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Presenting an Interpretive Structural Model of Employee Behavioral Competence Using a Workplace Information and Knowledge Approach

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ABSTRACT

The purpose of this research is to present an interpretive structural model of employee behavioral competence through a workplace information and knowledge framework. The research was conducted using both exploratory and survey methods. This research is applied in purpose and exploratory in nature. The participants consisted of 14 experts from the Ministry of Islamic Guidance in Iraq, specifically from Baghdad, Diyala, and Karbala. They were selected using purposive judgment sampling. The structural interaction analysis method and MICMAC software were utilized for data processing. The findings from the structural analysis encompassed several key areas: environmental analysis, management challenges, employee behavioral competency analysis, organizational culture assessment, legal and policy applications, competency determination, dimensions of leadership competency, the development of an employee behavioral competency model, interpersonal skills, communication skills, analytical skills, leadership skills, establishment of behavioral criteria, model evaluation and development, implementation and monitoring, intra-organizational success, key competencies, extra-organizational success, and employee behavioral competency through an information and knowledge approach to the workplace. In this approach, workplace information—including operational data, information processes, and decision-making systems—plays a crucial role in enhancing employees' behavioral skills for managing complex situations and adapting to dynamic changes in the workplace. Applying this structural model facilitates the development of skills and behaviors that align with the strategic needs of the organization, thereby enhancing employee flexibility and dynamism. ©authors.

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1. Introduction

Competencies are essential for achieving a competitive advantage within an organization. Adopting a competency-based approach can effectively motivate employees to enhance their skill sets (Cansal, 2019).

Employee competencies have become a significant concern in the sector of small and medium-sized enterprises, organizations, and departments, as evidence indicates their crucial role in determining the well-being of these entities (Zarefard & Jeong, 2019; Purwanto et al., 2022).

Psychologists define competency as a motivator, characteristic, or exceptional skill that enhances job performance. Some researchers further describe competency as an underlying trait of an individual that is typically associated with effective, criterion-based performance or superior performance in a specific job or situation (Ahmed et al., 2021). Today, enhancing employee competencies to boost human resource productivity has become one of the most important and fundamental goals for managers in any organization (Babaei et al., 2018).

Professional competencies are a multidimensional and interdisciplinary phenomenon that encompasses cognitive, behavioral, social, and cultural dimensions. These competencies are essential for individuals to effectively perform and execute their roles within an organization (Ilinska et al., 2016).

Professional competency is defined as the process of transforming employee performance from merely what they are told to what they need to do (Terloksen, 2018).

For employees to succeed, they must learn and demonstrate the required competencies. Consequently, organizations must identify these competencies. Certain competencies, such as creativity, intelligence, collaboration, and empathy, are considered latent variables; they represent clusters of competency instances and cannot be directly measured (Gómez et al., 2016).

Effective leaders possess an entrepreneurial mindset, consistently seeking new opportunities to enhance efficiency in processes and improve products and services

for customers. Their strategic skills empower them to take calculated risks in order to achieve and surpass organizational goals (Chitgar, 2023).

Concepts such as adherence to moral virtues, independent thinking, responsibility, popularity, legalism, authority, simplicity, transformational leadership, and extremist behavior are among the key behavioral competencies of managers (Heydarian et al., 2023).

Designing a competency model is one of the strategies developed to help modern organizations adapt to the continuous changes in the workplace. However, upon examining the human resource systems within organizations, it becomes evident that there is often a lack of necessary connection and communication among various subsystems, such as training, performance evaluation, and recruitment. This disconnection can result in the inefficiency of human resource systems.

The results of this study can serve as a model for reviewing and reforming the cultural ministries of Iraq, particularly the Ministry of Islamic Guidance in Baghdad, Diyala, and Karbala.

According to the aforementioned materials, the primary focus of this research is to determine whether the behavioral competence of employees influences the workplace environment. Additionally, how can a model for employee behavioral competence be effectively presented and explained within the context of the Iraqi Ministry of Culture?

2. Literature Review

Despite the variety of definitions of competence, most of which focus on job roles and responsibilities, there is no single definition and terminology for competence (Javadifard et al., 2021). The term competence was first used by McClelland in 1953, followed by Vait in 1959, and later, based on his perspective, competence was defined as “the effective interaction of an individual with the surrounding environment” (Draganidis & Mentzas, 2009). David McClelland (1973) introduced “competence” to the human resources

literature. He considered the best predictor of outstanding performance in the workplace to be the basic and enduring personality traits that he called “competences”; therefore, he has been introduced as the founder of the competency approach (Chouhan & Srivastava, 2014). According to the Amplitude Park Institute, competencies encompass the knowledge, skills, and abilities required for specific jobs, enabling individuals to succeed and excel in their assigned tasks (Parhizgar, 2011).

Therefore, by adopting a competency-based approach to human resource development functions, organizations can achieve a sustainable competitive advantage derived from robust competencies and superior performance (Potolea & Toma, 2019).

Ivaldi also asserted that the behavioral characteristics of an individual are far more valuable than traditional tests of knowledge and aptitude when assessing performance and efficiency in a specific job or situation (Ivaldi et al., 2020).

By acknowledging the significance of competencies and their strategic integration in human resource management and personal development, organizations can cultivate a culture of excellence.

Moving toward competency development requires self-assessment, active learning, practice, and a commitment to growth. By developing competencies, individuals contribute not only to their personal success but also to the overall progress of their organization in a rapidly evolving business landscape (López et al., 2020).

Employee behavioral competency encompasses the essential performance and success in executing work tasks. Personality traits can significantly influence an individual’s performance and behavior in the workplace. For instance, an individual with high adaptability may be more effective in collaborating and adjusting to change (Durak et al., 2021).

In a professional environment, strong interpersonal skills are invaluable assets that enable employees to navigate complexity, adapt to change, and manage daily tasks (Tyson & Tyson, 2020). Effective teamwork requires a range of interpersonal skills,

including communication, active listening, flexibility, and accountability. Individuals who excel as team players are frequently entrusted with significant responsibilities in the workplace (Ashraf et al., 2020).

On the other hand, leaders play a crucial and essential role in organizations. The impact of exceptional leaders is clearly evident in many successful organizations. These organizations recognize the importance of enhancing the competencies of their managers, based on the principle that skilled managers are more likely to achieve their performance goals and aspirations (Valikhani Dehaqani and Masoumi, 2012).

The ability of leaders to respond swiftly to threats and opportunities in today's fast-paced environment has made effective management a crucial resource for problem-solving within organizations. Consequently, the demand for competent leaders has become more evident than ever before.

Therefore, the behavioral competencies of leaders can be categorized into three levels: 1) The individual level encompasses the knowledge, potential skills, capacities (abilities), and qualifications of employees. 2) The organizational level refers to the specific methods employed by the organization to combine various resources.

In other words, competence encompasses the synergistic integration of employee knowledge and skills with various organizational resources, including an understanding of systems, current affairs, procedures, and technological products. The strategic level focuses on establishing and sustaining a competitive advantage through a distinct combination of knowledge, skills, structures, strategies, and processes (Purwanto, 2022).

The findings of Nelly et al. (2024) indicate that transformational leadership is crucial for developing competencies, which subsequently enhance the work performance of university professors.

The findings of Ghorbani (2023) indicate that the most important elements for a successful project manager include a combination of knowledge, skills, leadership, abilities, and personal attitude, all

of which are essential for the successful completion of a project.

The results of Sahai and Kaur (2022) indicate that not all 18 behavioral competency indicators influence highly effective performance equally; some have a positive effect, while others have a negative effect.

Social skills moderate the relationship between managerial competency and job performance; however, the moderating role of social skills was not observed in the relationship between learning orientation and job performance (Niazi et al., 2020).

Identifying the concepts of "world-class leadership behaviors," "world-class leadership duties," "world-class leadership relationships," "world-class leadership style," and "world-class leadership external duties, along with their dimensions, is one of the outcomes of this research (Rostami Pashaei et al., 2024).

The research conducted by Raisi et al. (2024) revealed that the integrated human resources competency model of the Ministry of Energy comprises four structures and ten components.

The first structure is "competent human resources managers, the second structure is "competent systems and processes, the third structure is "competent human resources, and the final structure is "organizational strategies.

The results of weighting and prioritizing the barriers to behavioral competency among managers, using the best-worst method in the study by Valikhani Dehaqani and Masoumi (2022), indicate that inappropriate cultural tendencies ranked first. Following this, lawlessness, politicization, personality traits of managers, organizational conflict, and leadership style were ranked next.

In the research conducted by Vaezi et al. (2019), 39 components and 115 indicators related to these dimensions were identified and classified.

Based on the research findings regarding the competencies of human resource managers in the context of globalization, intellectual competency emerges as the most critical factor, while cultural competency is ranked the lowest.

3. Method

This research is applied in purpose and exploratory in nature, conducted using the Meek Mag method. Documentary studies were employed to assess the behavioral competencies of employees, focusing on the information and knowledge relevant to the workplace. The sample consisted of 14 interviewees, selected through purposive sampling and the snowball method. Semi-structured, in-depth interviews with open-ended questions were conducted with these participants. The demographic characteristics of the participants are presented in Table 2.

The adequacy of the number of samples studied was attained through the theoretical saturation method (Strauss & Corbin, 1967, p. 65).

In this study, to implement the data-driven strategy, a systematic approach utilizing three techniques—open coding, axial coding, and selective coding—was employed (Lee, 2001, p. 47). These techniques include:

Open coding is an analytical process in which concepts are identified, and their features and dimensions are uncovered within the data (Strauss & Corbin, 1998).

In this stage, the initial categories of information regarding the causes of organizational rebellion were established by segmenting the data. After systematically reviewing the interviews, we identified the primary, secondary, and subcategories.

B - Axial Coding: Axial coding is the process of relating categories to subcategories and linking categories at the level of features and dimensions. This method is termed because the coding is centered around a specific category (Strauss & Corbin, 1998, p. 50).

C - Selective Coding: Following open and axial coding, the research results culminate in a theory. Selective coding is the process of integrating and refining categories (Strauss & Corbin, 1998, p. 51).

In this study, after reaching saturation and the repetition of concepts, selective coding was conducted on the interviews. The results are presented in the final section, which includes both the discussion and conclusion.

Additionally, the acceptability criterion mentioned in the evaluation of evidence-based research was utilized in place of the validity and reliability criteria.

Acceptability refers to the extent to which research findings are reliable and credible in representing the experiences of participants, researchers, and audiences regarding the phenomenon under investigation. Ten indicators of acceptability criteria have been introduced, of which five were utilized in this study to enhance scientific accuracy, validity, and reliability.

Audit strategies employed include researcher sensitivity, methodological coherence, sample adequacy, replication of findings, and the use of informant feedback (Strauss & Corbin, 1990, p. 251).

Table 2. Demographic characteristics of participants

Field of study and level	Work Experience	Gender	Age
Doctor of Cultural Management	27 years	Male	47
Doctor of Public Administration	14 years	Female	40
Doctor of Sociology	12 years	Female	44
Doctor of Cultural Management	25 years	Female	52
Doctor of Organizational Behavior	17 years	Male	42
Doctor of Human Resources	22 years	Male	57
Doctor of Sociology	16 years	Male	43
Doctor of Cultural Management	20 years	Male	42
Doctor of Public Administration	20 years	Male	47
Doctor of Educational Sciences	24 years	Male	49
Doctor of Social Sciences	20 years	Male	48
Doctor of Philosophy	12 years	Male	32
Doctor of Philosophy	15 years	Gender	40
Doctor of history	20 years	Male	41

MICMAC analysis is an analytical method in the field of planning and decision-making that identifies and analyzes the effective and affected factors in a problem or system. The name "MICMAC" is an abbreviation for the phrase "Matrice d'Impacts Croisés Multiplication Appliquée à un Classement" in French, which means "Matrix of Cross-Impacts and Multiplication Applied to a Ranking".

The main goal of MICMAC analysis is to determine the dependencies and connections between different factors in a system. This method is carried out in a hierarchical and multi-stage manner and finally, by drawing

related diagrams, it helps to determine the degree of influence and importance of each factor in comparison with other factors.

The method of implementing MICMAC analysis is briefly as follows: Identifying factors:

First, the effective and affected factors in the system or problem under study are identified.

Creating a cross-effects table: In this step, a cross-effects matrix between factors is created. In this matrix, the effect of each factor on other factors is calculated by multiplying.

Sorting factors: Using the results of the influence matrix, the factors are sorted based on their influence and importance.

Clustering analysis: In this step, the factors are divided into different categories or clusters according to their mutual relationships.

Drawing MICMAC diagrams: Using the results of the previous steps, diagrams such as influence diagram, influence/importance diagram, and influence diagram are created that provide a map of the status of the factors and the relationships between them. MICMAC analysis can be used in strategic planning, project management, systems analysis, and multi-criteria decision-making studies. This method helps managers and decision-makers to respond to complex issues with greater accuracy and precision and to become aware of the most influential factors in decision-making. In information processing, the structural interaction analysis method has been used in the MICMAC software.

As a result of monitoring variables, 19 have been identified and clustered based on library studies Table 3.

Table 3. Effective components

Symbol	Phrase	sources
D1	Environmental Analysis	Nelly et al 2024
D2	Management Challenge	Ghorbani 2023
D3	Employee Behavioral Competency Analysis	Khodaparast et al 2023
D4	Organizational Culture Analysis	Khodaparast et al 2023
D5	Law and Policy Enforcement	Khodaparast et al 2023
D6	Determining Competencies	Khodaparast et al 2023
D7	Leadership Competency Dimensions	Chitgar 2023
D8	Process of Building an Employee Behavioral	Purwanto 2022

Symbol	Phrase	sources
	Competency Model	
D9	Interpersonal Skills	Ghorbani 2023
D10	Communication Skills	Chitgar 2023
D11	Analysis Skills	Chitgar 2023
D12	Leadership Skills	Ghorbani 2023
D13	Determining Behavioral Criteria	Purwanto 2022
D14	Model Evaluation and Development	Ghorbani 2023
D15	Implementation and Monitoring	Nelly et al 2024
D16	Intra-Organizational Success	Vaezi et al 2020
D17	Key Competencies	Vaezi et al 2020
D18	External Organizational Success	Purwanto 2022
D19	Employee Behavioral Competency with an Information and Knowledge Approach to the Workplace	Nelly et al 2024

4. Findings

At this stage, soft operations research methods such as concept mapping, causal mapping, or cognitive mapping can be used. However, the appropriate and emphasized method is to form an $n \times n$ matrix of the identified indicators. Then determine the relationships of these indicators based on the table below. In the table of mutual effects below, the effect of each variable on the other variable (column effect on row) is determined with a score of zero or 1.

Table 4. Spectrum used

Symbol used	Description
V	Row factor i causes column factor j to occur (1,0)
A	Column factor j causes row factor i to occur (0,1)
X	Both row and store factors cause each other to occur (factors i and j have a two-way relationship) (1,1)
O	There is no relationship between row factor i and store j (0,0)

D19	D18	D17	D16	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	
V	A	A	V	V	A	A	V	A	X	V	V	V	V	V	A	X	V		D1
V	A	X	V	X	V	A	V	A	X	A	A	V	X	X	X	X			D2
X	V	X	X	X	A	V	V	A	X	X	A	V	X	V	X				D3
A	V	X	V	A	A	A	V	V	A	A	A	A	V	X					D4
X	X	X	X	X	A	A	A	A	X	A	A	V	X						D5
A	A	A	A	X	A	A	A	A	A	A	A	X							D6
A	A	A	A	A	A	A	A	A	X	A	A								D7
A	A	A	A	A	A	A	A	A	A	A									D8
A	A	A	A	A	A	A	A	A	X										D9
A	A	A	A	A	A	A	A	A											D10
A	A	A	A	A	A	A	V												D11
A	A	A	A	V	A	A													D12
A	A	A	A	A	A														D13
A	A	A	A	A															D14
X	X	V	X																D15
X	X	A																	D16
X	A																		D17
A																			D18
																			D19

In the following, based on Table 2, the conversion of one and zero and the completion of the matrix are discussed:

D19	D18	D17	D16	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	
1	0	0	1	1	0	0	1	0	1	1	1	1	1	1	0	1	1		D1
1	0	1	1	1	1	0	1	0	1	0	0	1	1	1	1	1		0	D2
1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1		1	1	D3
0	1	1	1	0	0	0	1	1	0	0	0	0	1	1		1	1	1	D4
1	1	1	1	1	1	1	1	1	1	0	0	1	1		1	0	\	0	D5
0	0	0	0	1	0	0	0	0	0	0	0	1		1	0	\	\	0	D6
0	0	0	0	0	0	0	0	0	1	0	0		1	0	\	0	0	0	D7

D19	D18	D17	D16	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	
0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	D8
0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	D9
0	0	0	0	0	0	0	0	0		1	1	1	1	1	1	1	1	1	D10
1	1	1	1	1	1	1	1		1	1	1	1	1	1	0	1	1	1	D11
0	0	0	0	1	0	0		0	1	1	1	1	1	1	0	0	0	0	D12
0	0	0	0	0	0		1	1	1	1	1	1	1	1	1	0	1	1	D13
0	0	0	0	0		1	1	1	1	1	1	1	1	1	1	1	0	1	D14
1	1	1	1		1	1	0	1	1	1	1	1	1	1	1	1	1	0	D15
1	1	0		1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	D16
1	0		1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	D17
0		1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	D18
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	D19

Table 4 shows the results of the interaction effects of 19 influential components based on the formation of a 19x19 matrix. The results of this table indicate a repetition rate of 2 times and a filling rate of 61%, which indicates that the selected variables have influenced each other to some extent. Out of the total of 219 evaluable relationships in the matrix, 142 relationships are zero; this value means that the factors do not influence each other or are not influenced by each other. 219 relationships with a value of one have a weak effect on each other.

Table 4. Indices based on repetition rates of zero and one

Indexes	Amount
Matrix size	19
Repetition for final access	2
Number of zeros	142
Number of ones	219
Total	219
Final percentage	60.66%

The matrix of this research, based on the drivers studied with 2 rotations, has a suitability and optimization of 100%, which indicates a high validity of the questionnaire and its responses (Table 5).

Table 5. Degree of suitability and optimization of the matrix

Rotation	Effectiveness	Effected by
1	100%	86%
2	99%	90%

Table 6. Set of inputs and outputs for level determination

	1 : D1	2 : D2	3 : D3	4 : D4	5 : D5	6 : D6	7 : D7	8 : D8	9 : D9	10 : D10	11 : D11	12 : D12	13 : D13	14 : D14	15 : D15	16 : D16	17 : D17	18 : D18	19 : D19
1 : D1	49	87	81	88	104	114	105	63	74	86	56	70	54	48	62	62	55	48	48
2 : D2	54	97	89	94	117	126	119	76	85	96	58	79	58	52	72	67	57	50	54
3 : D3	62	115	112	118	142	154	146	89	102	115	68	93	71	64	88	80	69	62	68
4 : D4	44	83	85	91	109	119	113	76	83	92	58	70	57	52	65	60	51	47	51
5 : D5	65	121	112	119	144	157	148	89	104	116	68	96	70	61	89	82	69	62	69
6 : D6	27	40	43	40	54	56	52	38	40	42	32	37	28	26	30	30	25	23	22
7 : D7	7	17	14	16	19	22	21	9	14	19	8	16	11	11	17	16	13	10	15
8 : D8	24	39	40	38	52	55	52	36	41	43	30	37	29	28	34	33	27	24	27
9 : D9	28	50	49	48	63	68	63	38	46	53	34	46	33	32	43	42	35	30	34
10 : D10	31	56	56	57	72	78	73	43	53	59	38	50	38	37	49	46	40	35	38
11 : D11	74	139	132	139	169	184	173	105	121	137	81	112	82	75	106	97	83	74	81
12 : D12	23	36	35	38	44	48	43	23	29	36	23	32	22	21	27	28	26	21	21
13 : D13	35	70	68	71	86	94	88	48	60	71	43	58	44	41	57	54	47	41	45
14 : D14	38	81	78	79	98	107	100	56	66	80	46	65	45	46	65	61	52	43	50
15 : D15	71	128	121	125	157	170	159	99	114	126	76	106	75	68	98	91	76	67	75
16 : D16	58	110	103	107	130	142	131	79	89	105	63	86	59	56	77	75	63	54	61
17 : D17	62	120	111	117	144	157	147	88	103	116	70	94	70	64	91	85	73	64	69
18 : D18	59	112	107	115	136	149	138	80	94	109	64	89	64	57	84	78	69	61	62
19 : D19	66	125	118	123	151	164	154	93	106	123	71	102	70	66	95	88	74	63	72

The degree of direct influence and impact of factors on each other Table 7 ranks the identified components based on their direct impact. It should be noted that the drivers

that score the highest points change their degree of influence and impact.

Table 7. Direct row and column effects of components

Component	Total level	Column total
Environmental Analysis	12	8
Management Challenge	12	13
Analysis of Employee Behavioral Competency	15	13
Analysis of Organizational Culture	10	13
Enforcement of Law and Policy	15	17
Determination of Competencies	5	18
Dimensions of Leadership Competency	3	17
Process of Building an Employee Behavioral Competency Model	6	12
Interpersonal Skills	8	13
Communication Skills	9	14
Analysis Skills	18	9
Leadership Skills	6	12
Determination of Behavioral Criteria	11	9
Model Evaluation and Development	12	8
Implementation and Monitoring	16	10
Intra-Organizational Success	14	10
Key Competencies	16	8
External Success	15	7
Employee Behavioral Competency with an Information and Knowledge Approach to the Workplace	16	8
Total	219	219

Evaluation of the influence and influence plan of variables The distribution and dispersion of variables in the dispersion plane indicates the degree of stability or instability of the system. In the field of the interaction/structural analysis method with the MICMAC software, two types of dispersion have been defined in total, known as stable systems and unstable systems. In the stable system model, the dispersion of variables is in the form of L; in this model, some variables have high influence and some have high influence.

However, in unstable systems, the situation is more complicated; in this system, the forces in question are dispersed around the diagonal axis of the plane and in most cases have an intermediate state of influence and influence, which makes it difficult to identify key variables.

What can be understood from the state of the dispersion plane of the drivers affecting the behavioral competence of employees with the approach of information and knowledge of the workplace is the state of instability of the system. Most variables are dispersed around the diagonal axis of the plane. Except for a few cases that show a high impact on the system, the remaining variables have an almost similar status relative to each other (Figures 1 and 2). Based on the Kappa index, it can be said that the value of 0.887 is suitable and the validity is confirmed. The model is also stable.

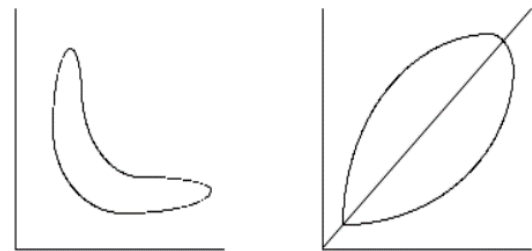


Figure 1. Stable system **Figure 2.** Unstable system

Figure 3 shows the dispersion pattern of the effective factors. This dispersion pattern generally indicates the state of an unstable system (Figure 3).

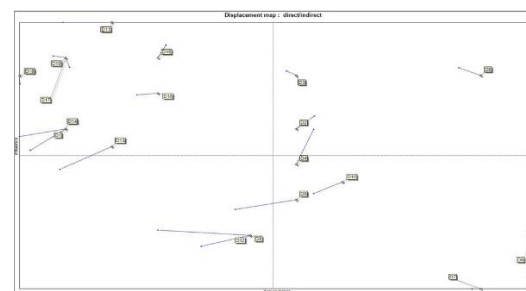


Figure 3. Scatter Pattern of Influential Factors

Category of Influential Factors

Determining or Influential Factors: These factors are more influential and less influenced. Therefore, the system depends more on these variables. These factors are displayed in the northwest part of the diagram. Influential factors are the most critical components, because the changes in

the system depend on them and the degree of control over these factors is very important. On the other hand, these factors are also considered as input variables of the system. Among the 19 factors examined in this study, several indicators have been identified as influential drivers of the research model. D11-D18-D19-D15-D17 are in this category.

“Bimodal” factors: These factors act as both highly influential and highly influenced at the same time. These factors are located in the northeast part of the diagram. The nature of these factors is mixed with instability, because every action and change on them leads to a reaction and change on other factors. The factors in this area include: D5-D3-D2-D4

The bimodal factors consist of two parts, risk and goal drivers:

Risk factors: As shown in the figure, these factors are located above the diagonal line of the northeast area of the figure and have a great potential to become key players in the system. D5-D3 are located in this area.

Goal factors: These factors are located below the northeast diagonal area of the screen, these factors are actually the evolutionary results of the system and represent possible goals in a system. By manipulating and making changes to these factors, the evolution of the system can be achieved.

In this research, the components D2-D4 are located in this area.

“Affectable” factors or, better said, “result” drivers: These factors are located in the southeast part of the diagram. They have low impact and very high impact. Therefore, they are very sensitive to the evolution of influential and bimodal drivers, they are output factors. In this study, D6-D7-D10 are in this area.

Independent or excluded factors: These factors have low influence and influence. They are located in the southwestern part of the diagram and seem to have no connection with the system at all. Because they neither stop a main factor nor cause its evolution and progress in the system. In this study, D9-D8-D12 are in this area. However, in this category, two categories of drivers should be noted:

“Discrete” factors: These factors are located near the origin of the coordinates in the diagram. It is understood that the evolution of these variables has no relation to the dynamics of the current system and they can be removed from the system. There is no discrete factor in this study.

“Secondary leverage” factors: These drivers, despite being completely independent, are more influential than affected. They are located in the southwest part of the diagram and above the diagonal line and can be used as points for measurement and as a benchmark. In this study, the D9 variables are secondary leverage.

“Regulating” factors: These factors are located near the center of gravity of the diagram. They can act successively as “secondary leverage”, “weak targets” and “secondary risk drivers”, in this study no regulating driver was identified. The following figure shows the graphical representation of the drivers affecting. These figures show the direct and indirect effects of drivers on other drivers in the system. The way drivers influence each other is classified as the strongest effect, strong effects, medium effects, weak effects, and weakest effect.

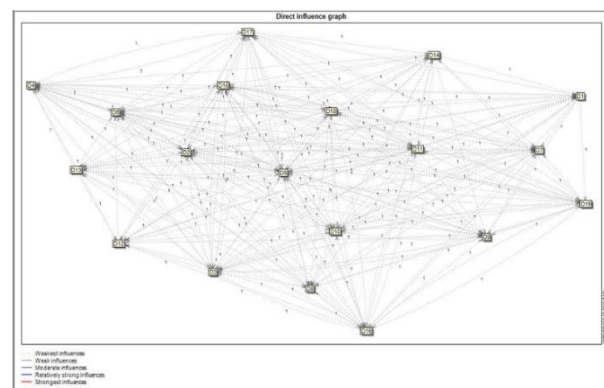


Figure 4. Diagram of direct effects of factors (strongest effect)

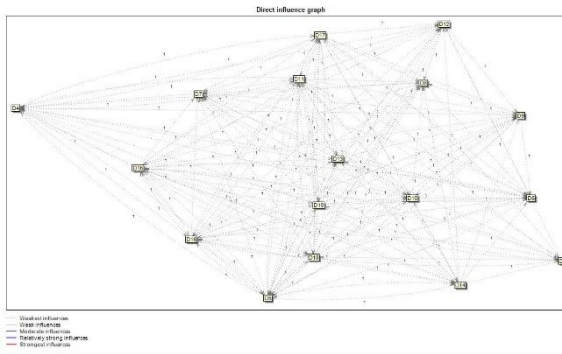


Figure 5. Diagram of direct effects of factors (strong effect)

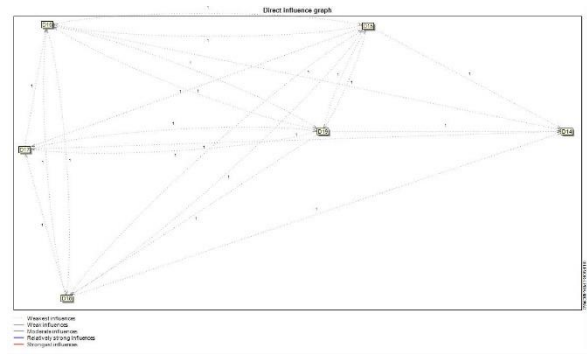


Figure 7. Diagram of direct effects of factors (weak effects)

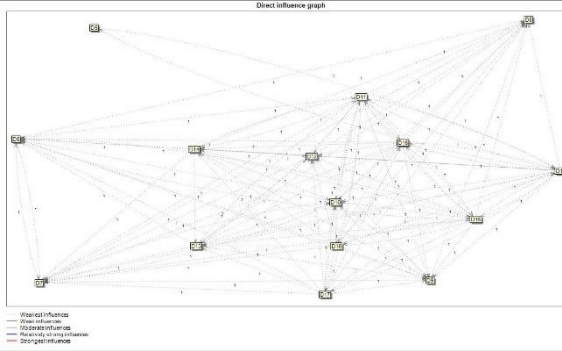


Figure 6. Diagram of direct effects of factors (median effect)

Among the 19 drivers examined in this study, 5 key components that have an effect on have been selected (d11-d15-d17-d19). These components are considered the most effective and at the same time the most key drivers of the system Table 8.

Table 8. The extent of direct effects of factors on each other

Rank	Label	Direct influence	Label	Direct dependence	Label	Indirect influence	Label	Indirect dependence
1	D11	821	D6	821	D11	844	D6	844
2	D15	730	D5	776	D15	781	D7	790
3	D17	730	D7	776	D19	751	D5	777
4	D19	730	D10	639	D17	720	D2	634
5	D3	684	D2	593	D5	718	D10	634
6	D5	684	D3	593	D3	709	D4	633
7	D18	684	D4	593	D18	674	D3	606
8	D16	639	D9	593	D16	643	D9	555
9	D1	547	D8	547	D2	585	D12	522
10	D2	547	D12	547	D4	548	D15	487
11	D14	547	D15	456	D1	528	D8	479
12	D13	502	D16	456	D14	490	D16	458
13	D4	456	D11	410	D13	437	D17	391
14	D10	410	D13	410	D10	370	D11	385
15	D9	365	D1	365	D9	325	D13	382
16	D8	273	D14	365	D8	268	D19	375
17	D12	273	D17	365	D6	267	D14	353
18	D6	228	D19	365	D12	224	D18	343
19	D7	136	D18	319	D7	107	D1	342

5. Discussion

Discussion and Conclusion Behavioral competence of employees in the workplace, especially in the Iraqi ministries of culture, is a vital and vital research topic. Improving the behavioral competencies of employees in these environments can significantly improve the performance and quality of

services provided by the ministries. By increasing behavioral competencies, the likelihood of developing effective leadership and improving relationships between colleagues and with external audiences increases. In fact, competencies provide a model that shows an individual with superior performance in the assigned job;

Accordingly, using evidence-based research, the identified factors include causal conditions (environmental analysis; managerial challenge; analysis of employees' behavioral competence) in line with the studies of Montazerali et al. (2023) who showed that competencies include scientific and professional competence, managerial competence, political competence, authority competence, strategic vision, and selective competence. It is also in line with Rostami Pashaei et al. (2024) and Khodaparast et al. (2023). The enabling conditions include organizational culture analysis; law and policy enforcement in line with the results of Vaezi et al. (2020) and Valikhani Dehaqani and Masoumi (2022) who acknowledged that identifying behavioral barriers such as inappropriate cultural tendencies and lawlessness helps improve employees' behavioral competencies. Intervening conditions (determining competencies; dimensions of leadership competency; the process of building an employee behavioral competency model) which are in line with the results of Ghorbani (2023) and Philip et al. (2023). The strategies (interpersonal skills; communication skills; analytical skills; leadership skills; determining behavioral criteria; evaluating and developing the model; implementing and monitoring) are in line with the results of Sahai and Kaur (2022), Ghorbani (2023) and Philip et al. (2023) who acknowledged that a combination of knowledge, skills, leadership, ability and personal attitude are essential for the successful completion of projects and that interpersonal skills play a key role in the leadership and ability of project managers; and the outcomes include intra-organizational success; key competencies; extra-organizational success; in line with the research of Philip et al. (2023), Raisi et al. (2024), Heydarian et al. (2023) and Mousavi et al. (2020); identified with the main phenomenon of employee behavioral competence. Improving these competencies requires individual and organizational training and development programs that help employees use their abilities and skills in the best possible way.

6. Conclusion

Scenario of Knowledge-Based and Learning-Oriented Organizations

In this scenario, the model is designed for organizations that value continuous learning and knowledge, such as research or consulting firms. Employee behavioral competencies include the ability to share knowledge, effective teamwork, and creativity in problem-solving. Here, **information and knowledge are considered the primary assets** of the organization, and employee behavior must align with managing and optimizing these assets. Tools like knowledge management systems and digital communication networks act as key enablers to facilitate and strengthen employees' desired behaviors.

Scenario of Industrial and Manufacturing Organizations

In industrial environments, where productivity and quality are top priorities, behavioral competencies such as **work discipline, precision in task execution, and stress management** gain more importance. In this scenario, employees' operational information and knowledge are utilized to enhance the performance of manufacturing processes. The interpretive structural model (ISM) can analyze the relationships between variables such as technical knowledge levels, employees' communication skills, and their impact on production outcomes. Utilizing tools like **performance management systems** and production databases can help reinforce appropriate behaviors.

Scenario of Service and Customer-Centric Organizations

In service organizations, interaction with customers and delivering high-quality services are critical criteria. Behavioral competencies such as **effective communication, emotional intelligence, and flexibility** in handling customer interactions play a key role. Employees' knowledge and information about customer needs and preferences are gathered and optimized through CRM (Customer Relationship Management) systems. In this scenario, the ISM model can examine the relationship between communication skills, the ability to manage complaints, and the

quality of services provided, offering solutions to improve these behaviors.

Scenario of Innovation and Change-Driven Organizations

This scenario applies to organizations operating in dynamic and innovation-driven environments, such as startups. Behavioral competencies of employees include *creativity, the ability to solve complex problems, and risk-taking*.

In this approach, the knowledge and information gathered from markets and competitors are used to design new products or services. The ISM model can analyze the relationship between employees' creativity, access to market information, and success in innovation. Dynamic information systems and an innovative organizational culture are identified as critical factors in this scenario.

These scenarios, by offering diverse perspectives, can help design the interpretive structural model of employee behavioral competence in a more practical manner tailored to organizational needs.

Therefore, it is recommended that: Behavioral competencies related to each job role be defined precisely and specifically. Training courses and skill-building workshops be held based on the identified competencies. Coaching and consulting programs be designed and implemented to develop employees' behavioral and technical skills. Performance evaluation tools be used regularly to monitor employees' progress towards the desired competencies. A continuous and constructive feedback system be implemented so that employees become aware of their strengths and weaknesses and strive for improvement. Team activities and joint projects are encouraged to increase the spirit of cooperation and interaction among employees. Change management programs be designed and implemented to implement the competency model and adapt the organization to it. Competency goals are aligned with the organization's strategic goals so that efforts are directed towards achieving the organization's mission and vision. The results of implementing the competency model are periodically reviewed and analyzed to ensure that it is moving in line with strategic goals.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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