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EMPLOYING COGNITIVE ABILITIES IN DEVELOPING STRATEGIC FORESIGHT

Roqaya Kazem Hamza Al-Murshidi
Babylon Technical Institute / " Al-Furat Al-Awsat Technical University" / Iraq
Roqaya.almurshidi@atu.edu.iq

Abstract
The advent of globalization, intense competition, and rapid technological change have led to a significant increase in the instability and complexity of the competitive landscape. Organizations move towards drawing possible future maps consistent with the organization's capabilities and its ability to innovate the programs and technologies necessary to survive and prosper in the future. The research problem arises through several questions, including whether the cognitive abilities of the working individuals will contribute to achieving strategic foresight in the researched company. The research raises several questions, including what is the relationship between the cognitive abilities of individuals and strategic foresight? What is the effect of cognitive abilities in achieving strategic foresight? How prepared are individuals in the organization under study to bring about change? Does the researched organization possess the capabilities necessary to achieve strategic foresight? The study aims to present the theoretical aspects of the research variables (cognitive abilities and strategic foresight) and to show the extent to which the researched organization adopts the concept of (cognitive abilities and strategic foresight). The importance of the research is highlighted because it deals with basic and important variables to achieve distinction compared to competing organizations in the labor market. It also dealt with an important productive industrial sector (Union Company) and linked two variables: the cognitive abilities of individuals and strategic foresight. And by using the intentional sample, a questionnaire form was distributed to the individuals working in the company. The researcher used statistical programs and methods to process data and information, such as Spss v.28 and Microsoft Excel 2010, to test the research variables.

Keywords: foresight, perception, cognitive abilities, strategic foresight.

Introduction

"The first section"(methodology): The methodology includes all of the following:

Study problem: Organizations have undergone many changes over the past few decades, and these changes had a clear impact on the competitive landscape. These changes have forced organizations to face challenges and difficulties. Because it realized that "the major changes that occur in the competitive environment" require many radical changes throughout the organization in a way that qualifies it to achieve success, excellence, and growth. The problem of the study was formulated to determine the extent of interest of organizations, specifically the organization under study, in the cognitive abilities of the individual and their impact on the process of strategic foresight. The problem can be formulated as follows :

1- What is the perception of individuals in the same organization in the study about the concepts of cognitive abilities and strategic foresight?
2- What is the extent of the contribution of cognitive abilities in achieving strategic foresight?
3- To what extent does the organization apply the strategic orientation process?
4- What is the nature of the "correlations" between cognitive abilities and strategic foresight, and the impact relationship between them?
5- Is the organization sufficiently prepared to achieve strategic foresight?

The importance of the study: The importance of this study stems from its treatment of basic variables because paying attention to the individual's cognitive abilities and effectively directing them to achieve strategic foresight is of utmost importance. Therefore, it can be included in the following:

- The study gathered crucial basic variables, both cognitive abilities and strategic foresight.
- The study deals with an important productive industrial sector.
- The study can serve as a guide for the researched organization or a work guide.

Research objectives:

1- Building a theoretical framework for the variables of the study (cognitive abilities and strategic foresight).
2- Clarifying and defining the correlations as well as the relationship of influence between cognitive abilities and strategic foresight, and at the level of dimensions and interpretation of results.
3- Distinguishing between the concepts of cognitive abilities and strategic foresight.
4- Diagnosing the level of an individual's cognitive abilities and the role you play in the process strategic foresight.
5- Developing proposals and recommendations in light of the results obtained. They may contribute to the researched organization's awareness of the importance of adopting strategic foresight as a strategy that supports opportunities for success and growth.

Hypothetical chart:

The researcher worked on synthesizing a hypothetical scheme in light of the problem, objectives, and importance of the research and the theoretical frameworks for the variables (cognitive abilities and strategic foresight). This is what Figure 1 shows.

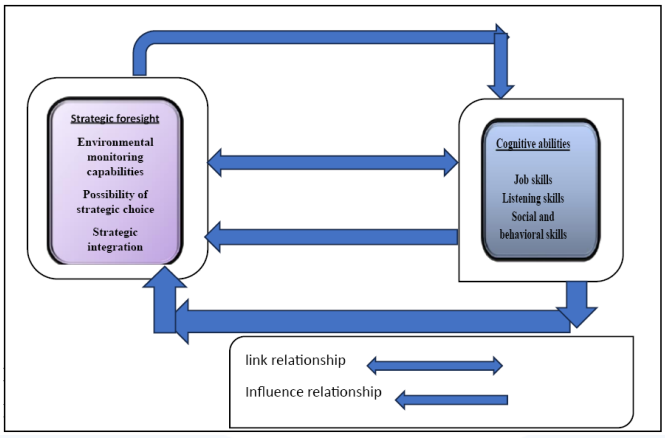

Figure No. {1} Hypothetical diagram of the research

It is clear from Figure No. {1} that
The independent variable is cognitive abilities, and its dimensions are
(Work skills, listening skills, social and behavioral skills, communication skills).
The dependent variable is strategic foresight, and its dimensions are (strategic integration capability, environmental scanning capability, and strategic choice capability).

Study hypotheses: The current study was launched to address the problem of the study through hypotheses of correlation and influence the following:

Main correlation hypothesis: There is a "statistically significant correlation" between cognitive abilities and the variable of strategic foresight and its dimensions
There is a significant, statistically significant correlation between each dimension of the independent variable (work skill, listening skill, social and behavioral skills, communication skills) and strategic foresight in all its dimensions.

The second main impact hypothesis: - "There is a significant and statistically significant effect"of cognitive abilities on strategic forecasting, from which the sub-hypotheses emerged as follows:

-There is a significant effect for each dimension of the independent variable (work skill, listening skills, social and behavioral skills, communication skills) on strategic foresight.

"The second topic" (cognitive abilities)

Perception is a mental, intellectual process carried out by a person. He has initial awareness and awareness of influences, and then thinks about how to act towards them. Perception is also related to ideas and understanding, in the field of strategic change, which is considered at the level of the individual unit, where it relates to how employees evaluate, perceive, or perceive change. Understanding it (Smollan, 2006:144). From the point of view of (Mohsen, 2011: 118).Cognitive skills are what require the individual to consume and process information evaluate the external stimuli that come to him through the senses, and determine the way he responds to these stimuli. In the same context, (Pinho, 2013: 557) pointed out that cognitive skills are those resources that provide common values or values. (Vision), which includes collective goals, interpretations and meaning systems, and shared perceptions and aspirations of individuals within the organization. Shared language, symbols, and narratives in the cognitive dimension are part of the requirements for exchanging resources through commitment and cooperation. They help facilitate shared understandings of collective goals, as well as Adopting sound methods of action, and facilitating the ability of working individuals to access valuable information and distinctive resources. (Abdullah and Ibrahim, 2018: 23) adds that the cognitive aspects include the prevailing organizational values in the organization, and the beliefs and expectations that individuals hold towards things, as well as the norms through which the correctness and wrongness of actions and actions within the organization are judged. From the above, the researcher sees Cognitive skills (are an intellectual process that shows the extent of individuals' readiness and awareness For individuals to direct their efforts in the process of change and strategic directions, so that they have an initial awareness of the influences. When individuals realize that the change is positive and that it will serve the interests of the strategic organization and individuals, it will lead to individuals carrying out their tasks in the correct manner, helping others, and gaining... Of experience. Loyalty to the organization and showing initiatives that lead to improved performance support its strategic direction and

reduce effort. Conversely, when individuals realize that change is negative, they will resist and reject change because they realize that it does not serve their interests and does not support strategic directions.

Dimensions of cognitive skills: Some researchers have developed four dimensions of cognitive skills, such as (Al-Zubaidi and Mahmoud, 2016: 110), which are (work skills, listening skills, social and behavioral skills, and communication skills).

Strategic foresight: Organizations need exploratory actions that enable them to enhance dynamic capabilities through a systematic forward-looking activity. (Strategic Foresight) is considered a study that includes developing a methodology for long-term plans, including all emerging and emerging issues, and taking appropriate actions that help in the decision-making process Current and future . dynamic capabilities are the behavioral orientation of the organization to continuously integrate the organization's resources, reconfigure and work to renew it them better,To rebuild the main and important capabilities of the organization to avoid changes in the changing environment and to achieve and maintain competitive position. "Strategic foresight" is used as an exploratory process for the changing environment and the creation and creation of strategic responses to maintain this competitive advantage. The (strategic foresight) process includes creating a series of different future visions, and it is possible to use these visions in developing new organizational plans and strategies to help in making organizational decisions. "Strategic foresight" is a combination of a forward-looking action and a strategic management approach geared to the success of the organization. (Stephen, 2022:3). (Schwarz et al, 2023:2) have proven that strategic foresight is important as one of the elements of dynamic capabilities. that the organization's practices for its various activitiesIt enables her to, It enables it to monitor and interpret the factors that could lead to change and its subsequent effects, and motivate individuals to respond to these changes, It is one of the important means that has a role in enhancing individuals' innovative capabilities. The theoretical and administrative implications are that strategic foresight puts the organization in a state of alertness and readiness and expands its vision to the foresight and explore emerging social and technological trends in ways that lead to innovations that respond to the fast-paced business environment (Sarpong, & Maclean, 2016:2). Strategic foresight is the first stage in starting a foresight process that is more comprehensive and includes more than just discovering and analyzing information. We can imagine that the process of strategic foresight and its implementation takes place according to the following steps, which are (the early discovery stage, followed by the information analysis stage, then forward-looking knowledge, and finally setting future options as well as future policies). From the foregoing, the researcher believes that strategic foresight is an organizational process that seeks to rebuild resources and capabilities in a way that supports decision-makers, facilitates their tasks, and helps them develop future-oriented policies (Habegger, 2010:49). The researcher believes that strategic foresight is a strategic process that includes rebuilding organizational resources and capabilities, directing them towards the future, and putting the organization in a state of alertness and readiness to ensure that opportunities are exploited and threats are avoided.

Dimensions of strategic foresight: Cognitive skills are an intellectual process that shows the extent of individuals' willingness and awareness to put their energies and capabilities into the process of change and strategic directions, and strategic foresight has an impact on the process

of achieving a new and future strategy that provides the organization with the appropriate opportunity to maintain a sustainable competitive advantage, which is one of the contemporary issues of interest to strategic management. To measure strategic foresight, a scale with three dimensions was used: (strategic integration capability, environmental scanning capability, and strategic selection capability) (Mustafa and Jathir, 2022 109).

Relationship cognitive skills of individuals and strategic foresight

(Rafferty et al ,2013:119) assert that individuals who contribute to their organization's readiness and preparedness are likely to experience behaviors that may be similar to each other when they face changes that threaten or enhance the organization's identity and that collective organizational emotions can also be influenced by organizational culture and where an Organizational culture is a tool of influence that informs, allocates and directs the feelings of individuals within the organization, as it is a contributing factor in achieving success and strategic direction. (Mastio & Ken, 2021: 2) The strategic foresight team in the organization must include participants from a wide range of members from within the organization as well as from outside it. Emphasizing the importance of engaging individuals with viewpoints and knowledge who possess alternative experiences and knowledge that may impact organizational sustainability, in addition to having the courage to be able to speak frankly and communication skills, and relationships that enable dialogue and discussion between participants, supporting leaders for the team, and urging them to be creative. Leadership is exercised by a group of individuals who have an effective role in strategic activities, including the establishment of organizational units specific to the strategic foresight process, and taking collective responsibility for coordinating and implementing these activities rather than individual leaders. Managers as decision makers are often privileged as leaders, making them the “visionaries” and responsible for organizational foresight. To address the complexities of entrusting organizational foresight to managers alone, strategic foresight is often conceptualized in a form similar to strategic planning as a distributed capability that enables the organization to produce knowledge. Purposeful and directed toward the future, this shift in assigning the subject of strategic foresight gives priority to managers, and sometimes, employees as people whose behaviors and actions may influence organizational foresight (Sarpong, & Maclean, 2016:2). Thus, the existence of strategic foresight does not depend solely on the organizational practices of individuals.

only, but on the relational actions resulting from the interdependent relationships between them and the interactions of the members of the organization in their existing practices.

"The third topic" (applied side of the research)

Study and verify the relationships between the research variables

By calculating the Pearson correlation coefficient and the simple linear regression coefficient, it aims to test the relationship between variables at the macro and micro levels as well as the relationship between the dimensions of cognitive ability and strategic foresight.

A- Testing the first main hypothesis: (There is a significant correlation between cognitive abilities and strategic foresight)

The following sub-hypotheses were derived from it:

1- There is a significant correlation between Work skills and strategic foresight in its dimensions.

2- There is a significant correlation between listening abilities and strategic foresight in its dimensions.

3- There is a significant correlation between communication abilities and strategic foresight in its dimensions.

4- There is a significant correlation between social and behavioral skills and strategic foresight in its dimensions.

The matrix of Pearson simple correlation coefficients between these variables and their dimensions is shown in Table 1. Table (1) also provides the sample size (119) and the type of test (two-tailed) prior to testing this hypothesis. The significance test of the correlation coefficient is denoted in the table by the notation (Sig.). If the correlation coefficient has a sign (*), it indicates that the correlation is significant at the level of (5%), whereas a sign (**) indicates that the correlation is significant at the level of (1%). According to the rule, the correlation coefficient's strength is assessed as follows (Cohen, 1977:79–81):

- If the correlation coefficient value falls between 0.10 and 0.29, there is little correlation.
- The correlation is moderate if the correlation coefficient value is within the range of 0.30 and 0.49.
- If the correlation coefficient's value falls between (0.5 and 1), there is a strong correlation.

Testing the correlation hypothesis, the first main hypothesis

Perceptual abilities	**Social and behavioral skills**	**communication skills**	**listening skills**	**Job skills**		
0.993**	0.956**	0.930**	0.903**	0.926**	Pearson Correlation	Strategic foresight
0.000	0.000	0.000	0.000	0.000	Sig. (2-tailed)	
119	119	119	119	119	N	

****. Correlation is significant at the 0.01 level (2-tailed).**

Source: prepared by the researcher based on the results of the electronic calculator using the program (SPSS V.24).

The correlation matrix that tested the first main hypothesis and its hypotheses that there are strong positive correlations between cognitive abilities and strategic foresight (because its value is greater than 0.50) with significant significance at the level of (1%) and (5%) is shown in Table 1. According to (Cohen's) rule, the correlation value between them is (0.993) at a significant level (1%), which indicates a strong direct association.

The dimensions of social and behavioral skills and the strategic outlook variable had the strongest correlation at the dimensional level, with a value of the correlation between them reaching (0.956), which is regarded as a strong positive relationship in light of Cohen's rule at a significance level (1%). The dimension of listening skills and the strategic outlook variable had the poorest association, with a value of the correlation of (0.903) at a significant level (1%), which is regarded as a strong, direct correlation in the context of Cohen's rule.

The major alternative hypothesis and its subsidiary hypotheses—that there is a considerable association between cognitive abilities and strategic forecasting—are accepted, the researcher deduces from the findings in Table (1).

B - Testing the second main hypothesis:("There is a significant effect relationship between cognitive abilities and strategic foresight")

Several sub-hypotheses are derived from it

There is a significant effect for each dimension of the independent variable (work skill, listening skills, social and behavioral skills, communication skills) on strategic foresight .

Table 2: Regression analysis of the factors of cognitive ability and strategic foresight

Cognitive abilities (X) the independent variable	Strategic Foresight (Y) is the dependent variable					
	β	R^2	test (T)		Test (F)	
			(accounted for) t	(tabular) 1% t	F(calculated)	F1%(tab)
Job skills	0.92	0.85	4.23	2,42	17.92	7,31
listening skills	0.90	0.81	3.64		13.31	
communication skills	0.93	0.86	4.39		19.28	
	0.95	0.91	5.62		31.62	

Source: prepared by the researcher based on the results of the electronic calculator using the program (SPSS V.24).

The first sub-hypothesis: There is a significant influence relationship for the work skills dimension in strategic foresight.

Table (2) shows that the dimension regression coefficient for strategic foresight was (0.92), which indicates that if the dimension changes by one unit, the strategic foresight variable will increase by (0.92). It should be noted that the effect was significant because the calculated (t) value was (4.23) Higher than its tabular counterpart at the level of significance (1%), amounting to (2.42), indicating that the effect was large . The determination coefficient (R2) was about (0.85), which indicates that the dimension accounts for 85% of changes in the strategic outlook and that the remaining 15% is attributable to other factors outside the scope of the model. At a significant level of 1%, we discover that the calculated (F) value of (17.92) is higher than the tabular (7.31) value. As a result, we mention that the estimated model is important. The first sub-hypothesis is supported in light of the information presented above.

The second sub-hypothesis: There is a significant influence relationship for the dimension of listening skills in strategic foresight.

Table (2) shows that the strategic foresight dimension regression coefficient was 0.90. This indicates that the effect was significant because the calculated (t) value of (3.64) is higher than its tabular counterpart at the level of significance (1%), equal to (2.42), and the strategic foresight variable will increase by (0.90) if the dimension changes by one unit . The determination coefficient (R2) was around (0.81), which indicates that the dimension accounts for 81% of changes in the strategic outlook and that the remaining portion is caused by variables other than its presence in the model. At a significant level of 1%, we discover that the calculated (F) value of (13.31) is higher than its tabular value of (7.31). As a result, we mention that the estimated model is important. This leads to the acceptance of the second sub-hypothesis.

The third sub-hypothesis: There is a significant influence relationship for the dimension of communication skills in strategic foresight.

From Table 2, it can be seen that the dimension regression coefficient on strategic foresight was (0.93), which indicates that if the dimension changes by one unit, the strategic foresight variable will increase by (0.93). It should be noted that the effect was significant because the calculated (t) value was (4.39) Higher than its tabular counterpart at the level of significance (1%), amounting to (2.42), indicating that the effect was large . The determination coefficient (R2) was around (0.86), which indicates that the dimension accounts for 86% of changes in the strategic outlook, with the remaining 24% owing to other factors not taken into account in the model. At a significant level of 1%, we discover that the calculated (F) value of (19.28) is higher than the tabular (7.31) value. As a result, we mention that the estimated model is important. The third sub-hypothesis is supported in light of the information presented above.

The fourth sub-hypothesis: There is a significant influence relationship between the dimension of social and behavioral skills in strategic foresight.

Table (2) makes it evident that the regression coefficient for the strategic foresight dimension was 0.95. The strategic foresight variable will therefore rise by (0.95) if the dimension increases by one unit. It should be noted that this effect was significant because the calculated (t) value of (5.62) was higher than its tabular counterpart at a significance threshold of (1%) (2.42). The coefficient of determination (R2) value was approximately (0.91) . This indicates that the dimension accounts for 91% of changes in the strategic outlook, with the remaining 1% caused by variables not included in the model. At the 1% level of significance, we discover that the calculated (F) value of (31.62) is higher than its tabular value of (7.31). As a result, we mention that the estimated model is important. The fourth sub-hypothesis is accepted as a result of the aforementioned .

Conclusions:

1- The strategic approach and strategic vision an effective ways to remove ambiguity through strategic analysis of the external and internal environment to obtain integrated information that contributes to employing and improving the performance skills of individuals and their level of thought and management.
2- The cognitive abilities of individuals have a statistically significant effect on improving the skills of the individuals in the same research.
3- There is an impact of strategic foresight by presenting new ideas and opinions.
4- Cognitive abilities correlate with strategic foresight.
5- There is an influence relationship between cognitive abilities and strategic foresight.
6- The relationship between listening skills and strategic foresight is weak.
7- The strongest correlation between social and behavioral skills and strategic foresight.

Recommendations:

1- Developing a pioneering and effective future vision for the company based on expectations and strategic foresight, built and based on strategic analysis to explore future opportunities

and expected threats and analyze its performance results to enhance strengths and identify weak points to overcome.

2- The company is working on developing a thoughtful strategic plan based on a strategic vision for the future.
3- Use artificial intelligence software to support the data resulting from the process of practicing strategic foresight.
4- Attracting the best talents from innovation champions and knowledge.
5- The necessity of involving working individuals in courses related to artificial intelligence and strategic foresight.

References

1. Abdullah Alaa Elias Ahmed, Ibrahim Siddig Bullal, (2018), "The Cognitive Dimension of Organizational Culture and its Impact on Organizational Affiliation," Master's Thesis in Business Administration, University of Sudan.
2. Al-Zubaidi, Ghani Daham; Mahmoud Sanaria Abdullah, (2016), The Role of Human Resources Management Strategies in Enhancing Perceptual Skills, Journal of Economic and Administrative Sciences, Vol. 22, p. 88.
3. Choi, Myungweon. "Employees' attitudes toward organizational change: A literature review." Human resource management 50.4 (2011): 479-500.
4. Cohen, J.,(1977)," Statistical power analysis for the behavioral sciences", New York: Academic Press.
5. Habegger, Beat.(2010) "Strategic foresight in public policy: Reviewing the experiences of the UK, Singapore, and the Netherlands", Futures, 42.1
6. Kem, K., Payne, G. T., & Tan, J. A. (2006). An examination of cognition and affect in strategic decision making. International Journal of Organizational Analysis, 14, 277–294. doi:10.1108/19348830610849709
7. Kitchen, Philip J., and Finbarr Daly. 2002). Internal communication during change management. Corporate Communications: an international journal, 7(1), 46-53
8. Lattuch, F., & Young, S. (2011). Young professionals' perceptions toward organizational change. Leadership & Organization Development Journal, 32, 605–627. doi:http://dx.doi.org/10.1108/01437731111161085
9. Mastio, Emmanuel, & Ken Dovey. (2021). Contextual insight as an antecedent to strategic foresight. Futures, 128, 102715.
10. Mohsen, Abd al-Karim Hassan, (2011), "Planning values of housing projects in the Gaza Strip and their impact on future housing projects – a case study of the Tel al-Hawa housing project," Islamic University Journal, Vol. (19), No. (2).
11. Mustafa, Rawand Nabil and Gatheer, Saadoun Hammoud, (2022), "The Impact of Strategic Foresight on Strategic Renewal by Talent Management", Journal of Al-Rafidain University College For Sciences (ISSN: 1681-6870).
12. Oreg, S., Vakola, M. and Armenakis, A. (2011), " Change recipients ' reactions to organizational change: a 60-year review of quantitative studies ", The Journal of Applied Behavioral Science, Vol. 47 No. 4, pp. 461-524.

13. Pinho, José Carlos,(2013), "The role of relational social capital in examining exporter-intermediary relationships ", European Business Review, Vol. (25), Iss (6), pp. 553 – 570.
14. Rafferty, A. E., Jamieson, N. L., & Amenakis, A. A. (2013). Change readiness: A multilevel review. Journal of Management, 39 (1), 110—135.
15. Sarpong, David, & Mairi Maclean, (2016), "Cultivating strategic foresight in practice: A relational perspective" Journal of Business Research, Volume 69, Issue 8.
16. Schwarz, Jan Oliver, Bernhard Wach, and René Rohrbeck. " (2023). How to anchor design thinking in the future: Empirical evidence on the usage of strategic foresight in design thinking projects. Futures, 149, 103137.
17. Smollan, R. K. (2006). Minds, hearts, and deeds: Cognitive, affective and behavioral responses to change. Journal of Change Management, 6(2),143–158.
18. Stephen Hall, Mark Workman, Jeffrey Hardy, Christoph Mazur, Jillian Anable, Mark Powell,& Sophie Marie Wagner (2022). Doing business model innovation for sustainability transitions—Bringing in strategic foresight and human-centered design. Energy Research & Social Science, 90, 102685.