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MEASURING THE LEVELS OF THINKING SYSTEMS IN THE CIVIL COLLEGES IN BAGHDADANALYTICAL RESEARCH

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Purpose: The aim of this research is to construct an integrated knowledge framework for the basic research subject of thinking systems through the study of the most important scientific proposals on these subjects in administrative thought. and framing the knowledge directed within it in a serious attempt to provide appropriate answers to the questions of the intellectual and field dilemma of research Through the diagnosis of the nature of the relationship between components and elements and how to activate them.

MethodologyThe study was based on the analytical survey method. The study sample was targeted at (15) private colleges in Baghdad governorate, which consisted of 145 senior faculty members (deans of colleges, assistants and heads of departments). The main tool of research was the a questionnaire, in interviews based on a set of global standards for the relevant search variables after they were adapted to the needs of the Iraqi environment. The data were analyzed using appropriate statistical tools (descriptive statistical analysis, Spss V.23, AMOS V.23).

Hypothetical (theoretical) findings: The results of the research were formulated according to intellectual and philosophical hypothesis (reasoning) of the research variables, where the thinking systems have clear and obvious roots in the field of psychology, Undoubtfully, as psychology is considered -specifically the individual differences psychology- the main cradle where the concept of thinking systems appeared, but the other sciences, administration science -specifically the field of organizational behavior- have adopted this concept and developed it. This concept became -especially in the early eighties and nineties of the last century- an important variable in this distinguished knowledge field where the thinking system requires time and experience accumulation in the domain of analysis and the domain of formation of deep knowledge that supports knowledge generation through the mutual relation with its system in order to contribute in capacity increase to achieve the proper variance of the business model.

Practical findings: The results showed that most of the faculties studied had an interest in the systems of thought, as this seeks to know the most important of what is happening around them

variables or effects that may give them a chance or pose a threat that affects their survival in front of other competitors. The researcher believes that although this interest exists, it did not rise to a very good level. In particular, we know that thinking systems are one of the main reasons for the success of the college, especially the special nature, which needs to be always continuous in what surrounds it, while at the same time providing the college with information about each variable to the senior management to make decisions before it is too late .

Authenticity/Value: The research deals with a critical organizational variable represented by thought systems. with a new mix of dimensions to explore, develop and analyze new relationships and links. And tested as they are subjects that have not received widespread attention in the Arab world, in general and Iraq in particular.

Key Words: Thinking Systems, Private Colleges , Baghdad

THEORETICAL SIDE OF RESEARCH

Preface

This part went to clarify the basic idea of research, and the essence of what I went to focus on the aspects of rooting in it and the scientific value it carries in closing the knowledge gap Which was one of the main reasons to go into the midst of the problem. With its multidimensional complexityAnd try to dispel the mystery that surrounds it after answering the questions of research.

First : Search problem

To identify a specific research problem that needs to be investigated unequivocally. The definition and identification of the research problem properly will enable the researcher to be on the right track A prerequisite for any study as a step of utmost importance to the completion of the research path (Kothari, 2004: 26), On this basis, the research problem was formulated in line with his philosophy in the great challenge facing senior leaders in transforming the management of measurable phenomena with concrete tools into the management of invisible and invisible phenomena. Management specialists clash with the additional complexity of not being able to conduct advanced experimental studies on organizations They have a problem in how to measure invisible phenomena, and what can not be managed can not be measured The dialectical tension between the organizational and the cognitive perspectives in his interpretation of the business model was measured in terms of its value in terms of the differences in the theory level alone, but rather in matters related to the methodological aspects known in light of the findings of many previous studies From the systems of thought and knowledge generation or to the problematic of comparison between different organizations in different sectors, or to the adoption of the analysis to the data section without trying to resort to the use of longitudinal or double data, which show the causal features at the level of the relationship between the variables of There is no doubt that the cognitive benefit of the research problem rises when two essential points are discussed The first describes the

characteristics of keeping up with the research of the stream of contemporary cognitive visions and weaving contributions reflecting the value of the research. Accumulation of existing knowledge Depending on this content, the meanings of the current research problem can be illustrated by the following questions:

I. How can business organizations diagnose thinking systems, and how to manage, develop and maintain them?

II. What are the philosophical and conceptual foundations of the concept of thinking systems, and what are the contradictions raised on this concept, and what constitutes it at the level of managerial and organizational thought?

III. What are the views on the term systems of thinking? What constitutes the important elements at the level of theoretical and applied thought?

IV. What is the extent to which the higher departments of the private colleges understand the concept and systems of thinking, and how important is each one?

V. Are there serious attempts at civil colleges to adopt thinking systems? What are their forms?

Second: the research community and its eye

For the purpose of meeting the requirements of the practical aspect of this research. And achieve its goals. It was necessary to choose a community of research consistent with what he seeks and aspires to achieve The following is a brief description and description of the community.

A. research community

To meet the requirements of the applied side of the research In order to achieve its objectives, it was necessary to choose a research community that would be compatible with what it sought and aspired to achieveIn order to test the field in an Iraqi work environment The researcher chose the civil colleges located in the city of Baghdad exclusively According to the following considerations:

1. National university education represents a pattern of the types of government university education and an important sector because it is a parallel education for government education and contributes to the development of the scientific side to increase scientific competition between public and private universities.
2. The importance of this sector lies in supporting the national economy and increasing its efficiency, especially at this critical stage in the country. It requires the civil colleges to be able to rehabilitate their human resources and other capacities to support the economy and increase its activity.

B. The research sample

The sample was selected from the administrative levels (the Dean, the assistants and the heads of departments). Because of the nature of the research, which requires a degree of understanding and understanding in dealing with the paragraphs of the questionnaireAs well as the importance of the paragraphs of research stand out more within these levels.

Where a sample sample was withdrawn (165) Distributed among the civil colleges investigated After collecting and sorting the data, the number of retrieved forms valid for statistical analysis reached (145) Thus, the overall response rate for the sample was 165 (91.9%). It is a distinct and statistically acceptable response for research purposes and applications.

THEORETICAL FRAMEWORK OF RESEARCH

Preface

Thinking is a great blessing given by God to His servants. To know him and worship Him. They land the land, establish civilized construction and develop societies. Face problems and find appropriate solutions. And the man is distinguished by the uniqueness of the rest of the creatures. It is a grace that can not imagine the absence of human life for a period of time. Hence the importance of thinking about our scientific, practical, religious and secular life It is a complex issue in terms of what it is, its methodology and the psychological and subjective factors that affect it. It is not a hollow methodology that warns the tongues and composes books. It is guided by and illuminates the mind. In this context, there is a set of questions with a lack of micro-answers through which can be corrected methods of thinking, including what is thinking? And how does a man think? What is the relationship of language to thinking? What types of thinking systems prevail?

Historical development of thinking systems

The human mind is a surprising entity It is a private world filled with an unlimited number of enormous capabilities and hidden things. It always forms itself as a result of the experiences it experiences But can act on its own without the need for any input from the outside world The phenomenon of thinking in the human mind has received great attention from researchers for many centuries Now, as we are in the twenty-first century, there is a new understanding of this process and it will increase dramatically The main reason for this increase is the use of sophisticated medical devices that allow scientists to dig deeper into this vibrant part of the thinking process And from the perspective of the emergence and evolution of thought systems. If a time point is specified, it can be indicated that it is the beginning of the launch As is any trend, strategy, or theory of thought It is the result of long accumulations of previous contributions to creative thinking in general And schools of creative thinking related to systems in particular and in the historical overview of **evolution and stages of development:**

The first wave of thinking systems

At a time when it is possible to follow the ideas of the universal thinking and processes of change that belong to the ancient Greeks and in particular Heraclitus and Aristotle. The systems of thinking according to the image we know now have been largely understood as the son of the first half of the twentieth century. Despite this, the son was hidden in disputes and arguments, and this was due to (and for many years in the West) people were instructed to early disclose the ideas of the systems to von Bertalanffy who began teaching and writing in 1930 in what he called the "theory of public

order" Which many decades later came to announce a very similar set of ideas that Bogdanov produced in Russia in 1910-1913. Before Bertalanffy began his writings (Darzentas & Darzentas, 2014: 15). Hence there is no strong evidence to suggest that Bertalanffy knew the works of Bogdanov before producing his own writings. But the comparison between the writings of the two authors has generated some interesting debates on similarities and differences. Ludwig von Bertalanffy, a Renaissance biologist born in Austria (1901-1972), was one of the pioneers of thought systems It is not surprising that thought systems among biologists show that biology is concerned with the study of living organisms, which are in fact living systems, and in this aspect when the study of biology essentially involves the study of systems, the confrontation of systems of thinking in biology has been a particularly fruitful work (Richmond, 1994: 139)

Although there is a debate about the origins of modern thinking systems, it is clear that there are three pillars and supporting fields that have become common: the theory of public order and the sciences of complexity. The common themes that revolve around these fields of research and inquiry and their impact on science Technology and post-war planning helped its supporters launch the first wave of thought systems and set up a new society to look at systems that are active towards the coming days (Midgley, 2007: 11)

The second wave of thought systems

The first wave of thinking systems gained widespread popularity in 1950 and 1960. However, in the late 1960s (and in 1970 and early 1980), interesting questions began to be raised on two levels with regard to the philosophical assumptions embodied in the first wave And the results of its practical applications including rethinking the idea of systems that the work done by Churchman is incredibly wide in scope, and on this basis was chosen to highlight what was considered the most important contributions, although the possibility of others disagree on this procedure. Churchman (1970) points out that change, if justified, is called improvement Thus, if it is reflected on the limits of the analysis, it will be decisive What will be included or excluded will be vital thinking Some things that seem acceptable or desirable within narrowly defined limits may not be seen as such at all The second wave of thought systems

The third wave of Thinking systems

The third wave of thought systems, which emerged from 1980 to the present day, it is worth noting that all the ideas below were produced under the slogan "critical thinking systems", while the third wave was actually wider than the systems Critical thinking alone (Flood& Romm , 1996: 174) The prevailing view is that critical system entries have a special value because many provide the rationale for taking best practices for both the first and second waves and harnessing them in a wider practice of systems. This pragmatic or realistic focus The blending of methods seems commonplace For each of the systems thinking groups.

PRACTICAL SIDE TO SEARCH

The first axis: structural stability. And a searchable

The following tests must be performed To ensure accuracy and correctness of the data Which are obtained through the use of the questionnaire form The tests were centered around The field of honesty and stability As follows:

First: Virtual honesty Of the tool

The researcher presented the research tool In its initial form On a number of specialized arbitrators In the field of administration The number of (10) arbitrators. So as to verify the virtual honesty of the measuring instrument Which builds the ability of the paragraphs to cover the area To which he belongs The researcher prepared a special formTo review the views of the arbitrators About the clarity of each statement In terms of intellectual content Drafting and rectification What should be corrected of the phrases With the addition or deletion of what the arbitrator considers to be expressions In any axis of axes In the light of the views expressed by the arbitratorsThe researcher made the amendments agreed upon by the arbitrators. Modify and formulate some phrases Which the arbitrators saw as having to be reformulated To be clearer In the light of the views expressed by the arbitrators The researcher made the amendments agreed upon (80%) by the arbitrators Modify and formulate some phrases Which the arbitrators saw as necessary for reformulation To be clearer.

Second: Structural honesty Exploration of the scale

The test requires structural honesty Exploration of the scale To first ascertain the requirement of sample adequacy Using the Kaiser-Meyer-Olkin (KMO) standard Which is closer to the value of one (1) This demonstrated the credibility and integrity of exploratory analysis And vice versa This analysis is acceptable When its value is greater than (.500) This is a basic condition that must be fulfilled (Kaiser, 1974) As well as the Bartlett test Of zero correlation coefficients After making sure that there are acceptable links Between paragraphs of the questionnaire Chi-Square of significanceTo the acceptability of such engagement transactions. As shown in the table the values of the scale (KMO) Greater than (0.50) At the level of the seven dimensions Representative of the research variablesAs well as the second condition (Bartlett) for correlation coefficients Which proved the results acceptable In the light of the significant values of Kay Square x2 For all seven dimensions .

A table showing the KMO and Bartlett's test dimensions of thinking systems						
Sig	**Df**	**Test Bartlett Depending on the x2 value**	**testKMO**	**Number of paragraphs**	**dimensions**	**The main search variable**
0.000	10	386.369	0.815	5	Understanding system links	**thinking systems**
0.000	10	192.547	0.698	5	Diagnosis of feedback	
0.000	10	149.791	0.771	5	Understand the dynamics of behavior	
0.000	10	383.789	0.732	5	Highlight information flows	
0.000	10	250.189	0.678	5	Use conceptual models	
0.000	10	225.625	0.598	5	Create simulation models	
0.000	10	274.340	0.645	5	Test business policies	

For the explicit exploration of the dimensions under these measures, the analysis will be used for exploration purpose To help determine the dimensions Covered by the scale As well as the identification of paragraphs Which are not associated with the scale structure. Which must be measured from the scale The value of the KMO test is shown in the table below. Are greater than (0.50) Which amounted to (0.679). (Kaiser) is a good value As shown in the table, the Bartlett test. Indicates a moral presence The value of the test was (4778,648) At an indication level (0.000) Which is smaller than (0.05)

The table shows the KMO and Bartlett's test for variable-thinking systems		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.679
Bartlett's Test of Sphericity	Approx. Chi-Square	4778.648
	df	595
	Sig.	.000

The above results confirm the verification of the first criterion Including sample adequacy And the existence of linkages Which is essential for the International Exploration Analysis Test (EFA) criteria With regard to the paragraphs of the variable thinking systems.

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Thirdly: the constructive and authoritative honesty.

The purpose of the constructivist honesty is to verify the dimensions And its constituent paragraphs According to the theoretical structure fixed in the literature Ensuring that the dimensions of the scale are identical And the paragraphs represented in the sample data With their origin in the theory and related literature This type of analysis is universal Structural equation modeling application Implemented through the Statistical Program (AMOS v.23) Which can test the stability of the scale And other kinds of honesty It is true of rapprochement and honesty of differentiation. The reliability of the construction can be ascertained Through a number of quality matching indicators Some of which have been approved In the current search A value of x ^ 2 Kai Square And modified Kai Square Which is the ratio between x ^ 2 and the degree of freedom of movement Which should not exceed 5.

Figure (2) shows Tolerance analysis Model of thought systems Which consists of seven basic dimensions Which consists of (35) paragraphs As is clear from Figure 2 and by observation Quality indicators of conformity extracted from the model and phenomenon As most of these indicators show Not matching and improving these indicators will be adjusted In accordance with the recommendations of Modification Indications (Barbara M. Byrne, 2009: 90) Which include either deletion of paragraphs with higher common high contrast Include or modify the templateAfter this procedure, the final model after the adjustment will be as shown in Figure (2)

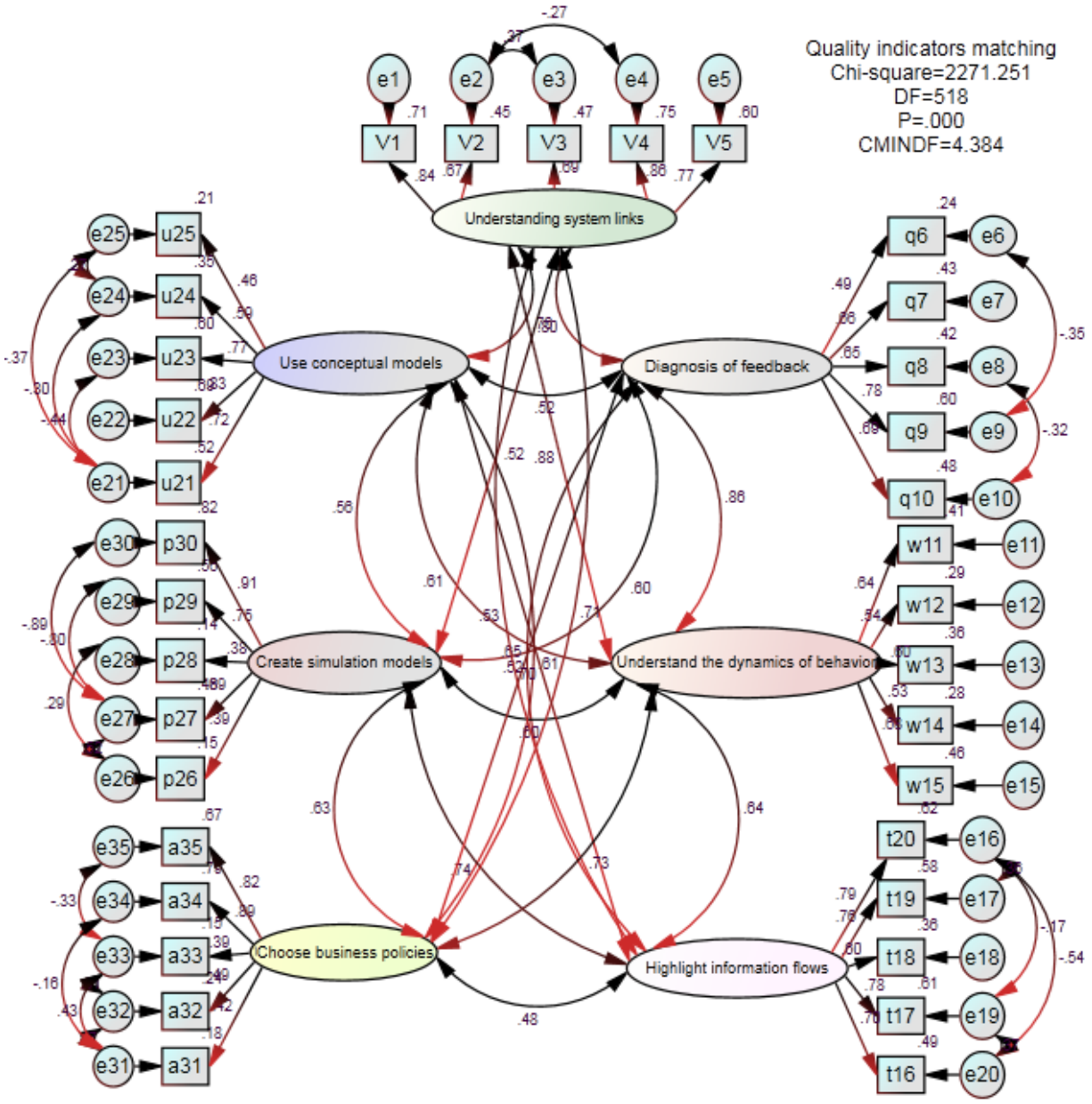

Figure (2) The constructional honesty of the variable Systems of thinking after modification

Fourthly : The results of the internal consistency test

As for the results of the stability test or internal consistency through the Cronbach Alpha correlation coefficient, the table below shows that the internal consistency of the scale scales was confirmed at all seven dimensions after the values of the Cronbach Alpha correlation coefficients exceeded the

acceptable minimum (0.70) to confirm the internal consistency of the scale and therefore its stability in the event of repeated testing.

Table Results TestInternal consistency of the scale		
The coefficient of Alpha Cronbach standard	Cronbach Alpha	**standard**
0.954	**thinking systems**	
	0.940	Understanding system links
	0.940	Diagnosis of feedback
	0.939	Understand the dynamics of behavior
	0.936	Highlight information flows
	0.937	Use conceptual models
	0.936	Create simulation models
	0.938	Test business policies

The second axis:the analysis of the results at the level of the variable search

This axis seeks To identify the reality of the variable research in the colleges investigated According to sample response Dependency distributions will be used Of the sample responses and their percentages Down to the arithmetic mean Standard deviation of those responses The research was based on the Likert scale In the sample answers for the questionnaire The level of each variable will be between (1-7) at four levels and two levels in the case of the increase from the mean (3.57 to 4.42) (4.43 to 5.28), (5.29 to 6.14) and very good if it exceeds (6.15 to 7) and also includes two levels if it falls below the mean (3.57 to 4.42) It is weak if it ranges from 2.71 to 3.56, (1.85 to 2.70) And very weak if it falls off (from 1 to 1.84).

A table showing the statistical indicators of the variable thinking system in the faculties studied							
Colleges	Repetition	Middle of arithmetic	standard deviation	test F	Sig F	Levene	Sig Levene
Heritage College	8	5.3536	.57039	.7523	0.000	0.954	0.504
Mansoor College	10	5.1000	.53013				
Al - Rafidain College	10	5.6400	.40724				
Al - Mamoun College	12	5.3929	.46329				
College of Baghdad	8	5.1286	.57082				

College of Degla	9	4.9683	.59581				
Imam Sadeq University	10	4.9057	.77490				
Faculty of Isra	11	5.4649	.64246				
Al - Farahidi College	11	5.3662	.67634				
Faculty of Al - Farabi	11	5.2390	.71808				
Albany College	7	5.1592	.75356				
Faculty of Eagles	8	5.3071	.75404				
Faculty of Orok	9	4.9714	.27143				
College of Pharmacy	10	5.2429	.67897				
University of Bayan	11	5.1584	.59155				
Total	145	5.2345	.61385				

The table above refers to the arithmetic meanFor sample responses For the variable thinking systems Among the colleges surveyed where it reached the highest level of my account When the sample is examined (Faculty of Rafidain) Repeatedly (10) sample of total The sample is very high (145) With an average of 5,6,400 A standard deviation of (0.40724) Although the higher the middle of my account Was in the sample investigated in (Faculty of Rafidain) Al-Rafidain College is the most highly regarded faculty of thought systems Compared to other colleges But given the values of the standard deviation We see that the dispersion of data at Rafidain College was not the least In terms of agreement And the weakness of dispersion compared to other colleges, but came at (Faculty of Orok), amounted to (0.27143) This indicates that the workers (Deans, Associate Deans, Department officials). In this college they were more agreeable in terms of attention to the thinking systems of the college in general Compared to their counterparts in other colleges

The calculated value of F (3.752) Which is greater than the periodic value of F (2.08) At an indication level (0.000) Which is smaller than the significance level (0.05). Accordingly, we accept the alternative hypothesis and reject the null hypothesis. This means that there are significant differences in the thinking systems between the faculties of the research sample at the level of significance (5%), ie, with a confidence level (95%), that is, looking at the thought systems among the investigated faculties was not similar in their view of this dimension There was a difference in the level of interest among them, and the value of F indicates that the test is significant, so there is a need for post hoc comparisons, which are meant to be compared to other colleges. The basis of the averages and the level of significance 0.05.

CONCLUSIONS

No theoretical concepts were established. In thought systems and arbitrary confusion But came from objective considerations Or even objective, in some cases, since embracing and deliberating the concept of general systems. In the first to the current period called complex systems. Intellectual attempts to develop were reflected To obligate employers To move towards a reconsideration of dealing with workers And attention to the theory of the Organization in general And organizational behavior in particular And begin to develop career paths And opportunities for growth for workers That the senior management teamConsists of a group of persons They differ in many ways, such as their personal characteristics Knowledge and skills Which they have, so the senior management team faces two basic conditions, the first is harmony and understanding. And creative work, the second is the difference Separation, division, and harmony Differences are subject to the influence of a number of different factors, including the nature of knowledge And the thinking systems possessed by senior leaders As the search results showed. Thinking systems and their dimensions The investigated colleges have a correlation and influence relationship Total and sub-significant With business model Ie whenever colleges are sought To adopt and pay attention to thought systemsWhenever it has a correlation relationship And the impact of the business model That is, thinking systems. Effective and influential role On quality And the nature of the approved business model

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