International Journal of Innovative Research and Scientific Studies, 8(3) 2025, pages: 3769-3775

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

The mediation role of moral judgments on the relationship between digital leadership and organizational wisdom

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Abstract

This study aims to examine the relationship between digital leadership and organizational wisdom, with the mediating role of ethical judgments. To this end, 30 managers and employees from the General Company for Petrochemical Industries in Basra were randomly selected as the sample. The research variables were assessed using the questionnaires of "Digital Leadership by AlNuaimi et al. [1], Organizational Wisdom by Brown and Green, and Ethical Judgments by Gregory." The data obtained were analyzed using a quantitative approach, and Smart PLS version 3 software was utilized for data analysis. The results indicated that digital leadership and organizational wisdom are interdependent and recognized as influential factors in the success of organizations in today's world. The interaction between these two concepts can assist in achieving strategic goals and ensuring sustainable success in dynamic markets. Furthermore, ethical judgments can play a significant role in shaping the relationship between digital leadership and organizational wisdom. Ethical leadership, adhering to moral principles, can enhance organizational wisdom more effectively by promoting trust, knowledge sharing, and accountability.

Keywords: Digital leadership, Ethical judgments, Organizational wisdom.

DOI: 10.53894/ijirss.v8i3.7386
Funding: This study received no specific financial support.
History: Received: 21 March 2025 / **Revised:** 24 April 2025 / **Accepted:** 26 April 2025 / **Published:** 26 May 2025

Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

The Petrospheric Revolution is fundamentally changing the future of many industries, including the petrochemical and gas sectors. In this situation, every sector of the organization is supposed to participate in achieving this change. One of the most important sectors in this regard is the leadership of the human resources industry because the survival of industries involves making serious changes and stepping forward compared to the past, and transforming the prototype of leadership when entering the digital world. Consequently, organizations have the responsibility to prepare leaders for the challenge of integrating HR with this transformation. Managers of these institutions are more ambitious than usual, seeking "success" more than in other organizations. It is important to recognize that such a change can be obtained only by appropriate decision-making and the establishment of fertile soil for productive interpersonal relations at the employee level, developed due to adequate management [1, 2]. Managers in these organizations are more concerned with being successful and advancing their careers compared to other organizations, and it is important to note that achieving this depends on making intelligent decisions about what is best for the organization and the environment in which it operates, and creating an environment that fosters an atmosphere where people work together to accomplish mutual and effective relations among employees [3, 4].

That is, globalization, competitive pressures and technological progress have rendered organizations subject to ongoing change. In this dynamic setting, digital leadership and organizational wisdom have emerged as two important mechanisms for organizations to succeed [5, 6]. Digital leadership empowers organizations to embrace new technologies to enhance the collective wisdom of organizations [7, 8]. However, how this effect happens and the contribution of moral factors to reinforce this relationship need to be explored further. The current paper covers this significant gap and investigates the nexus of digital leadership, organizational wisdom and the mediating role of ethical judgments. In fact, we aim to find answers to the following question: How can digital leadership, ethically anchored at all levels, operate as an instrument to strengthen organizational wisdom and quality performance in the general company for petrochemical industries in Basra?

1.1. Concept of Digital Leadership

Digital leadership is a contemporary method of leadership by which digital leaders strategically leverage all aspects of the organization's assets (workforce, data, systems, best customers, and best suppliers) to transform the organization. This form of leadership is more than just using digital media; it represents a transformation in the leaders' mindset, style, and skills [1, 9].

General Company for Petrochemical Industries – Basra leaders need to be able to leverage digital technologies and data analysis. They should also be adept at leading change and driving a culture of innovation in the organization. This entails providing essential training for the staff and cultivating a culture in which staff can present their innovative concepts. Digital leadership at General Company for Petrochemical Industries - Basra Digital can improve performance, lower costs, enhance safety, and reduce environmental impact. It thus offers great potential for petrochemical corporations to adopt advanced technologies to improve their competitive edge [10, 11].

At the General Company for Petrochemical Industries – Basra, digital leadership is considered crucial for maximizing efficiency, enhancing safety, and meeting environmental requirements due to challenging technology and environmental complexity, as well as the need to stay on the leading edge of innovation. However, the effectiveness of digital leadership also relies heavily on how the organizational wisdom and ethical judgments are respected by management and employees alike [12, 13]. There are limited research studies that have investigated the role of ethical judgment as a mediator between digital leadership and organizational wisdom in the General Company for Petrochemical Industries - Basra. Digital leadership in the General Company for Petrochemical Industries - Basra will shape the way for Husain, A.P, innovation, and sustainability. This does not conflict with the fact that to fully exploit these opportunities, a high amount of organizational wisdom throughout all organizational levels is necessary [14, 15].

Digital leadership refers to guiding and managing organizations in the digital world, where technologies and electronic tools have become an integral part of business operations and strategies. With technological advancements and rapid changes in work environments, digital leadership is emerging as a fundamental necessity for the success of organizations [16, 17].

In general, digital leadership not only refers to the use of modern technologies but also emphasizes creating an organizational culture that promotes innovation, collaboration, and transparency. These characteristics help organizations succeed in the digital world and bring them closer to a sustainable and innovative future [7].

Brown believes that digital leaders strive to cultivate ethical traits such as freedom, justice, equality, peace, and humanity in their environment, rather than negative traits like fear, greed, jealousy, and hatred. He describes digital leadership as the

inspiring motivation of leaders who, by involving followers in shaping the future, aim to satisfy essential needs. The transformational leader seeks to uncover the latent motivations of followers. In fact, the aim is to draw followers' attention to higher needs and transform individual benefits into collective benefits [18].

Based on Porfírio et al. [7] theory of digital leadership, a new perspective was introduced. He defined digital leadership as an individual who empowers followers, motivates them to perform beyond their expectations, and encourages them to pursue group goals rather than personal ones. Porfírio et al. [7] consider digital leadership to include components such as idealized influence, intellectual stimulation, inspirational motivation, and individual consideration [7], vision of the organization, committing them and igniting motivation within them.

1.2. Concept of Organizational Wisdom

Organizational wisdom refers to the analysis and use of knowledge, experiences, and insights from employees at both managerial and organizational levels. This concept helps create collective capabilities within an organization, leading to effective and constructive decision-making. Organizational wisdom is a form of collective intelligence that arises through interactions and information exchange within an organization. Wisdom represents the ideal point of individual development and a combination of human traits that enable better actions. Brown [19] considers wisdom to encompass six dimensions: self-awareness, understanding others, judgment, life knowledge, life skills, and a willingness to learn.

Organizational wisdom helps improve decision-making processes, increase efficiency, and enhance the quality of services and products. By relying on collective experiences and knowledge, organizations can easily address new challenges and identify opportunities that might otherwise be missed.

Organizational wisdom is considered a strategic resource in today's competitive world, making it a necessity for organizations [20-22]. The effective use of this wisdom leads to the creation of an intelligent and flexible organization that can withstand changes and challenges, achieving greater success [16]

1.3. Concept of Ethical Judgments

Ethical judgments refer to a set of principles and values that guide human behavior and determine what actions are right and wrong [23-26]. These judgments may be influenced by culture, religion, philosophy, and personal experiences. Ethical judgments serve as guides for proper behavior in both individual and social life [27]. Recognizing and adhering to these judgments can help improve human relationships, strengthen communities, and increase social cohesion. For each individual, considering ethical issues in decision-making and daily activities is crucial [12].

2. Method

This study is applied research and was conducted using a descriptive-analytical approach. For this purpose, 30 employees and managers of the General Company for Petrochemical Industries in Basra were randomly selected, and the questionnaires of "Digital Leadership by AlNuaimi et al. [1], Organizational Wisdom by Brown and Green, and Ethical Judgments by Gregory" were distributed among them and then collected.

2.1. Data Analysis

In this study, descriptive statistics were used to examine the research variables. For inferential statistics, the data obtained were analyzed using a quantitative approach. Smart PLS version 3 software was utilized for data analysis.

Table 1.
Demographic Information of the Sample Members Studied.

Level of Education		Marriage		Work History		Gender		Age	
6	Diploma	Married	Single	7	3-1	Woman	Man	9	35-25
12	Bachelor	16	14	8	5-3			10	45-35
4	Master's Degree			10	10-5	12	18	8	55-45
8	Ph.D.			5	Years 10 And Up			3	And Up 55
30		30		30		30		30	Total Sum

Table 2.
Descriptive Statistics of the Variables Under Study.

Highest Score	Lowest Score	Standard Deviation	Average	Number of Samples	Variables
56	25	11.27	46.75	30	Digital leadership
56	31	6.47	42.91	30	Organizational wisdom
68	43	10.16	58.5	30	Moral rules

After the data gathering, suitable data analysis methods are used to confirm and enhance findings. The type of analysis depends on the studies and is usually defined according to the specific purposes and characteristics of the research [10]. In this research, SEM was employed as the main analytical approach. SEM is a powerful multivariate method to analyze complex interrelations between observed and latent variables, also taking into account measurement errors. More precisely, this study applied the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, which is more appropriate for exploratory research and theory development [22]. This method facilitates the investigation of both direct and indirect

relationships among constructs and provides deeper insights into the structural model. The general approach of using SEM is to explain the complex relationships among variables in the research model.

3. Results and Discussion

3.1. Evaluation of the Measurement Model (Outer Model)

The first of two components is called the measurement model, which is often referred to as the outer model, and is used to evaluate the association between manifest variables and the underlying constructs. The testing of this model includes strict validity and reliability assessments. The validity of each construct is initially tested by using the Average Variance Extracted (AVE), which measures the average amount of variance that an indicator explains in its construct. Convergent validity is acceptable when the AVE value is greater than 0.50. As can be seen in Table 3, each of the three constructs examined (Digital Leadership, Organizational Wisdom, and Ethical Principles) has met the desired cut-off, indicating acceptable levels of validity. Weighted and Unweighted Composite Reliability (CR) and Cronbach's Alpha were also used to examine internal consistency. As per recommended guidelines, a value greater than 0.70 indicates acceptable reliability. The findings confirm that all the constructs have strong internal consistency reliability:

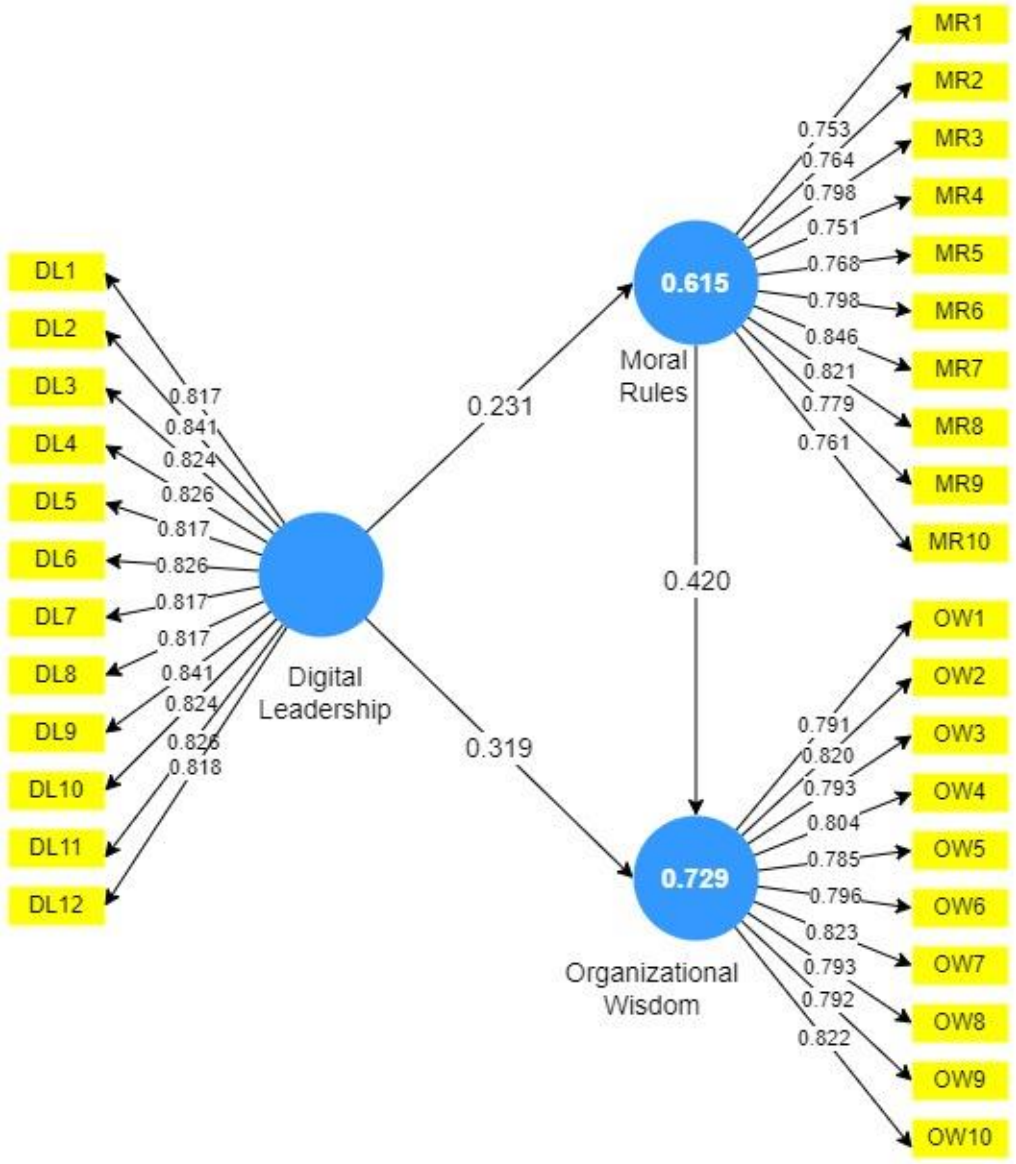

Figure 1.
Outer Model.

Table 3.
Evaluation of the Metric Model.

Variable	Cronbach's alpha	Combined reliability	AVE
Digital leadership	0.951	0.957	0.651
Organizational wisdom	0.948	0.956	0.685
Moral rules	0.891	0.917	0.648

The factor loadings were explored, in addition to AVE and CR, to examine indicator-level validity. Loadings higher than 0.70 are acceptable because they imply a strong association between the indicator and the corresponding construct. Factors with loadings less than this threshold are generally removed. In the present study, all retained items met or exceeded the 0.70 standard, demonstrating acceptable indicator evidence.

3.2. Analysis of the Inner Model or Structural Model

The structural model, which is a kind of inner model, tests the relationships among latent variables from the theoretical perspective, as can be seen in Tables 4 and 5. For scoring in this stage, the predominant mode of assessment is the R-squared value, which measures the proportion of variance in the endogenous constructs that are accounted for by the exogenous constructs. These results indicate that:

- Digital Leadership and Ethical Principles account for 72.9% of the variance in Valley of Organizational Wisdom.
- The R^2 value of Organizational Wisdom of 0.615 implies only moderate explanatory power, for values between 0.50 and 0.75 are generally considered moderate.
- The remaining unexplained variance suggests other influences on the structure we are unable to capture in the current model.

Table 4.
Coefficient of Determination.

Variable	Coefficient of determination	Adjusted coefficient of determination
Digital leadership	0,729	0,716
Organizational wisdom	0,615	0,602
Moral rules	0.615	0.518

3.3. Hypothesis Test Results

Bootstrapping was used to test hypotheses and calculate both the t-statistic and p-values. We consider a hypothesis to be statistically significant when the t-value is greater than 1.96 and the p-value is less than 0.05, which is equivalent to a 95% confidence level, as shown in Table 5.

These results are interpreted as follows:

H_1: Organizational Wisdom is positively influenced by Digital Leadership.

The belief is confirmed with a t-value of 2.825 and a p-value of 0.005, both of which meet the standard for statistical significance. This suggests that digital leadership, referring to the practice of strategically integrating technology into various organizational procedures, acts as a driver of collective knowledge and better decision-making within organizations.

H_2: Digital Leadership has an impact on Ethical Principles.

We test this hypothesis and find that it holds (3.041, 0.002, t-statistic, and p-value, respectively). Effective and trustworthy digital leadership practices seem to underpin organizational ethical values, such as integrity, responsibility, and fairness.

H_3: Ethical Principles leading to OsW.

This association is highly significant with a t-statistic of 4.359 and $p < 0.001$. The results confirm the idea that ethical behavior develops contexts that support the processes of learning together, making ethical decisions, and building organizational wisdom.

Table 5.
Hypothesis test.

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (St. dev)	T Statistic	P Value	Result
H_1	0,319	0,336	0,113	2,825	0,005	accepted
H_2	0,231	0,236	0,076	3,041	0,002	accepted
H_3	0,420	0,423	0,096	4,359	0,000	accepted

4. Conclusion

In this sense, we empirically confirm the relationships of Digital Leadership with Organizational Wisdom and with Ethical Principles. The results demonstrate that:

- Organizational Wisdom is positively influenced by Digital Leadership in a direct and strong way.
- Digital Leadership and Organizational Wisdom are positively influenced by Ethical Principles.

These results highlight the need to develop moral standards and digital skills in corporate leaders. Digital leadership is not only about digital capability but also the competency to fit it into strategic purpose and humanity. Alternatively, organizational wisdom is the ability to mobilize collective wisdom for addressing difficult challenges and making sound choices. In the digital transformation environment, they are considered critical for sustaining innovation, resilience, and ethical governance.

The mediating influence of ethics in this relationship can be seen as a vital factor in the reconciliation and fusion of digital leadership with organizational wisdom. Ethics support leaders in making sound decisions and balancing moral values within

the digitalization trajectory. These principles mean that digital leadership fosters a positive and supportive organizational culture that nurtures organizational wisdom. As a result, the association between digital leadership and organizational wisdom can be moderated by ethical considerations, since ethical leaders may contribute to collective wisdom and performance, enabling principled decision-making in the organization. This results in successful digital transformation, higher efficiency, and overall, a more satisfied workforce. Hence, an inclusive understanding of the role of ethical principles among digital leadership and organizational wisdom is needed and can act as a stumbling block toward achieving organizational objectives.

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