

Digital Leadership as a Driver of Organizational Excellence: Evidence from an Algerian Medical Gloves Manufacturer

Louati Khatima^{1,*}, Mankouri Menel Ibtissem²

¹ University of Ain Temouchent Belhadj Bouchaib, (Algeria), khatima.louati@univ-temouchent.edu.dz

² University of Ain Temouchent Belhadj Bouchaib, (Algeria), menel.mankouri@univ-temouchent.edu.dz

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Summary:

This field study aims to analyze the impact of digital leadership on achieving organizational excellence within an Algerian industrial company specializing in the production of medical gloves in Ain Temouchent. The study adopted a descriptive-analytical approach, collecting data through a questionnaire distributed to 151 employees, and analyzed using the SPSS software. The findings revealed a strong positive correlation between digital leadership and organizational excellence, as well as a statistically significant effect, with digital leadership explaining a considerable proportion of the variance in organizational excellence. Additionally, the dimensions of digital citizenship and digital culture were found to have the greatest influence compared to other dimensions. The study highlights the importance of adopting digital leadership as a strategic approach to enhance innovation and efficiency within industrial organizations, in line with Algeria's digital transformation initiatives, particularly the SNTN-2030 strategy. It recommends strengthening training programs and developing employees' digital skills to support institutional performance and achieve sustainable excellence.

Keywords: Digital Leadership; Organizational Excellence; Digital Citizenship; Digital Vision; Digital Culture.

Jel Classification Codes : M12 ; M10 ; O33 ; D83 ; M14

* Louati Khatima, khatima.louati@univ-temouchent.edu.dz

I- Introduction :

In the era of the Fourth Industrial Revolution, characterized by the integration of digital technologies with intelligent systems and rapid innovation, organizations face complex and intensely competitive challenges. Traditional resources alone are no longer sufficient to achieve excellence and sustainability. Digital leadership — relying on digital competencies and a strategic vision to leverage technology — has become essential for simplifying administrative processes, fostering innovation, enhancing efficiency, and attaining comprehensive organizational excellence (encompassing creativity, employee satisfaction, total quality management, and agile response to change). It also delivers financial benefits through cost reduction, optimized resource utilization, and significant time savings. In the Algerian context, there is an urgent need to investigate the application of digital leadership in the industrial sector, which confronts dual challenges: preserving production capacity while adapting to the demands of digital transformation to ensure long-term competitiveness and sustainability.

Research Problem

Amid rapid digital transformation in industrial organizations, digital leadership is vital for adapting to technological and environmental changes and securing sustainable competitive advantage. Yet, the ability of leaders in Algerian enterprises to effectively apply this style to enhance organizational excellence remains uncertain. This study therefore examines the impact of digital leadership on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent—a key player in Algeria’s medical supplies sector—by addressing the central research question: *To what extent does digital leadership influence the achievement of organizational excellence at Top Gloves Latex Industries in Ain Temouchent?*

Research Sub-Questions

1. To what extent is there a positive correlational relationship between the dimensions of digital leadership (digital competence, digital citizenship, digital vision, and digital culture) and organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent?
2. To what extent do the dimensions of digital leadership (individually and collectively) have a statistically significant positive impact on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent?

Research Hypotheses: To precisely address the main problem and sub-questions, the study tests the following hypotheses:

1. There is a positive correlational relationship between the dimensions of digital leadership (digital competence, digital citizenship, digital vision, digital culture) and organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent.
2. Digital leadership (and its dimensions) has a statistically significant positive impact on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent.

Research Objectives: Building on the hypotheses, the study seeks to:

- Assess the level of digital leadership implementation at SARL Top Gloves Latex Industries in Ain Temouchent;
- Offer practical, actionable recommendations to strengthen organizational performance and achieve sustainable excellence through effective digital leadership.

Significance of the Study: The significance of the study lies in:

- The increasing need for Algerian industrial companies to integrate digital leadership with organizational excellence, as employees shift from executors to strategic partners requiring ongoing digital upskilling;
- Offering practical guidance for leaders to build digital leadership capabilities, thereby boosting competitiveness, efficiency, and sustainability in line with Algeria’s National Digital Transformation Strategy (SNTN-2030).

Study Methodology

Research Approach and Design

- The study adopted a descriptive-analytical approach (Descriptive-Analytical Method), which is most suitable for investigating relationships between variables in an organizational context.
- This method combines description (assessing the current state of digital leadership and organizational excellence) with analysis (measuring correlational relationships and causal impact).

Previous Studies

- **Khalil et al. (2022)**: Descriptive-analytical study at Tikrit University (Iraq), n=82 electronic administration staff. Found significant positive impact of digital leadership on institutional excellence; organizations prioritizing it achieve higher excellence levels.

- **Al-Fahdawi (2022)**: Analytical study of 102 leaders in Iraqi telecom companies (e.g., Zain Iraq), using SPSS/AMOS. Examined digital competence, vision, culture, and strategy. Confirmed vital role in organizational excellence and competitive advantage; recommended developing these dimensions in private sector.

- **Al-Shamrani (2023)**: Field study at Saudi Red Crescent (Jeddah), n=44 administrative staff, SPSS analysis. Focused on innovation, persuasion, and digital knowledge. Showed positive effect on institutional excellence; advised strengthening these elements in public service sectors.

- **Dorbani & Belkebir (2026)**: Field study on 116 Algerian economic institutions, electronic questionnaire + PLS-SEM. Digital leadership explains 65.3% of variance in organizational excellence. Significant positive effects from leading transformation & innovation, digital competence, and enabling digital culture; no significant effect from digital vision & strategy. Emphasizes practical initiatives and supportive culture in Algeria.

Despite previous studies (Khalil et al., 2022; Al-Fahdawi, 2022; Al-Shamrani, 2023; Dorbani & Belkebir, 2026) confirming a strong positive relationship between digital leadership and organizational excellence in Iraqi, Saudi, and general Algerian contexts, most have concentrated on service, educational, or broadly defined economic sectors. Consequently, there remains a notable lack of specialized research addressing the industrial sector—particularly medical and manufacturing industries in Algeria—which face unique challenges related to sustaining production capacity during digital transformation while ensuring quality and regulatory compliance. In addition, the dimensions adopted in the present study (digital competence, digital citizenship, digital vision, and digital culture) have not been comprehensively examined within an Algerian industrial context, nor have prior studies focused on a single firm operating in the medical supplies industry. This study seeks to bridge these gaps by assessing the impact of digital leadership on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent and by offering tailored, practice-oriented recommendations that support the National Digital Transformation Strategy (SNTN-2030) within the Algerian industrial sector.

I.1. Digital Leadership:

I.1.1 Definition of Digital Leadership:

Digital leadership is generally defined as a social influence process through which leaders motivate and guide others by leveraging technology to accomplish shared tasks. (Al-Mutairi, 2023, p. 68) (Lin, 2016, p. 40) defines it as the use of technological resources, such as interactive whiteboards, learning enhancement devices, computers, school management software, communication programs, social media.

I.1.2 Dimensions of Digital Leadership:

Despite varying perspectives in the digital leadership literature, numerous classifications have been developed to identify its key aspects in both field research and prior conceptual/theoretical

studies. For the purposes of the current study, four main dimensions of digital leadership are adopted, following (AlAjmi, 2022, pp. 2-3) **Digital Vision, Digital Culture, Digital Competence, Digital Citizenship.**

A. Digital Vision:

This refers to the ability to lead others toward exceptional achievements by understanding the current situation, intelligently anticipating the future, and adapting to rapid and dynamic changes in the digital era (Utomo, 2022, p. 32). It also involves creating and communicating a vision of the desired state that clarifies the present reality and inspires commitment to a better future. (Nazim, 2024, p. 73)

B. Digital Culture:

(Lim, 2021, p. 26) define digital learning culture as creating, promoting, and sustaining a learning culture in the digital age that fosters a rigorous, relevant, and engaging educational environment for all.

It involves encouraging frequent and effective use of educational technology and digital learning tools, providing learner-centered environments equipped with all necessary technological and educational resources, and participating in global communities that stimulate creativity in the digital era (Domeny, 2017, p. 29).

C. Digital Competence:

With the advancement of information and communication technologies and the presence of knowledgeable, supportive digital technology leaders, some employees may still resist professional growth in technology integration (Domeny, 2017, p. 38). Improving professional practices and increasing productivity among managers and employees occurs through employing technology in daily tasks, facilitating communication between managers, staff, and the local community, and building technology-based communities. (Saada, 2021, p. 15)

D. Digital Citizenship:

This dimension reflects positive behaviors and habits in digital contexts, where leaders take responsibility for modeling ethical, legal, and social responsibilities. It requires providing technological resources to employees, adopting computer science, platforms, and digital advancements. Integrating it into digital leadership supports effective communication aligned with beneficiary needs while staying connected to emerging internal and external trends (AlAjmi, 2022, p. 3).

I. 2. Organizational Excellence:

I. 2.1 Concept of Organizational Excellence:

Organizational excellence is defined as the maturity of an organization and its enhancement across multiple dimensions through achieving satisfaction for all stakeholders and establishing balance among them, thereby increasing the likelihood of the organization's success. (Aidan, 2024, p. 16)

Organizational excellence reflects an organization's success and competitive edge, achieved through effective management practices focused on attracting, developing, and retaining highly competent, capable, and skilled talent who consistently perform beyond expectations.

Dimensions of Organizational Excellence

Researchers in management and organizational behavior have varied significantly in their views on

the dimensions of organizational excellence. The following are the key dimensions identified:

A. Leadership Excellence:

Modern management requires leaders to possess superior capabilities to keep pace with developments and changes imposed by the knowledge era. Leaders with high sensitivity to identifying deficiencies and problems across situations have greater opportunities to enhance competitiveness and advance toward excellence.

B. Service/Product Excellence and Innovation:

involves providing unique services or products that make customers prefer the organization, reduce churn to competitors, and justify higher prices through continuous improvement, distinctive features, and transparent sharing of value (e.g., input costs), thereby building loyalty and competitive protection. (Al Shobaki, 2016, p. 70)

C. Knowledge Excellence:

This refers to resources possessing high levels of intangible knowledge that can be utilized by organizations over extended periods. Through organizational excellence, an organization can enhance performance via flexible structures, supportive organizational culture, and systems/procedures that promote knowledge creation and sharing among employees.

D. Employee Excellence:

Employees achieve this by performing their activities and tasks within the organization in the best possible manner, aligning with administrative rules and systems that define the work context and optimize available resources with efficiency and effectiveness. Employees represent a vital asset and the core element in addressing internal and external changes. (Aidan, 2024, p. 21)

II– Methods and Materials:

II.1 Study Population and Sample: The study population included all employees at SARL Top Gloves Latex Industries in Aïn Temouchent, estimated at approximately 600 workers. A random sample of 151 employees was selected from this population.

II.2 Tools Used in the Study Data were collected using a structured questionnaire developed from the theoretical framework, divided into three main sections:

- **Part One:** Demographic and personal information of respondents.
- **Part Two:** Main study variables, consisting of:
 - Axis One: Digital leadership (4 dimensions: digital competence, digital vision, digital citizenship, digital culture) with 24 items.
 - Axis Two: Organizational excellence (4 dimensions: leadership excellence, product and innovation excellence, knowledge excellence, employee excellence) with 32 items.

Data analysis was performed using SPSS software and a five-point Likert scale.

Table (1): The five-point Likert scale used in the research

Numeric Value	Response Option	Description
1	Strongly Disagree	Strongly oppose the statement
2	Disagree	Disagree with the statement
3	Neutral	Neither agree nor disagree
4	Agree	Agree with the statement
5	Strongly Agree	Strongly support the statement

The Source: Prepared by the researchers

To determine the level of agreement of the research sample with each statement of the questionnaire, the range of the weighted arithmetic mean was determined according to the following scale:

Table (2): Weighted arithmetic means according to the five-point Likert scale

Weighted Mean Value	Interpretation
1.00 - 1.79	Strongly Disagree
1.80 - 2.59	Disagree
2.60 - 3.39	Neutral
3.40 - 4.19	Agree
4.20 - 5.00	Strongly Agree

The Source: Prepared by the researchers

II.3 Validity and Reliability of the Study Instrument:

II.3.1 Internal Consistency of the Study Instrument:

To verify the internal consistency validity of the questionnaire items, Pearson correlation coefficients were calculated for each item with its respective axis at a significance level of 5%.

First: Internal Consistency of the Items in Axis One:

Table (03): Construct Validity of the Dimensions of Axis One

Dimension	Number of Items	Pearson Correlation Mean	(Sig)
Digital Competence	6	,755**	0.000
Digital Vision	6	,892**	0.000
Digital Citizenship	6	,812**	0.000
Digital Culture	6	,894**	0.000

The Source: Prepared by the researchers based on the output of the SPSS V26

The table indicates that Pearson correlation coefficients for the dimensions of the independent variable (digital leadership) ranged from 0.755 to 0.892, all high and statistically significant at the 5% level (sig. = 0.000). This confirms strong construct validity, reflecting a high interrelationship between the dimensions and the overall axis, and demonstrates that the instrument has excellent validity for measuring the phenomenon and supports the reliability of the findings.

- Second: Internal Consistency of the Items in Axis Two:

Table (04): Construct Validity of the Dimensions of Axis Two

Dimension	Number of Items	Pearson Correlation Mean	(Sig)
Leadership Excellence	8	0.884**	0.000
Product and Innovation Excellence	8	0.801**	0.000
Knowledge Excellence	8	0.753**	0.000
Employee Excellence	8	0.813**	0.000

The Source: Prepared by the researchers based on the output of the SPSS V26

The table shows that Pearson correlation coefficients for the dimensions of the dependent variable (organizational excellence) ranged from 0.753 to 0.884, all high and statistically significant at the 5% level (sig. = 0.000). This confirms strong construct validity, reflecting a high interrelationship between the dimensions and the overall axis, and demonstrates that the instrument has excellent validity for measuring the phenomenon while supporting the reliability of the finding

II.2.2 Reliability of the Study Instrument:

In order to measure the stability of the research instrument, Alpha Cronbach's:

Table (05): Alpha Cronbach's coefficient

Variants	Number of Items	Alpha Cronbach's
First Axis: Digital Leadership	24	0.944
Second Axis: Organizational Excellence	32	0.936
All Questionnaire Statements	56	0.961

The Source: Prepared by the researchers based on the output of the SPSS V26 program

The table shows that Cronbach's Alpha reached 0.961 (well above the 0.6 threshold and close to 1), indicating very high reliability of the measurement instrument. This confirms its suitability for statistical analysis and strong stability: under identical conditions, approximately 96% of respondents would give consistent answers. Overall, this enhances the credibility of the study's findings.

III- Results and discussion :

III.1 Presentation and Analysis of the Study Results:

III.1.1 Measuring the Level of the Independent Variable: Digital Leadership

Using SPSS software, we were able to calculate the arithmetic means and standard deviations for the first axis, as shown in the following table:

Table (06): Arithmetic Means and Standard Deviations for the Digital Leadership Axis

Dimension	Mean	Standard Deviation
First Dimension: Digital Competence	3.43	0.910
Second Dimension: Digital Vision	3.44	0.844
Third Dimension: Digital Citizenship	3.45	0.803
Fourth Dimension: Digital Culture	3.35	0.879
Digital Leadership Axis	3.42	0.720

Source: Prepared by the researchers based on SPSS V26 output.

The table shows that respondents exhibited positive attitudes toward digital leadership across its four dimensions (digital competence, digital vision, digital citizenship, and digital culture). The overall arithmetic mean was 3.420 (SD = 0.720), falling in the "Agree" range (3.40–4.19) on the five-point Likert scale, with low variability in opinions.

Digital citizenship ranked highest (M = 3.50, SD = 0.80), likely due to top

management's focus on policies for safe, legal, and ethical IT use. Digital culture ranked lowest (M = 3.42, SD = 0.72), attributed to management's support for teamwork and employees' technology utilization skills.

These results indicate a high level of digital leadership implementation at SARL Top Gloves Latex Industries, driven by shared commitment from management and employees, which facilitates administrative and operational processes. However, it has not yet reached an optimal level, and further improvements—particularly in staff training and provision of necessary resources—are needed to maximize its potential.

III.1.2 Measuring the Level of the of the Dependent Variable: Organizational Excellence:

Using SPSS software, we were able to calculate the arithmetic means and standard deviations for the first axis, as shown in the following table:

Table (07): Arithmetic Means and Standard Deviations for the Organizational Excellence Axis

Dimension	Mean	Standard Deviation
First Dimension: Leadership Excellence	3.42	0.824
Second Dimension: Product and Innovation Excellence	3.45	0.710
Third Dimension: Knowledge Excellence	3.599	0.672
Fourth Dimension: Employee Excellence	3.193	0.832
Organizational Excellence Axis	3.417	0.621

Source: Prepared by the researchers based on SPSS V26 output.

The table indicates that respondents held positive attitudes toward organizational excellence across all dimensions. The overall arithmetic mean was 3.417 (SD = 0.621), falling in the “Agree” range (3.40–4.19) on the five-point Likert scale, with low variability in opinions.

Knowledge excellence ranked highest ($M = 3.59$, $SD = 0.67$), likely due to the organization’s use of dedicated databases for effective knowledge storage and access. Employee excellence ranked lowest ($M = 3.19$, $SD = 0.83$), attributed to top management’s careful task assignment based on employees’ qualifications and experience to ensure efficient performance.

These results show a high level of organizational excellence at SARL Top Gloves Latex Industries, as perceived by the sample. This can be explained by management’s strong commitment to excellence through: emphasizing outstanding leadership performance in work, services, and innovation; supporting core organizational values, principles, and norms; and investing in both tacit and explicit knowledge in daily operations.

III.2 Hypothesis Testing and Discussion of Results

III.2.1 Testing the First Hypothesis Hypothesis: There is a positive correlational relationship between digital leadership (and its dimensions) and organizational excellence at SARL Top Gloves Latex Industries in Aïn Temouchent.

To test this at the 0.05 significance level, the hypothesis was reformulated as:

- **H₀:** There is no positive correlational relationship between digital leadership (and its dimensions) and organizational excellence at the 5% significance level.
- **H₁:** There is a positive correlational relationship between digital leadership (and its dimensions) and organizational excellence at the 5% significance level.

The presence, direction, and strength of the relationship were assessed using Pearson’s correlation coefficient between digital leadership dimensions and organizational excellence. Results are presented in the following table.

Table (8): Pearson Correlation Coefficient Results between Digital Leadership and Organizational Excellence

Dimension	Pearson correlation coefficient	(Sig.)
First Dimension: Digital Competence	0.415**	0.000
Second Dimension: Digital Vision	0.638**	0.000
Third Dimension: Digital Citizenship	0.690**	0.000
Fourth Dimension: Digital Culture	0.680**	0.000
Independent Variable: Digital Leadership	0.719**	0.000

Source: Prepared by the researchers based on SPSS v26 results

The table reveals that all correlations between digital leadership (and its dimensions) and organizational excellence are statistically significant ($\text{sig.} = 0.000 < 0.05$), confirming significance at the 5% level.

The results indicate positive, moderate, and direct relationships between each digital leadership dimension and organizational excellence. The strongest correlations were for **digital citizenship** ($r = 0.690$), followed by **digital culture** ($r = 0.680$), **digital vision** ($r = 0.638$), and **digital competence** ($r = 0.415$). These relatively close values show that all dimensions contribute meaningfully and in an integrated way to enhancing organizational excellence.

The overall correlation coefficient between digital leadership and organizational excellence was $r = 0.719$, meaning higher levels of digital leadership practice are associated with higher organizational excellence (and vice versa).

These findings demonstrate that organizational excellence is significantly enhanced when leaders possess digital skills and use motivation, incentives, and modern technological methods to integrate digital tools into administrative processes for smoother workflow.

Accordingly, we reject the null hypothesis and accept the alternative hypothesis, validating the main hypothesis: "There exists a positive correlational relationship between the dimensions of digital leadership and organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent" at the 5% significance level.

III.2.2 Testing the Second Hypothesis: There is a statistically significant effect of digital leadership (and its dimensions) on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent.

- **H₀:** There is no statistically significant effect of digital leadership on organizational excellence at the 5% significance level.
- **H₁:** There is a statistically significant effect of digital leadership on organizational excellence at the 5% significance level.

A. Simple Linear Regression Analysis Simple linear regression (Enter method, least squares) was used to examine the effect of digital leadership (independent variable) on organizational excellence (dependent variable) at the 0.05 significance level. Results are presented in the following table.

Table (9): Linear Correlation between the Independent Variable and the Dependent Variable

Model	R	R ²	Adjusted R ²	Standard Error of the Estimate
1	.719 ^a	.516	.504	.43792

a. Predictors: (Constant), Independent Variable: **Digital Leadership**

b. Dependent Variable: **Organizational Excellence**

Source: Prepared by the researchers based on SPSS v26 output

The table confirms a statistically significant positive effect of digital leadership on organizational excellence. The linear correlation coefficient ($R = 0.719$) indicates a strong positive relationship (71.9%) between digital leadership (independent variable) and organizational excellence (dependent variable) at SARL Top Gloves Latex Industries in Ain Temouchent.

The coefficient of determination ($R^2 = 0.516$) shows that digital leadership explains 51.6% of the variance in organizational excellence, while the remaining 48.4% is attributable to other factors not included in the model.

The regression coefficients for the final model are presented in the following table:

Table (10): Regression Coefficients for the Dimensions of Organizational Excellence Coefficients^a

Model	B (Regression Coefficient)	Std. Error	Beta	t	Sig.
(Constant)	1.296	.340		3.812	.000
Digital Leadership	.620	.097	.719	6.371	.000

a. Dependent Variable : Organizational Excellence

Source: Prepared by the researchers based on SPSS v26 output

The table reveals the following key regression results:

- The intercept (constant) is 1.296 (a in the equation $Y = a + bX$), and the slope (b) is 0.620. This indicates that for every one-unit increase in digital leadership, organizational excellence increases by 0.620 units.
- The positive Beta coefficient confirms a direct positive relationship: higher implementation of digital leadership practices leads to greater organizational excellence.
- The t-value for the constant is 3.812, and for digital leadership it is 6.371 (Sig. = 0.000 < 0.05), which is statistically significant. Thus, we reject the null hypothesis and accept the alternative, validating the main hypothesis: **“There is a statistically significant effect of digital leadership on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent.”**

Accordingly, the simple linear regression equation becomes:

$$\text{Organizational Excellence} = 1.296 + 0.620 \times (\text{Digital Leadership})$$

B. Second: Stepwise Multiple Regression Analysis

- Stepwise Multiple Regression Coefficients:

Stepwise multiple regression was used to examine the impact of digital leadership dimensions (digital competence, digital vision, digital citizenship, and digital culture) on organizational excellence at SARL Top Gloves Latex Industries in Ain Temouchent. The analysis aimed to:

- Assess the extent of each dimension's effect,
- Determine their relative importance in explaining variance in organizational excellence, and identify the most influential dimension(s).

Four sub-hypotheses were tested:

1. Digital competence has a statistically significant effect on organizational excellence.
2. Digital vision has a statistically significant effect on organizational excellence.
3. Digital citizenship has a statistically significant effect on organizational excellence.
4. Digital culture has a statistically significant effect on organizational excellence.

The stepwise regression coefficients are presented in the following table.

Table (11): Stepwise Multiple Regression Coefficients Coefficients^a

Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.576	.322		4.899	.000		
	Digital Citizenship	.534	.091	.690	5.871	.000	1.000	1.000
2	(Constant)	1.310	.309		4.243	.000		
	Digital Citizenship	.333	.108	.430	3.068	.004	.589	1.699
	Digital Culture	.286	.099	.405	2.886	.006	.589	1.699

^a Dependent Variable: Organizational Excellence

Source: Prepared by the researchers based on SPSS v26 output

To check for multicollinearity, Variance Inflation Factor (VIF) and Tolerance values were calculated for the independent dimensions. All VIF values for the retained dimensions were below 3 (specifically 1.699), and Tolerance values exceeded 0.1 (specifically 0.589), indicating no

multicollinearity. This confirms that multiple linear regression is reliable for assessing the impact of digital leadership dimensions on organizational excellence.

The stepwise regression results show that only **Digital Citizenship** and **Digital Culture** were retained in the final model. Together, they explain 57.2% of the variance in organizational excellence ($R^2 = 0.572$), with the overall model highly significant ($\text{Sig.} = 0.000 < 0.05$).

Key findings:

- **Digital Citizenship** had a positive Beta of 0.430 ($t = 3.068$, $\text{Sig.} = 0.004 < 0.05$), confirming a statistically significant positive effect and validating sub-hypothesis 3.
- **Digital Culture** had a positive Beta of 0.405 ($t = 2.886$, $\text{Sig.} = 0.006 < 0.05$), confirming a statistically significant positive effect and validating sub-hypothesis 4.

The superiority of digital culture (Beta = 0.405) stems from its ability to foster an organizational environment that is open to technological change, encourages continuous learning, facilitates knowledge sharing through digital tools, and reduces resistance to digital transformation — a critical factor in the manufacturing sector, which relies heavily on operational efficiency, waste reduction, and improved quality control. Meanwhile, digital citizenship (Beta = 0.430) stands out because it promotes responsible and secure behaviors (data protection, cybersecurity, compliance with medical and legal standards), thereby minimizing risks, building internal and external trust, and enhancing professional communication in a sensitive environment such as the production of medical devices. In the context of Algerian manufacturing companies, where initial challenges often include resistance to change and low digital awareness, these two dimensions form the foundational basis that delivers rapid and measurable positive impact, while other dimensions (such as visionary leadership or systemic improvement) require this solid foundation to fully demonstrate their effect.

Accordingly, the stepwise regression equation can be formulated as follows:

$$Y = 1.310 + 0.333 X_1 + 0.286 X_2$$

Where:

- Y = Organizational Excellence (dependent variable)
- X_1 = Digital Citizenship (independent variable)
- X_2 = Digital Culture (independent variable)

Table (12): Excluded Independent Variables

Model	Variable	Beta In	T	Sig.	Partial Correlation	Collinearity Statistics (Tolerance)
1	Digital Competence	.014 ^a	.107	.915	.018	.657
2	Digital Vision	.050 ^a	.262	.795	.044	.319

^a Dependent Variable: Organizational Excellence

Source: Prepared by the researchers based on SPSS v26 output

From the table, it is clear that the two independent variables excluded from the stepwise multiple regression model are **Digital Competence** and **Digital Vision**. This exclusion occurred because their significance levels (Sig.) were 0.915 for Digital Competence and 0.795 for Digital Vision — both greater than the adopted significance level of 0.05 — indicating no statistically significant effect of these dimensions on organizational excellence.

Accordingly, we accept the null hypothesis and reject the alternative hypothesis for each dimension as follows:

- There is **no statistically significant effect** of **digital competence** on organizational excellence at Top Gloves Latex Industries in Ain Temouchent at the 5% significance level. → The **first sub-hypothesis** is therefore rejected.
- There is **no statistically significant effect** of **digital vision** on organizational excellence at Top Gloves Latex Industries in Ain Temouchent at the 5% significance level. → The **second sub-hypothesis** is therefore rejected.

The absence of a statistically significant effect for **digital competence** and **digital vision** in the final stepwise regression model can be explained by several contextual factors:

- In industrial companies like Top Gloves Latex Industries, leaders' individual digital competencies may be limited due to a lack of specialized training programs, rendering their impact indirect (and often compensated by the prevailing organizational culture).
- Digital vision is typically long-term in nature, and its effects may not manifest immediately in employee surveys that focus on daily operational realities (such as compliance with export standards). This finding partially aligns with the study by Khalil et al. (2022) at Tikrit University, where certain dimensions had a weaker impact in traditional contexts.

IV- Conclusion:

This study examined the impact of digital leadership on organizational excellence at Top Gloves Latex Industries in Ain Temouchent, Algeria. The findings reveal a strong positive effect, with digital citizenship (69%) and digital culture (68%) identified as the most influential dimensions, reflecting the industrial sector's emphasis on compliance, ethical practices, and operational challenges. In contrast, digital vision and competence were not statistically significant, highlighting the need for enhanced strategic foresight and targeted training programs. Overall, the results support Algeria's National Digital Transformation Strategy (SNTN-2030) by fostering a flexible, inclusive, and ethically responsible digital culture in industrial organizations, providing a foundation for sustainable organizational excellence.

IV.1 Key Findings:

- Digital leadership across its four dimensions is strongly positively correlated with organizational excellence.
- Top Gloves Latex Industries demonstrates high levels of digital leadership implementation and organizational excellence across leadership, product & innovation, knowledge, and employee dimensions.
- Digital citizenship and digital culture are the most influential dimensions, while digital competence and digital vision showed no significant effect.
- Digital leadership drives innovation, data-driven decision-making, employee empowerment, operational efficiency, customer satisfaction, and adaptability to technological and environmental changes.

IV.2 Recommendations:

- Develop a clear digital transformation strategy with digital leadership as a core objective.
- Implement continuous training programs to strengthen digital skills and participatory leadership practices.
- Engage employees in digital decision-making and provide effective feedback channels.
- Link digital leadership indicators to performance metrics such as productivity, innovation,

and employee satisfaction.

- Establish incentives for leaders who achieve tangible digital transformation results.
- Build strategic partnerships with universities and technology institutions to support training, mentoring, and guidance.

Appendices:

Questionnaire

A. First Axis: Dimensions of Digital Leadership

First	Dimension:	Digital	Competence
01.	My direct supervisor possesses	knowledge of digital technology.	
02.	My direct supervisor keeps up with the latest	digital developments.	
03.	My direct supervisor uses digital technologies in	effective decision-making.	
04.	My direct supervisor seeks feedback from employees regarding the use of	digital technology.	
05.	The organization's management provides equal opportunities for employees to use	digital technologies at work.	
06.	Management ensures employees have access to appropriate digital tools and resources to meet their needs.		

Second	Dimension:	Digital	Vision
07.	Organizational leaders have a clear and compelling strategic vision for the institution's	digital future.	
08.	Leaders effectively communicate their vision of the organization's digital future to employees.		
09.	Leaders seek to integrate new and innovative digital technologies into their vision for the organization's future.		
10.	My direct supervisor adopts the latest programs and funding to support technology-driven plans.		
11.	Top management encourages employees to participate in supporting the organization's vision with tangible contributions.		
12.	Management involves all stakeholders in formulating the organization's digital vision.		

Third	Dimension:	Digital	Citizenship
13.	Top management ensures the development of policies for the safe, legal, and ethical use of information technology.		
14.	Top management organizes seminars and workshops for employees and administrators on digital identity protection.		
15.	Top management establishes a shared vision and plan that supports equality and equal opportunities in using modern technology.		
16.	Top management motivates and encourages employees to acquire modern technical skills through meetings and regular seminars.		
17.	The organization takes all necessary measures to ensure employees' cybersecurity and protection.		
18.	The organization provides the necessary training for all employees to make appropriate digital decisions.		

Fourth	Dimension:	Digital	Culture
19.	Organizational leaders promote digital culture.		
20.	The organization values employees who continuously enhance their digital knowledge and skills.		
21.	Organizational leaders ensure effective digital communication with all employees.		
22.	Top management supports teamwork culture and empowers employees to use technology in all aspects of work.		
23.	The organization appreciates and encourages employees who continuously develop their digital skills.		
24.	Management encourages continuous improvement to ensure digital learning.		

B. Second Axis: Organizational Excellence

First	Dimension:	Leadership	Excellence
01.	The organization's management is committed to achieving a strong competitive position.		
02.	Management provides the necessary resources for creativity and excellence.		
03.	Management maintains effective working relationships with employees.		
04.	Leadership is flexible in thinking, implementation, and adapting to changes.		
05.	Leadership seeks all possible means to improve employee performance and create value for employees, the organization, and customers.		
06.	Top management organizes specialized training programs to highlight the importance of customer service.		
07.	The organization develops a strategy aligned with its mission and vision to achieve sustainable competitive advantage.		
08.	Management ensures proper time management and organization.		
09.	Management uses information technology to provide knowledge-based solutions to administrative and		

organizational challenges.
10. Management uses effective communication tools to improve performance in administrative and organizational areas.

Second Dimension: Product and Innovation Excellence

11. The organization maintains continuous communication with customers through surveys to identify their needs and suggestions.
12. The organization provides the necessary resources and a supportive environment for innovation and excellence in its products.
13. The organization adopts continuous improvement to maintain product excellence.
14. There is a clear commitment to achieving outstanding performance.
15. The organization keeps up with new developments to remain excellent.
16. Leaders encourage new and innovative ideas.
17. The organization strives to build an excellent image among its customers.
18. Management keeps up with new developments and modern technologies in products.
19. Management is committed to social responsibility in delivering products.
20. Management responds to customer suggestions and complaints.

Third Dimension: Knowledge Excellence

21. The organization utilizes specialized knowledge to achieve excellence.
22. Special databases are used to store knowledge and ensure easy access and retrieval.
23. Various methods are used to share knowledge, such as memos, reports, and email.
24. The organization provides the right knowledge at the right time to the right people to keep pace with developments.
25. Management seeks to establish partnerships in scientific fields to exchange knowledge.
26. The organization encourages regular discussion sessions among employees to utilize intellectual capabilities.
27. The organization has practical knowledge of market requirements and specializations.
28. The organization uses information technology to foster thinking and innovation for knowledge solutions.
29. Management encourages discussion sessions to invest in intellectual potential.
30. Management allocates an appropriate budget to support knowledge management projects.

Fourth Dimension: Employee Excellence

31. Management is keen to attract talented employees to the organization.
32. Management encourages employees to present innovative ideas that enhance and develop their work.
33. Management rewards employees who achieve excellence in their work.
34. Jobs are assigned based on employees' qualifications and experience to ensure efficiency and effectiveness.
35. Employees are informed of their job duties to utilize their knowledge and achieve excellence.
36. The organization develops employees' capabilities by encouraging unconventional ideas and rapid problem-solving.
37. The organization invests in talented employees to support excellence.
38. Management adopts job rotation to develop employees' skills and experience.
39. Management continuously develops and trains employees to keep up with changes in work systems.
40. The organization provides training programs to develop employees' digital skills.

Referrals and references:

- Aidan, M. (2024). The impact of electronic management on achieving organizational excellence: An exploratory study of the opinions of a sample of employees at Missan Oil Company – Missan Governorate. *[Bachelor's degree research project]. College of Administration and Economics, University of Missan.*
- Al Shobaki, M. J. (2016). The dimensions of organizational excellence in the Palestinian higher education institutions from the perspective of the students. *Global Journal of Multidisciplinary Studies*, 5(11).
- AlAjmi, M. K. (2022). The impact of digital leadership on teachers' technology integration during the COVID-19 pandemic in Kuwait. *International Journal of Educational Research*, 112.
- Al-Mutairi, S. D. (2023). Digital leadership among principals of primary schools in Al-Mahd Governorate and its relationship to school performance. *Journal of Educational and Human Sciences*, (27).
- Domeny, J. V. (2017). The relationship between digital leadership and digital implementation in elementary schools. *[Doctoral dissertation, Southwest Baptist University]*.
- Lim, C. H. (2021). Predicting the impact of digital leadership on the performance of private higher education institutions: Evidence from Malaysia. *Journal of Entrepreneurship, Business and Economics*, 10(1), 26.

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an Algerian Medical Gloves Manufacturer (PP. 486-500)**

- Lin, Z. (2016). The effectiveness of digital leadership at K-12 schools in Mississippi regarding communication and collaboration during CCRS implementation . *[Doctoral dissertation, The University of Southern Mississippi]*.
- Nazim, M. H. (2024). The impact of digital leadership on individual work performance: The interactive role of knowledge sharing behavior – An exploratory and analytical survey study of the opinions of a sample of faculty members in some private universities and colleges. *[Doctoral dissertation, University of Karbala]. College of Management and Economics*.
- Saada, N. K. (2021). The degree of practicing technological leadership among principals of basic schools in the Qasaba Amman District amid the Corona pandemic from the teachers' point of view. *[Master's thesis, Middle East University]. Faculty of Educational Sciences*.
- Utomo, W. A. (2022). Visionary leadership and employee quality in the public service sector. *International Journal of Applied Economics, Finance and Accounting*, 12(2).

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