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The Impact of Work Environment Quality on Organizational Learning in an Enterprise: A Case Study on a Sample of Algerian Economic Enterprises

ABSTRACT

Objective: The main objective of this study was to examine how the quality of the work environment influences organizational learning within Algerian economic enterprises operating in the production sector.

Methodology: A descriptive-analytical approach was adopted for this research. A total of 712 questionnaires were distributed to employees, and 649 valid responses were collected and analyzed using SPSS statistical software.

Findings: The results showed that the average scores for work environment quality ranged from 3.45 to 4.38, with the physical environment receiving the highest rating (4.38) and administrative responsiveness the lowest (3.98). Regarding organizational learning, mean scores varied between 3.31 and 4.57, where personal mastery achieved the highest score (4.57), followed by systems thinking (4.27). Statistical analysis indicated a significant positive relationship between work environment quality and organizational learning ($R = 0.621$; $R^2 = 0.386$; $\alpha \leq 0.05$), suggesting that 38.6% of the variance in organizational learning can be attributed to the quality of the work environment. Additionally, the study found no significant differences in organizational learning based on gender, age, job position, or years of service, although employees with postgraduate degrees demonstrated a greater appreciation for organizational learning.

Value Added: This study makes a valuable contribution by providing empirical evidence of the link between work environment quality and organizational learning in the Algerian production sector – a context that has not been widely studied. The findings offer practical insights for managers and policymakers seeking to foster a culture of learning within their organizations.

Recommendations: Based on the results, it is recommended that organizations work to improve all aspects of the work environment, with particular attention to enhancing administrative support. Additionally, development programs should be made available to employees at all educational levels to further promote organizational learning and growth.

Key words: work environment, quality of work environment, organizational learning, economic enterprises, Algeria

JEL codes: M12, J24, D23

Introduction

Economy is described to be mainly composed of knowledge and information, and people from all parts of the globe invest in it. This perception makes organizations actors who are in constant movement requiring flexible renewing systems which can address and safeguard against prospective problems. As such, the process of acquiring knowledge at the organizational level becomes crucial to every enterprise that intends to learn, develop competencies, and enhance the productivity of the enterprise's competitive advantages. At the same time, accomplishing this goal is not the sole responsibility of the individuals, but of the milieu in which the employees perform their functions. Work environment quality encompasses the presence of physical, social, and psychological factors which would improve a person so that he or she will increase organizational learning, thereby improving productivity as well as enhancing his or her overall well-being.

The shift to hybrid offices and more technology reliance now calls for a study on how work environment quality can have a positive or negative impact on learning within an organization. Those enterprises that are concerned with holding out against their competition need to be those environments which induce positive intellectual transformations and motivate their employees' exploration to identify their attributes.

Research Problem

Learning at the organizational level is key to making an organization prosper, but its success is highly associated with the context within which the learning activity occurs.

It shows how contextual the factors that influence employees' learning and work toward the intended development of the organization are highly sophisticated, especially the work environment and operational learning integration. The objective of this study is to respond to the following main question: What is the impact of an environment that includes social and psychological considerations collectively termed as work environment on the organizational learning in the selected enterprises?

Sub-Questions

To make answering the main question easier, we have tried breaking it down into the following sub-questions:

- To what level is the quality of the work environment present in the organizations under study, considering its dimensions (physical environment, social environment, psychological environment, organizational culture, and administrative support)?
- What is the level of operational learning among employees in the organizations under study, in terms of its dimensions (personal mastery, mental models, shared vision, team learning, and systems thinking)?
- Is there a statistically significant effect at the significance level ($\alpha = 0.05$) between the quality of the work environment and the level of operational learning among employees in the organizations under study?
- Are there statistically significant differences at the significance level ($\alpha = 0.05$) in the responses of the study sample regarding the level of operational learning that can be attributed to personal and job-related variables?

Hypotheses

Considering the primary research question as well as its associated sub-questions, a set of working hypotheses has been formulated to try and explain the relationships that exist vis a vis the quality of the work environment and the organizational learning for this study:

- The studied enterprises have a high quality of the work environment.
- The studied enterprises have low organizational learning for their employees.
- The quality of work environment and organizational learning of employees in the studied enterprises has a statistically significant relationship ($\alpha = 0.05$).
- The sample group responses to organizational learning are independent of personal and job related characteristic and are statistically significant ($\alpha = 0.05$).

Study objectives

The effectiveness of organizational learning in permitting employees to achieve the organizational objectives to enhance competition is indeed extraordinary. Hence, it seeks to fill the gap in regard to the effect of the quality of the work environment on organizational learning. As such, the objectives of the study are formulated as follows:

- Analyze the quality of work environment and organizational learning and their multi-dimensional attributes at systemic level.
- Assess the quality of the work environment and the organizational learning among the respondents in the study.
- Analyze the influence of the work environment's quality on organizational learning for the targeted group of employees.
- Suggest practical measures for public institutions to enhance organizational learning through improvement of the quality of work environments.

Research Methodology

The collection tools used were designed in accordance with the study objectives and questions. With regards to a single method, this was separated in the explanation of two study variables (quality of work environment and organizational learning) through a descriptive analytical method. In this instance, employees' data were processed and analyzed by the use of descriptive statistics aided by questionnaires and analyzed using the software tool SPSS.

The respondents were able to provide their views on the nature of the work environment and organizational learning in the enterprises, as well as the interplay between these two concepts using the provided tools.

Study Structure

To account for all aspects of the topic and make certain that no relevant component is omitted, the study is subdivided into these sections in alignment with the goals set in the study:

- Introduction to the quality of the work environment.
- Organizational learning: concepts and theories.
- Instruments and methods of the study.
- Presentation and analysis of results.

Introduction to the quality of work environment

The quality of the work environment is not just some fancy extra, it is a smart investment that really shapes how well an organization does. It is a big idea with lots of layers, deeply connected to how employees perform, how happy they are in their jobs, and how the whole organization runs. So, in this part of the study, we are going to dig into it, looking at the different ways it has been defined and its key aspects, based on what the biggest names in the field have said.

The Concept of Work Environment Quality

Herzberg (1966) put it this way: “The quality of the work environment is all about the mix of things inside and outside the workplace that shape how satisfied employees feel like getting a pat on the back, having real responsibility, and just the basic setup of where they work”. This definition ties the environment to satisfaction but focuses heavily on motivators without diving much into social relationships. Meanwhile, Hackman and Oldman (1980) had a different take: “The quality of the work environment comes down to how much the workplace offers stuff like a mix of tasks, a clear sense of what your job is, and some solid feedback all to ramp up satisfaction and how well people do their work”. Their definition is practical and influential, rooted in their Job Characteristics Model, though it might overlook deeper psychological aspects like safety. Walton (1985) defines it as “a system that balances work demands with human needs, including safety, involvement, and work-life balance”. This offers a more advanced, human-centered view, but it is broad and lacks clear practical mechanisms.

Then there is Kotter and Heskett (1992), who saw it as “an organizational culture that is all about keeping things flexible and performing strong by creating a vibe that gets people working together and coming up with new ideas”. They tie quality right into culture, though it feels like they might care more about hitting targets than how folks are actually feeling. Pfeffer (1988) describes it as “an environment that offers job security, training opportunities, and fair treatment to foster employee commitment and organizational success”. His take is practical and impactful in HR management, but it may not fully address psychological stress as a factor. Edmondson (1999) defines it as “a climate that promotes psychological safety, allowing employees to take risks and learn from mistakes without fear”. This pioneering view highlights psychological safety, though it might not fit settings needing instant results.

Marsick and Watkins (1993) suggest that “the quality of the work environment is a system that supports continuous learning, work-life balance, and overall employee well-being”. Their definition is comprehensive, tying learning to quality, but it could feel ambitious for organizations with limited resources. Birkinshaw (2010) define it as “a workplace design that boosts creativity and

productivity through flexibility, technology, and collaborative spaces”. This modern take focuses on physical design, though it might downplay psychological and social elements. Amabile and Kramer (2011) describe it as “an environment that supports progress at work through resources, autonomy, and positive feedback”. Their innovative angle emphasizes progress, but it could use more clarity on the role of physical conditions.

Cameron and Quinn (2006) define it as “a positive culture that fosters virtue, trust, and well-being, leading to improved organizational performance”. This contemporary view blends positivity into the mix, but it might lean too theoretical without clear practical steps. Brown (2019) sees it as “a holistic climate that respects diversity, promotes fairness, and supports employees’ mental health”. This very recent definition shines a light on diversity and mental health, though it might need tangible metrics for evaluation. Finally, Edmondson (2018) describe it as “an environment that blends psychological safety with modern technology to enable collaboration and innovation in a hybrid work world”. This cutting-edge definition merges tech with safety, but it might rely heavily on advanced infrastructure.

These authors and researchers are among the most well-known in the field of work environment quality. It is clear that the concept has evolved over time starting with a focus on satisfaction and productivity (Herzberg, 1966; Hackman & Oldman, 1980), moving to culture and performance (Kotter & Heskett, 1992), then to psychological safety and learning (Edmondson, 1999) and now embracing diversity and technology in modern takes (Brown, 2019; Edmondson, 2018). So, putting all this together, here is a full picture we can work with:

The quality of the work environment is the lively, connected setup that creates a solid physical, social, and psychological space for everyone in the organization. It includes comfortable physical conditions, task variety, and feedback while balancing work demands with human needs like safety and involvement. It also features an organizational culture that fosters collaboration, innovation, and adaptability, backed by fairness, training, and commitment. It offers psychological safety to encourage learning and risk-taking, evolving to include continuous learning, well-being, flexibility, and technology. It supports progress and creativity, promotes virtue and trust, respects diversity and mental health,

and integrates modern tech in hybrid work settings all to enhance satisfaction, productivity, and organizational performance while ensuring employee well-being.

Dimensions of Work Environment Quality

The quality of where you work really matters when it comes to managing the human side of things. Organizations are always trying to create a space that lifts up their employees somewhere that gets them excited to do their best and keeps them satisfied. Look at what Frederick Herzberg dug into; he figured out what keeps employees from losing their minds at work and what pushes them to get going, or James Hackman and Greg Oldham, who sketched out that Job Characteristics idea. They have pinned it down to five key dimensions: the physical environment, social interactions, psychological atmosphere, workplace culture, and management approach. These parts don't just stand alone, they come together to build a workplace that suits the employees and lines up with what the organization's trying to achieve. Here is a quick take on each one (Hackman & Oldham, 1980; Herzberg, 1966; Edmondson, 2018):

Physical Environment: This is about the tangible stuff at work like the building's design, comfy furniture, good lighting, proper ventilation, reasonable noise levels, and safety standards. Herzberg called these hygiene factors: if they are missing, employees get frustrated, but they are not enough on their own to inspire. A bright open office beats a dim, windowless room any day for meeting basic physical needs.

Social Environment: This covers how employees get along, the support they get from colleagues and managers, and that sense of belonging to a team. It ties loosely to Hackman and Oldham's feedback idea and even Amy Edmondson's psychological safety. A team that swaps ideas freely beats a cutthroat vibe, though personal clashes can throw it off.

Psychological Environment: This digs into what affects employees' mental and emotional state, work-life balance, stress levels, job security, and feeling valued. Herzberg's motivators, like getting a pat on the back, and Hackman and Oldham's idea of having some freedom at work, really come into play here. Take

flexible work-from-home options, they can relieve stress and lift employees' spirits, but the organization has got to keep backing it up consistently.

Organizational Culture: This is about the values that govern the workplace's fairness, growth opportunities, and clear communication across the board. It stretches beyond Herzberg or Hackman and Oldham to folks like Kotter and Heskett (1992) linking to task significance. A place offering constant training feels more meaningful than a stagnant one, though building a solid culture takes time.

Managerial Support: This focuses on providing the employees with the resources they need, guidance from leaders, and a say in decisions. It is tied to Hackman and Oldham's feedback and autonomy, and that good leadership makes employees feel empowered. A manager who listens and acts on suggestions beats one who does not, though it hinges on the leadership style.

All these dimensions together cover the essentials of a quality workplace, blending Herzberg's hygiene and motivators with Hackman and Oldham's feedback and autonomy, plus a dash of Edmondson's social insights for good measure.

Organizational Learning: Concepts and Theories

The Concept of Organizational Learning: Organizational learning is a big deal when you are talking about how organizations operate. Tons of researchers have thrown their hats in the ring with different takes on it, each shining a light on its many sides. Argyris and Schön (1978) say it is all about how an organization acquires knowledge and gets better at what it does by learning from experience and bouncing off its internal and external surroundings. Think of it as learning through doing and connecting. Then you have Fiol and Lyles (1985) who see it as the knack for spotting failures, fixing them, and tweaking behaviors or processes based on what's been learned less about inventing something new and more about polishing what is there. Levitt and March (1988) put it as the way an organization shifts its behavior or structure because of past experiences,

helping it perform better or roll with changing times though it might omit how that knowledge gets cooked up inside.

Senge (1990) takes it further, calling it an ongoing process of creating, sharing, and using knowledge to obtain strategic goals, he is all about forging ahead, and keeping it tied to the big picture. Huber (1991) frames it as the ability to sift through information and turn it into shared knowledge employees can use to make decisions super focused on theory and choices, but maybe light on how it works in practice. Simon (1991) says it is about individuals getting sharp at spotting and figuring out organizational headaches, while this capability can influence organizational structures and outcomes, it does not thoroughly address issues at the team or system-wide level. Nonaka and Takeuchi (1995) see it as a group effort where employees team up to build skills and know-how through shared experiences, big on the social side, though it is fuzzy on how that turns into solid organizational knowledge. Garvin (2000) on the other hand, says it is about intentionally pushing to level up employees' skills and tweak the way things run inside to handle tough issues and getting creative. It is a bold vision, but he leaves you hanging a bit on the nitty-gritty of making it work.

Nadjme Aboud (2006) describes it as a process or a bunch of activities where an organization boosts its overall abilities, levels itself up, and tightens its ties with its internal and external environment. It is broad and connects learning to the environment, but it is so big-picture that it needs more specifics. Easterby-Smith and Lyles (2011) paint it as a lively, dynamic process where individuals and groups inside the organization bounce off each other to create and use knowledge to step up in a super grounded and real way. Finally, Watkins, Kim and Lu (2017) say it is how organizations obtain knowledge and use it to adapt to shifting environments and clear their strategic goals in a practical way tied to both change and strategy.

Based on all these takes, you could say organizational learning is this lively, ongoing thing where knowledge gets picked up and sharpened through experience, back-and-forth, and teamwork. It is all about boosting performance, fixing slip-ups, adapting to the changes, and firing up innovation and skills. It starts with one person's know-how and spreads to the group, eventually becoming part of the organization's vibe and decisions.

Dimensions of Organizational Learning

For the topic of organizational learning, the first individual that comes to mind is Peter Senge. In 1990, he released 'The Fifth Discipline' which is deemed one of the most influential books for this area. While he did not exactly describe "dimensions" as many would anticipate, he provided five "disciplines" that are among the vital areas of organizational learning. In simpler words, these are essential elements that need to be fulfilled in order to achieve positive outcomes. Here is the rundown (Senge, 1990):

Personal Mastery: This portion explains an individual's quest to enhance their skills and talents through a personal goal. Senge remarks that all journeys toward success start here; for as long as a person is not looking to improve, the entire organization's learning is stagnated. It is the bridge between one's achievements and the greater scheme of things, but let us be honest, it greatly depends on motivation.

Mental Models: These are the misplaced ideas we have about ourselves that we usually take for granted and may have biased interpretations about them. Senge states that we must fetch them out, examine them closely and reconstruct them, so they match the real world and promote learning. Thinking clearly is the target, modifying those deep seated beliefs is what people have to grapple with.

Shared Vision: Think of all the people in the organization coming together and supporting a single clear concept. It is what gets people pulling in the same direction and learning together. Senge believes that this increased purpose is the oven that fires up the entire team, increasing collaboration and loyalty. The drive for motivation is tremendous; however, bringing a diverse audience to a consensus for it is quite the challenge.

Team Learning: This is when a team thinks through issues together – talking, arguing, and brainstorming as a team. In Senge's view, to every organization, teams are the primary source of learning; that is where ideas get exchanged and developed. It is beneficial and helps to create a strong team, but it only works if all team members cooperate with each other.

Systems Thinking: This is about becoming aware of the complete system and how everything is interconnected to form a single cohesive unit rather than

only paying attention to a single piece. It is the “fifth discipline” in which the last four become visible, enabling you to identify and solve problems from any side. Together, they constitute the most advanced form of ‘intelligent’ systems approach. It is not simple; however, application without sufficient groundwork feels like wandering through a labyrinth.

What Senge lays out here is something you can think of, as well as practice, and what is tying the individual growth with what a team achieves and how the entire organization advances with these five disciplines. These are not mere clichés; they are concrete actions, which any organization can take to cultivate an environment of continuous learning.

Instruments and Methods of the Study

To analyze how the quality of the work environment impacts organizational learning in the enterprises, we developed an online questionnaire which was distributed among 10 Algerian economic enterprises within the production sector. We received an overall of 712 questionnaires but 63 did not qualify due to inadequate responses, which is about 8.85% of the total number of responses we received. Therefore, we were left with 649 valid questionnaires which constitute the sample of the study.

Study Sample Characteristics: To describe the sample members, we computed their frequencies and percentages using the descriptive statistics tools. All relevant information is available in the table below:

Table 1. Study Sample Characteristics

Personal Characteristics	Details of Characteristics	Frequencies	Percentage %
Gender	Male	487	75.04
	Female	162	24.96
Age	From 20 to 30 years	298	45.92
	From 31 to 40 years	236	36.36
	From 31 to 40 years	115	17.72
Educational Level	High school or less	213	32.82
	University	238	36.67
	Postgraduate	198	30.50
Job Position	Managers	126	19.41
	Administrative Assistant	416	64.10
	Executive Assistant	107	16.49
Job Experience	Less than 5 years	97	14.95
	5–10 years	237	36.51
	More than 10 years	315	48.54
The total		649	100,00

Source: Prepared by the researchers based on the outputs of the SPSS program.

So, looking at the study sample, 649 employees from Algerian economic enterprises in the production sector, it turns out that men make up the bulk, about 75.04%. That pretty much shows how male-dominated this field is. When it comes to age, the biggest group is the 20-to-30-year-olds, sitting at 45.92%, followed by the 31-to-50-year-olds at 36.36%. The over-50s? They are just 17.72%, so it is clear this sector leans hard on the younger folks.

Education level, a large portion of the respondents, 36.67%, have university degrees, while 32.82% stopped education at secondary school or lower, and 30.50% went on to obtain postgraduate qualifications. It is a quite a mixed bunch, educationally speaking. Job position, 64.10% are an administrative assistant, 19.41% are managers, and 16.49% are the hands-on executive assistant. Experience is an interesting case: nearly half, 48.54%, have over 10 years of experience, which shows a lot about stability in this sector. Then there are 36.51% with 5 to 10 years of experience, and just 14.95% with less than 5 years. On the whole, the Algerian production sector seems to rely on young men, with a decent

spread of education levels, secondary, university, and beyond. Plus, with so many employees working for a long time, it feels like there is some solid job stability in these enterprises.

Validity and Reliability of the Study Tool: The study tool's validity was checked by figuring out how well each part tied into the overall scores, both within its own section and across the whole questionnaire. For reliability, Cronbach's Alpha (&) was used – Nunnally says 0.51 is good enough to trust it. The results? They are laid out in the table below:

Table 2. Validity and Reliability of the Study Tool

Variables	Number of Items	Spearman Correlation	Probability value (Sig*)	Cronbach's Alpha
Physical Environment	04	0.843	0.000	0.754
Social Environment	04	0.894	0.000	0.831
Psychological Environment	04	0.854	0.000	0.706
Organizational Culture	04	0.698	0.000	0.795
Managerial Support	04	0.743	0.000	0.738
Work Environment Quality	20	0.806	0.000	0.764
Personal Mastery	04	0.798	0.000	0.758
Mental Models	04	0.817	0.000	0.875
Shared Vision	04	0.876	0.000	0.832
Team Learning	04	0.754	0.000	0.762
Systems Thinking	04	0.874	0.000	0.729
Organizational Learning	20	0.832	0.000	0.791

Source: Prepared by the researchers based on the outputs of the SPSS program.

The table above shows that all correlation coefficients across all sections of the questionnaire are statistically significant at a significance level of 0.05. This points to the construct validity between the questionnaire's dimensions and the category they belong to, as well as between the questionnaire's categories and its overall score. The Cronbach's Alpha coefficient was also high, with overall reliability scores for the two categories quality of the work environment and organizational learning reaching 0.764 and 0.791, respectively. These values are a strong sign that the study tool is suitable for achieving its goals by answering its

questions. They also suggest that the results it produces are likely to be consistent when applied. So, all sections of the questionnaire are valid for what they were designed to measure, and it can be used with confidence.

Presentation and Analysis of Results

After collecting the necessary primary data, the process of studying and analyzing them began in order to address the research questions. To do this, the data were processed using a statistical control system, relying on the Statistical Package for the Social Sciences (SPSS) as the main tool for entering data and pulling out statistical results. These results were then analyzed and interpreted to test the study's hypotheses.

Testing the First Hypothesis: To test the first hypothesis, which states: "The work environment in the Algerian economic enterprises under study is characterized by high quality", arithmetic means were calculated. This was done to see how high or low the responses of the study sample were for each statement tied to the study's main variables. Calculating the means helps rank the statements by their highest average scores. Standard deviations were also calculated to measure how spread out the responses were from the mean. Plus, standard deviations help rank statements with equal means assigning the higher rank to the one with the lower deviation. The responses from the study sample are laid out in the table below:

Table 3. Responses of the Study Sample to the Quality of the Work Environment

Dimension	Arithmetic Mean	Standard Deviation	Relative Weight	T-Value	Significance Level
Physical Environment	4.38	0.376	87.61	19.964	0.000
Social Environment	3.87	0.753	77.43	27.765	0.000
Psychological Environment	3.45	0.432	69.03	23.763	0.000
Organizational Culture	3.67	0.541	73.42	18.964	0.000
Managerial Support	3.98	0.342	79.63	13.987	0.000

The tabular T-value at a significance level of 0.05 and 644 degrees of freedom is 1.964.

Source: Prepared by the researchers based on the outputs of the SPSS program.

Thus, the study's results provide a pretty decent positive endorsement to the work environment. The physical aspects like the office setup, lighting, air, and safety came out on top with an average of 4.38 and a solid 87.61% score. Basically, employees love the gear and the vibe, which makes it sound like a nice, comfy place to work. Next up, managerial support got a 3.98 average and 79.63%, meaning people are happy with how the bosses support them, listen to their ideas, and let them participate in the decision-making process. Then there is the social environment, with a score of 3.87 and 77.43% of employees who get along, help each other out, and feel like a real team, which definitely helps preserve a positive working atmosphere. The organizational culture bit reached 3.67 and 73.42%, thus employees seem to think it is fair and open, with some good chances to grow and chat with the higher-ups. Last up, the psychological environment lagged with a 3.45 average and 69.03%. It is not bad, employees are sort of okay with the work-life balance and stress levels but there is definitely room to lower the pressure and make people feel more secure and appreciated when they succeed.

Testing the Second Hypothesis: Just like with the first one, they tackled the second hypothesis the same way. This one is all about: "The organizational learning level for employees in these enterprises is kind of low". The responses on that are laid out in the table below:

Table 4. How the Study Sample Rated Organizational Learning

Dimension	Arithmetic Mean	Standard Deviation	Relative Weight	T-Value	Significance Level
Personal Mastery	4.57	0.321	87.61	29.871	0.000
Mental Models	3.43	0.654	77.43	16.094	0.000
Shared Vision	3.62	0.327	69.03	21.984	0.000
Team Learning	3.31	0.587	73.42	12.874	0.000
Systems Thinking	4.27	0.456	79.63	28.765	0.000

The tabular T-value at a significance level of 0.05 and 644 degrees of freedom is 1.964.

Source: Prepared by the researchers based on the outputs of the SPSS program.

The study results paint a pretty positive picture for organizational learning. Personal mastery came out on top, with respondents assigning it an average of 4.57 and a solid 87.61% rating. That says employees are really into sharpening their skills and using their day-to-day experiences to become better at work, additionally, they are feeling motivated to grow on their own. Next in line, systems thinking reached 4.27 and 79.63%. Employees have quite a solid grip on how their gig slots into the big company picture, they are like detectives linking all the clues, which makes their choices spot-on. Then we have got mental models, reaching 3.43 and 77.43%. Employees are not bad at stepping back and rethinking what they thought they knew, and they are kind of open to new ideas, but there is still some space to improve critical thinking and adapt to changes better. Shared vision took fourth place with a 3.62 and 69.03%, they are sort of on board with where the organization's headed, but they might need a little push to really connect their day-to-day to the big goals and get everyone vibing on the same wavelength. And finally, team learning reached 3.31 and 73.42%. It is not a bad result, the employees are learning a bit from each other in groups but there is definitely room to raise energy, get people to share advice more, and bounce ideas around to create something fresh and awesome.

Testing the Third Hypothesis: To check out the third hypothesis "There is a statistically significant effect at the 0.05 significance level between work environment quality and the organizational learning level of employees in the enterprises under study" a simple regression was used. The results of that straight-up linear regression analysis are laid out in the table below:

Table 5. Results of Simple Linear Regression Analysis

Data	Regression Coefficient	Standard Error	Correlation (R)	Coefficient of Determination (R^2)	Calculated F	Significance Level
Organizational Learning	0.428	0.098	0.621	0.386	16.90	0.000

The tabular F-value at a significance level of 0.05 and 1.647 degrees of freedom is 3.856.

Source: Prepared by the researchers based on the outputs of the SPSS program.

The results from the simple linear regression analysis show there is a real, positive link between work environment quality and organizational learning in the Algerian economic enterprises we are looking at. The regression coefficient came in at 0.428, which means if you bump up the work environment quality by one unit, organizational learning jumps by 0.428. So, a better workplace clearly promotes learning and keeps development moving. The correlation coefficient ($R = 0.621$) tells us there is a decent-to-strong connection between the two, while the coefficient of determination ($R^2 = 0.386$) says work environment quality explains about 38.6% of the changes in organizational learning. That leaves room for other things like leadership, motivation, or training opportunities to have a part in this too. Plus, the calculated F value reached 16.90, way above the table value of 3.856 at a 0.05 significance level, so the stats model holds up. And with a significance level of 0.000 way below that 0.05 mark, it is pretty much a certainty that this connection's not a coincidence. So, what is the take-away? A cozy, supportive workplace totally accelerates organizational learning, motivating employees to obtain new skills and become better. And that? That is a big win for the whole enterprise.

Testing the Fourth Hypothesis: To dig into the fourth hypothesis “There are statistically significant differences at the 0.05 significance level in the study sample’s responses about organizational learning tied to personal and job-related variables”, a couple of tests were carried out. The Independent Samples T-Test was used to check if responses differed based on gender, and then a One-Way ANOVA was used to see if things like age, education level, job role, and experience made a difference too. The results are laid out in the tables below:

Table 6. Independent Samples T-Test

Gender	Number	Mean	Standard Deviation	Calculated T-Value	Significance Level
Male	487	3.987	0.435	0.098	0.108
Female	162	3.935	0.472		

The tabular T-value at a significance level of 0.05 and 647 degrees of freedom is 1.964.

Source: Prepared by the researchers based on the outputs of the SPSS program.

The stats analysis shows there is no real difference in how the sample individuals responded about organizational learning when it comes to gender. Men scored an average of 3.987, and women came in at 3.935, it is quite apparent that those results are very close. It is pretty clear they see the organizational learning vibe in a similar way. Plus, the calculated T value (0.098) is way below the table value (1.964) at a 0.05 significance level, and the significance level itself (0.108) is higher than 0.05. Thus there is no big statistical gap between the genders here. It just goes to show that the learning environment in these Algerian economic enterprises is handing out equal chances at picking up knowledge and building skills, no matter if you are a man or a woman.

Table 7. One-Way ANOVA Analysis

Variable	Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F-Value	Significance Level
Age	Between Groups	3.167	3	1.056	1.124	0.248
	Within Groups	40.897	645	0.136		
	Total	44.154	648			
Educational Level	Between Groups	1.416	3	0.472	3.324	0.020
	Within Groups	42.738	645	0.142		
	Total	44.154	648			
Job Position	Between Groups	1.071	3	0.356	1.875	0.069
	Within Groups	43.083	645	0.134		
	Total	44.154	648			
Job Experience	Between Groups	0.603	3	0.201	1.389	0.246
	Within Groups	43.551	645	0.145		
	Total	44.154	648			

The tabular F-value at a significance level of 0.05 and 3 degrees of freedom is 2.619.

Source: Prepared by the researchers based on the outputs of the SPSS program.

The One-Way ANOVA results show that there is no big difference in how the sample individuals responded about organizational learning when it comes to age, job role, or experience. But education level? That is a different story, it showed some real differences. For age, the calculated F value was 1.124, for job role it was 1.875, and for experience it hit 1.389, all the way below the table value of 2.619 at a 0.05 significance level. Plus, their significance levels, 0.248, 0.069, and 0.246, were pretty high, backing up that these factors do not really shake up organizational learning much. So, it seems like people's take on the learning vibe does not shift much based on those things. On the flip side, education level came in with an F value of 3.324, topping the table value of 2.619, and its significance

level of 0.020 is under 0.05. That is a clear sign there is a meaningful difference in responses depending on education. To figure out where exactly those differences appear, an LSD (Least Significant Difference) test was carried out to pinpoint the stats-worthy gaps in how people responded about organizational learning based on their education level. See the details in the next table:

Table 8. LSD Test to Identify the Source of Differences

Educational Level (I)	Educational Level (J)	Mean Differences (J-I)	Significance Level
Postgraduate (1)	University	2.03*	0.019
	High school or less	1.73*	0.032
University (2)	Postgraduate	-2.03*	0.016
	High school or less	-0.89	0.978
High school or less (3)	Postgraduate	-1.73*	0.028
	University (2)	0.89	0.978

Variance of Means Statistically Significant at a Significance Level of 0.05 ($\alpha = 0.05$).

Source: Prepared by the researchers based on SPSS outputs.

The table above shows there is no real gap between the university-educated group and the secondary-or-lower education group, when you compare the significance level to 0.05, it is higher, so we keep with the null hypothesis that says there is no difference between their averages. But for the other groups, the significance level falls below 0.05, meaning there is a stats-worthy difference, and it leans in favor of these groups:

When you stack Group 1's average against Groups 2 and 3, Group 1 comes out ahead with a difference of 2.03 over Group 2 and 1.73 over Group 3, respectively. Comparing Group 2 to Groups 1 and 3, Group 1 beats Group 2 by -2.03 (that negative sign shows it), but there is no notable difference between Groups 2 and 3. Then, pitting Group 3 against Groups 1 and 2, Group 1 tops Group 3 by -1.73 (again, the negative sign flags it), while Group 3 and Group 2 do not show any stats-significant difference.

Based on this, we forego the null hypothesis and go with the alternative one: there are statistically significant differences at the 0.05 significance level in how

the study sample answered about organizational learning, tied to education level, and it is in favor of people with postgraduate degrees. This shows they have got a sharper sense of why organizational learning matters for boosting their skills and job performance, probably thanks to their academic background pushing for research and constant growth.

Conclusion

This study aimed to examine the impact of work environment quality on organizational learning among employees in Algerian economic enterprises. By integrating theoretical frameworks with empirical analysis based on a sample of 649 employees, the study provided several key findings:

- Work environment quality, encompassing physical, social, psychological, cultural, and administrative dimensions, is significant in enhancing employee satisfaction, productivity, and organizational growth.
- Organizational learning is fostered through personal mastery, mental models, shared vision, team learning, and systems thinking, all of which drive adaptability and innovation within enterprises.
- The results indicated that the quality of the work environment was perceived as high, with mean scores ranging from 3.45 to 4.38, and the physical environment receiving the highest rating (4.38), thus supporting the first hypothesis.
- Organizational learning also scored highly, with averages between 3.31 and 4.57, and personal mastery leading at 4.57, refuting the second hypothesis and confirming employees' engagement in growth and development.
- Linear regression analysis revealed a significant positive relationship between work environment quality and organizational learning ($R = 0.621$, $R^2 = 0.386$, $\alpha \leq 0.05$), indicating that 38.6% of the variance in organizational learning can be explained by the quality of the work environment, thereby supporting the third hypothesis.

- No significant differences were found in organizational learning perceptions based on gender, age, job position, or experience. However, educational level emerged as a significant factor, with employees holding postgraduate degrees demonstrating higher levels of organizational learning, partially supporting the fourth hypothesis.

Recommendations: Based on these findings, several practical recommendations can be proposed to further enhance work environment quality and organizational learning:

- Improve the psychological environment by providing greater emotional and social support, especially since this dimension scored the lowest (3.45).
- Strengthen team learning by encouraging knowledge sharing and collaborative problem-solving, as this area showed relatively lower engagement (mean score 3.31).
- Align daily tasks with organizational vision to foster a sense of purpose and belonging among employees.
- Implement targeted training programs to support continuous personal and professional development, particularly in areas where lower scores were observed.

Limitations: Despite its contributions, this study has several limitations:

- The cross-sectional design restricts the ability to infer causal relationships between work environment quality and organizational learning.
- The use of self-reported questionnaires may introduce response biases, such as social desirability or recall bias.
- The sample is limited to Algerian economic enterprises in the production sector, which may affect the generalizability of the findings to other sectors or countries.
- Other potentially influential variables, such as leadership style or organizational structure, were not examined in this study.

Future Research Directions: To address these limitations, future research could:

- Employ longitudinal or experimental designs to better establish causality.
- Expand the sample to include different sectors, regions, or countries for broader generalizability.
- Incorporate qualitative methods (e.g., interviews or focus groups) to gain deeper insights into the mechanisms linking work environment and organizational learning.
- Examine additional variables, such as leadership, digital transformation, or organizational culture, as potential mediators or moderators.

The study highlights the central role of educational attainment in shaping organizational learning and underscores the need for continuous improvement in the psychological and collaborative dimensions of the work environment. By addressing these areas, Algerian economic enterprises can further promote organizational learning and enhance their overall performance and adaptability.

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