



EFFECTIVE OPEN-MINDED THINKING AND ITS IMPACT ON STRATEGIC DECISION-MAKING: AN ANALYTICAL STUDY OF THE OPINIONS OF SENIOR LEADERS AT WASIT UNIVERSITY

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ABSTRACT

The study aimed to demonstrate the effect of effective opportunistic thinking (flexible thinking, divergent thinking, constructive thinking and categorical beliefs) on strategic decisions of University of Wasit. To reach this goal, we relied on the descriptive analytical approach to describe the variables of the study (effective open thinking, strategic decisions). In addition, to analyzing the data collected from (45) individuals who represented the study sample, namely the senior management of University of Wasit (the university president and his assistants, the college dean and his assistants). The questionnaire used as the main tool for collecting data and then analyzing it using the statistical program (SPSSV.23) in order to reach the results of the study. The study conclusions of the study was that results of the statistical analysis showed that the senior management of Wasit University has the ability to manage and think positively and openly in order to reach an effective strategic decision. One of the most important recommendations that came out of the study was enhance aspects of intellectual and effective openness on a sustainable basis in order to reach strategic decisions capable of developing University of Wasit.

KEYWORDS

effective open
thinking, flexible
thinking, divergent
thinking, constructive
thinking, categorical
beliefs, strategic
decisions

Introduction

Recently, the world has witnessed a transition from the industrial era to the knowledge era. The organization must pay attention to its human resources, carry out its activities, and provide the appropriate climate to fully perform its tasks as a mastermind and primary source of knowledge. Organizations often find it difficult to translate this knowledge and share it among their different employees. This hinders organizational progress and prevents the achievement of excellence and

progress that benefits individuals and society. The higher education sector is one of the most important sectors that the government must support and strive to achieve. Developing it as a source of human resources, as individuals are always looking for institutions that provide the best educational services to enrich their minds, increase their knowledge, and prove their role in society.

The most important reasons for transformation is that the organization can improve its performance, the inability to increase the quality of knowledge is the incommensurability of knowledge and the lack of employee awareness, and the ability of decision makers and policy makers to achieve the goals and objectives of the organization and solve problems. The knowledge that organizations need to extract and activate in order to be able to reach sound strategic decisions that can achieve the goals and objectives of organizations and the ability to solve problems that hinder their movement. Thus, strategic decisions are decisions made in the long term and are affected by the external environment. Decision makers must have environmental knowledge because it is the basis of its sustainability and continuity. Organizations work to be able to predict the future and make decisions that are consistent with organizational goals.

The first section: study methodology

First: The study problem:

The challenges that facing organizations were manifested in a lack of awareness and utilization of knowledge. It represents the core and basis of strategy making, strategic decision-making and ensuring service quality. Open and effective thinking may be rare among decision makers in organizations. This leads to rigidity in the approach their use and lack of flexibility, the emotional side embodied in the rebellion of decision makers, the cognitive side embodied in stubborn opinions, and the behavioral side embodied in arrogance and escaping the situation. Positives people are very systematic and not subject to subjective tendencies. Instead, they are sensitive to the external stimuli encounter in daily life. In this case, the current research includes a psychology called the human level of open-mindedness, which considers the knowledge of the decision maker to be the goal of the profession, and the shadow that exists. This is considered an important topic in an era where the individual needs to make multiple decisions and in all his university and life activities.

Second: The study importance:

The importance of the study is evident in the following points:

- 1- Ensuring the quality of higher education and the need for open thinking, which constitutes the largest percentage of the total knowledge available to the institution and requires its development, extraction and use, strategically identifying the role of effective open thinking in decisions and solving problems as needed.
- 2- Open thinking and knowledge are the essence of the success of organizations of all types and a source of competitive advantage.
- 3- Strategic decisions enable organizations to flourish and achieve their goals effectively in the long term.

Third: Study objectives:

The purpose of the study was to determine the concepts related to effective open thinking and knowledge and their impact on each specialty of the advanced staff of University of Wasit, and the

effective relationship with strategic decision-making. As well as, understand the concepts of strategic decision making, its characteristics, and what is most important. Concepts related to the quality of education and concepts to identify the degree of awareness of the advanced staff of Wasit University and quality assurance on tacit knowledge, how to use strategic decisions, and the direct and indirect impact of knowledge on strategic decisions in the presence of variables.

One of the motivations for choosing this topic was the critical importance of the role of effective open-minded thinking in strategic decisions. It is the real capital of the organization, and the essence that distinguishes because it guarantees the quality of outputs that managers rely on in creativity and production. Their decisions were combined with the organizational lack of awareness in strategic decision making, intrigues and expands our knowledge about this topic as a discipline in business management.

Fourth: Hypothetical outline of the study

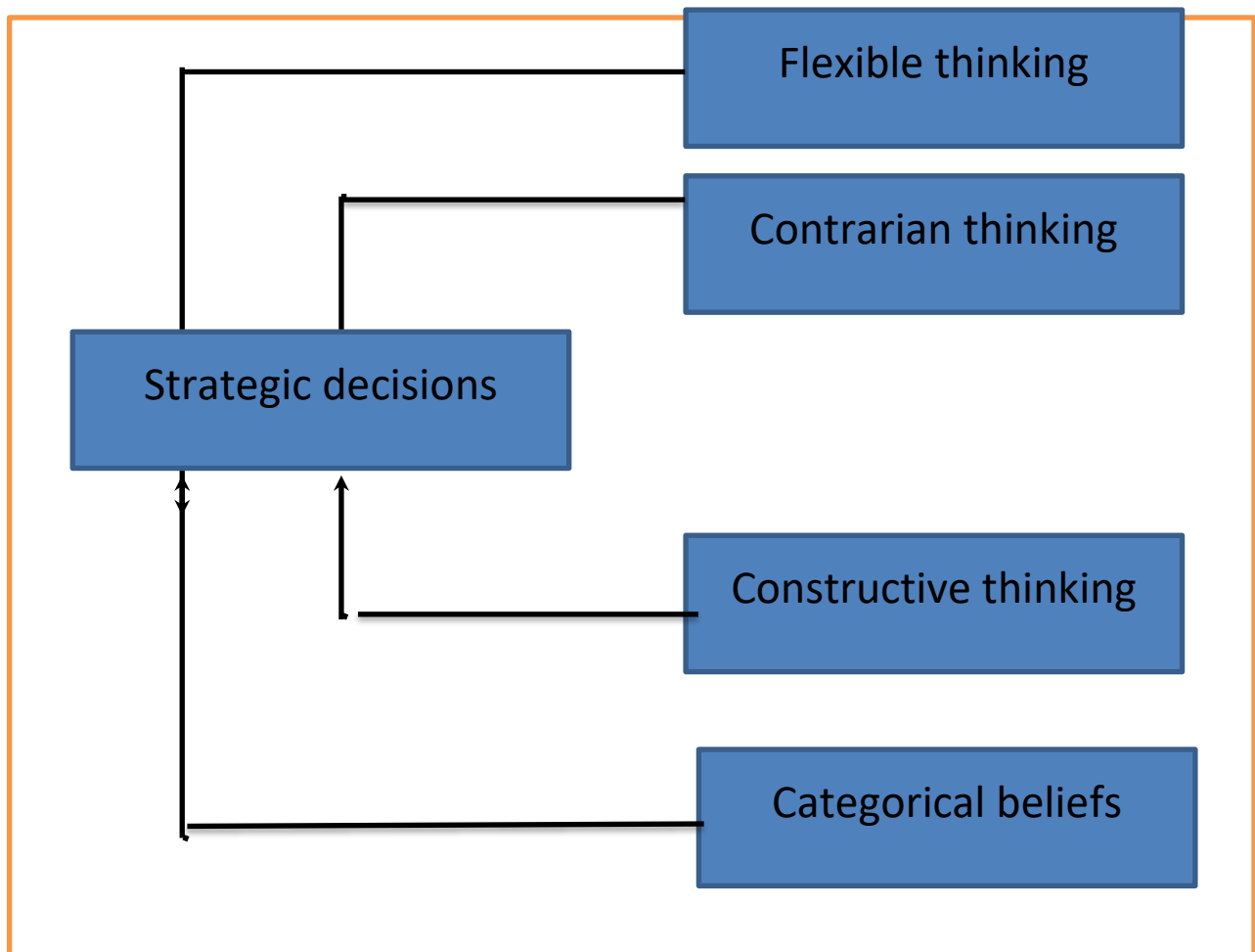


Figure (1) Hypothetical outline of the study

Fifth: Study hypotheses

- 1- There is no statistically significant effect of flexible thinking on strategic decisions.
- 2- There is no statistically significant effect of divergent thinking on strategic decisions.
- 3- There is no statistically significant effect of constructivist thinking on strategic decisions.

4- There is no statistically significant effect of categorical beliefs on strategic decisions.

Sixth: Study population and sample:

The population and sample of the study consists of the advanced staff of the University of Wasit. It consists of the university president, two assistants, deans of colleges (15), and assistant deans (30). The total number was (48). The questionnaire was distributed to this group, and the number of questionnaires retrieved and valid for statistical analysis was (45). The questionnaire was analyzed using the statistical analysis program (SPSS V.23).

The second section: The theoretical aspect of the study

Effective open thinking plays an important role in the success of decision-makers inside and outside institutions, because their activities in missions and life situations are the products of their thinking and the extent of their success or failure is determined. Therefore, learning thinking skills for them provides decision makers with the tools they need so that they can deal effectively with the information or variables that appear in the future.

First: effective open thinking

1- The concept of effective open thinking

Effective open thinking is a person's belief in his ability to appreciate modern evidence that conflicts with his past beliefs, and to slow down in examining obstacles and spend sufficient time resolving obstacles before abandoning them, and taking into account the opinions of others when building his opinions and beliefs (Haran et al., 2013). Chen, (2015) is a person's belief in his ability to reflect and his way of thinking and seriously search for modern information that conflicts with the person's past beliefs and ideas, actively seeking to process information that conflicts with his beliefs deeply and without bias, and that will be ready to change his past thoughts and beliefs after carefully considering the beliefs that conflict with his thoughts.

2- Characteristics of effective open thinking:

A- The need for knowledge: This characteristic reflects the desire to exert maximum energy, effective mental effort, and a high level that leads to good organization and detail of what is planned and evaluation of information within the circle of the thinking process.

B- Determination or perseverance: This characteristic is based on making exceptional efforts to achieve the desired goals.

C- Maximization versus satisfaction: Maximization is a behavior aimed at achieving or obtaining the highest expected benefit from several alternative options or searching for the best options. Satisfaction is often associated with the use of heuristics in making judgments and decision making and is expected to be more susceptible to bias. (Haran et al., 2013).

- Dimensions of effective open thinking

A- Flexible thinking

From a sociological perspective, flexible thinking is viewed as the ability of an individual in a group to collectively evaluate his or her behavior, and make the required adjustments in order to perform effectively. The OECD has viewed flexibility and adaptability as examples of core competencies in the context of cooperation and teamwork. Flexibility is conceptualized as a willingness to make the

necessary compromises in order to achieve the group's common goal. The individual is noted for being flexible in incorporating feedback effectively, and dealing positively with praise, setbacks and criticism.

It is described as the ability to understand, negotiate and balance diverse view points and beliefs to arrive at practical solutions, especially in multicultural settings. Personal flexibility positively affects teamwork and members' ability to cooperate. (Barak and Levenberg, 2016) In the context of education, flexible thinking is a core competency needed to adapt to new learning environments, transfer knowledge to new situations, and understand and solve unfamiliar problems (McComb and Compton, 2007)

B- Different thinking

It is a concept in psychology that involves the individual's tendency to think of possible alternatives to life events. It is a feature of the conscious mental landscape and shows the ability to enjoy alternative possibilities early on that have actually occurred, and these events are always in the past. In other words, it is ideas about alternatives to past events, that is, ideas about what could have been, which suggests that these ideas can be best explained in terms of their role in regulating behavior and improving performance (Epstude and Roses, 2008).

C- Constructive thinking

Constructive thinking is an indicator of intelligence related to experimental systems and indicates the extent to which an individual is able to learn from previous experiences. The way of thinking enhances his effectiveness in life and helps in solving daily problems, reducing effort and stress as much as possible without harassing others (O'Bryan, 2002). Constructive thinking is considered one of the most important types of thinking and is based on the use of a high percentage of the learner's automatic thoughts, that is, their occurrence unintentionally. Constructive thinking refers to the degree to which the learner facilitates the solution of problems that he may encounter in daily life with the least amount of stress and pressure possible, and in this way the main elements of thinking are achieved. A good builder is:

- 1- Accept what cannot be changed.
- 2- Change what can be changed.
- 3- Knowing the difference between the two (Zahavy and Somech, 1999).

D- Sectarian Beliefs

Beliefs are the basic coherence within an explanation, and represent things that an individual might accept as true. It represents the system of all the ideals, expectations and trends of the individual, in addition to the emotional and subconscious aspects that the individual may accept at a time such as the reality of the sector in which he lives. It dealt with individuals' representation of information and types of cognitive styles. This is because the method within thinking that is used by the individual to adapt side by side to side from various life situations and the sensory resources coming from various stimuli. It adopts the dogmatic point of view. The cognitive component of the dogmatic approach consists of the belief, concepts, and perception that a person holds about some other people. Belief represents the news and knowledge a person has about a subject. Some of it links a topic and a specific characteristic that distinguishes this topic. Belief is the emotional acceptance of a principle or issue based on the existing arguments that support this acceptance.

The studies believe that these personal arguments for belief are difficult to choose, and that the individual has varying certainty in these beliefs. This refers to the way every individual has a certain

degree of confidence in beliefs, and here the difference between the open-minded dogmatist and the closed-minded non-dogmatist appears, as in the way of dogmatism we discover that he has high confidence in his personal beliefs, which he does not give up or change (Saroglou, 2002).

Second: Strategic decisions

1- The concept of strategic decisions

Leaders' cognitive depend on their experiences, knowledge, and values, since such experiences, knowledge, and values determine how managers request and interpret available information. Leaders' cognitive can ultimately play an important role in shaping strategic decision-making processes. In general, female and male managers may differ in cognitive frameworks, so principal diversity in terms of gender is likely to have a different impact on strategic decision making processes (Campos and Zuniga, 2022). Knowledge has a particularly close role in strategic decision making due to the centrality of metacognition in the effectiveness of learning and in goal planning, adaptation and implementation. The concept of metacognition refers to the highest level, which includes knowledge and awareness about cognitive phenomena. In other words, it is the ability to think about cognitive processes related to (goals) or tangible goals (Robret and Sharfman, 2011). The quality of implementation and strategic decision is considered the essence of strategic decisions, as a measure of the success of the decision, as it reflects how decision makers evaluate the comprehensive quality of the relevant issues related to the strategic decision and its effects on organizational performance (Al-Hashimi and Schwarz, 2022). Good formulation of strategic decisions alone does not guarantee success unless they are implemented effectively (Winter, 2012).

2- Strategic decision making:

The process of making decisions is one of the basic tasks of managers. It is considered the essence of crisis management, because the amount of success that institutions can achieve depends primarily on the ability and efficiency of decision makers in making appropriate decisions (Ali, 2021). Strategic decision is a major concern for institutions, including modern institutions, and in order to be effective in strategic decision making, they must possess cognitive experience as well as vision about the external environment (Robert and Sharfman, 2011). It is concerned with studying the problem of a complex nature. It also determines the general trends of the institution and deeply influences its future (Al-Yamen, 2013).

- Characteristics of strategic decision:

Strategic decisions are distinguished from other decisions by their comprehensiveness and the long range cover, which is why the strategic decision maker must be familiar with the basic characteristics of strategic decisions:

A- Centralization: In general, strategic decisions are made at the highest administrative levels represented by the Board of Directors or the general managers and their assistants because of their knowledge of the institution's capabilities and resources, as well as the environmental conditions surrounding it.

B- Long-term: The strategic decision covers a long period of time, as the strategic decision extends for some cases to occupy the entire life of the organization. (Karima and Nour Al-Huda, 2022)

C- Rarely: The strategic decision is characterized by its rarity, as it is unusual and has no precedent or similarity to follow.

D- Directed: The strategic decision lays the foundation for smaller decisions and future activities in the organization.

C- Interconnected: The strategic decision is related to large resources and requires a large commitment from individuals at all levels (Wheelen et al, 2017).

The third section: the practical aspect of the study

First: Description and diagnosis of the variable of effective open thinking

Table (1) shows that the criteria for statistical description of the research sample are responses, represented by the weighted arithmetic mean. The standard deviation and the level of the response towards the variable of effective open thinking. It is noted the dimension (constructive thinking) obtained the highest arithmetic averages was 3.52, and with a standard deviation was 1.088. The consistency and harmony of the research sample's answers shows the direction of this dimension, and within the high response level. However, the dimension (flexible thinking) obtained the lowest arithmetic average which was 2.78, and a standard deviation was 1.329, showing the consistency of the answers of the individuals in the research sample and within a moderate response level.

According to the above, the overall average for the variable (effective open thinking) was 3.23, with an overall standard deviation 1.210. This dimension received a moderate response level. It becomes clear to the researcher through the presented paragraphs that the sample has the ability to contemplate, think, research, and find everything new, even if this information conflicts with the past beliefs and ideas that these administrative leaders of Wasit University, but within certain limits that reflect the opinion of part of the sample.

Table (1) means, standard deviations, answer level, and ordinal significance of the effective open thinking variable (N= 45)

level	means	standard deviations	answer level	ordinal significance
Flexible thinking	2.78	1.329	Moderate	4
Contrarian thinking	3.39	1.214	Moderate	2
Constructive thinking	3.52	1.088	high	1
Categorical beliefs	2.99	1.223	Moderate	3
Average	3.17	1.213	Moderate	

Second: Describing and diagnosing the variables of strategic decisions

Table (2) shows that the data for the statistical description of the strategic decisions variable. This table shows that the university makes decisions based on its vision and mission. It obtained the highest average of 4.01 with a standard deviation of 6.99, showing the consistency of the answers of the individuals in the research sample, and within a high response level. But, the university involves employees in the decision-making process received the lowest mean 3.66 and a standard deviation 1.035, showing the consistency and harmony of the answers of the individuals in the research sample towards this paragraph and within the high response level.

According to the results, the overall average for the strategic decisions variable was 3.80 with a standard deviation 1.006. It becomes clear that through the answers of the individuals in the research

sample, that Wasit University, the study sample, is based on knowledge foundations and high experience in making strategic decisions.

Table (2) means, standard deviations, response level, and ordinal importance of the strategic decisions variable (N=45)

Phrase	means	standard deviations	answer level	ordinal significance
The university analyzes and processes data to make decisions	3.77	1.23	high	6
The university uses non-institutional parties to make decisions	3.88	1.44	high	2
The university involves employees in the decision-making process	3.66	1.035	high	9
The university makes decisions based on its vision and mission	4.01	0.699	high	1
The university makes its decisions based on experience	3.85	0.944	high	5
The university makes the most appropriate decision among the many available options and compares them	3.69	1.035	high	7
Subordinates have the necessary knowledge to implement decisions in the right way	3.81	0.966	high	4
Stay away from external influences when making strategic decisions	3.67	1.079	high	8
There is a specific methodology in making strategic decisions	3.84	0.944	high	3
Average	3.80	1.006	high	

Third: Testing the study hypotheses

1- The first main hypothesis: There is no statistically significant effect of flexible thinking on strategic decisions.

Table (3) shows the results of simple linear regression. For the purpose of assessing the impact of flexible thinking on strategic decisions, the following is clear:

A- The calculated (F) value for the estimated model was 7.98 at a significance level of 0.01. Accordingly, the alternative hypothesis is accepted and the null hypothesis is rejected. This means that there is a statistically significant effect of flexible thinking in strategic decisions with a degree of confidence 99%.

Table (3) F value calculated for the influence relationship between flexible thinking and strategic decisions (N = 45)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.631	1	2.631	7.980	.005 ^b
	Residual	54.078	43	.330		
	Total	56.709	44			
a. Dependent Variable: Strategic decisions						
b. Predictors: (Constant): Flexible thinking						

B: - It is clear from the value of the coefficient of determination R^2 of 0.046 that flexible thinking is able to explain 4.6% of the changes that occur in strategic decisions of Wasit University. The percentage 94.4% is due to the contribution of other variables not included in the study model.

Table (4) Calculated R^2 value for the influence relationship between flexible thinking and strategic decisions (N = 45)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215 ^a	.046	.041	.57423
a. Predictors: (Constant), Flexible thinking				

- The second main hypothesis (there is no statistically significant effect of different thinking on strategic decisions).

A - The calculated value of (F) for the estimated model reached 87.958 at a significance level of 0.01. Accordingly, the alternative hypothesis is accepted and the null hypothesis is rejected. This means that there is a statistically significant effect of different thinking on strategic decisions with a degree of confidence 99%.

Table (5): F value calculated for the influence relationship between divergent thinking and strategic decisions (N = 45)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.797	1	19.797	87.958	.000 ^b
	Residual	36.912	43	.225		
	Total	56.709	44			
a. Dependent Variable: Strategic decisions						
b. Predictors: (Constant): Flexible thinking						

B: It is clear from the value of the coefficient of determination (R^2) of .349 that divergent thinking is able to explain 34.9% of the changes that occur in strategic decisions. The percentage 65.1% is due to the contribution of other variables not included in the study model.

Table (6) R^2 value calculated for the influence relationship between divergent thinking and strategic decisions (N = 45)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591 ^a	.349	.345	.47442
a. Predictors: (Constant), Contrarian thinking				

- The third main hypothesis (there is no statistically significant effect of constructivist thinking on strategic decisions)

A: - The calculated value of (F) for the estimated model reached 90.638 at a significance level of 0.01. Accordingly, the alternative hypothesis is accepted and the null hypothesis is rejected. This means that there is a statistically significant effect of the dimension of constructive thinking in strategic decisions with a degree of confidence 99%.

Table (7) F-value calculated for the influence relationship between constructive thinking and strategic decisions (N = 45)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.459	1	19.459	90.638	.000 ^b
	Residual	34.994	43	.215		
	Total	54.452	44			
a. Dependent Variable: Strategic decisions						
b. Predictors: (Constant), Constructive thinking						

B: It is clear from the value of the coefficient of determination (R^2) of .357 that constructive thinking is able to explain 35.7% of the changes that occur in the dependent variable of strategic decisions. The percentage 64.3% is due to the contribution of other variables not included in the study model.

Table (8) R^2 value calculated for the influence relationship between constructive thinking and strategic decisions (N = 45)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.598 ^a	.357	.353	.46334
a. Predictors: (Constant), Constructive thinking				

4- The fourth main hypothesis (there is no statistically significant effect of categorical beliefs on strategic decisions)

First: The calculated F value for the estimated model reached 317.713 at a significance level of (0.01). Accordingly, the alternative hypothesis is accepted and the null hypothesis is rejected. This means that there is a statistically significant effect between categorical beliefs and strategic decisions with a degree of confidence 99%.

Table (9) Calculated F value for the influence relationship between categorical beliefs and strategic decisions (N = 45)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.989	1	35.989	317.713	.000 ^b
	Residual	18.464	42	.113		
	Total	54.452	43			
a. Dependent Variable: Strategic decisions						
b. Predictors: (Constant), Categorical beliefs						

Second: The value of the coefficient of determination (R^2) was .661, meaning that categorical beliefs explain 66.1% of the changes that occur in strategic decisions. The remaining percentage 33.9% is contributed by other variables not included in the model.

Table (10) the R^2 value calculated for the influence relationship between categorical beliefs and strategic decisions (N = 45)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813 ^a	.661	.659	.33656
a. Predictors: (Constant), Embeddedness : Categorical beliefs				

Conclusions

The study concludes that the senior management of Wasit University has the ability to manage and think positively and openly in order to reach everything new and not adhere to stereotypical or routine thinking. The senior management of the University of Wasit is based on knowledge foundations and high experience in making strategic decisions that help the university keep pace with developments and environmental changes with its various elements that surround the university. Wasit University has open and outside-the-box thinking at times, and this thinking helps senior management to make strategic decisions in a way that is consistent with the university's aspirations for anticipating the future. Some factional ideas influence the strategic decisions taken by the University of Wasit, and that the percentage of this influence is moderate.

References

1. Ali, Muhammad Al-Sayyid Abu Al-Futouh Ali, factors affecting strategic decision-making in confronting the Corona virus and its effects on reducing the spread of the virus, 2021.
2. Oath, gesture, vigilance and its importance in making strategic decisions, doctoral thesis, published.

3. Karima, Haddou, and Nour Al-Huda, Hajam, 2022, Administrative Empowerment and its Role in Achieving the Quality of Strategic Decisions, Ahmed Draya Adrar University, Faculty of Economic, Commercial and Management Sciences, Department of Management Sciences, published master's thesis.
4. Barak, M., & Levenberg, A. (2016). Flexible thinking in learning: An individual differences measure for learning in technology-enhanced environments. *Computers & Education*, 99, 39-52.
5. McComb, S. A., Green, S. G., & Compton, W. D. (2007). Team flexibility's relationship to staffing and performance in complex projects: An empirical analysis. *Journal of Engineering and Technology Management*, 24(4), 293-313.
6. O'Bryan, M. (2002). *Where did they learn to think that way? Parental modeling of dysfunctional and constructive thinking*. University of Cincinnati.
7. Drach-Zahavy, A., & Somech, A. (1999). Constructive thinking: a complex coping variable that distinctively influences the effectiveness of specific difficult goals. *Personality and Individual differences*, 27(5), 969-984.
8. Epstude, K., & Roese, N. J. (2008). The functional theory of counterfactual thinking. *Personality and social psychology review*, 12(2), 168-192.
9. Saroglou, V. (2002). Beyond dogmatism: The need for closure as related to religion. *Mental health, religion & culture*, 5(2), 183-194.
10. Campos-García, I., & Zúñiga-Vicente, J. Á. (2022). Strategic decision-making in secondary schools: The impact of a principal's demographic profile. *Leadership and Policy in Schools*, 21(3), 543-564.
11. Robert Mitchell, J., Shepherd, D. A., & Sharfman, M. P. (2011). Erratic strategic decisions: when and why managers are inconsistent in strategic decision making. *Strategic management journal*, 32(7), 683-704.
12. Al-Hashimi, K., Weerakkody, V., Elbanna, S., & Schwarz, G. (2022). Strategic Decision Making and Implementation in Public Organizations in the Gulf Cooperation Council: The Role of Procedural Rationality. *Public Administration Review*, 82(5), 905-919.
13. Winter, S. C. (2012). Implementation perspectives: Status and reconsideration. *The SAGE handbook of public administration*, 265-278.
14. Haran, U., Ritov, I., & Mellers, B. A. (2013). The role of actively open-minded thinking in information acquisition, accuracy, and calibration.
15. Chen, V. (2015). "There is No single right answer": the potential for active learning classrooms to facilitate actively open-minded thinking. *Collected Essays on Learning and Teaching*, 8, 171-180.
16. Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2017). *Strategic management and business policy* (Vol. 55). Boston: pearson.