

The Impact of Cultural Intelligence on Team Effectiveness: A Case Study of DEKINSAN For Major Facilities and Public Works in Oran

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Abstract: This study investigates the impact of cultural intelligence and its dimensions—cognitive, metacognitive, motivational, and behavioral—on team effectiveness within DEKINSAN, a Turkish company operating in major facilities and public works in Oran. A descriptive approach was adopted for the theoretical framework, while the practical part combined descriptive and statistical methods. Data were collected through a questionnaire administered to a sample of 48 employees, and analyzed using SPSS. The findings indicate a statistically significant relationship between cultural intelligence and overall team effectiveness. However, the influence of cultural intelligence varied across dimensions: significant positive effects were found on communication effectiveness, flexibility and adaptability, and team cohesion, while no notable impact was observed on cooperation and teamwork, problem-solving and decision-making, or the ability to achieve goals.

Keywords: Cultural Intelligence; Multicultural environment; Team Effectiveness

Jel Classification Codes : J24 ; J15 ; M12 ; M14

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Introduction:

The modern workplace is witnessing a significant rise in cultural diversity in organizations fueled by the international scope of business operations and increasing mobility of people across nations and societies. This has resulted in workplaces becoming multicultural where employees belong to different cultural backgrounds and differ in their values, traditions, communication styles, and thought processes. Cultural diversity has emerged as the key driver of team dynamics, efficiency of performance, quality of decision-making, and general organizational effectiveness. To develop successful interpersonal relationships in these settings, a person needs the capability to comprehend, value, and fit into cultural diversity—better known as cultural intelligence (CQ). The development of CQ in leaders and employees improves communication, reduces miscommunication, and assists in the creation of a more inclusive and productive workplace.

This study aims to:

1. Establish a theoretical framework for cultural intelligence (CQ) and team effectiveness through literature review.
2. Assess the level of CQ within the target organization.
3. Evaluate the effectiveness of its work teams.
4. Investigate the influence of CQ on team effectiveness.
5. Offer recommendations to improve CQ and team performance

Value of the Study

Understanding the impact of cultural intelligence (CQ) on multicultural team effectiveness can enhance collaboration, minimize cultural conflicts, and improve productivity in diverse workplaces. The findings may also guide leaders in designing training programs to develop essential cross-cultural skills for global business success.

Based on the above the following question is asked:

Is there an impact of cultural intelligence on team effectiveness in a multicultural environment?

To address the research question, the following main hypothesis was tested: Cultural intelligence (CQ) has no statistically significant effect on team effectiveness within the organization DEKINSON.

From this hypothesis, the following sub-hypotheses were derived:

- (H1): There is no statistically significant impact of cultural intelligence (CQ) on interpersonal dynamics within work teams at DEKINSON, including effective communication, cooperation and teamwork, and the level of belonging and cohesion.
- (H2): There is no statistically significant impact of cultural intelligence (CQ) on functional team performance at DEKINSON, including task distribution, problem-solving and decision-making, and flexibility and adaptability.

I- Previous studies that addressed the topic, and the positioning of the present study:

Recent academic research increasingly highlights the vital role of Cultural Intelligence (CQ) in enhancing individual and organizational performance in multicultural settings. A meta-analysis by Schlaegel, Richter, and Taras (2021), based on 70 studies, confirmed that all four CQ dimensions significantly predict outcomes such as job performance and innovation. It also identified CQ as a mediator between personality traits and professional success. However, the analysis focused on correlational data and lacked experimental evidence on the long-term effects of CQ interventions.

In the same context, Moon (2013) found that high CQ in multicultural teams reduces the negative impact of cultural diversity on performance, with flexibility and intercultural effectiveness as key traits. However, the study's reliance on self-reports and lack of longitudinal or organizational-level data limits its validity.

Taras, Kirkman, and Steel (2010) confirmed that cultural differences significantly affect team effectiveness in international projects, emphasizing the importance of cultural training and CQ. Despite its strong methodology, the study focused solely on national culture, overlooking subcultural and individual-level CQ.

Leung, Ang, and Tan (2014) argued that promoting CQ at both individual and organizational levels enhances leadership and team performance in multicultural settings. However, their study was largely conceptual, offering limited empirical evidence for specific CQ interventions.

Ang and Van Dyne (2015) positioned CQ as a key leadership competency in global contexts, highlighting its role in enhancing communication, teamwork, and decision-making in diverse teams. However, the use of cross-sectional data limited causal conclusions.

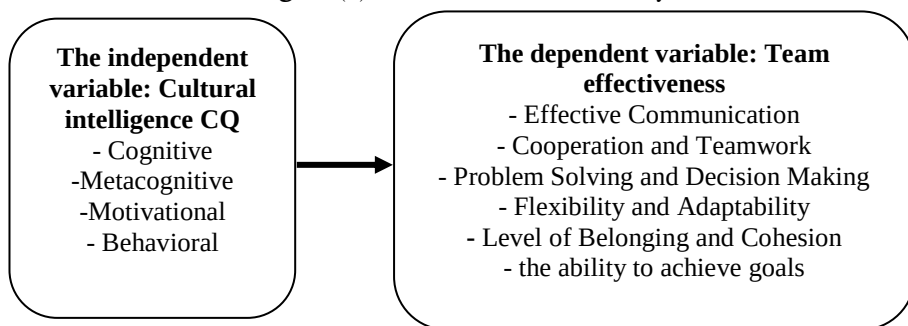
In brief, Azevedo and Shane (2019) conducted a longitudinal study on CQ training, showing significant improvements in all CQ dimensions, as well as in innovation and resilience. While offering strong empirical support, the study's limited sample and specific context constrain generalizability.

Collectively, these studies provide strong evidence that cultural intelligence influences performance, innovation, flexibility, and leadership in multicultural workplaces. Despite some methodological and contextual limitations, they underscore the importance of systematically developing CQ to address challenges and leverage opportunities in global collaboration.

This study investigates the impact of cultural intelligence (CQ) on team performance at DEKINSON, a Turkish construction firm in Oran, Algeria. It examines how varying CQ levels among team leaders and members influence communication, collaboration, and outcomes in a multicultural setting, positioning CQ as a key driver of team effectiveness.

Based on the research problem and objectives, the following model was developed to illustrate the independent variable (CQ) and the dependent variable (team effectiveness) with its six dimensions. The model is presented in the following figure.

Figure (1): The Model of The Study



The source: designed by the researchers

II– Cultural Intelligence (CQ):

Cultural intelligence (CQ) refers to an individual's ability to function effectively in diverse cultural contexts. It involves understanding, valuing, and adapting behavior and communication to cultural norms. As defined by Ang and Van Dyne (2008, 2015), CQ enables individuals to navigate cultural diversity through learning and experience.

Several theoretical perspectives have shaped the understanding of CQ. Earley and Ang's (2003) Cultural Intelligence Theory, the foundational model, explains how mental, motivational, and behavioral mechanisms enable individuals to adapt across cultures. It highlights cognitive awareness of cultural differences, motivation to engage, and behavioral adaptability to diverse cultural norms.

Cultural Evolution Theory (Tomasello, 1999) takes a developmental view, suggesting that CQ develops through experiential learning—imitation, reflection, and guided practice. This theory supports training approaches that use experiential methods to build cultural intelligence in learners.

From a social psychology perspective, Social Identity Theory (Tajfel & Turner, 1979) explains how cultural group membership shapes one's identity and influences comparisons with others. This helps in understanding how cultural identity impacts workplace interactions and intergroup relations.

Berry's (2005) Cultural Complexity Theory argues that CQ is essential for navigating diverse, globalized environments. It emphasizes cognitive flexibility—the ability to shift perspectives and adapt mental models—as key to functioning effectively in multicultural and hybrid teams.

Dynamic CQ Theory (Van Dyne et al., 2012) views cultural intelligence as a developable skill that evolves with practice. Unlike fixed traits, CQ grows through real-world experience, reflection, and adapting behavior to fit different cultural contexts.

CQ is typically broken down into four core dimensions (Earley & Ang, 2003):

I. 1- Cognitive CQ represents knowledge of cultural systems, norms, and conventions.

I. 2- Metacognitive CQ involves critical thinking and planning before, during, and after intercultural interactions.

I. 3- Motivational CQ reflects the willingness and drive to engage with cultural differences.

I. 4- Behavioral CQ refers to the ability to adjust verbal and non-verbal behaviors appropriately in different cultural settings.

III- Effective work teams:

A team is defined as two or more individuals who interact regularly—face-to-face or virtually—to collaborate on tasks and achieve organizational goals. Members are interdependent in roles and outcomes and are recognized as a unified group (Kozlowski & Ilgen, 2006; Baily & Cohen, 1997).

In today's global landscape, multicultural teams are increasingly common. These teams include members from different cultures, ethnicities, or nationalities working together across borders. A key challenge lies in managing diverse perspectives, communication styles, and cultural assumptions while pursuing shared goals (Snell et al., 1998; Stahl et al., 2010).

Understanding the traits of effective teams is essential in this context. The widely used Input–Process–Output (I-P-O) model (Kozlowski & Ilgen, 2006) offers a useful framework, explaining team effectiveness through the stages of input, process, and output:

- Inputs represent the attributes of the individual team members (e.g., skills, knowledge, personality) and contextual elements (e.g., organizational culture, resources).

- Processes represent the interactions and coordinated efforts of the team, including the communication, conflict-resolution and decision-making processes.

- Outputs, according to Hackman (1987), are assessed through three factors: the quality of performance as judged by stakeholders, team member satisfaction, and the team's long-term viability.

Effective teams show 6 common features. Mickan and Rodger (2005) reported 6 important features:

- Clear and Shared Goals: Team members must share a common understanding of the goals and purpose to ensure coordinated and efficient efforts.

- Clear Roles and Responsibilities: Defining each member's role minimizes confusion and promotes accountability for assigned tasks.

- Effective Leadership: Effective leadership helps ensure that the team's operations are being supported by collaboration and decision making.

- Good Communication: Open, honest, and transparent communication builds trust and reduces confusion and misunderstandings.

- Respect and Collaboration – Valuing each other's contributions fosters synergy and enhances cooperation within the team.

- Participation and Support – Active involvement and mutual support among team members strengthen cohesion and contribute to team success.

IV– Methods and Materials:

IV.1- Population and sample:

The study population comprises 107 employees at DEKINSAN Group Constructions Inc., a Turkish company operating large-scale infrastructure projects across Algeria. It includes engineers, administrative staff, technical workers, and project managers—77 Algerians (67 males, 10 females) and 18 Turkish (all males). A random sample of 50 employees was selected, with 48 valid questionnaires returned (96% response rate).

IV.2- Data collection:

Following the theoretical review and prior studies, a questionnaire was developed to assess the impact of cultural intelligence on team effectiveness. Its components are detailed below.

The first section measured cultural intelligence (CQ) across its four dimensions: cognitive, metacognitive, motivational, and behavioral. The second section assessed team effectiveness based on six key dimensions relevant to the organization. A five-point Likert scale was used in both sections to capture respondents' levels of agreement.

The third part: covered personal and professional information including nationality, gender, age, educational attainment, and experience)

IV.3- Statistical methods:

- 1) Frequencies and percentages to describe the personal and professional of the sample.
- 2) The arithmetic mean and standard deviation to determine the level of participants agreement with the questionnaire items and the dispersion of their responses. The interpretation scale is: [1.00-1.80]: strongly disagree,]1.80-2.60]: disagree,]2.60-3.40] neutral,]3,40-4.20] agree, and]4.20-5.00] strongly agree.
- 3) Multiple linear regression of cultural intelligence dimensions on overall team effectiveness.
- 4) Multiple linear regression of cultural intelligence dimensions on each of the six dimensions of team effectiveness.

V- Results and discussion :

V.1- Personal and professional characteristics of the sample: shown in the following table.

Table (1): personal and professional characteristics

The variable		Frequency	Percentage (%)
Gender	Male	42	87.5
	Female	6	12.5
	Total	48	100
Nationality	Algerian	35	72.9
	Turkish	13	27.1
	Total	48	100
Age group	18-30 yrs	18	37.5
	31-40 yrs	22	45.8
	41-50 yrs	7	14.6
	More than 50 yrs	1	2.1
	Total	48	100
Education	Secondary or less	11	22.9
	Bachelor	22	45.8
	Master	6	12.5
	Engineer	9	18.8
	Total	48	100

Source: results from the researchers' analysis using IBM SPSS Statistics (version 26)

Analysis:

1. Gender: most participants were male (87.5%), while female constituted 12.5% and this is due to the nature of the organization's business.
2. Nationality: most participants were of Algerian nationality, comprising 72.9% of the total sample, whereas the remaining 27.1% were Turkish.
3. Age group: the largest age group was 31-40 years (45.8%), followed by 18-30 years (37.5%), and 41-50 years (14.6%). Only 1 participant was above 50 years of age (2.1%).
4. Education: 45.8% of the participants held bachelor's degree, 22.9% had a high school or lower level of education, 18.8% were engineers, and 12.5% held a master's degree.

V.2- Description of the study variables:

First- The CQ level: To assess the level of cultural intelligence in the organization, sample data were analyzed using the arithmetic mean, standard deviation, and agreement levels on the first-section items, as shown in the table below.

Table (2): arithmetic mean, standard deviation, and the level of agreement to the CQ dimensions

Dimension	Arithmetic Mean	Standard Deviation	The Level of Agreement
Cognitive CQ	3.6979	0.54323	High
Metacognitive CQ	3.9948	0.45689	High
Motivational CQ	4.0000	0.41897	High
Behavioral CQ	3.8229	0.38232	High
CQ	3.8789	0.30192	High

Source: results from the researchers' analysis using IBM SPSS Statistics (version 26)

As shown in Table (2), the overall level of cultural intelligence (CQ) in the organization is high, with a mean of (3.8789) and a standard deviation of (0.30192). The results by dimension are as follows:

1. The cognitive CQ: The results show a high level for this dimension, with a mean of (3.6979) and standard deviation of (0.54323), indicating employees' awareness of cultural differences in values, beliefs, and behaviors.
2. The metacognitive CQ: This dimension ranks high, with a mean of (3.9948) and standard deviation of (0.45689), suggesting employees consciously reflect on cultural interactions and adapt their thinking.
3. The motivational CQ: With a mean of (4.0000) and standard deviation of (0.41897), results indicate a high level of motivational CQ—employees show strong drive to engage across cultures and overcome related challenges.
4. The behavioral CQ: This dimension also ranks high, with a mean of (3.8229) and standard deviation of (0.38232), indicating strong behavioral CQ. Employees effectively adapt their actions and communication to fit diverse cultural contexts, ensuring respectful and smooth interactions.

Second: the level of team effectiveness

To assess team effectiveness at DEKINSAN, data trends were analyzed using the arithmetic mean, standard deviation, and level of agreement, as shown in the table below.

Table (3): arithmetic mean, standard deviation, and the level of agreement to the team effectiveness items

Dimension	Arithmetic Mean	Standard Deviation	The Level of Agreement
Effective communication	3.6771	0.53335	High
Cooperation and Teamwork	3.8611	0.58278	High
Problem Solving and Decision Making	3.4375	0.57594	High
Flexibility and Adaptability	3.9635	0.44360	High
Level of Belonging and Cohesion	3.6510	0.70095	High
Ability to Achieve Goals	4.0486	0.49100	High
Team effectiveness	3,7731	0.38050	High

Source: results from the researchers' analysis using IBM SPSS Statistics (version 26)

Table 3 shows a high level of team effectiveness, with a mean of (3.7731) and standard deviation of (0.38050). The results by dimension are as follows:

1. Effective communication: This dimension ranks high, with a mean of (3.6771) and standard deviation of (0.53335), indicating clear information exchange, mutual understanding, and effective resolution of communication issues.
2. Cooperation and teamwork: The table indicates a high level of cooperation and teamwork, with a mean of (3.8611) and standard deviation of (0.58278), reflecting a collaborative environment focused on shared goals.
3. Problem Solving and Decision Making: With a mean of (3.4375) and standard deviation of (0.57594), problem solving and decision making are rated high, indicating efficient decision-making, clear standards, and openness to new ideas.
4. Flexibility and Adaptability: Results show high flexibility and adaptability, with a mean of (3.9635) and standard deviation of (0.44360), indicating the team's ability to adjust plans quickly in response to challenges.
5. Level of Belonging and Cohesion: The results indicate high belonging and cohesion, with a mean of (3.6510) and standard deviation of (0.70095), reflecting strong team connection, trust, and shared identity.
6. Ability to Achieve Goals: This dimension scored highest among all six, with a mean of (4.0486) and standard deviation

of (0.49100), indicating strong team confidence in achieving its goals.

According to the table 3 the dimensions are ranked as follows: ability to achieve goals (4.0486), flexibility and adaptability (3.9635), cooperation and teamwork (3.8611), effective communication (3.6771), level of belonging and cohesion (3.6510), and last, problem solving and decision making with a mean of (3.4375).

V.3- Hypothesis test:

The null hypotheses (main and sub) are accepted if the significance level (sig) exceeds 5%; otherwise, they are rejected.

V.3.1- Testing the main hypothesis:

A statistically significant relationship ($p < 0.05$) exists between cultural intelligence and team effectiveness, as shown in the table below.

Table (4): results of the statistical significance test for the multiple regression model analyzing the effect of CQ dimensions on team effectiveness at the organization DEKINSAN

Team effectiveness	R	R ²	Adjusted R ²	Std. Error of the Estimate	F	Sig. F Change
CQ	.522	.272	.204	.33939	4.019	.007

Source: results using IBM SPSS Statistics (version 26)

The multiple regression analysis revealed that the model was statistically significant, $F = 4.019$, $p = 0.007$. The model explains approximately 27.2% of the variance in the dependent variable ($R^2 = 0.272$), while the adjusted R^2 indicates that 20.4% of the variance is accounted for after adjusting for the number of predictors. This suggests a moderate level of explanatory power.

The standard error was 0.33939, reflecting the average deviation from the regression line. The multiple correlation coefficient ($R = 0.522$) indicates a moderate positive relationship between the independent and dependent variables

Although the model demonstrates statistical significance at the level of 5%, the relatively modest R^2 and adjusted R^2 values imply that there are likely other variables not included in the model that may contribute to explaining the remaining variance.

Given the results of the regression analysis, with an F-value of 4.019 and a significance level (Sig) of 0.007, which is less than the conventional threshold of 0.05, there is sufficient statistical evidence to reject the null hypothesis, and accept the alternative hypothesis that

indicates that at least one of the independent variables (cognitive CQ, metacognitive CQ, motivational CQ, and behavioral CQ) contributes meaningfully to the prediction of the dependent variable.

The following table shows the coefficients:

Table (5): multiple regression model analyzing the effect of CQ dimensions on team effectiveness at the organization DEKINSAN

Team effectiveness		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
CQ	(Constant)	1.891	.671		2.817	.007
	Cognitive	.232	.106	.331	2.180	.035
	Metacognitive	-.150	.127	-.180	-1.179	.245
	Motivational	.338	.130	.372	2.589	.013
	Behavioral	.071	.144	.071	.491	.626

Source: results using IBM SPSS Statistics (version 26)

Based on the results presented in the previous table, the regression equation was constructed as follows:

$$\text{Team effectiveness} = 1.891 + 0.232(\text{cognitive CQ}) - 0.150(\text{metacognitive CQ}) + 0.338(\text{motivational CQ}) + 0.71(\text{behavioral CQ})$$

Interpretation:

- 1- Constant (1.891): When all independent variables equal zero, the predicted team effectiveness is 1.891, representing the baseline level without cultural intelligence factors.
- 2- Cognitive CQ (0.232): The positive coefficient means a one-unit increase in cognitive CQ raises team effectiveness by 0.232 units, showing its beneficial impact.
- 3- Metacognitive CQ (−0.150): The negative coefficient shows that higher metacognitive CQ reduces team effectiveness by 0.150 units, possibly due to overthinking or slowed decision-making.

In their book: “Handbook of cultural intelligence: Theory, measurement, and applications”, (Ang, S., & Van Dyne, L. 2015), the researchers covered several negative aspects of metacognitive CQ:

- Overthinking (Analysis Paralysis): Excessive reflection may delay responses in urgent situations.

- Emotional Detachment in Interactions: Untrained reflection may reinforce existing biases.
 - Cognitive Bias Reinforcement: Untrained metacognitive thinking can amplify biases rather than correct them.
 - Mental Distraction: Mental effort spent on monitoring may impair focus on core tasks.
 - Loss of Spontaneity: Over-planning cultural interactions can reduce authenticity and coherence in communication.
- 4- Motivational CQ (0.338): The positive coefficient shows that higher motivational CQ increases team effectiveness by 0.338 units, underscoring the role of intrinsic motivation in cross-cultural collaboration.
 - 5- Behavioral CQ (0.071): As the lowest positive coefficient, it indicates that behavioral CQ increases team effectiveness by 0.071 units, though the effect is modest

In summary, motivational CQ is the strongest predictor of team effectiveness ($B = 0.338$), followed by cognitive CQ ($B = 0.232$). Metacognitive CQ shows a slight negative effect ($B = -0.150$), while behavioral CQ has a weak positive impact ($B = 0.071$).

V.3.2- Testing the sub-hypotheses:

H1: CQ - Interpersonal Dynamics:

CQ – effective communication: the results of testing this hypothesis are shown in the following table:

Table (6): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on effective communication at the organization DEKINSAN

effective communication	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.566	.320	.257	.45981	5.059	.002

Source: results using IBM SPSS Statistics (version 26)

The analysis showed that the four CQ dimensions moderately to strongly predict effective communication ($R = 0.566$), explaining 32% of its variance ($R^2 = 0.320$), which drops to 25.7% after adjustment. The model is statistically significant ($F = 5.059$, $p = 0.002$), though the standard error (0.45981) suggests some unexplained variance.

CQ – cooperation and teamwork: the results of testing this hypothesis are shown in the following table:

Table (7): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on cooperation and teamwork at the organization DEKINSAN

cooperation and teamwork	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.382	.146	.067	.56305	1.838	.139

Source: results using IBM SPSS Statistics (version 26)

The regression results show that the four CQ dimensions do not significantly predict cooperation and teamwork ($F = 1.838$, $p = 0.139$). They explain only 14.6% of the variance ($R^2 = 0.146$), decreasing to 6.7% after adjustment. The correlation is weak to moderate ($R = 0.382$), indicating no significant collective effect of CQ on cooperation and teamwork at DEKINSAN.

CQ – Level of Belonging and Cohesion: the results of testing this hypothesis are shown in the following table:

Table (10): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on the level of belonging and cohesion at the organization DEKINSAN

belonging and cohesion	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.463	.215	.142	.64945	2.937	.031

Source: results using IBM SPSS Statistics (version 26)

The regression analysis shows a significant relationship between the four CQ dimensions and belonging and cohesion ($F = 2.937$, $p = 0.031$), explaining 21.5% of the variance ($R^2 = 0.215$), which decreases to 14.2% after adjustment. The correlation is moderate ($R = 0.463$), and the standard error (0.64945) reflects some prediction error. Overall, CQ has a modest but significant effect on belonging and cohesion.

H2: (CQ) - functional team performance:

CQ – problem solving and decision-making: the results of testing this hypothesis are shown in the following table:

Table (8): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on problem solving and decision-making at the organization DEKINSAN

problem solving and decision-making	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.201	.041	-.049	.58981	.454	.769

Source: results using IBM SPSS Statistics (version 26)

The regression results indicate no significant relationship between the four CQ dimensions and problem-solving and decision-making ($F = 0.454$, $p = 0.769$). The model explains only 4.1% of the variance ($R^2 = 0.041$), which drops to -0.049 after adjustment. The weak correlation ($R = 0.201$) and high standard error (0.58981) confirm the model's limited predictive value. CQ dimensions show no significant collective impact on problem-solving and decision-making

CQ – flexibility and adaptability: the results of testing this hypothesis are shown in the following table:

Table (9): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on flexibility and adaptability at the organization DEKINSAN

flexibility and adaptability	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.594	.353	.293	.37294	5.874	.001

Source: results using IBM SPSS Statistics (version 26)

The regression results show a significant relationship between the four CQ dimensions and flexibility and adaptability ($F = 5.874$, $p = 0.001$), explaining 35.3% of the variance ($R^2 = 0.353$), with an adjusted R^2 of 0.293 . The correlation is moderate to strong ($R = 0.594$), and the standard error (0.373) indicates reasonable predictive accuracy. Thus, CQ dimensions significantly influence flexibility and adaptability.

CQ – the ability to achieve goals: the results of testing this hypothesis are shown in the following table:

Table (11): results of the statistical significance tests for the multiple regression model analyzing the effect of CQ dimensions on the ability to achieve goals at the organization DEKINSAN

The ability to achieve goals	R	R Square	Adjusted R square	Std. Error of the Estimate	F	Sig
CQ	.428	.183	.107	.46394	2.411	.064

Source: results using IBM SPSS Statistics (version 26)

The multiple regression results show that the model is not statistically significant ($F = 2.411$, $p = 0.064$), indicating that CQ dimensions do not significantly predict the ability to achieve goals. The model explains 18.3% of the variance ($R^2 = 0.183$), dropping to 10.7% after adjustment. The standard error (0.46394) reflects moderate prediction inaccuracy, suggesting limited explanatory power.

Conclusion:

- The results indicate a relatively high CQ level among DEKINSAN employees, with a mean of 3.8789 (SD = 0.30192), showing strong response consistency (Table 2). This aligns with global business-sector benchmarks for CQ According to (Ang & Van Dyne, 2015).
- CQ and its dimensions (cognitive, metacognitive, motivational, and behavioral) have a significant effect on team effectiveness at the 5% level, leading to rejection of the main hypothesis. The correlation ($R = 0.522$) indicates a positive relationship, with CQ explaining 27.2% of the variance in team effectiveness.
- Testing the sub-hypotheses revealed that CQ selectively influences team effectiveness in construction work. It has a significant positive impact on communication effectiveness, flexibility and adaptability, and belonging and cohesion, but no significant effect on cooperation and teamwork, problem-solving and decision-making, or goal achievement.
- While CQ enhances communication, adaptability, and team belonging in culturally diverse settings, it does not replace technical skills or structured management practices.

Recommendations:

- Provide targeted training to enhance employees' cultural intelligence, focusing on cross-cultural communication and adaptation.
- Promote collaborative strategies that bridge cultural gaps and adopt team-based evaluation methods.
- Foster trust and cohesion through culturally inclusive team-building activities, supported by cultural mediators when necessary.
- Encourage adaptability via flexible workflows and training in collaborative problem-solving.
- Strengthen multicultural leadership by training supervisors in inclusive, participatory management.
- Utilize diverse cultural backgrounds, experiences, and expertise to enrich work processes.
- Prioritize cross-cultural experience in recruitment, alongside technical and personal competencies.

Study limitations:

- Since the sample included only construction/public works employees, the findings may not generalize to sectors with greater interpersonal demands.

- The sample was limited to Turkish and Algerian participants, which may restrict the applicability of results to other cultural contexts.

- The study examined the link between CQ and team effectiveness but did not explore demographic variables such as age, gender, education, or work experience.

Future search directions:

- Expanding the sample to include more cultures and other types of business sectors to enhance generalizability of the results.

- Investigating how demographic differences may or may not affect the relationship between the variables.

- Designing brief, evidence-based CQ training modules and testing their long-term efficacy through field experiments.

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