is well aware of the mission and objectives of the business. When the environment is changing quickly and it's critical to forge consensus and create the required resources, this strategy can be helpful.

While the types of strategic decisions were classified according to Saleh et al (2021) who indicated as follows: (1) Promising strategic decisions: They can be taken upon knowing the changes and developments that will occur in the surrounding environmental conditions in terms of their direction and characteristics, and these decisions are easy to make by choosing the least expensive alternative. And the biggest return. And (2) conditional strategic decisions (conditions of risk): They are made when changes are expected to occur to a greater degree in terms of direction than characteristics and are divided into defensive and offensive decisions. Defensive are taken when facing a highly expected change, while offensive when opportunities are available. Conditional ones are when the information is incomplete for the decision maker who lacks sufficient ability to control the circumstances. And (3) strategic decisions in response to unexpected circumstances (uncertain circumstances): taken by the organization to face sudden circumstances that are unexpected or unknown in terms of direction and characteristics and be quick to respond to confront such circumstances. (4) Strategic decisions to compete: Making this decision in one organization is linked to making a decision for another organization.

#### **2.6. The dimensions of Strategic Decision:**

As for the dimensions of the strategic decision, they are:

➤ Identification: It entails identifying and diagnosing the need for a decision. A distinction between the intended and actual circumstances leads to the realization that a decision is necessary. The decision-maker must make an effort to determine the need or needs from all the information that is presented to them. Examining current information sources and possibly gathering data from new sources are key components of diagnosis (Vuorinen, 2014). Ahmed et al (2014) believed that the problems facing strategic decision makers, especially executive managers, can be divided into two categories: non-traditional, vital, or emergency problems, which are primarily connected to policy planning issues, and classic, traditional, routine problems, which include regular problems related to daily work procedures and implementation frameworks. When faced with pressing issues, all involved parties in the organization must contribute all available information, facts, and data in order to comprehend the situation and decide how best to address it. The information that the decision maker gathers must be relevant to the topic in order for it to aid him in reaching the decision's intended objectives. The problem is given the necessary information and is accurate, comprehensive, and current, reflecting the problem's current state of reality.

➤ Development: The development of alternatives consists of two basic processes: research and planning. Research is a hierarchical and gradual process that can be divided into four parts, as follows: Memory research: It is the study of the organization's current information recorded in people's memories or on paper. Passive research: It refers to Waiting for unwanted alternatives to appear. Solicitation: refers to the active use of "search generators" to generate alternatives. Active search: is the search for alternatives in a wide or limited area (Kansola, 2010). The intended goal directs the decision maker's actions when generating alternatives because each one is linked to a different set of outcomes. Information about the suggested alternatives, the likelihood that each outcome will occur, and the importance of each outcome in relation to the goal are all available, and the decision maker selects one alternative after weighing the information (Griffin, 2020).

➤ Selection: The final decision's outcomes are determined by how well it was made and how well it was implemented, both of which are dependent on how well the decision-making process worked. Because this process cannot be properly classified, the strategic decision made can have negative effects or vice versa. whether the end results are of high or low quality (Nooraie, 2014). Selecting the best course of action to address the problem is only the first stage in the decision-making process. Following decision-making, a final decision must be made, triggering the implementation stage and frequently involving other members of the organization. The efficacy of communication, guidance, counseling, and empathy are critical components that greatly influence the outcome of implementation. Without a doubt, the decision-maker has a significant role in this because, no matter how sound and correct the decision may be, it is useless unless it is supported by a process of monitoring its implementation, understanding its effects, and gathering data to aid in reevaluating the possibility of carrying out the decision or in revising, amending, or imposing obligations to carry it out (Lew and Meyerowitz, 2019).

### 3. Discussion of Results :

#### 3.1. Reliability test:

With regard to government insurance companies, the Cronbach's alpha coefficient for the overall questionnaire items reached (0.962), for the mental models variable (0.829), and for the strategic decision (0.936), which indicates a high level of stability and consistency. As for private insurance companies, the Cronbach's alpha coefficient for the overall questionnaire items reached ( 0.890) for the mental models variable (0.880) and for the strategic decision (0.878). This indicates a high level of stability and consistency, and the scale will give the same results if it were distributed to the same respondents after a period of time. As in Table 1:

**Table (1)** Factor reliability for the two research variables and their sub-dimensions via Cron Bach's alpha

Main variables	Sub -variables	Government insurance		Private insurance		No.
		value of constancy	reliability	value of constancy	reliability	
Mental Models	Equipment	0.749	0.865	0.914	0.956	4
	Execution	0.725	0.851	0.780	0.883	4
	Interaction	0.822	0.906	0.746	0.863	4
	Compatibility	0.752	0.867	0.876	0.935	4
	Temporal	0.822	0.906	0.812	0.901	4
<b>Total constancy of Mental Models</b>		0.829	0.910	0.880	0.938	20
Strategic Decision	Selection	0.855	0.924	0.825	0.908	9
	Development	0.891	0.943	0.852	0.923	9
	Choice	0.874	0.934	0.855	0.924	9
<b>Total constancy of the Strategic Decision</b>		0.936	0.967	0.878	0.937	27
<b>Total constancy of the questionnaire items</b>		0.962	0.980	0.890	0.943	47

**Source:** created by the investigator using the findings from the statistical analysis software (SPSS, 26).

### 3.2. Describing of research variables between government and private insurance companies

#### ❖ Mental Models:

The following can be learned by looking at Table 2, which displays the arithmetic means, standard deviations, coefficient of variation, and relative importance of each dimension and variable for both public and private insurance companies: Despite being in insurance companies, the mental models variable was the top performer for both public and private insurance companies. Government insurance companies are better than those in private insurance companies, as the arithmetic mean of this variable in government insurance companies reached (3.869), which is higher than the arithmetic mean in private insurance companies, which was (3.670). The standard deviation for government companies was also lower than in private companies, as it reached (0.416) and (0.424), respectively, and this led to a decrease in the coefficient of variation for each of them, reaching (0.110) and (0.116) respectively. As for the sub-dimensions of this variable, the results led to the implementation dimension being ranked first for both government and private companies, and it was in the Government companies are higher than those in private companies. The arithmetic mean was (3.936) and (3.632), the standard deviation was (0.477) and (0.506), and the coefficient of variation was (0.121) and (0.139), respectively. As for the equipment dimension, it came in second place in government companies with an average An arithmetic mean of (3.817) and a dispersion coefficient of (0.132), which is better than the private companies that came in third place, with an arithmetic mean of (3.721) and a dispersion coefficient of (0.156). Although the dimension of interaction in the private companies obtained a coefficient of difference of (0.150) it came in second place and is higher Among them are government companies, with a coefficient of difference (0.143), which came in fourth place, even though the arithmetic mean in government companies (3.968) is higher than in private companies, which is (3.863). As for the compatibility dimension, it came in third place in government companies, and the fifth and last rank in private companies, with an arithmetic mean. (3.829) and (3.613) with a dispersion coefficient of (0.139) and (0.201), respectively. As for the last dimension, temporal, it ranked fifth and last in government companies with a mean of (3.794) and a coefficient of variation of (0.160), and ranked fourth in private companies with an arithmetic mean ( 3.532) and a coefficient of variation (0.194). in general, the mental models variable and its five sub-dimensions (equipment, implementation, interaction, compatibility, timing) were highly present in both government and private companies, according to the opinions of the research sample, and it was better in government companies than in Private companies.

#### ❖ Strategic Decision:

The strategic decision variable came in second place for both government and private insurance companies, similar to the mental models variable. It was higher in government companies than in private companies, so the arithmetic mean in government insurance companies was (3.842), which is higher than the arithmetic mean in private companies (3.533), and it reached The coefficient of variation for each of them is (0.134) and (0.139), respectively. As for the sub-dimensions, the results indicated that the selection dimension ranked first for both government and private companies, and it reached (0.130) in government companies, which is lower than in private companies, which reached (0.147). The development dimension ranked second in government companies and third and last in private companies, with a mean of (3.783) and (3.516) and a standard deviation of (0.153) and (0.161), respectively. As for the last dimension, which is choice, it ranked second in government companies with a mean of (3.868). It is higher than that of private companies, which is (3.532), and this led to a reduction in the dispersion coefficient to be (0.139) in government companies and (0.168) in private companies. These results indicate a high availability of strategic decision dimensions in government and private companies based on the responses of the number of respondents (116) Respondents.

Table (2) Arrangement of data for the independent variable and the responding variable

Variables	Arithmetic mean		ST		CV		Answer level		relative terms	
	Governmental	Private	Governmental	Private	Governmental	Private	Governmental	Private	Governmental	Private
Equipment	3.817	3.721	0.506	0.581	0.132	0.156	high	high	second	third
Execution	3.936	3.632	0.477	0.506	0.121	0.139	high	high	first	first
Interaction	3.968	3.863	0.567	0.581	0.143	0.150	high	high	fourth	second
Compatibility	3.829	3.613	0.532	0.728	0.139	0.201	high	high	third	fifth
Temporal	3.794	3.523	0.608	0.683	0.160	0.194	high	high	fifth	fourth
Mental models	3.869	3.670	0.416	0.424	0.110	0.116	high	high	first	first
Selection	3.873	3.551	0.503	0.523	0.130	0.147	high	high	first	first
Development	3.783	3.516	0.592	0.565	0.153	0.161	high	high	third	second
the choice	3.868	3.532	0.537	0.595	0.139	0.168	high	high	second	third
Strategic decision	3.842	3.533	0.513	0.494	0.134	0.139	high	high	second	second

Source: created by the investigator using the findings from the statistical analysis software (SPSS, 26).

### 3.3. Hypothesis testing:

The influence of mental models on the strategic decision in private companies is higher than that of government companies, whether at the variable level or at the dimensional level. At the level of the influence of the dimensions of mental models on the strategic decision, the interpretation factor for private companies reached (31.0%), which is slightly higher than that of government companies, which is (30.3%), the dimensions of mental models with the strongest influence on the strategic decision were the compatibility dimension ( $\beta = 0.31$ ) for government companies and the timing dimension ( $\beta = 0.20$ ) for private companies. As for the level of influence of the dimensions of mental models on the dimensions of the strategic decision, the strength of the influence relationships ranged. Between government and private companies, the strongest relationship of influence was for the implementation dimension in the development dimension, amounting to ( $\beta = 0.39$ ) for government companies. As for private companies, the strongest relationship of influence was for the equipment dimension in the selection dimension ( $\beta = 0.42$ ) in the strategic decision. This is evident from the varying influence of Mental models in the strategic decision between government companies and private companies, as shown in Table 3:

**Table (3)** Comparing how mental models influence strategic decisions

Regression paths	Interpretation coefficient $R^2$		Number of significant dimensions		The most influential dimension and its amount	
	Government	Private	Government	Private	Government	Private
Dimensions of mental models -----► Strategic decision	%30.3	%31.0	4	3	Compatibility (0.31)	Temporal (0.20)
Dimensions of mental models -----► Selection	32.1%	44.1%	3	2	Compatibility (0.32)	Temporal (0.29)
Dimensions of mental models -----► Development	37.1%	50.3%	2	2	Execution (0.39)	Interaction (0.37)
Dimensions of mental models -----► Selection	35.6%	48.1%	3	2	Interaction (0.29)	Equipment (0.42)

**Source:** created by the investigator using the findings from the statistical analysis software (SPSS, 26).

### 3.4. Examining the notable distinctions between public and private insurance providers:

This paragraph aimed to analyze the significant differences between government insurance companies and private insurance companies for both the independent variable (mental models) and the responsive variable (strategic decision) at the level of the overall variables and their sub-dimensions through the (SPSS, 26) program. Because the variance between the two samples of private and government insurance companies is equal, the (Two-Sample independent t-Test for Equal Variances) was used for independent samples, and Table 4 shows the results of the test, as is clear from the aforementioned table related to testing the significant differences between The response of the two samples, which are both government insurance companies and private insurance companies, as the value of (Sig) for the independent variable (mental models) was (0.037), which is less than (0.05), meaning there are significant differences in the response of the two samples, and with regard to the dependent variable (strategic decision), it was The value of (Sig) is (0.216), which is greater than (0.05), meaning that there is no significant difference.

**Table (4)** analysis (Two-Sample independent t-Test for not Equal Variances) for significant differences

Variable / sub dimension	Sig	t-test	Result
<b>Equipment</b>	.466	.948	No significant differences
<b>Execution</b>	.214	3.329	No significant differences
<b>Interaction</b>	.639	.983	No significant differences
<b>Compatibility</b>	.009	1.842	No significant differences
<b>Temporal</b>	.355	2.251	No significant differences
<b>Total mental models</b>	.037	2.820	No significant differences
<b>Selection</b>	.535	3.367	No significant differences
<b>Development</b>	.945	2.472	No significant differences
<b>Choice</b>	.548	3.187	No significant differences
<b>Total strategic decision</b>	.216	3.577	No significant differences

**Source:** created by the investigator using the findings from the statistical analysis software (SPSS, 26).

#### **4. Conclusion:**

The administrations of government and private insurance companies pay great attention to mental models within companies, with a slight superiority to the administrations of government companies in terms of the general average for this variable and the dispersion of answers. There is a common understanding of what tools and equipment are the most important in work, and the administrations of government and private insurance companies have shown good interest in the Execution dimension, from Through the existence of a common understanding of specific strategies for completing the various tasks and also regarding the dimension of interaction through the mechanism through which information is exchanged between them, as well as determining the speed they need to complete the various tasks with regard to the Temporal dimension, which enables them to adhere to the deadlines for completing the various tasks.

The government insurance companies' administrations demonstrated a slight advantage over private insurance companies when it came to making strategic decisions. The government insurance companies also showed interest in the Selection dimension. The analysis's findings also revealed that, for the two government insurance company samples, the private sector expressed a strong desire to exclude any option that is impractical. Lastly, the development dimension analysis revealed the existence of precise and unambiguous indicators regarding the kind of decision that needs to be made.

#### **Authors Declaration:**

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

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## دور النماذج العقلية في القرارات الاستراتيجية: بحث ميداني مقارنة على عينة من شركات التأمين العراقية الحكومية والخاصة في بغداد

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هذا العمل مرخص تحت اتفاقية المشاع الإبداعي تُسبب المُصنَّف - غير تجاري - الترخيص العمومي الدولي 4.0  
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### مستخلص البحث:

يسعى هذا البحث إلى قياس دور النماذج العقلية بأبعادها (الإعداد، التنفيذ، التفاعل، التوافق، الزماني) في القرار الاستراتيجي بأبعاده (التحديد، التطوير، الاختيار). اعتمد مجال البحث على شركات التأمين الحكومية والاهلية في بغداد، وتم الحصول على البيانات اللازمة للجانب الميداني من خلال الاستبيانات والمقابلات الشخصية ووثائق الشركة. واعتمد الباحث المنهج الوصفي التحليلي والمنهج المقارن، حيث بلغ عدد الأفراد في عينة البحث لشركات التأمين الحكومية والخاصة (116) مؤلفة من معاون مدير عام ورؤساء الأقسام (عينة عشوائية قصدية). وتم استخدام اختبار ألفا كرونباخ، والوسط الحسابي، والانحراف المعياري، ومعامل الاختلاف، وكذلك معامل ارتباط بيرسون، وتم اعتماد معامل الانحدار. وكانت أبرز نتائج البحث وجود علاقة معنوية ذات دلالة إحصائية بين النماذج العقلية والقرارات الإستراتيجية.

نوع البحث: ورقة بحثية.

المصطلحات الرئيسية للبحث: النماذج العقلية، القرار الاستراتيجي، شركات التأمين.

\* البحث مستل من رسالة الماجستير.