

ORGANIZATIONAL CULTURE AND ITS RELATIONSHIP WITH ORGANIZATIONAL COMMITMENT A FIELD STUDY AT THE SONATRACH OIL REFINING COMPLEX, SKIKDA



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Abstract:

This research examines the relationship between organizational culture and organizational commitment. Organizational culture is among the most prominent topics in organizational behavior, and it is a critical factor shaping individual conduct and orientations. Organizational commitment, in turn, is a foundational requirement for any institution seeking effectiveness. The theoretical section reviews the relevant literature. Empirically, data were collected through a questionnaire administered to a sample of 60 employees at the Sonatrach Oil Refining Complex in Skikda. To test the relationships among the study variables, appropriate statistical techniques were applied using SPSS. The study concludes with a set of recommendations to strengthen the link between organizational culture and organizational commitment.

key words: organizational culture; organizational commitment; organizational loyalty.

Introduction:

Cultures differ worldwide due to historical and social factors, and these differences are reflected in customs and traditions. Culture forms the basis of collective identity, expressing a people's spirit and aspirations. Organizational culture extends the culture of individuals within a single society and serves as a primary driver of institutional success. It clarifies sound, effective values and principles that guide

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employee behavior and discipline, encompassing ethics, beliefs, ideas, and skills. Consequently, many scholars emphasize its importance in shaping habitual actions across numerous situations. Organizations have taken an interest in organizational culture because it performs several functions that influence institutional outputs and affect how employees and leaders feel about their affiliation and commitment in the workplace.

Organizational commitment has likewise attracted wide attention among management scholars, as it focuses on the individual within the institution, aligns institutional goals with personal needs, and in doing so fosters commitment that propels the organization toward development and growth through goal attainment. The success of any institution rests on the commitment of its employees. Accordingly, this study seeks to investigate the relationship between organizational culture and organizational commitment by analyzing the empirical determinants of organizational culture.

1. Research Problem

Organizational culture is one of the most salient topics in organizational behavior, regarded as a key pillar that can determine success or failure because of its influence on employee behavior. Every institution has a distinctive culture. The more shared beliefs and values are accepted among employees and harmonize with their own convictions, the stronger the organizational culture.

Because employees work within the institution to achieve its objectives, they are influenced by leadership style. Effective leadership fosters information exchange and a climate conducive to creativity, which can, in turn, create a unified culture among employees and leaders aligned with the institution's prevailing beliefs and values that shape their identity. In addition, employees are bound by human relationships and common rules and regulations, interacting within the institution to achieve their goals and satisfy their needs.

Organizational culture therefore plays a significant role in shaping individual behavior and attitudes, such as discipline, rigor, seriousness at work, appreciation of rewards and time, and valuing teamwork that reinforces cooperation and cohesion among employees, which in turn promotes cohesion across work teams. It is widely recognized that organizational culture, in all its components, provides a frame of reference that clarifies the standards employees follow to preserve the institution's identity.

Organizational commitment is a fundamental requirement for any institution striving for effectiveness. Achieving it requires an enabling organizational environment, fair compensation and incentives, and job satisfaction, all of which contribute to employees' loyalty and dedication. Commitment and dedication have become central concerns of organizational management, which views institutional continuity and survival as resting upon them.

Commitment in all its dimensions, affective, continuance, and normative, interacts across dimensions and expresses the individual's relationship with the employing institution. The nature of this relationship varies by dimension. An employee with affective commitment remains because of a desire to stay. An employee with continuance commitment remains because of need. In the case of normative commitment, the employee remains out of a sense of obligation.

Within this problematic, the following questions are posed:

A. Central question:

What is the relationship between organizational culture and organizational commitment at the Skikda Condensate Oil Refining Complex?

B. Sub-questions:

- Do organizational beliefs relate to affective commitment among employees at the Skikda Oil Refining Complex?
- Does teamwork relate to continuance commitment among employees at the Skikda Oil Refining Complex?
- Does managerial leadership relate to normative commitment among employees at the Skikda Oil Refining Complex?

2. Research Objectives

The present study seeks to achieve the following objectives:

A. General objective:

To identify the nature of the relationship between organizational culture and organizational commitment at the Skikda Condensate Oil Refining Complex.

B. Specific objectives:

- To identify the sources of organizational culture and organizational commitment at the Skikda Condensate Oil Refining Complex.
- To determine the dimensions and empirical indicators.
- To test the study hypotheses.

- To articulate a theoretical perspective for examining organizational culture and organizational commitment.

3. Research Hypotheses

Based on the research problem, objectives, and prior studies, the following hypotheses are formulated:

A. Main hypothesis:

Organizational culture has a correlational relationship with organizational commitment among employees at the Skikda Oil Refining Complex.

B. Sub-hypotheses:

- Organizational beliefs are related to affective commitment among employees at the Skikda Oil Refining Complex.
- There is a relationship between teamwork and continuance commitment among employees at the Skikda Oil Refining Complex.
- Managerial leadership is related to continuance commitment among employees at the Skikda Oil Refining Complex.

CONCEPTUAL FRAMEWORK

The study engages two foundational concepts: organizational culture and organizational commitment.

A. Organizational Culture

The term **organizational culture** refers to the set of shared beliefs, values, and norms within an organization held by its members, whether employees or leaders¹.

Others view organizational culture as the organization's way of thinking and working that employees share among themselves and that newcomers must learn and accept.

It is also described as the collection of shared beliefs, expectations, and values held by the organization's members.

Operational definition: In this study, organizational culture is defined as the ensemble of practices followed by employees in the institution, including the values and beliefs they experience through daily interactions, co-created by all members and transmitted to newcomers.

B. Organizational Commitment

Organizational commitment is the degree to which an individual identifies with and is attached to the organization. It reflects a strong belief in, and acceptance of, the organization's goals and values, a

willingness to exert maximum effort on its behalf, and a strong desire to remain a member of it².

Operational definition: Organizational commitment is the deep attachment and strong sense of belonging individuals display toward the institution, motivating them to devote themselves to their tasks and to pursue objectives earnestly. Through this commitment they internalize the institution's values and culture, contribute to a healthy work environment, and support the institution's sustained success.

LITERATURE REVIEW

A set of prior studies was reviewed in support of the present research. They are summarized as follows.

A. Muhammad bin Ghalib Al-Awfi, *Organizational Culture and Its Relationship with Organizational Commitment: A Field Study at the Saudi Board of Control and Investigation*³

The study revolved around the central question: What is the nature of the relationship between organizational culture and organizational commitment at the Board of Control and Investigation in the Kingdom of Saudi Arabia? From this, the following sub-questions were derived:

- What are the prevailing values that constitute the organizational culture at the Board of Control and Investigation in the Riyadh region of the Kingdom of Saudi Arabia?
- What is the effect of the values that constitute organizational culture on the level of organizational commitment at the Board of Control and Investigation in the Riyadh region of the Kingdom of Saudi Arabia?
- What is the level of organizational commitment among the affiliates of the Board of Control and Investigation in the Riyadh region of the Kingdom of Saudi Arabia?

The study aimed to identify the prevailing values and to determine the level of organizational commitment among the Board's personnel in Riyadh. The researcher employed a descriptive-analytical methodology using a case study design. A sample of 168 respondents was selected. A questionnaire served as the data-collection instrument, and the study adopted a comprehensive survey approach. The most salient findings were: the presence of a strong, positive, and statistically significant correlational relationship between organizational culture and

organizational commitment, and that the level of organizational culture was moderate compared to a high level of organizational commitment⁴.

B. Ilyas Salem, *The Impact of Organizational Culture on Human Resources Performance: A Case Study of the Algerian Aluminum Company in M'Sila*

This study sought to determine the correlational relationship between organizational culture and employee performance. The central question was: How does organizational culture affect employee performance? The researcher formulated the following main hypothesis: organizational culture has a substantive effect on employee performance. Three subsidiary hypotheses followed:

- An organizational culture characterized by collectivism has a substantive effect on employee performance.
- An organizational culture characterized by the pursuit of excellence has a substantive effect on employee performance.
- An organizational culture that encourages innovation has a substantive effect on employee performance.

The principal results were as follows: collective work is important within the institution, serving as a key method for achieving high productivity; the incentive policy for diligent workers is weak; the institution does not provide a climate conducive to creativity and does not offer opportunities for employees to participate in decision making⁵.

METHODOLOGICAL FRAMEWORK

1. Research Scope

A. Spatial scope: The fieldwork was conducted at the Sonatrach Skikda complex, located in the industrial zone, 8 km east of Skikda and 2 km from the Mediterranean Sea, over a site area of 190 hectares.

B. Temporal scope: The study was implemented from March 2025 through mid-May 2025.

3. Method and Data-Collection Instruments

To answer the research questions and test the hypotheses, the descriptive method was employed, consistent with the nature of the study, its questions, and intended objectives. The theoretical background drew on books, research articles, and prior studies addressing the topic and its variables.

The field component relied on a survey of the study sample using a questionnaire prepared and distributed for this purpose. The

questionnaire covered the dimensions of the study variables across three sections:

- **Section 1:** respondents' personal data;
- **Section 2:** organizational culture;
- **Section 3:** organizational commitment.

4. Study Population and Sample

The research population comprises the Skikda Condensate Oil Refining Complex, which includes 400 employees distributed across three categories: executives, supervisory staff, and operational staff. The study used a sample equivalent to 15 % of the population, with a final size of 60 respondents.

5. Methods of Analysis

Two forms of analysis were used, in line with the types of data collected:

A. Quantitative analysis: descriptive statistics to characterize the sample, employing frequencies, percentages, and arithmetic means.

B. Qualitative analysis: structural-functional analysis, which interprets the phenomenon through its function within the overall structure, or interprets partial components within the phenomenon's broader configuration.

III. Results

1. Description of the Sample's Characteristics

To identify selected demographic attributes of the study sample, the first section of the questionnaire collected personal data on gender, age, and job category.

A. Distribution of respondents by gender

Table (1). Distribution of the study sample by gender

Gender	Frequency	Percentage
Male	35	58.3%
Female	25	41.7%
Total	60	100%

Source: prepared by the researcher based on questionnaire data.

Table (1) shows that 35 respondents were male, representing 58.3 per%cent of the sample, while 25 were female, representing 41.7 %. This distribution is attributed to the nature of the work, particularly the complex's shift system, and to tasks that rely heavily on physical strength. This is especially evident in the Maintenance Directorate and the Industrial Hygiene and Safety Directorate, where male staffing is

higher and considered more aligned with the tasks typically required in the institution.

B. Distribution of respondents by age

Table (2). Distribution of the study sample by age

Age group	Frequency	Percentage
[25–35]	11	18.3%
[36–45]	43	71.7%
[46–55]	6	10.0%
Total	60	100%

Source: prepared by the researcher based on questionnaire data.

The statistics in Table (2) indicate that 71.7 % of the sample are aged 36–45, followed by 18.3 % in the 25–35 cohort, then 10.0 % in the 46–55 cohort. The predominance of the 36–45 group is attributed to their possession of the experience and skills required for work in the oil sector. It is also likely that this group can withstand the demands of a complex industrial environment. Next comes the youth cohort (25–35). The smallest share is the 46–55 group, which may reflect technological developments that lead the institution to recruit younger employees who are well matched to, and proficient in, the use of technology.

C. Distribution of respondents by educational level

Table (3). Distribution of the study sample by educational level

Educational level	Frequency	Percentage
Technician	12	20.0%
University (Bachelor, Master)	45	75.0%
Postgraduate (Magister, Doctorate)	3	5.0%
Total	60	100%

Source: prepared by the researcher based on questionnaire data.

The statistics indicate that university graduates constitute the largest share of the sample at 75 %, followed by technicians at 20 percent, while the postgraduate category represents 5 % of the total.

Results of the First Sub-Hypothesis

Premise: Organizational beliefs are related to affective commitment among employees at the Skikda Condensate Oil Refining Complex.

Table (4). Organizational-beliefs indicators among employees

Rank	Sign	SD	Mean	Sum	Statement	Item no.

5	+	1.523	3.46	208.00	Individual rewards are granted by the complex in recognition of outstanding performance.	
3	+	1.354	3.71	223.00	Your values align with the complex's culture.	
4	+	1.378	3.61	217.00	The complex provides an organizational environment that supports employees' moral needs.	
1	+	0.977	4.40	264.00	You are appreciated by your colleagues.	
2	+	1.087	4.26	256.00	The various challenges you face contribute to developing your capabilities.	

Source: prepared by the researcher using the Statistical Package for the Social Sciences (SPSS).

Interpretation.

Item 4 ranks first, with a mean of 4.40 and a standard deviation of 0.977, yielding positive results overall. Respondents agree that collegial appreciation sustains motivation, encourages additional effort, and improves performance. Consequently, employees gain status and esteem among peers.

Item 5 ranks second, with a mean of 4.26 and a standard deviation of 1.087. Responses concentrate between "agree" and "strongly agree." Challenges appear to strengthen employees' adaptability and refine their skills, which enhances performance when unexpected demands arise. According to respondents, technological change and digitalization in the oil sector were the most salient challenges encountered across their careers.

Item 2 ranks third, with a mean of 3.71 and a standard deviation of 1.354, and all results are positive. Respondents perceive value congruence between themselves and the complex. They attribute this convergence to the broader social environment in which they were socialized, including respect, discipline, and workmanship aimed at

higher productivity. Such alignment is viewed as a significant contributor to both individual and institutional success.

Item 3 ranks fourth, with a mean of 3.61 and a standard deviation of 1.378, again with positive results. Most respondents affirm that the complex offers a supportive organizational environment, reflecting attention to employees' well-being and safety. This support fosters a positive work culture and improves quality of life, which helps employees balance personal and professional spheres and creates a flexible, coherent workplace.

Item 1 ranks fifth, with a mean of 3.46 and a standard deviation of 1.523, and remains positive. Respondents express strong agreement with existing reward procedures. They view the complex as adopting fairness and transparency in its individual reward practices.

Results of the Second Sub-Hypothesis

Premise: teamwork is related to continuance commitment among employees at the Skikda Condensate Oil Refining Complex.

Table (5). Teamwork results among employees at the Skikda Condensate Oil Refining Complex

Rank	Sign	SD	Mean	Sum	Statement	Item no.
3	+	1.329	4.16	205.00	The complex adopts a culture of teamwork.	1
1	+	0.590	4.70	282.00	Teamwork increases professional efficiency.	2
2	+	1.101	4.20	252.00	Relations among employees are based on cooperation.	3
4	+	1.417	3.30	198.00	Participation in decision making is important in the complex.	4
6	–	1.088	2.63	158.00	The complex gives substantial attention to employees and encourages creativity.	5

Source: prepared by the researcher based on the Statistical Package for the Social Sciences (SPSS).

The data in Table (5) show that Item 2 ranks first, with a mean of 4.70 and a standard deviation of 0.590, and yields positive results.

Respondents affirm that exchanging expertise is important in the complex. Working as a single team fosters broader knowledge sharing, which contributes to higher professional efficiency.

Item 3 ranks second, with a mean of 4.20 and a standard deviation of 1.101, and is positive. The study population reports that cooperation among employees reflects solidarity and creates a positive work environment.

Item 1 ranks third, with a mean of 4.16 and a standard deviation of 1.329, and is positive.

Item 4 ranks fourth, with a mean of 3.30 and a standard deviation of 1.417. Respondents indicate that participation in decision making reflects several dimensions, such as belonging and responsibility, because they are part of the decision-making process. This participation strengthens understanding between management and employees, allows them to present viewpoints and observations, and makes decisions more inclusive and effective.

Item 5 ranks last, with a mean of 2.63 and a standard deviation of 1.088, and records negative evaluations. This suggests that managers do not treat employees equally, which can lead to frustration, weak identification with supervisors, dissatisfaction, complaints, diminished respect for superiors, and an erosion of attachment to the workplace.

From these largely positive results, it follows that the spirit of cooperation in the complex is a primary driver that leads employees to improve performance and develop skills through interaction and collaboration with colleagues.

Results of the Third Sub-Hypothesis

Premise: managerial leadership is related to continuance commitment among employees at the Skikda Condensate Oil Refining Complex.

Table (6). Managerial leadership results among employees at the Skikda Condensate Oil Refining Complex

Rank	Sign	SD	Mean	Sum	Statement	Item no.
5	–	1.240	2.55	153.00	My supervisor allows me to postpone completing my work.	1
1	+	1.049	4.51	271.00	The supervisor requires everyone to comply with formal regulations.	2

2	+	0.977	4.40	264.00	I am subject to sanctions when I cause a problem within the complex.	3
3	+	1.400	3.73	224.00	I am reprimanded by my direct supervisor when I am late for work.	4

Source: prepared by the researcher using the Statistical Package for the Social Sciences (SPSS).

Interpretation.

Item 2 ranks first, mean 4.51 and SD 1.049, with positive evaluations. This pattern reflects a strong culture of compliance with formal rules and regulations.

Item 3 ranks second, mean 4.40 and SD 0.977, also positive.

Respondents report clear, strict policies governing internal problems, consequently, disciplinary measures are imposed when breaches occur. Item 4 ranks third, mean 3.73 and SD 1.400, positive overall. Employees indicate that tardiness elicits reprimand, which signals an institutional culture that assigns high value to time and punctuality. Some add that reprimand functions as a managerial tool for directing and improving performance.

Item 1 ranks last, mean 2.55 and SD 1.240, with negative evaluations. Supervisors generally do not permit postponement of assigned work, therefore, flexibility on deadlines appears limited, reinforcing discipline and task completion norms.

Taken together, the results portray a leadership regime oriented toward rule enforcement, sanctions for breaches, and punctuality, which plausibly supports continuance commitment by structuring expectations and reducing ambiguity. Accordingly, managerial leadership plays a pivotal role in organizational success through coordinating and directing efforts toward shared objectives.

General Findings of the Study

Drawing on the quantitative evidence, the qualitative analyses, the partial hypothesis tests, and field observation of the organizational culture at Sonatrach's industrial complex and its link to organizational commitment, the following findings were derived:

- There is a relationship between organizational beliefs and affective commitment. The culture's elements, namely principles, shared values, and integrity, create an environment in which individuals experience belonging. These values enhance affective

commitment by making employees feel part of the whole, which motivates serious work. This is one of the indicators through which affective commitment is realised in the complex. When the complex provides a work environment that meets employees' needs, they feel appreciated and respected by supervisors and colleagues, which, in turn, fosters commitment and loyalty. Granting rewards reinforces perceptions of fairness and motivation. Affective commitment thus appears as a strong attachment to the institution, with positive effects on workforce performance and productivity. Together, these factors sustain a positive work environment that supports belonging and loyalty to the complex.

- Teamwork is related to continuance commitment. Our analysis indicates that, as organizational culture becomes stronger and more effective, employees' professional efficiency increases.
- Managerial leadership is related to normative commitment. Administrative leadership plays a pivotal role in shaping an organizational environment that strengthens commitment, since employees tend to adopt the values and standards they observe in their leaders. Leadership at the complex deals firmly with violations.

In sum, there is a strong correlational relationship between organizational culture and organizational commitment. The stronger the organizational culture, the greater the organizational commitment among employees at the Skikda condensate oil refining complex.

Conclusion

From both the theoretical and field components of this study, it is evident that organizational culture and organizational commitment in the Algerian institution are central sociological themes that warrant sustained inquiry into their variables and dynamics. Following systematic scientific procedures, we sought to generate practical and objective results aligned with employees' lived realities, with the aim of examining the correlational relationship between organizational culture and organizational commitment among workers at the Skikda condensate oil refining complex. The general conclusion is that there is a statistically significant correlational relationship between organizational culture and organizational commitment.

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