



COGNITIVE STYLES AND THEIR IMPACT ON STRATEGIC PROFESSIONALISM-A FIELD STUDY OF ADMINISTRATIVE LEADERSHIP IN KIRKUK UNIVERSITY

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Article history:	Abstract:
Received: 10 th April 2024 Accepted: 8 th May 2024	The objective of the current research is to study the understanding of cognitive styles and their impact on strategic professionalism in the researched university. Wherein the researcher developed a questionnaire based on previous studies related to the subject of the current study. The study sample consisted of (96) individuals from senior leadership in the university. Advanced statistical software was utilized to achieve the objectives of the current research. The results of the current research indicated a significant impact between the variable of cognitive styles and strategic professionalism. The current research recommends that senior leadership in the university conduct continuous training courses and programs to develop and disseminate a culture of professionalism among the human element in all fields and tasks entrusted to them.

Keywords: Cognitive Styles, Strategic Professionalism, Kirkuk University..

INTRODUCTION

In recent times, institutions have been facing multiple challenges, revolving around environmental shifts and intense competition, which cast shadows on everyone. And the widespread dissemination of knowledge, which has become a significant challenge for them in achieving their goals and future aspirations. This necessitated the abandonment of traditional management concepts and methods and the adoption of modern management concepts, including cognitive styles and their impact on achieving strategic professionalism. This indicates the human mind's ability to confront new situations. In addition to finding appropriate solutions for the problems facing the organization, accuracy in the decision-making process plays a crucial role in achieving organizational effectiveness. It serves as the cornerstone for organizational continuity and long-term strategic sustainability. Furthermore, it acts as a key tool for assessing and measuring performance. Organizations can discover opportunities, foster innovation, and achieve their goals through excellence and value creation. The research is divided into three main sections: the first focuses on the general framework of the study, the second delves into the theoretical aspect, and the third addresses the practical dimension of the study.

First: Problem statement: - The researched institution strives, through its vision and various strategies, to maintain the cognitive patterns it adopts. Organizations strive to achieve strategic professionalism because it provides benefits to both individuals and the organization. This objective includes improving strategic and entrepreneurial skills in business, increasing their satisfaction, and generating a sense of commitment and dedication in individuals, thereby enhancing their efficiency. This, in turn, makes them feel appreciated by their superiors for their efforts. Given the significant impact of cognitive patterns on achieving strategic professionalism among employees, there has been a need to study this topic and address its phenomena. The absence of a clear understanding of cognitive patterns within the university may lead to a decline in strategic professionalism. Consequently, the researcher investigated methods and approaches that can enhance strategic professionalism within the researched university. temporal research gaps between the present study and previous research. It focuses on cognitive patterns and their impact on achieving strategic professionalism at the University of Kirkuk. From this perspective, A main question can help define the research problem by:

What impact do cognitive patterns have on achieving strategic professionalism at the University of Kirkuk?

The main question gives rise to the following sub-questions:

- 1 .To what extent are cognitive patterns present at the University of Kirkuk from the perspective of its employees?
- 2 .What is the level of strategic professionalism at the University of Kirkuk according to its employees?
- 3 .How do cognitive patterns influence strategic professionalism at the University of Kirkuk?

Second: The importance of this study: will be highlighted through the following points:

1. The current research contributes by focusing on an important topic that has not received sufficient attention from researchers. It explores the relationship between cognitive patterns in their dimensions (perceptual cognitive pattern, planning cognitive pattern, and innovative cognitive pattern) and their impact on strategic professionalism.
2. It draws researchers' attention to conducting numerous future studies in the field of strategic professionalism using different dimensions of cognitive patterns.
3. This study benefits decision-makers and policymakers by emphasizing the need to enhance strategic professionalism among employees through a focus on cognitive patterns.
4. Understanding the results of this research and presenting them as recommendations can enhance strategic professionalism among employees by adhering to cognitive patterns. These findings and recommendations can be practically applied within the researched university

Third: Research Objectives: This study aims to:

1. **Identify** the extent of cognitive patterns at the University of Kirkuk from the perspective of its employees.
2. **Uncover** the level of strategic professionalism at the University of Kirkuk as perceived by its staff.
3. **Explore** the impact of cognitive patterns on strategic professionalism at the University of Kirkuk from the viewpoint of its employees.
4. **Provide recommendations and proposals** for the study institution based on the results obtained from the research.

Fourth: Research Hypotheses: The research hypotheses are as follows:

H1: There is a statistically significant effect between cognitive patterns across dimensions (perceptual cognitive pattern, planning cognitive pattern, and innovative cognitive pattern) and achieving strategic professionalism.

- There is a statistically significant relationship between **perceptual cognitive pattern** and strategic professionalism in the research sample.
- There is a statistically significant relationship between **planning cognitive pattern** and strategic professionalism in the research sample.
- There is a statistically significant relationship between **innovative cognitive pattern** and achieving strategic professionalism in the research sample.

Fifth: Research Model: To align with the study's problem, address the research questions, and achieve its objectives, a hypothetical research model will be designed. This model illustrates cognitive patterns as an independent variable in achieving strategic professionalism (the dependent variable).

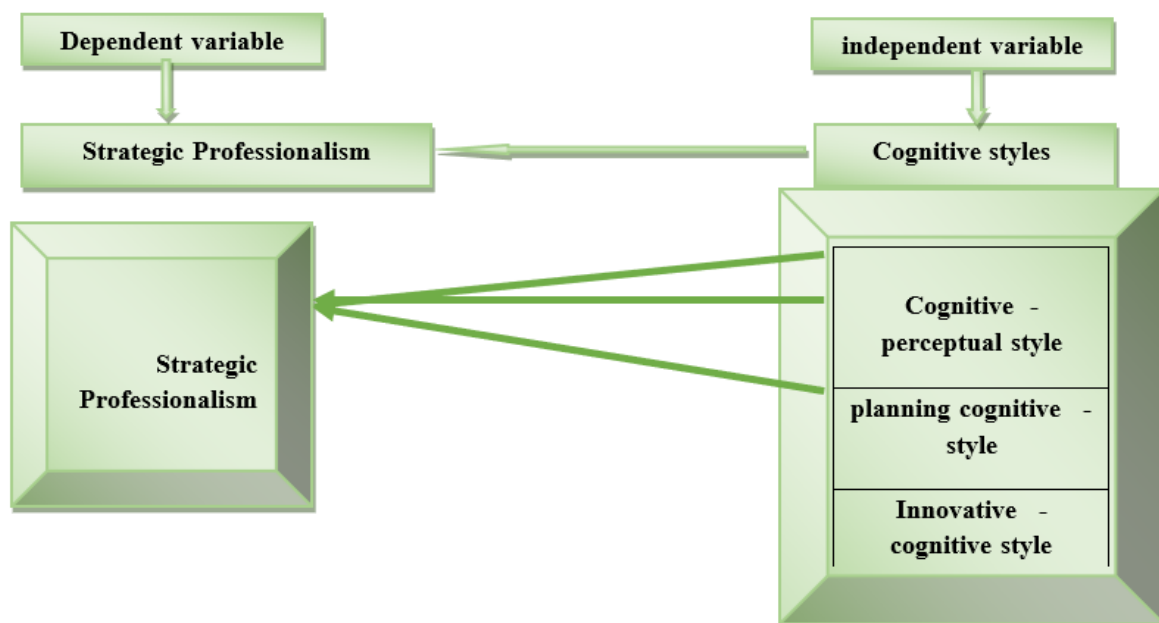


Figure 1: Research Model

Source: Prepared by the researcher after reviewing and relying on previous studies in the same field.



Sixth: Research Scope The research scope is as follows:

- **Geographical Boundaries:** The geographical boundaries are limited to the place of study application, which is **Kirkuk University**.
- **Time Boundaries:** The time boundaries are set at the beginning of **2024**.
- **Human Boundaries:** These boundaries revolve around the responsibilities and tasks of the upper management at the study institution. Therefore, the study sample will include the administrative staff and higher-ups at the university.

Seventh: Research Methodology:- The research can rely on the **descriptive-analytical approach** for data collection, presentation, and analysis.

1. **Descriptive Approach:** By utilizing available sources such as international publications, journals, books, theses, dissertations, and relevant online content (both in Arabic and foreign languages), the researcher can establish the theoretical foundation of the study. This approach focuses on classifying, describing, comparing, and measuring data related to the study's independent and dependent variables (cognitive patterns and strategic professionalism).
2. **Analytical Approach:** This involves conducting interviews with administrative leaders within the researched organization, in addition to using a questionnaire to collect primary data and initial information. The analytical approach delves into the analytical aspects of the study, examining questions related to "how" and "why."

Eighth: Data Collection Sources:

- **Secondary Sources:** To develop the theoretical framework, the researcher should consult secondary data sources such as pertinent Arabic and foreign books, journals, articles, reports, previous research, and various scholarly websites.
- **Primary Sources:** For addressing the analytical aspects of the study, the researcher gathers primary data using a specially crafted questionnaire as the primary research instrument.

Tenth: Research Community and Sample: The University of Kirkuk has been selected as the research field due to its status as an academic educational institution that strives to keep pace with scientific developments in the educational environment. The research community includes several administrative leaders within the university. As for the research sample, it consists of **96 individuals**, including college deans, assistants, and department heads at the university. These individuals were chosen to represent the research community. Based on this, questionnaires were distributed to the research sample and were subsequently used in statistical analysis.

The First Axis : Theoretical Aspect

First: Cognitive Patterns: Knowledge is a fundamental element in many societal activities, and it has become an influential force that various communities leverage to achieve progress. Considering that organizations are part of society, knowledge-based organizations have become highly significant. Cognitive patterns contribute to excellence in business organizations. They also enable organizations to remain vigilant and successful by overcoming challenges arising from change. Furthermore, these patterns empower organizations to adapt swiftly because their existence leads to automatic adjustments in the organization's cognitive framework each time this cognitive system is utilized (Mustafa, 2011: 293).

Cognitive patterns are the types through which a manager's thinking style is characterized, enabling them to find solutions to the challenges faced by an organization. To achieve this, a manager must possess cognitive abilities that empower them to strive for successful task completion. Knowledge plays a crucial role in this process. These cognitive patterns contribute to understanding individual differences among leaders, helping identify those who exhibit greater attention, focus, and faster learning compared to their peers. (Almunawer, 2011 :26).

The cognitive approach plays a crucial role in enhancing the competencies of employees within an organization. It involves adopting modern methods that enable them to accomplish tasks differently from the past. By integrating contemporary techniques, the cognitive approach contributes to creating new knowledge developments, which, in turn, aid in organizational improvement and address deficiencies related to cognitive aspects (kawwed, 2014: 78).

These patterns are described as a critical necessity for organizations. The ultimate management goals extend to include acquiring knowledge, whether it is valuable information or context-rich data. It also encompasses the form of knowledge within individuals' minds and workgroups. This perspective empowers organizations to utilize knowledge through information technology and communication. The supportive processes and technologies that organizations seek to develop are aimed at innovating, storing, transferring, and applying knowledge. According to this framework, the application of information technology and communication is essential for enabling individuals and processes to effectively leverage existing knowledge. (Hasan, 2008 26)

Second: The importance of cognitive styles: - The importance of cognitive patterns lies in their ability to deal with multiple changes and disruptions. They assist in finding solutions to the problems faced by organizations. Furthermore,



they contribute to shaping a well-informed vision for the future by understanding upcoming changes based on available data. These cognitive patterns also help organizations determine the unique position they aim to achieve in the future and work diligently to meet all the cognitive requirements necessary for success amidst rapid transformations. (Abdullah and Wahab, 2019, 2015)

Cognitive patterns are important for the following reasons (Assaidi and Gabber, 2016: 255)

- They help identify future directions that align with the organization's overall strategy.
- They contribute to enhancing innovative performance within the organization.
- Additionally, cognitive patterns contribute to clarity of vision in the future.
- They aim to disseminate cognitive culture effectively among employees.
- Cognitive patterns also contribute by uncovering novel approaches that have not been explored previously.

Third: Dimensions of cognitive patterns: - The researcher relied on a study by (Cools and Broeck, 2007) for the classification of dimensions explored in the research.

1. **Cognitive-Perceptual Pattern:** This pattern pertains to managers who adopt a stance or approach. It includes an individual's ability within the organization to perceive situations encountered while performing tasks. According to (Amal, 2014: 38), "This type of pattern provides sufficient flexibility for strategic thinkers to identify information sources and understand the reasons behind problems based on the situations that arise. It facilitates the strategic thinker's decision-making process by preparing the necessary prerequisites to achieve the desired goal." This pattern relies on the cognitive skills of strategic managers to comprehend and interpret symbols, resulting in quick responses, solution formulation, and understanding the situation and its potential relationships (Al-Hakam, 2015: 58).
2. **Cognitive-Planning Pattern:** This pattern represents managers who work toward achieving feasible results as a first step and then gather the necessary resources to achieve the desired goals. As noted by (Karaki, 2015: 58), "This type of pattern provides sufficient flexibility for thinkers to identify information sources, understand the problem's causes, and interpret all information in a way that facilitates the strategic thinker's decision-making process by preparing the necessary prerequisites to reach the desired goal." (Tala Asim (2014: 22)) views this pattern as revolving around philosophy and ideals, where results do not always stem from alignment between judgment and reality. Instead, results are achieved through the relationships established among various judgments we make about things to discern their true essence.
3. **Cognitive Innovation Pattern** is one of the managerial patterns that contributes to solving complex problems. It works by enhancing the discovery of novel, previously unexplored approaches or by analyzing ideas logically in a distinctive manner. Knowledge plays a crucial role in analyzing and connecting cognitive abilities to decision-making. Intuition, intelligence, and personal experience are essential components of cognitive abilities, When strategic decision-makers interact with these elements in a flexible manner, they are able to identify issues, acknowledge related uncertainties, and strive for solutions." (Al-Hadithi, 2000 :30)

Fourth: Strategic Professionalism: - Efficiency in work is one of the fundamental steps for improving performance in business organizations. Consequently, the result and outcome represent the strategy of professionalism, which means exerting sufficient care and achieving efforts by employees to enhance performance. This requires continuous development through training programs established by the organization for its employees (Meilana, S. 2020).

Professionalism is described as the mastery of work in a competent manner and complete knowledge. It is a profession where knowledge or strategic vision is utilized, or artistic practice serves the purpose of serving others. Members must adhere to rules and tasks, announce and commit to cognitive abilities, uphold competence, integrity, ethics, altruism, and promote the public good within their scope, These obligations establish the foundation of a societal agreement between the profession and the community it serves (Crues, 2006: 183)."

It can also be expressed as the continuous work, improvement, and contribution to increasing profit through earning customer satisfaction and improving talents. Ideal direct achievement can serve both the organization and the consumer (Zad, 2013:383). It has been clarified that the strategy is considered professional due to the nature of strategic work. Strategists, like other professionals, deal with risk and uncertainty problems. They determine appropriate actions through a mix of personal estimation and common practices. Strategists address an unknown future; they choose methods, select data for analysis, and interpret results (Whittington, 2019: 4). Modern administrative systems contribute to enhancing strategic professionalism in business organizations as they enhance the cognitive status that adopts new orientations serving business organizations (Hanna et al., 2017: 120).



Its importance stems from being considered a complement to digital technology, as the concept of strategic professionalism has become extremely important for defining strategies, management decisions, and the necessary skills for managing and implementing it. Continuous support for change processes and attempts to reduce resistance from individuals within the organization are essential because organizations characterized by professionalism always seek continuous change to keep up with environmental developments and to ensure their share, growth, and survival. It also helps in establishing appropriate mechanisms that enhance how to deal with occurring external changes. (Dess,2016:1).

Strategic thinking is effective in helping organizations make informed decisions that lead to competitive advantage by evaluating the organization's performance against its peers and achieving set objectives (Danouk, 2015: 28). These are new perspectives that improve the competitive dynamics between organizations through strategic innovations that lead to a competitive advantage. Strategic professionalism creates inherent value for customers throughout the life cycle of a product or service, including design, development, production, distribution, and marketing efforts (Fernández & Marín, 2020: 65-66).

The practical aspect of study

Fifth: Statistical analysis: - The collected data were coded in SPSS 23 for statistical and correlational analyzes prior to PLS-SEM analysis. To test the hypotheses, SMART PLS 4.09 was used, a complete SEM tool, developed by Christian Ringle and his team at the University of Hamburg in Germany.

A- Demographic characteristics: The second table summarizes the characteristics of the sample members participating in this survey. Of the 125 questionnaires distributed, 96 were recovered as useful for analysis.

This represents approximately 77% of the response rate. This response rate was considered satisfactory. As shown in the table, 83.3% of the sample members are women and 16.7% are men. Regarding age distribution, the age of the dominant group ranged between 35 and 45 years. This percentage agrees with previous studies that recommended the vitality of this age group. For example, Mitawa and Al-Moussawi (1998) stated that exploring the perceptions of people and clients between the ages of 20 and 50 would lead to greater policy impact. As such, this respondent can contribute useful insight into the analysis of factors contributing to strategic professionalism to the sample.

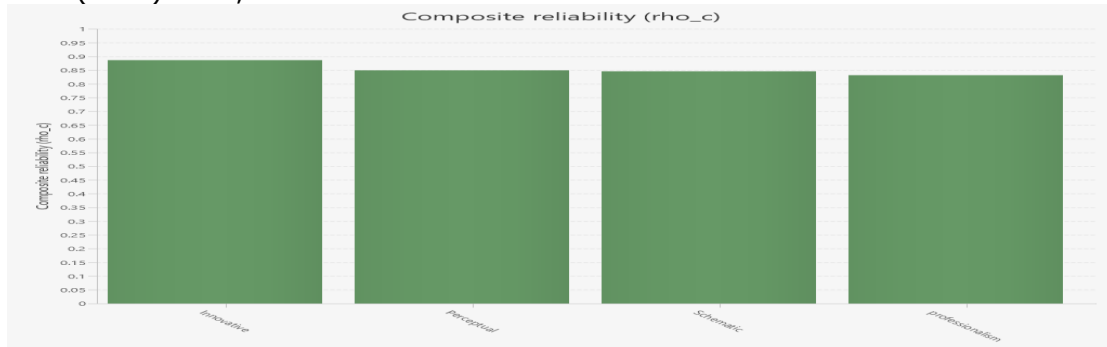
In terms of Functional experience, the majority (i.e. 46.9 per cent) were less than 35-year whiles 25 per cent were 16 to 20 year. Most of the respondents were those with a head of the department (58.3 per cent). The rest were either assistant dean (38.5 per cent) or dean (3.1 per cent).

Table I: Demographic profiles

Variables	N	(%)
Gender		
Male	16	16.7
Female	80	83.3
Age		
Less than 35	21	21.9
35-45	37	38.5
46-55	25	26.0
55 and above	13	13.5
Functional experience		
Less than 35	45	46.9
1-15	8	8.3
16-20	24	25.0
20 and above	19	19.8
Job title		
Dean	3	3.1
Assistant Dean	37	38.5
Head of the Department	56	58.3
Notes: This table shows the information related to respondents' profiles in four aspects, i.e. gender, age, Functional experience, education, and Job title. The number of respondents is n = 96		

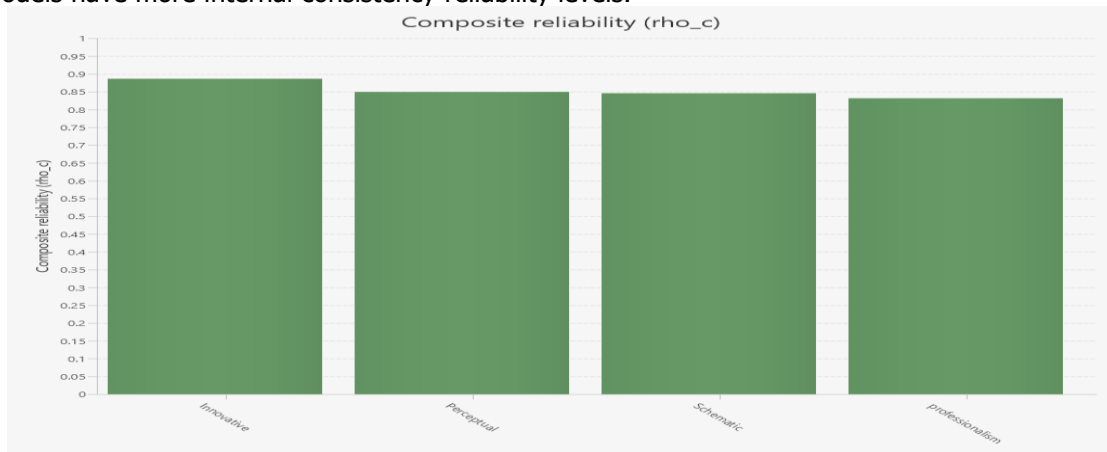
B- Reliability and validity test

1- Cronbach's alpha: - 1- Cronbach's Alpha: - The table shows the results of the reliability and validity analysis. Reliability analysis of the scales was performed using Cronbach's alpha. Cronbach's alpha reliability coefficient usually ranges between 0 and 1. According to Hair et al. (2013), greater than or equal to 0.80 for a good scale, 0.70 for an acceptable scale, and 0.60 for a scale with exploratory purposes. Cronbach's alpha results indicate that the innovative cognitive style (0.838), the perceptual cognitive style (0.786), the planning cognitive style (0.769), and strategic professionalism 3 (0.751). Thus, these indicators achieved the desired results.



2- Composite reliability: - Composite reliability is the preferred alternative to Cronbach's alpha as a test of convergent validity in the reflective model. It may be preferred as a measure of reliability because Cronbach's alpha may overestimate or underestimate the reliability of the scale. Composite reliability ranges from 0 to 1, with (1) being a perfect estimated reliability. In a model suitable for exploratory purposes, the composite reliability should be equal to or greater than 0.6 (Chin, 1998; Hock et al., 2010); equal to or greater than 0.70 for a model adjusted for confirmatory purposes (Henseler et al., 2015); A score equal to or greater than 0.80 is considered good for confirmatory research (Daskalakis and Mantas, 2008).

The results showed that the composite reliability value for innovative cognitive style (0.846), perceptual cognitive style (0.819), planning cognitive style (0.785) and strategic professionalism 3 (0.783) demonstrates that all reflective models have more internal consistency reliability levels.



3- Average variance extracted: - Average variance extracted (AVE) can be used as a test of both convergent and divergent validity. The AVE reflects the average communality of each latent factor in the reflective model. In an appropriate model, the AVE should be greater than 0.5 (Chin, 1998; Hock and Ringle, 2006) as well as greater than the cross-loadings, meaning that the factors should explain at least half of the variance in their indicators. AVE less than 0.50 means that the error variance exceeds the explained variance.

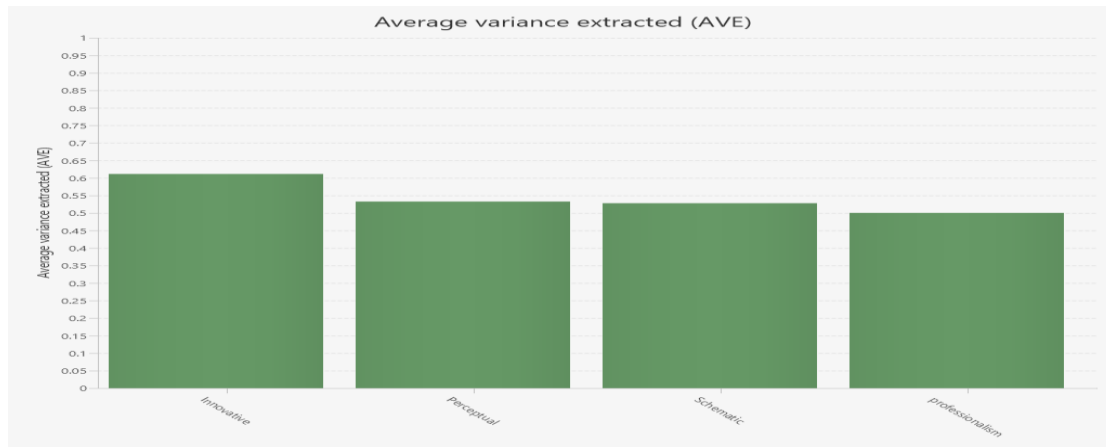


Table II: Reliability test

Latent Variables	Indicators	Cronbach's alpha	Composite Reliability	Average variance Extracted
Cognitive styles	Innovative	0.838	0.846	0.886
	Perceptual	0.786	0.819	0.849
	Schematic	0.769	0.785	0.846
strategic professionalism	professionalism	0.751	0.783	0.832
R square	0.597			
Adjusted R-square	0.584			

4- Correlation matrix and discriminant validity: - MacKinnon (2008) suggested that to establish discriminant validity, the square root of the AVE must be greater than the correlations of the constructs with all other constructs in the structural model. The correlations between constructs show that each construct shares greater variance values with its own measures than with the other measures. In summary, the measurement model ensures that discriminant validity is well established.

Table III: Correlation matrix and discriminant validity

Latent Variables	Innovative	Perceptual	Schematic	Professionalism
Innovative	1.000	0.676	0.767	0.736
Perceptual	0.676	1.000	0.746	0.667
Schematic	0.767	0.746	1.000	0.606
Professionalism	0.736	0.667	0.606	1.000

Fit structural equation model

- PLS algorithm; and
- Bootstrapping.

The structural models for this research are shown in Figures 2 and 3, respectively, where R2 represents the value of any endogenous latent and predicted variables. R2 is 0.597 for the dependent variable, i.e. strategic professionalism. This means that the three independent variables, innovative, cognitive, and planning, explain to some extent 59.7% of the variance in strategic professionalism.

Research hypotheses tasting

The Bootstrapping option was used to determine the statistical significance of the path coefficient and calculate t-values in this study. All calculated values are shown in Table III.

The t-value of the hypothesized path of innovation and professionalism (strategic professionalism) is 4.329, which is higher than 2.57 (α = 0.01; two-sided test), and the p-value is 0.000. Therefore, the hypothesized path of innovation and professionalism for the internal model is statistically significant.

The t-value of the hypothesized path of cognition and professionalism (strategic professionalism) is 3.239, which is higher than 2.57 ($\alpha = 0.01$; two-tailed test), and the p-value is 0.000. Therefore, the hypothesized path of perception, professionalism, and professionalization of the internal model is statistically significant.

Another t-value for the hypothesized path of schema and professionalism is 0.813, which is less than 2.57 ($\alpha = 0.01$; two-tailed test), and the p-value is 0.416. Therefore, the path of the planning and professional (strategic professionalism) hypotheses of the internal model is not statistically significant.

Table IV. Research hypotheses tasting

Hypothesized path (Inner model)	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Innovative -> professionalism	0.570	0.570	0.132	4.329	0.000
Perceptual -> professionalism	0.351	0.352	0.108	3.239	0.001
Schematic -> professionalism	-0.093	-0.081	0.114	0.813	0.416

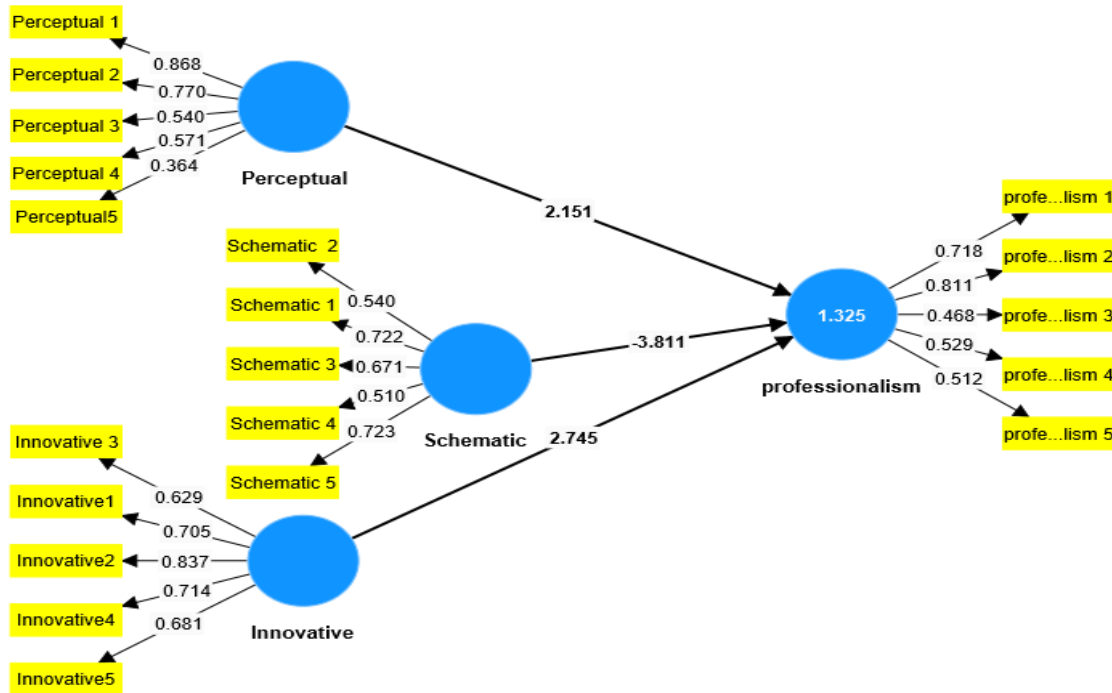


Figure 2: Structural equation model (PLS algorithm)

According to this method, the estimation process is carried out using the Partial Least Squares (PLS) method, where the model parameters are divided into partial groups and is done using simple and multiple regression. The iterative method is used in estimating the partial groups. This is an expansion of the concept of the fixed point, where the point of influence of the independent variables on the dependent variable has been reached.

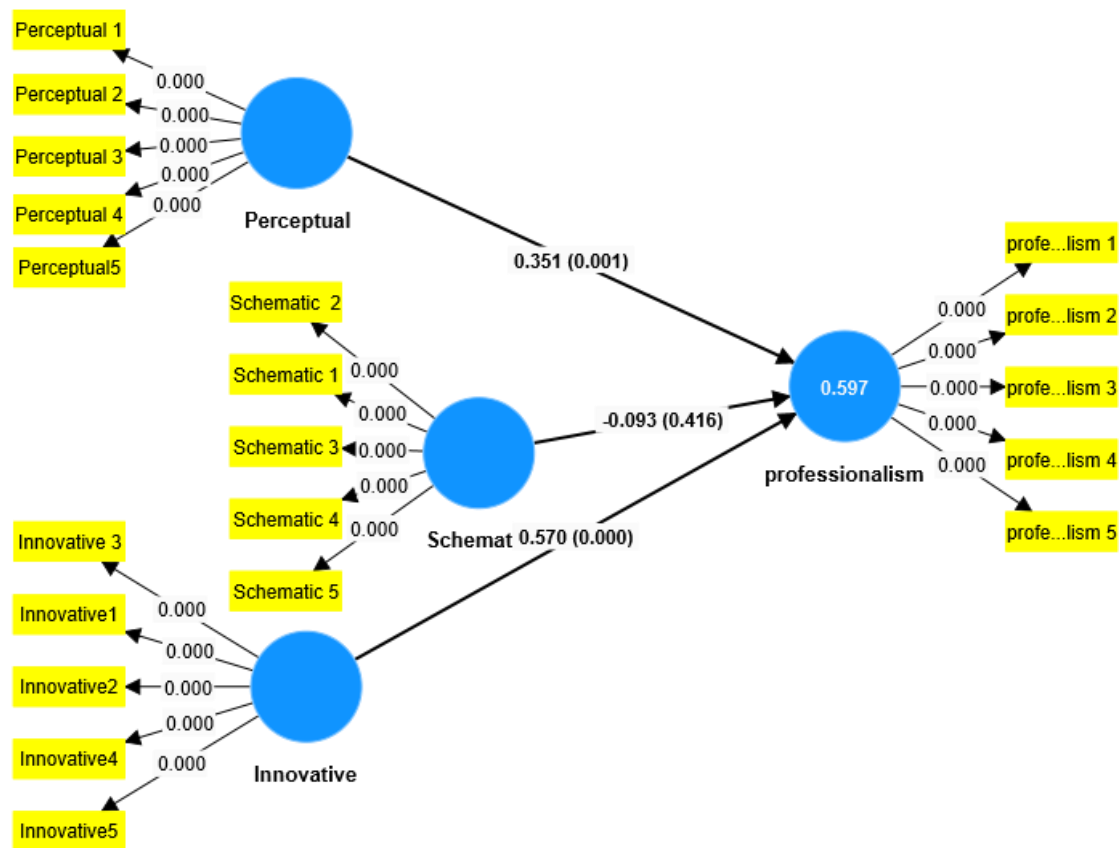


Figure 3. Structural equation model (bootstrapping)

This method allows studying the relationship between cognitive styles and their impact on strategic professionalism, as the structural model works to study the variable strategic professionalism when it is a variable dependent on cognitive styles, as the relationship ratio between the two variables reached (0.597), the percentage of its influence on the dependent variable.

CONCLUSIONS: This paragraph presents a set of conclusions related to the frameworks and theoretical literature in the field of strategic management, specifically concerning the variables (cognitive styles, strategic professionalism), which are as follows: The purpose of the current study is to examine cognitive styles and their impact on strategic professionalism at the university that is the subject of the study. The study reached several important conclusions, the most significant being those cognitive styles, both planning and innovative, affect strategic professionalism in the institution under study and have statistical significance. In contrast, the cognitive perceptual style does not affect strategic professionalism at the researched university. Overall, the results of this study contribute to the existing literature by providing empirical evidence on the extent to which adopting cognitive styles is important for the university's senior leadership and how this reflects on strategic professionalism in the researched institution. The current research results also revealed a significant influence between the variable of cognitive styles and strategic professionalism, indicating the university's interest in the study's subject. This influence can be explained by the university's focus on cognitive styles, which significantly contribute to possessing complete knowledge that enhances the adoption of cognitive styles, thereby boosting strategic professionalism through continuous excellence and decision-making based on comprehensive knowledge in this direction.

RECOMMENDATIONS

Considering the conclusions reached in the first section, a set of proposals that represent guidelines for developing the work of the university under study, concerning the study variables and their sub-dimensions, are as follows: It is essential for the university's senior leadership to focus on the perceptual style as it is important and should be emphasized in the future for its contribution to adopting professionalism within the institution. The leadership at the university should involve all employees in developing the strategic vision and anticipate the timing of strategic changes within the university. It is crucial for the university to give significant importance to new and unconventional ideas from others that help develop the innovative style and to focus on a set of values and attitudes that reflect the way things are accomplished and the nature of the relationship between the organization and its surrounding environment. The



senior leadership at the university should hold continuous training courses and programs to develop and spread a culture of professionalism among the human element in all areas and tasks entrusted to it.

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