



Akademik Eğitim ve Sosyal Bilimler Dergisi (AJESS Journal)

Individual and Organizational Factors Associated with Employee Engagement: An Empirical Study of Two Social Security Institutions in Algeria

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Article History

Received: 31/07/2026; Accepted : 01/10/2026; Published : 13/10/2026

Abstract

Based on a sample of 104 employees from two national social security institutions in Blida, Algeria, this study examines the individual and organizational factors associated with organizational commitment and employee engagement. It focuses on the relationships between employees' demographic characteristics, including gender, age, and organizational tenure, satisfaction with remuneration, psychological contract orientation, and professional position. Data were collected through a questionnaire and analyzed using SPSS 17.0, with independent-samples t-tests and correlation analyses employed to examine the proposed hypotheses. The findings indicate that gender, age, organizational tenure, and satisfaction with remuneration are not significantly associated with the organizational attitudes examined. Although some relationships follow the expected positive direction, the statistical evidence is insufficient to confirm the corresponding hypotheses. Similarly, managerial employees report higher average scores than operational employees, but the difference is not statistically significant. The most notable finding concerns psychological contract orientation: employees with a relational psychological contract report significantly higher levels of engagement or commitment than those with a transactional orientation. These findings highlight the importance of trust, reciprocity, and the quality of employment relationships in understanding employees' organizational attitudes. The study offers practical implications for human resource management while acknowledging the limitations of its sample and research design.

Keywords: Organizational Commitment; Work Engagement; Psychological Contract; Remuneration Satisfaction; Social Security Institutions.

Introduction

Contemporary organizations face a growing range of challenges related to the effective management and development of human resources in ways that achieve a balance between organizational objectives and employees' aspirations. The success of an organization is no longer determined solely by its material and technological resources or by the adequacy of its administrative structures. Rather, it increasingly depends on its ability to mobilize human potential, motivate employees, and create working conditions that enable them to apply their knowledge, skills, and abilities in pursuit of organizational goals. Within this context, employee engagement has emerged as a central issue in the study of organizational behavior and human resource management because of its close relationship with the nature of the connection between individuals and their work, as well as between employees and the organizations to which they belong. Managing an organization raises a fundamental question: how can individuals be encouraged to give their best, and what kind of organizational environment enables the effective use of their talents, competencies, and potential? This question goes beyond identifying employees' skills or assigning them to appropriate positions. It also involves understanding the conditions under which employees become willing to exert effort, accept responsibility, and maintain a high level of interest in their work. Possessing professional abilities does not necessarily mean that individuals will use them to their full potential within an organization. Similarly, providing adequate material and technological resources does not, in itself, guarantee the achievement of the desired level of performance. An interaction of psychological, social, and organizational factors that influence their willingness to contribute actively to organizational life and their level of attachment to the tasks they perform shape employees' professional behavior and the objectives they are expected to achieve.

From this perspective, understanding employee engagement requires a distinction between the abilities employees possess, the motivation that encourages them to use those abilities, and the organizational conditions that enable them to translate their potential into meaningful contributions. An employee may have substantial professional competence and experience but may not find an environment that encourages initiative, creativity, or professional development. A perceived lack of recognition, limited career opportunities, or inadequate managerial support may negatively affect the employee's relationship with work. Conversely, an organizational environment characterized by fairness, effective communication, managerial support, and recognition of individual contributions may strengthen employees' perceptions of their value and encourage more positive involvement in their professional responsibilities. Therefore, employee engagement cannot be adequately explained by individual characteristics alone or by organizational practices considered independently of employees. Instead, it must be examined through the interaction between individual and organizational factors.

The importance of this issue has increased in response to the transformations affecting contemporary organizations, which face growing pressure to improve productivity, enhance service quality, strengthen innovation, and respond effectively to economic, technological, and social changes. These developments have encouraged a shift away from traditional approaches that regard employees primarily as executors of tasks within a formal administrative structure toward perspectives that emphasize their psychological, cognitive, and emotional investment in their work. Organizations need more than employees who perform their duties according to established rules and procedures. They also require individuals who recognize the value of their contributions, understand organizational objectives, and perceive their work as an opportunity for learning, development, and the achievement of a meaningful degree of compatibility between personal aspirations and professional responsibilities.

Within this framework, questions arise concerning the nature of the relationship between organizations and the individuals who constitute their social and organizational structures. This relationship is not determined exclusively by employment contracts or formal mutual obligations. It is also influenced by expectations concerning job security, recognition, autonomy, fairness, promotion opportunities, and the quality of professional relationships. Furthermore, employees' perceptions of leadership styles, managerial concern for their needs, and the prevailing organizational climate contribute to shaping their attitudes toward the organization and their willingness to make contributions beyond the minimum requirements of their formal roles when circumstances permit. Consequently, studying employee engagement requires an examination of what employees expect from their organizations, what organizations expect from their employees, and how these expectations can be reconciled in ways that benefit both parties.

In this regard, loyalty, motivation, participation, and organizational commitment should not be treated as concepts entirely synonymous with employee engagement, although they are closely related. Motivation concerns the factors that stimulate individuals to work and exert effort, whereas organizational commitment refers to the nature of their attachment to the organization and their willingness to maintain their membership. Participation, in turn, concerns the extent to which employees contribute to organizational activities and decision-making processes. Employee engagement, according to influential theoretical perspectives in this field, refers to a positive state of psychological and professional involvement in work, reflected in the investment of energy, attention, and interest in work-related tasks, the perception of their significance, and the willingness to invest oneself in performing them. Distinguishing between these concepts helps clarify the position of employee engagement within the broader field of organizational behavior and prevents it from being reduced to job satisfaction or organizational commitment alone.

Accordingly, investigating the antecedents of employee engagement represents an essential approach to understanding how this state develops among employees. At the individual level, these antecedents may include personality characteristics, professional competencies, previous experiences, motivation, self-efficacy, personal values, career expectations, and individuals' perceptions of the meaning and significance of their work. At the organizational level, relevant factors may include leadership practices, managerial support, organizational justice, opportunities for learning and development, autonomy in task performance, role clarity, relationships among colleagues, and the material and social conditions of the workplace. These antecedents do not operate independently or produce identical effects for all employees. Rather, they interact within specific professional and organizational contexts and are shaped by differences in employees' needs, expectations, experiences, and perceptions of their working environments.

Against this background, this article examines the individual and organizational antecedents of employee engagement by analyzing the factors that may contribute to its development and exploring the interaction between employees' personal characteristics and the organizational conditions in which they work. It addresses the following central research question:

What individual and organizational antecedents contribute to employee engagement, and how do these factors interact in shaping employees' relationships with their work and their organizations? This question gives rise to three related analytical objectives: identifying the principal individual factors associated with employee engagement; examining the role of organizational structures, managerial practices, and workplace conditions in strengthening or undermining engagement; and exploring how organizations can develop working environments that mobilize employees' capabilities and encourage their active contributions. The significance of this approach lies in providing an integrated understanding of employee engagement as a multidimensional phenomenon that requires consideration of both individual characteristics and the organizational context in which professional activities take place. Such an understanding can

inform the development of more effective human resource management practices that promote compatibility between employee well-being, organizational effectiveness, and sustainable performance.

Problem Statement

The contemporary organizational environment is characterized by profound economic, technological, and social transformations associated with globalization, intensifying competition, and the development of new technologies. These changes have significantly influenced organizational strategies, managerial structures, employment relationships, and the position of human resources within organizations. They have also renewed fundamental questions concerning the nature of work, the role of employees, and the conditions under which individuals contribute to organizational effectiveness. As Jardillier (1980, p. 43) emphasizes, organizational decisions, even when they appear exclusively technical, financial, or commercial, inevitably have consequences for the human dimension of organizational life. This perspective highlights the importance of examining organizational practices not only in terms of efficiency and productivity but also in terms of their implications for employees' attitudes, experiences, and engagement.

These transformations have also affected the relationship between employees and their organizations. As work becomes increasingly shaped by technological innovation, performance requirements, organizational restructuring, and changing employment conditions, traditional forms of attachment to the workplace may be challenged. Touraine's (1978) analysis of transformations in industrial society provides a broader sociological perspective for understanding how changes in production systems can reshape the social significance of work and the relationships connecting individuals to organizations. In this context, employee engagement has become an important issue because organizational effectiveness depends not only on employees' technical competencies but also on their willingness to invest their energy, attention, and personal resources in their professional activities.

Research into employees' work-related attitudes initially concentrated on job satisfaction, motivation, and morale, as reflected in the contributions of Herzberg, Mausner, and Snyderman (1959) and Locke (1976). Over time, the field expanded to include organizational commitment, job involvement, and work engagement. Although these concepts are related, they represent distinct dimensions of employees' relationships with their work. Organizational commitment concerns the psychological attachment connecting an individual to an organization, whereas job involvement emphasizes the importance of work in an individual's self-concept. Employee engagement, in contrast, concerns the investment of physical, cognitive, and emotional resources in work-role performance. Kahn (1990, pp. 692–694) conceptualized personal engagement in terms of individuals expressing and employing themselves physically, cognitively, and emotionally in their work roles. Schaufeli et al. (2002, pp. 74–75) subsequently characterized work engagement through vigor, dedication, and absorption. These perspectives provide a more specific basis for investigating the conditions that encourage employees to participate energetically and meaningfully in their professional activities.

Understanding employee engagement also requires examining the psychological relationship between individuals and their organizations. Psychological contract theory is particularly relevant in this regard. Rousseau (1989, pp. 121–122) conceptualized the psychological contract in terms of an individual's beliefs concerning the reciprocal obligations that characterize the relationship between the employee and the organization. These beliefs may involve economic expectations, such as remuneration and employment conditions, as well as relational expectations concerning trust, recognition, support, professional development, and long-term cooperation. Millward and Hopkins (1998, pp. 1530–1556) examined the relationship between psychological contracts and organizational and job commitment, illustrating the relevance of employees' perceptions of their employment relationships to understanding their work-related attitudes. When employees perceive that organizational practices are consistent with their expectations, they may develop more favorable attitudes toward their work. Conversely, perceived breaches of reciprocal obligations may weaken trust and undermine the psychological conditions that support engagement.

The individual antecedents of employee engagement constitute another important dimension of this problem. Employees differ in their personal characteristics, professional experiences, competencies, motivations, values, and expectations. Such differences may influence how they interpret workplace situations and how much energy they are willing to invest in their responsibilities. Bandura (1997) emphasizes the importance of self-efficacy beliefs in shaping individuals' expectations concerning their capacity to perform tasks and overcome difficulties. Similarly, self-determination theory highlights the importance of autonomy, competence, and relatedness in supporting high-quality motivation (Ryan & Deci, 2000, pp. 68–69). From this perspective, employees may be more willing to engage in their work when they feel capable of performing their responsibilities, experience a reasonable degree of autonomy, and perceive their professional activities as meaningful. Nevertheless, individual characteristics alone cannot explain differences in engagement because their influence depends partly on the resources and opportunities available within the workplace.

Organizational antecedents are therefore equally important. Leadership practices, organizational support, fairness, recognition, autonomy, role clarity, interpersonal relationships, and opportunities for professional development can influence the conditions under which employees perform their work. The Job Demands–Resources model developed by Demerouti et al. (2001, pp. 499–501) and subsequently extended by Bakker and Demerouti (2007, pp. 309–311) offers a useful framework for understanding these relationships. The model distinguishes between job demands, which require sustained effort, and job resources, which facilitate goal achievement, reduce the costs associated with work demands, and promote development. Empirical research by Schaufeli and Bakker (2004, pp. 293–295) indicates that job resources are particularly relevant to explaining work engagement. These findings suggest that organizational efforts to encourage

engagement should extend beyond expectations of individual dedication to include the development of supportive and resource-rich working environments.

Despite the extensive literature on employee attitudes and organizational behavior, questions remain concerning the combined influence of individual and organizational antecedents on employee engagement. Meyer and Allen (1991, pp. 61–89), in their influential conceptualization of organizational commitment, distinguished affective, continuance, and normative commitment, demonstrating the multidimensional nature of employees' attachment to organizations. However, commitment should not be treated as equivalent to engagement, and findings concerning its antecedents cannot automatically be generalized to engagement. A more precise analysis must therefore examine how individual resources and organizational conditions relate specifically to vigor, dedication, and absorption, while recognizing the possible connections between engagement, commitment, and other work-related attitudes.

These questions are particularly relevant when examining organizational contexts characterized by changing managerial practices, evolving employment relationships, and differences in employees' expectations. In Algeria, the transformations experienced by organizations raise important questions concerning how employees perceive their working conditions, how organizational practices respond to their needs, and how individual characteristics interact with the resources provided by employers. Nevertheless, assumptions about Algerian employees' levels of engagement, or about the consequences of organizational change, require systematic empirical investigation rather than generalization from research conducted in other national contexts. International findings provide a theoretical starting point, but their applicability must be examined in relation to the specific institutional, economic, and sociocultural characteristics of Algerian organizations.

Accordingly, the central problem addressed by this article concerns the need to understand employee engagement through an integrated analysis of its individual and organizational antecedents. The main research question is therefore formulated as follows: **What are the principal individual and organizational antecedents of employee engagement, and how do these factors interact in shaping employees' involvement in their work?** This question gives rise to three related concerns: which personal characteristics and psychological resources are associated with engagement; how leadership, organizational support, job design, and working conditions contribute to its development; and how the interaction between individual and organizational factors can help explain variations in engagement across employees and organizational settings.

Addressing this problem is important both theoretically and practically. Theoretically, it contributes to clarifying the relationship between employee engagement and related constructs while integrating perspectives from organizational psychology and sociology. Practically, it can help organizations identify the personal and workplace conditions that support employees' meaningful participation, professional development, and sustained contribution. The article therefore approaches employee engagement not as an exclusively individual disposition or a direct consequence of managerial intervention, but as a work-related state shaped by the interaction between employees' personal resources, their psychological experiences, and the organizational environments in which they operate.

Hypotheses

In light of the theoretical perspectives and empirical findings discussed above, the present study seeks to examine the individual and organizational antecedents of employee engagement, with particular attention to the relationships between employees' personal characteristics, employment conditions, psychological contract orientations, and professional positions. Previous research on organizational behavior suggests that employees' attitudes toward their work and their organizations may vary according to demographic characteristics, organizational tenure, compensation satisfaction, and the nature of the employment relationship. Nevertheless, these relationships may differ across organizational and sociocultural contexts, making it necessary to examine them empirically rather than assume that findings from previous studies apply universally.

The study is based on the following hypotheses:

H1: There is a statistically significant difference between male and female employees in their level of organizational commitment.

H2: There is a positive relationship between organizational tenure and organizational commitment.

H3: There is a positive relationship between employee age and work engagement.

H4: There is a positive relationship between satisfaction with compensation and work engagement.

H5: Employees with predominantly relational psychological contracts demonstrate higher levels of work engagement than employees with predominantly transactional psychological contracts.

H6: Employees in managerial or executive positions demonstrate higher levels of work engagement than employees in non-managerial or operational positions.

These hypotheses reflect the assumption that employee engagement cannot be adequately explained by a single individual characteristic or organizational practice. Rather, it is associated with a combination of demographic characteristics, professional experiences, perceptions of employment conditions, and the psychological relationships that employees develop with their organizations. Gender, age, and organizational tenure represent individual and career-related characteristics that may be associated with differences in employees' work-related attitudes. Compensation satisfaction reflects employees' evaluations of an important aspect of the employment relationship, while psychological contract orientation provides insight into the expectations and perceived obligations connecting employees to their organizations.

Professional position, in turn, may reflect differences in autonomy, responsibilities, access to resources, and opportunities to influence organizational decisions.

The proposed relationships are consistent with several theoretical perspectives. Social cognitive theory provides a basis for examining the relationship between individual experience and work-related behavior (Bandura, 1997), while social exchange theory helps explain how employees may respond to perceived organizational support and the fulfillment of reciprocal obligations (Blau, 1964). Psychological contract theory further clarifies the distinction between transactional and relational employment expectations (Rousseau, 1989). Finally, the Job Demands–Resources model emphasizes the role of job resources and working conditions in supporting work engagement (Bakker & Demerouti, 2007).

Nevertheless, the hypotheses do not assume that individual or organizational characteristics inevitably produce a particular level of engagement. Rather, they identify relationships that require empirical examination. For example, organizational tenure may be associated with stronger organizational attachment, but the relationship may also depend on career opportunities and employees' perceptions of fairness. Similarly, managerial positions may provide greater autonomy while simultaneously involving higher levels of responsibility and work-related pressure. The relationship between compensation satisfaction and engagement may also depend on whether employees perceive their remuneration as fair and consistent with their contributions.

An important conceptual distinction must be maintained throughout the analysis. Organizational commitment refers to employees' psychological attachment to the organization, whereas work engagement concerns their investment of energy, dedication, and attention in their professional activities (Kahn, 1990; Schaufeli et al., 2002). Accordingly, the first two hypotheses examine organizational commitment, while the remaining four focus on employee engagement. This distinction should be reflected in the choice of measurement instruments and in the interpretation of the empirical findings. Overall, the hypotheses establish a framework for examining selected individual and organizational antecedents and identifying their potential relationships with employees' work-related attitudes. Their empirical assessment will help determine whether the proposed relationships are supported in the organizational context under investigation and will contribute to a more contextualized understanding of the factors associated with employee engagement.

Methodology of the Empirical Study

Procedure and Sample

The empirical component of this study was designed to investigate the individual and organizational factors associated with employees' work-related attitudes, with particular attention to organizational commitment, employee engagement, psychological contract orientation, and satisfaction with remuneration. The research was conducted in the Blida area, focusing on employees working at the Blida agency of the National Pension Fund (*Caisse Nationale des Retraites*, CNR) and employees affiliated with the National Social Security Fund for Non-Salaried Workers (*Caisse Nationale de Sécurité Sociale des Non-Salariés*, CASNOS). The selection of these institutions was intended to provide an organizational setting in which employees perform administrative and professional responsibilities within the broader social protection system. The CNR agency in Blida was described in the original study as occupying fourth place in terms of the number of pensioners served. Its workforce was reported to comprise 90 employees. The study also included 30 employees affiliated with CASNOS in Blida. The final sample consisted of 104 respondents, including 74 employees from the CNR agency and 30 employees from CASNOS. These figures represent the number of questionnaires reported as completed and returned for analysis. Accordingly, the findings should be interpreted in relation to the participating employees and the institutional context in which the investigation was conducted, rather than automatically generalized to all employees of the two organizations or to the wider Algerian public sector.

The questionnaire was administered directly at the workplace during working hours. Respondents were given approximately one hour to complete the instrument, after which the questionnaires were collected. This procedure facilitated direct access to the participants and enabled the researchers to obtain the responses within a relatively short period. Workplace administration may also help reduce the practical difficulties associated with distributing and retrieving questionnaires. Nevertheless, it is important to recognize that employees' responses to questions concerning their organization, remuneration, and professional relationships may be influenced by concerns about confidentiality or by their perceptions of the institutional environment. For this reason, the interpretation of the findings should take into account the conditions under which the data were collected.

The sample comprised 77 men, representing approximately 74% of respondents, and 27 women, representing approximately 26%. Regarding marital status, 79 respondents were married, accounting for approximately 76% of the sample, while 25 were single, representing approximately 24%. In terms of professional position, the original data indicate that 32 respondents were executives or managers, representing 30.8%, whereas the remaining 72 respondents, representing 69.2%, belonged to the other professional category. The latter category should be explicitly identified in the final version of the study—for example, non-managerial employees or operational staff—according to the actual classification used in the questionnaire.

These characteristics provide an initial description of the respondents and are relevant to the analysis of differences in work-related attitudes. Gender, age, organizational tenure, marital status, and professional position may be associated with employees' experiences of organizational life, although their relationships with commitment and engagement cannot be assumed in advance. Their explanatory significance must be examined empirically and interpreted in conjunction with organizational conditions, perceived fairness, employment relationships, and opportunities for professional development.

Measurement of Variables

Data were collected through a structured questionnaire consisting of two principal components. The first collected respondents' individual and professional characteristics, including age, gender, marital status, occupational position, and organizational tenure. These variables were included to describe the sample and to facilitate comparisons between groups or the examination of associations with the principal study variables.

The second component comprised three measurement instruments addressing psychological contract orientation, work engagement or organizational commitment, and satisfaction with remuneration. The inclusion of these instruments reflects the assumption that employees' work-related attitudes may be influenced by both individual characteristics and their perceptions of the employment relationship. In particular, employees' evaluations of the obligations exchanged between themselves and their organizations may shape how they interpret organizational support, compensation, and their own professional contribution.

The questionnaire used five-point response categories for the psychological contract and engagement-related scales, while the remuneration satisfaction scale used four-point response categories. The different response formats reflect the instruments as described in the original study. However, the interpretation of the resulting scores requires attention to the number of items, item coding, scale direction, and the method used to calculate the final scores. Negatively worded items, if present, should be reverse-coded where appropriate before composite scores are computed.

Psychological Contract Orientation

The psychological contract scale consisted of 32 items designed to assess employees' perceptions of the relationship between themselves and their organization. The instrument was based on the distinction between transactional and relational psychological contracts associated with Rousseau's work on psychological contracts in organizations (Rousseau, 1989). A transactional orientation generally emphasizes specific, relatively short-term exchanges, such as work performed in return for clearly defined financial rewards. A relational orientation places greater emphasis on longer-term relationships, mutual trust, loyalty, socio-emotional exchange, and expectations of continued association.

These orientations are analytically useful because employees may interpret their employment relationship in different ways, even when they work within the same institution. Employees who perceive the relationship as relational may attach greater importance to organizational support, mutual obligations, and long-term professional prospects. Those with a more transactional orientation may place relatively greater emphasis on explicit contractual conditions and immediate material returns. Such distinctions may help explain variation in employees' attitudes toward their work and their organizations.

The original instrument was described as using five response categories ranging from strong agreement to strong disagreement. The questionnaire's scoring procedure should clarify whether the 32 items generate a single continuum from transactional to relational orientation or whether separate scores are calculated for the two dimensions. This distinction matters because the conceptual relationship between transactional and relational contracts should not be treated as a single bipolar scale unless the instrument's structure and scoring rules justify doing so.

Measurement of Employee Engagement and Organizational Commitment

The engagement-related scale comprised 18 items, with responses recorded on a five-point scale: strongly agree, agree, neutral, disagree, and strongly disagree. Each response was assigned a numerical value, and the item scores were combined to obtain an overall score. According to the original study, higher total scores indicated a higher level of the measured work-related attitude.

Conceptually, employee engagement and organizational commitment are related but distinct constructs. Engagement concerns the extent to which individuals invest energy, dedication, and attention in their work. Kahn (1990, pp. 692–724) emphasized the personal investment of physical, cognitive, and emotional resources in work roles. Schaufeli et al. (2002, pp. 71–92) subsequently conceptualized work engagement through the dimensions of vigor, dedication, and absorption. Organizational commitment, by contrast, refers to an employee's psychological attachment to the organization and the nature of the relationship that connects the individual to it (Meyer & Allen, 1991, pp. 61–89).

This distinction is important for interpreting the hypotheses and statistical results. The original description refers to the 18-item scale as a measure of engagement, but the first hypothesis and the reported result refer to organizational commitment. The final manuscript should therefore identify the scale using its actual validated name and specify whether it measures engagement, organizational commitment, or a broader work-related attitude. The construct should be described consistently in the research questions, hypotheses, methods, tables, and discussion. The direction of scoring should also be verified against the original instrument before the total scores are interpreted.

Satisfaction with Remuneration

Satisfaction with remuneration was assessed using a 10-item scale developed by the author. The scale employed four response categories, ranging from strong agreement to strong disagreement. The absence of a neutral response category may encourage respondents to indicate whether they generally agree or disagree with the statements, although it also means that the instrument does not provide an explicit midpoint for respondents who are genuinely undecided.

The scale was intended to capture employees' evaluations of their remuneration and the extent to which they considered their financial rewards satisfactory. Such evaluations may involve more than the absolute amount of salary received. Employees may also compare their remuneration with their responsibilities, workload, qualifications, professional experience, and the rewards received by colleagues. Consequently, remuneration satisfaction can be understood as a

subjective assessment of the relationship between the rewards employees receive and the standards or expectations they use to evaluate them.

The Job Demands–Resources model provides a useful theoretical perspective for interpreting the relationship between working conditions and engagement. Bakker and Demerouti (2007, pp. 309–328) explain how job resources can contribute to work engagement and help employees manage job demands. Although remuneration is not interchangeable with every form of job resource, satisfaction with compensation may form part of employees' broader evaluation of the resources and rewards available to them. Its relationship with engagement should nevertheless be tested empirically rather than presumed to be uniformly positive.

Reliability of the Measurement Instruments

The internal consistency of the three scales was assessed using Cronbach's alpha coefficient. This coefficient is commonly used to examine the extent to which items within a scale are interrelated and contribute to the measurement of a common construct. The reported reliability coefficients were 0.7262 for the psychological contract scale, 0.8315 for the engagement-related scale, and 0.7217 for the remuneration satisfaction scale.

The psychological contract scale therefore produced an alpha coefficient of 0.7262, while the engagement-related scale recorded a coefficient of 0.8315. The remuneration satisfaction scale yielded a coefficient of 0.7217. These values indicate levels of internal consistency that are generally considered acceptable for exploratory social-science research, with the engagement-related scale displaying the highest coefficient among the three instruments.

Cronbach's alpha should not, however, be interpreted as proof that a scale is unidimensional, valid, or free from measurement error. Its value depends partly on the number of items and on the relationships among them. This consideration is particularly relevant to the 32-item psychological contract instrument, which may encompass transactional and relational dimensions. Where the instrument measures more than one construct, reliability should ideally be assessed for each dimension separately, provided that the questionnaire's structure permits such analysis.

Furthermore, the reliability values should be reported as obtained from the actual dataset and should not be presented as universal properties of the instruments. If these coefficients were calculated using the 104 respondents in the present study, that fact should be stated explicitly. A complete methodological account would also clarify the treatment of missing responses, the coding of reverse-worded items, and whether the scales were evaluated separately before their composite scores were used in hypothesis testing.

Statistical Analysis

The statistical processing was conducted using the Statistical Package for the Social Sciences (SPSS), version 17.0. The analysis was intended to describe the respondents, examine differences between groups, and test associations between selected individual and organizational variables and the work-related attitudes under investigation.

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the characteristics of the sample and the distribution of scale scores. Frequencies and percentages were appropriate for categorical variables such as gender, marital status, and professional position. Means and standard deviations were used to describe the central tendency and dispersion of scores obtained from the measurement scales.

The independent-samples t-test was used to compare the mean scores of two independent groups. In the first hypothesis, for example, it was applied to examine whether male and female employees differed in their mean score on the relevant work-related attitude scale. The interpretation of the test requires more than a comparison of the two means: the t statistic, degrees of freedom, and significance level should be reported. An effect-size measure, such as Cohen's *d*, would also help assess the magnitude of any observed difference.

The simple correlation coefficient was used to examine the direction and strength of associations between selected variables. Correlation analysis may be appropriate for investigating relationships such as those between organizational tenure and commitment, age and engagement, or satisfaction with remuneration and engagement. The precise coefficient should be selected according to the measurement properties and distribution of the variables. Pearson's correlation is commonly used for continuous variables when its assumptions are reasonably satisfied, whereas Spearman's rank correlation may be more appropriate for ordinal data or certain distributions that do not meet the assumptions required for Pearson's coefficient.

The statistical procedures were selected to correspond to the hypotheses and the types of variables involved. Nevertheless, statistical significance should be distinguished from substantive importance. A statistically significant result does not necessarily indicate a strong relationship, while a non-significant result does not by itself establish that no relationship exists. Interpretation should therefore consider the direction of the relationship, its magnitude, the quality of measurement, and the limitations associated with the sample and study design.

Results: Gender Differences in the Work-Related Attitude Score

The first hypothesis proposed that male and female employees would differ in their level of organizational commitment. To examine this proposition, the study compared the mean scores of the two groups using an independent-samples t-test. The descriptive results reported in the original study indicate that male respondents obtained a mean score of 77.94, with a standard deviation of 9.22, whereas female respondents obtained a mean score of 76.81, with a standard deviation of 6.59.

The descriptive difference between the two means was 1.13 points, with male respondents recording the higher average. The standard deviation was also greater among male respondents, suggesting greater dispersion in their scores within that

group. By comparison, the scores of female respondents were less dispersed around their group mean. These observations provide an initial description of the two groups, but they do not establish whether the difference is statistically significant. A valid conclusion concerning the first hypothesis requires the *t*-test statistic, degrees of freedom, and exact or reported *p*-value. Without these results, it would be premature to accept or reject the hypothesis. If the test produces a *p*-value below the prespecified significance threshold, the observed difference may be described as statistically significant; otherwise, the evidence would be insufficient to establish a statistically significant gender difference in the population represented by the study design. The magnitude of the difference should also be assessed rather than relying exclusively on statistical significance.

From a sociological perspective, any observed gender difference should not automatically be attributed to gender itself. Employees' work-related attitudes may also be associated with differences in professional position, seniority, age, working conditions, career opportunities, and perceptions of organizational fairness. These factors may help contextualize the descriptive findings and should be considered when interpreting the results. Since the data described here rely on a comparison of group means, the findings should be presented as associations rather than evidence of a causal relationship. Finally, the terminology used in the result must be checked against the actual questionnaire. Although the hypothesis is formulated in terms of organizational commitment, the methods section describes the 18-item instrument as measuring engagement. The final report should use the construct actually assessed by that instrument and ensure that the terminology in the hypothesis, statistical table, and interpretation is consistent.

Results and Discussion of the Hypotheses

The empirical analysis sought to examine the relationships between individual and organizational characteristics and employees' work-related attitudes, particularly organizational commitment and work engagement. Six hypotheses were formulated to investigate the possible influence of gender, organizational tenure, age, satisfaction with remuneration, psychological contract orientation, and professional position. The statistical analysis relied on comparisons of means using the independent-samples *t*-test and the examination of associations using correlation coefficients. The findings are interpreted below in relation to the direction and magnitude of the observed relationships, their statistical significance, and their implications for understanding employees' attitudes within the organizational environment.

First Hypothesis: Gender Differences in Organizational Commitment

The first hypothesis proposed that male and female employees differ in their level of organizational commitment. To test this hypothesis, the mean scores of the two groups were compared using the independent-samples *t*-test. The results are presented in Table 1.

Table 1. Comparison of Mean Engagement Scores between Male and Female Employees

Gender	N	Mean	Standard deviation
Male	77	77.94	9.22
Female	27	76.81	6.59
Statistical indicator			Value
<i>t</i>			0.58
Degrees of freedom			102
<i>p</i> -value			0.55
Mean difference (male – female)			1.13

Source: Authors' analysis of the empirical data.

The descriptive results indicate that male employees obtained a mean score of 77.94, with a standard deviation of 9.22, whereas female employees obtained a mean score of 76.81, with a standard deviation of 6.59. The difference between the two means was therefore 1.13 points in favor of male employees. Although the male group recorded a slightly higher average, this descriptive difference was not statistically significant ($t = 0.58$, $df = 102$, $p = 0.55$).

Since the reported *p*-value exceeds the conventional significance threshold of 0.05, the results do not provide sufficient statistical evidence to establish a significant difference between male and female employees in the measured work-related attitude. Accordingly, the first hypothesis is **not supported by the statistical results**. This conclusion does not demonstrate that the two groups are identical; rather, it indicates that the observed difference cannot be considered statistically significant on the basis of this test.

From a sociological perspective, this finding suggests that gender alone may not adequately explain variation in employees' organizational commitment. Employees' attitudes may instead be associated with a combination of professional experiences, perceived organizational support, working conditions, opportunities for advancement, and perceptions of fairness. The finding is consistent with the broader argument that work-related attitudes develop through interactions between individual characteristics and organizational environments rather than through demographic characteristics in isolation.

Nevertheless, the result should be interpreted cautiously. The sample included 77 men and 27 women, meaning that the two groups were unequal in size. This imbalance does not automatically invalidate the comparison, but it should be considered when assessing the precision and generalizability of the findings. Moreover, a non-significant result should not be interpreted as proof that gender has no relationship with commitment in other organizational settings.

The result also highlights the importance of distinguishing descriptive differences from statistically supported differences. Although the male group recorded a slightly higher mean, the evidence does not justify the conclusion that male

employees are more committed than female employees. A more comprehensive analysis could investigate whether gender differences vary according to professional position, organizational tenure, or satisfaction with employment conditions. Such analyses would help determine whether any relationship between gender and organizational commitment is conditional on other organizational or individual factors.

Second Hypothesis: The Relationship between Organizational Tenure and Commitment

The second hypothesis proposed a positive relationship between organizational tenure and organizational commitment. The assumption underlying this hypothesis is that employees who have spent more time within an organization may gradually develop stronger professional relationships, greater familiarity with organizational practices, and a stronger sense of belonging. However, longer tenure does not necessarily produce stronger commitment, because employees' experiences of organizational life may be either positive or negative.

Table 2. Correlation between Organizational Tenure and Work Engagement

Variables	Correlation coefficient (r)	p-value
Organizational tenure and engagement	0.116	0.241

Source: Authors' analysis of the empirical data.

The results indicate a positive correlation coefficient of 0.116 between organizational tenure and the measured work-related attitude. The positive sign suggests that higher levels of tenure tend to be associated with slightly higher scores. However, the magnitude of the coefficient is weak, and the relationship is not statistically significant ($p = 0.241$). Consequently, the findings do not provide sufficient evidence to support the second hypothesis. Although the direction of the observed association is consistent with the proposed hypothesis, the relationship is too weak and statistically uncertain to justify the conclusion that longer organizational tenure is positively associated with commitment in this sample.

From a theoretical standpoint, organizational tenure may contribute to employees' familiarity with institutional rules, work procedures, colleagues, and professional expectations. Over time, employees may accumulate organization-specific knowledge and establish relationships that facilitate their integration into the workplace. These processes may strengthen attachment when employees experience fair treatment, supportive leadership, professional recognition, and opportunities for advancement.

However, tenure may also have different implications depending on the quality of employees' organizational experiences. Employees who remain in the same organization for many years without meaningful career development, recognition, or satisfactory working conditions may not necessarily develop stronger commitment. Similarly, employees with shorter tenure may demonstrate strong commitment when they perceive their work as meaningful and receive adequate organizational support.

This interpretation is compatible with social exchange theory, according to which the quality of the relationship between employees and their organization depends partly on how obligations, benefits, and treatment are perceived (Blau, 1964). Organizational tenure alone does not reveal whether the employment relationship is perceived as fair or mutually beneficial. Consequently, the duration of employment should be examined alongside other variables, including job satisfaction, perceived organizational support, career opportunities, and psychological contract fulfillment.

The empirical result therefore suggests that organizational tenure, considered in isolation, has limited explanatory value for the measured attitude in this sample. It would be inappropriate to conclude that the second hypothesis has been confirmed simply because the correlation coefficient is positive. Statistical significance and substantive magnitude must also be considered.

Third Hypothesis: The Relationship between Age and Work Engagement

The third hypothesis proposed a positive relationship between employees' age and work engagement. This hypothesis assumes that age-related differences in professional experience, work expectations, and career development may be associated with differences in employees' investment in their work.

Table 3. Correlation between Age and Work Engagement

Variables	Correlation coefficient (r)	p-value
Age and engagement	0.085	0.393

Source: Authors' analysis of the empirical data.

The findings reveal a positive correlation coefficient of 0.085 between age and the measured work-related attitude. However, the coefficient is very weak, and the relationship is not statistically significant ($p = 0.393$). The results therefore do not provide sufficient evidence to support the third hypothesis.

The positive direction of the coefficient indicates that older respondents tended, very slightly, to obtain higher scores. Nevertheless, the magnitude of the relationship is negligible in practical terms, and the statistical result does not justify the assertion that age is positively associated with engagement in the population represented by the study.

From an organizational perspective, age may be connected to a range of experiences that could influence work-related attitudes. Employees at different career stages may differ in their expectations concerning stability, promotion, professional recognition, work-life balance, and future employment opportunities. Older employees may possess accumulated professional knowledge and established working relationships, while younger employees may place greater emphasis on career mobility, training, and advancement.

These possibilities do not imply that one age group is necessarily more engaged than another. The direction of the relationship may depend on the organization's employment practices and the opportunities available to employees. For example, professional experience may contribute to confidence and competence when employees receive appropriate recognition and opportunities to use their skills. Conversely, limited opportunities for development or dissatisfaction with working conditions may weaken engagement regardless of age.

Kahn's (1990, pp. 692–724) conceptualization of personal engagement emphasizes the conditions that enable individuals to invest themselves physically, cognitively, and emotionally in their work roles. This perspective directs attention to the psychological and organizational conditions of engagement rather than assuming that engagement necessarily increases with age. Similarly, the Job Demands–Resources model emphasizes the role of job resources and demands in explaining work engagement (Bakker & Demerouti, 2007, pp. 309–328).

The present findings therefore suggest that age, by itself, does not explain meaningful variation in the measured work-related attitude within the sample. Further research could investigate whether age interacts with organizational tenure, professional position, perceived support, or satisfaction with remuneration. Such an approach would provide a more nuanced understanding of the relationship between employees' career stages and their experiences at work.

Fourth Hypothesis: The Relationship between Satisfaction with Remuneration and Work Engagement

The fourth hypothesis proposed a positive relationship between satisfaction with remuneration and work engagement. The underlying assumption is that employees who perceive their remuneration as satisfactory may evaluate their employment relationship more positively and may be more willing to invest effort and attention in their professional activities.

Table 4. Correlation between Satisfaction with Remuneration and Work Engagement

Variables	Correlation coefficient (r)	p-value
Satisfaction with remuneration and engagement	0.089	0.367

Source: Authors' analysis of the empirical data.

The statistical results show a positive correlation coefficient of 0.089 between satisfaction with remuneration and the measured work-related attitude. However, the association is very weak and does not reach statistical significance ($p = 0.367$). Therefore, the findings do not provide sufficient evidence to support the fourth hypothesis.

The positive coefficient indicates that higher satisfaction with remuneration tended to accompany slightly higher scores on the measured attitude. Nevertheless, the relationship is too weak to justify a substantive conclusion, and the non-significant p -value means that the observed association cannot be distinguished reliably from random variation at the conventional 0.05 significance level.

The finding is particularly relevant because remuneration is an important component of the employment relationship. Employees evaluate their financial rewards in relation not only to their immediate economic needs but also to their responsibilities, qualifications, professional experience, workload, and perceptions of fairness. Satisfaction with remuneration may therefore reflect a broader judgment about whether the organization recognizes employees' contributions and distributes rewards equitably.

However, the present result suggests that remuneration satisfaction alone may not be sufficient to explain differences in engagement among the participating employees. Other factors, such as leadership quality, autonomy, recognition, relationships with colleagues, opportunities for professional development, and the meaningfulness of work, may also contribute to employees' willingness to invest themselves in their professional roles.

The Job Demands–Resources model provides a useful interpretive framework here. Bakker and Demerouti (2007, pp. 309–328) argue that job resources can contribute to motivational processes and work engagement. Although financial rewards may form part of employees' broader assessment of their employment conditions, engagement cannot be reduced to remuneration alone. Employees may be dissatisfied with some aspects of their financial rewards while remaining highly engaged because they value their work, professional identity, or relationships within the organization. Conversely, satisfactory remuneration does not automatically guarantee high engagement if working conditions are perceived as unsupportive.

Social exchange theory also suggests that employees' responses depend on their overall perceptions of the relationship with the organization (Blau, 1964). Satisfaction with remuneration may contribute to this evaluation, but employees may simultaneously consider fairness, trust, organizational support, and the fulfillment of implicit or explicit obligations.

Accordingly, the fourth hypothesis is not statistically supported by the reported findings. It would be inaccurate to state that the results confirm the existence of a relationship merely because the correlation coefficient is positive. The more precise conclusion is that a weak positive association was observed, but the evidence was insufficient to establish a statistically significant relationship between remuneration satisfaction and the measured work-related attitude in this sample.

Fifth Hypothesis: Psychological Contract Orientation and Work Engagement

The fifth hypothesis proposed that employees with a predominantly relational psychological contract would demonstrate higher levels of work engagement than employees with a predominantly transactional psychological contract. Unlike the preceding hypotheses, this proposition concerns the nature of the psychological relationship between employees and their organization rather than a demographic characteristic alone.

A relational psychological contract generally emphasizes longer-term association, mutual trust, loyalty, socio-emotional exchange, and expectations of continuing cooperation. A transactional psychological contract, by contrast, places greater emphasis on specific and relatively short-term exchanges, including clearly defined obligations and material rewards. These orientations are useful for understanding how employees interpret their responsibilities and the obligations they believe their organization should fulfill.

Table 5. Comparison of Mean Work Engagement Scores by Psychological Contract Orientation

Psychological contract orientation	N	Mean	Standard deviation
Relational	77	78.41	7.15
Transactional	25	74.40	11.48
Statistical indicator			Value
<i>t</i>			2.07
Degrees of freedom			100
<i>p</i> -value			0.04
Mean difference (relational – transactional)			4.01

Source: Authors' analysis of the empirical data.

The results show that employees classified as having a relational psychological contract obtained a mean score of 78.41, with a standard deviation of 7.15. In comparison, employees classified as having a transactional psychological contract obtained a mean score of 74.40, with a standard deviation of 11.48. The difference between the two means was 4.01 points in favor of the relational group.

The independent-samples *t*-test yielded a reported value of 2.07, with 100 degrees of freedom and a *p*-value of 0.04. Since this *p*-value is below the conventional significance threshold of 0.05, the difference is statistically significant according to the reported test. The results therefore provide support for the fifth hypothesis: employees in the relational group recorded significantly higher mean scores on the measured work-related attitude than employees in the transactional group.

This result is particularly relevant to the theoretical framework of the study because it suggests that the perceived nature of the employment relationship may be associated with differences in employees' attitudes toward their work. The higher average in the relational group is consistent with the proposition that employees who perceive their relationship with the organization as based on longer-term mutual obligations and socio-emotional exchange may demonstrate greater psychological investment in their professional roles.

Rousseau (1989, pp. 121–139) emphasizes the significance of psychological contracts in shaping employees' perceptions of the obligations that connect them to their organizations. These perceptions may influence how employees interpret organizational decisions, evaluate managerial conduct, and respond to the fulfillment or violation of expected obligations. When employees perceive that their organization honors its commitments and treats them fairly, they may be more inclined to reciprocate through constructive work-related attitudes and behavior.

The finding can also be interpreted through social exchange theory. In a relationship characterized by trust, recognition, and perceived reciprocity, employees may understand their contribution as part of an ongoing exchange rather than as a narrowly defined transaction. This may be associated with a stronger willingness to contribute energy and attention to work. In contrast, a predominantly transactional orientation may lead employees to focus more closely on the explicit terms of employment and the immediate balance between effort and reward.

Nevertheless, the finding should not be interpreted as demonstrating that relational contracts necessarily cause higher engagement. The data indicate a statistically significant difference between two groups, but the study design described does not establish causal direction. It is possible that a relational orientation contributes to engagement, that engaged employees perceive their organizational relationship more positively, or that both are associated with other factors, such as leadership practices, perceived fairness, job security, or organizational support.

The difference in standard deviations also deserves attention. The transactional group recorded a standard deviation of 11.48, compared with 7.15 in the relational group. This indicates greater variability in the scores of transactional employees. Their experiences may therefore be more heterogeneous, with some employees reporting relatively high scores and others lower scores. The group sizes were also unequal, with 77 respondents in the relational group and 25 in the transactional group. These characteristics should be considered when interpreting the comparison.

Overall, the fifth hypothesis receives statistical support from the reported findings. Of the relationships examined in the study, this result provides the clearest evidence that a specific organizational-psychological factor—psychological contract orientation—is associated with differences in the measured work-related attitude. It consequently reinforces the importance of examining the quality and perceived nature of employment relationships when seeking to understand employee engagement.

Sixth Hypothesis: Professional Position and Work Engagement

The sixth hypothesis proposed that employees in managerial or executive positions would demonstrate higher levels of work engagement than employees in non-managerial or operational positions. This assumption reflects the possibility that managerial employees may have greater decision-making authority, professional autonomy, access to organizational information, and opportunities to influence institutional decisions. However, managerial positions may also involve heavier responsibilities, greater work pressure, and more demanding expectations.

Table 6. Comparison of Mean Work Engagement Scores between Managers and Operational Employees

Professional position	N	Mean	Standard deviation
Managers or executives	32	79.81	8.29
Operational employees	72	76.69	8.62

Statistical indicator	Value
Reported <i>t</i>	-1.72
Degrees of freedom	102
<i>p</i> -value	0.08
Mean difference (managers – operational employees)	3.12

Source: Authors' analysis of the empirical data.

The descriptive results indicate that managers or executives obtained a mean score of 79.81, with a standard deviation of 8.29, whereas operational employees obtained a mean score of 76.69, with a standard deviation of 8.62. The difference between the two means was approximately 3.12 points in favor of managers or executives.

Although the descriptive results are consistent with the direction proposed in the sixth hypothesis, the reported statistical test yielded $t = -1.72$, with 102 degrees of freedom and $p = 0.08$. Since the p -value exceeds 0.05, the difference does not reach the conventional level of statistical significance. Consequently, the sixth hypothesis is **not supported statistically by the reported results**, even though managers recorded a higher average score.

The observed difference may nevertheless be relevant for further investigation. Managerial employees may have greater autonomy, influence over work organization, access to information, and opportunities to participate in decision-making. These features may help them perceive their work as more meaningful or provide them with greater control over their professional activities. Such conditions may be associated with greater engagement, particularly when employees have sufficient resources to meet their responsibilities.

However, professional position should not be treated as a direct or universal determinant of engagement. Managerial responsibilities may also entail high workloads, competing demands, accountability for organizational outcomes, and pressure to resolve problems. Similarly, operational employees may demonstrate substantial engagement when they receive adequate recognition, supportive supervision, opportunities to develop their skills, and a clear understanding of the importance of their contribution.

The Job Demands–Resources model offers a useful framework for interpreting these possibilities. Bakker and Demerouti (2007, pp. 309–328) distinguish between job demands, which require sustained effort, and job resources, which may facilitate goal achievement and support motivation. Managerial positions may provide additional resources, such as autonomy and decision-making authority, while also exposing employees to higher demands. The net relationship with engagement may therefore depend on the balance between these conditions rather than on professional rank alone.

The findings also suggest that a higher mean score should not automatically be interpreted as evidence of a statistically established difference. Although the mean among managers was higher by approximately 3.12 points, the reported p -value indicates that the available evidence is insufficient to conclude that the difference is statistically significant. The results should therefore be described as a descriptive tendency rather than confirmation of the hypothesis.

One technical point should also be checked in the original statistical output: the reported t -value is negative, although the mean for managers is higher than the mean for operational employees. The sign of a t -statistic depends on the order in which the groups are subtracted. It may therefore be consistent with the means if the operational group was entered first. The group order and the original SPSS output should be verified before the table is finalized.

In conclusion, the sixth hypothesis is not statistically supported at the 0.05 level. The descriptive difference suggests that managerial position may be associated with somewhat higher engagement scores, but the available evidence does not establish a statistically significant difference. Further research could investigate whether autonomy, perceived organizational support, workload, and participation in decision-making help explain differences between professional categories.

Overall Discussion of the Findings

Taken together, the six hypotheses provide a differentiated picture of the individual and organizational factors associated with employees' work-related attitudes. The findings do not support the assumption that all demographic or professional characteristics necessarily produce statistically significant differences in commitment or engagement. Rather, the results indicate that the relationships examined vary in strength and statistical significance.

The first hypothesis, concerning gender differences, was not supported because the difference between the two group means was statistically non-significant. The second hypothesis, concerning organizational tenure, also lacked statistical support, as did the third hypothesis relating age to engagement. The fourth hypothesis, concerning satisfaction with remuneration, revealed a weak positive but non-significant correlation. These findings suggest that the selected individual characteristics and remuneration satisfaction, when considered separately, did not demonstrate statistically significant associations with the measured attitudes in this sample.

By contrast, the fifth hypothesis received statistical support. Employees classified as having a relational psychological contract recorded a higher mean score than those classified as having a transactional psychological contract, and the difference was statistically significant at the 0.05 level. This finding points to the potential importance of employees'

perceptions of their relationship with the organization. It suggests that the quality of perceived mutual obligations may be more informative in this sample than certain demographic characteristics considered in isolation.

The sixth hypothesis, concerning professional position, showed a higher descriptive mean among managers than operational employees but did not reach statistical significance. This result indicates that professional position may warrant further investigation, particularly in relation to autonomy, workload, responsibility, and access to organizational resources. However, the present evidence is insufficient to conclude that managers are more engaged than operational employees in a statistically significant sense.

These results can be interpreted within an integrated theoretical perspective. Kahn's (1990, pp. 692–724) conceptualization of personal engagement emphasizes the psychological conditions that allow employees to invest themselves in their work roles. Social exchange theory highlights the importance of reciprocity and perceived fairness in relationships between employees and organizations (Blau, 1964). Psychological contract theory further explains how employees' beliefs about mutual obligations may shape their interpretation of organizational treatment and their responses to the employment relationship (Rousseau, 1989, pp. 121–139). Finally, the Job Demands–Resources model emphasizes that engagement is associated with the resources available to employees and the demands they face (Bakker & Demerouti, 2007, pp. 309–328).

Viewed together, these perspectives suggest that employees' attitudes should not be explained exclusively through age, gender, tenure, or professional position. Their experiences of organizational life, including their perceptions of support, reciprocity, fairness, and the nature of their psychological contract, also deserve attention. In this study, the statistically significant difference associated with psychological contract orientation provides a specific empirical indication of the relevance of this organizational-psychological dimension.

Nevertheless, the conclusions must remain proportionate to the evidence. The study concerns 104 respondents from two institutions in Blida, and the reported analyses are primarily bivariate. The findings cannot establish causal relationships, and they should not be generalized automatically to all employees or institutions. Further research using larger and more diverse samples, consistent measurement of engagement and organizational commitment, and multivariable analyses could examine whether the observed relationships persist after controlling for other relevant factors.

A final conceptual distinction is essential. Organizational commitment refers to an employee's attachment to the organization, whereas work engagement concerns the investment of energy, dedication, and attention in work activities (Meyer & Allen, 1991, pp. 61–89; Schaufeli et al., 2002, pp. 71–92). Because the original tables use both terms, the final manuscript should establish precisely which construct was measured by the 18-item scale and use that term consistently. This clarification is necessary to ensure that the hypotheses, statistical results, theoretical discussion, and conclusions form a coherent analytical framework.

Overall, the empirical findings provide partial support for the proposed hypotheses. The strongest statistical evidence concerns the difference between employees with relational and transactional psychological contract orientations. The remaining findings either show weak positive associations or descriptive differences that do not reach statistical significance. The study therefore points toward the importance of examining organizational relationships and employees' perceptions of mutual obligations while avoiding deterministic conclusions based solely on demographic or professional characteristics.

Discussion

The findings of this study provide insights into the individual and organizational factors associated with employee engagement and organizational commitment within the CNR and CASNOS agencies in Blida. Rather than indicating that demographic and occupational characteristics automatically determine employees' attitudes toward work, the results suggest that these attitudes emerge from the interaction between personal circumstances, employment experiences, and the nature of the psychological relationship between employees and their organizations. The discussion therefore focuses on the theoretical significance of these findings, their relationship to previous research, and their implications for human resource management.

An important finding concerns the role of gender in explaining differences in employees' organizational attitudes. Although the descriptive results indicate a slight difference between male and female employees, the statistical analysis does not establish a significant gender-based difference. This finding suggests that gender alone may be insufficient to explain variations in organizational commitment within the institutions examined. Employees' experiences may be shaped more directly by factors such as the work environment, perceived fairness, opportunities for advancement, managerial support, and the compatibility between professional and personal responsibilities. Consequently, gender should not be treated as an independent explanation for employees' levels of commitment without considering the organizational and social conditions in which they work.

This interpretation is consistent with a broader approach to organizational behavior that emphasizes the importance of work-related experiences rather than relying exclusively on demographic categories. Nevertheless, the absence of a statistically significant difference does not establish that gender is irrelevant in every organizational context. Gender-related expectations, unequal access to career opportunities, and the distribution of family responsibilities may influence employees' experiences in ways that are not fully captured by a comparison of group means. Further research incorporating these factors could help clarify whether gender influences organizational attitudes indirectly or under particular institutional conditions.

The relationships between age, organizational tenure, and employee engagement also require careful interpretation. The findings do not provide sufficient statistical evidence to conclude that older employees or those with longer service are necessarily more engaged or committed. Although the observed relationships are positive, their magnitude is weak and their statistical significance is insufficient to support the corresponding hypotheses. This suggests that age and tenure should be understood as background characteristics whose influence may depend on other conditions rather than as reliable predictors of engagement in themselves.

One possible explanation is that remaining in an organization for an extended period does not necessarily imply a strong emotional attachment to it. Employees may continue working in the same institution because it provides income security, pension rights, predictable working conditions, or protection against the uncertainty associated with changing employment. Such considerations may encourage employees to remain in an organization without necessarily increasing their psychological involvement in their work. This distinction is important because organizational continuity and genuine engagement are not equivalent phenomena.

The distinction also resonates with Meyer and Allen's (1991) conceptualization of organizational commitment, which differentiates affective commitment from continuance and normative commitment. An employee may remain with an organization because they identify with its values and feel emotionally attached to it, because leaving would involve significant costs, or because they perceive an obligation to stay. These motivations are conceptually different and may produce different behavioral outcomes. Accordingly, future research should distinguish between employees' intention to remain, their emotional attachment, and their actual involvement in work rather than treating them as interchangeable indicators.

The findings concerning remuneration satisfaction similarly suggest that financial considerations should not be regarded as sufficient explanations for employee engagement. Although satisfaction with remuneration displays a positive relationship with engagement in the present study, the evidence does not establish a statistically significant association. This does not mean that salaries and financial benefits are unimportant. Rather, it indicates that the available data do not demonstrate that differences in remuneration satisfaction are systematically associated with differences in engagement among the employees surveyed.

From an organizational perspective, remuneration constitutes one component of the broader employment relationship. Employees may evaluate their compensation in relation to their responsibilities, workload, professional qualifications, career prospects, and perceptions of fairness. However, their attitudes toward work may also depend on recognition, autonomy, interpersonal relationships, managerial practices, and access to professional development. The Job Demands–Resources model proposed by Demerouti et al. (2001) and further developed by Bakker and Demerouti (2007) provides a useful framework for understanding this complexity. According to this approach, engagement is influenced by the resources available to employees, including support, autonomy, feedback, and opportunities for development, as well as by the demands associated with their jobs.

The present findings therefore suggest that remuneration policies should be considered alongside broader organizational practices. Improving compensation may be important for perceptions of fairness and employment quality, but it should not be assumed that financial satisfaction alone will generate stronger engagement. Organizations also need to examine the quality of supervision, the accessibility of promotion opportunities, the distribution of responsibilities, and the extent to which employees feel that their contributions are recognized.

Among the relationships examined, the distinction between relational and transactional psychological contracts offers a particularly relevant insight. Employees classified as having a relational psychological contract reported higher levels of engagement or commitment than those classified as having a transactional orientation, and the observed difference was statistically significant. This finding supports the hypothesis concerning psychological contract orientation within the limits of the study design.

Rousseau (1989) explains that psychological contracts concern employees' beliefs about the reciprocal obligations between themselves and their employers. Relational contracts generally involve a broader and more enduring exchange, incorporating trust, loyalty, mutual support, and expectations of continuity. Transactional contracts, by contrast, tend to emphasize more clearly defined and limited exchanges, particularly those involving immediate economic rewards and specified work contributions. These orientations can shape how employees interpret organizational decisions and evaluate their relationship with the institution.

The higher engagement observed among employees with a relational orientation may therefore indicate that a relationship characterized by trust, reciprocity, and longer-term expectations is associated with stronger psychological involvement. Employees who believe that their organization recognizes their contributions and takes their professional interests seriously may be more willing to invest effort and maintain a constructive relationship with the institution. This interpretation is also compatible with social exchange theory, according to which favorable treatment can encourage reciprocal attitudes and behaviors (Blau, 1964).

However, the finding should not be interpreted as proof that a relational psychological contract directly causes greater engagement. The study is based on observational data, and the relationship may operate in both directions. Employees who already feel engaged may be more likely to perceive their employment relationship as relational, while supportive organizational practices may simultaneously contribute to both perceptions. Longitudinal research would be required to clarify the temporal relationship between psychological contract orientation and engagement.

The practical implication is that public institutions should pay attention not only to formal employment conditions but also to the quality of their everyday relationships with employees. Transparent communication, consistent application of rules, recognition of professional contributions, opportunities for development, and credible fulfillment of organizational promises may help strengthen employees' perceptions of reciprocity. These practices are particularly relevant in institutions where administrative procedures and standardized employment arrangements can make the individual employee's experience of recognition and participation especially important.

The comparison between managerial and operational employees provides an additional perspective on occupational position. Although the descriptive results show higher average scores among managerial employees, the statistical test does not establish a significant difference at the conventional 5% level. The hypothesis that managers necessarily demonstrate greater engagement or commitment than operational employees therefore cannot be considered statistically supported by the present data.

Differences between occupational groups may reflect variations in autonomy, decision-making authority, access to information, recognition, workload, and opportunities for advancement. Managerial employees may have greater control over some aspects of their work, whereas operational employees may experience more limited discretion or less direct participation in organizational decisions. These are plausible explanations, however, rather than mechanisms directly demonstrated by the current analysis. Moreover, managerial responsibilities can also generate substantial pressure, and operational employees may develop strong attachments to their colleagues, professional roles, and institutions. Occupational position should therefore not be treated as a definitive indicator of engagement.

The absence of a statistically significant difference also highlights the importance of examining the conditions under which employees perform their work. Rather than assuming that managerial status automatically produces stronger commitment, organizations should assess whether employees across occupational categories have access to appropriate resources, constructive supervision, fair treatment, and meaningful opportunities to contribute. Such an approach shifts attention from hierarchical status to the organizational conditions that may support engagement across the workforce.

Taken together, the findings provide partial support for the study's proposed relationships. The relationship between psychological contract orientation and employee engagement or commitment receives statistical support, whereas the hypotheses concerning gender, tenure, age, remuneration satisfaction, and occupational position are not supported by statistically significant evidence in this sample. This pattern does not establish that these latter factors have no influence under any circumstances. Instead, it indicates that the present study does not provide sufficient evidence to confirm the proposed relationships in the two institutions examined.

Several methodological considerations should be taken into account when interpreting these findings. First, the study concerns employees from two public social-security institutions in Blida, which limits the extent to which the results can be transferred to other organizations, sectors, or regions. Second, the use of questionnaire-based measures means that the findings reflect employees' reported perceptions and may be affected by response patterns or the interpretation of questionnaire items. Third, correlations and comparisons between groups identify associations and differences but do not establish causal relationships. Finally, the interpretation of the results depends on the precise construct measured by the 18-item scale. Organizational commitment and work engagement are related but distinct concepts, and they should not be used interchangeably without theoretical and measurement justification.

Future research could address these limitations by including a larger and more diverse sample of organizations, distinguishing affective, continuance, and normative commitment from work engagement, and examining additional factors such as leadership style, organizational justice, professional development, job autonomy, and perceived organizational support. Qualitative interviews could also help explain why some employees maintain positive organizational attitudes despite limited satisfaction with particular employment conditions, while others may experience weaker engagement despite long service or relatively favorable working arrangements.

In conclusion, the study suggests that employee engagement and organizational commitment should be understood as multidimensional outcomes associated with the broader employment relationship rather than as automatic consequences of demographic characteristics, length of service, remuneration satisfaction, or hierarchical position. The most notable finding concerns the association between a relational psychological contract and higher reported engagement or commitment. This underscores the importance of trust, reciprocity, and the perceived quality of the relationship between employees and their organizations. At the same time, the non-significant findings highlight the need for caution and further investigation. For the CNR and CASNOS agencies examined, the results point to the value of organizational practices that strengthen mutual trust, ensure fair treatment, and provide employees with meaningful professional support.

Conclusion

In a context characterized by economic uncertainty, organizational transformation, and increasing demands for efficiency, employee engagement and organizational commitment have become important concerns for organizations seeking to maintain their performance and long-term viability. Changes in employment relationships, managerial practices, and work organization have encouraged institutions to reconsider how they manage their human resources, recognize employees' contributions, and respond to their professional and personal expectations. In this context, understanding the factors associated with employees' attitudes toward work represents an important issue for organizational research and human resource management.

The present study examined individual and organizational factors associated with employee engagement and organizational commitment within the CNR and CASNOS agencies in Blida. By considering gender, age, organizational tenure, satisfaction with remuneration, psychological contract orientation, and professional position, the study sought to determine whether these factors were significantly associated with employees' organizational attitudes. The findings indicate that these relationships are not uniform and that demographic or occupational characteristics alone do not provide sufficient explanations for variations in engagement or commitment.

The results did not establish statistically significant relationships between engagement or commitment and gender, age, organizational tenure, satisfaction with remuneration, or professional position. These findings should not be interpreted as evidence that such factors are irrelevant in every organizational context. Rather, they suggest that their explanatory contribution may depend on other dimensions of the employment relationship, including perceptions of fairness, managerial support, opportunities for professional development, working conditions, and the quality of communication within the organization. They also underline the importance of distinguishing between employees' continued presence in an institution and their psychological involvement in their work.

The most notable finding concerns psychological contract orientation. Employees characterized by a relational psychological contract reported higher levels of engagement or commitment than those characterized by a transactional orientation, and the observed difference was statistically significant. This result highlights the potential importance of trust, reciprocity, mutual expectations, and the perceived quality of the relationship between employees and their organization. When employees perceive that their contributions are recognized and that organizational commitments are respected, they may be more inclined to develop a constructive and enduring relationship with their institution. Nevertheless, because the study is based on observational data, this relationship should be understood as an association rather than definitive evidence of a causal effect.

From a managerial perspective, the findings suggest that improving organizational performance requires attention not only to formal employment conditions and financial rewards but also to the broader environment in which employees carry out their professional responsibilities. Transparent communication, equitable treatment, recognition of individual contributions, access to training, and credible opportunities for career development may help strengthen the quality of the employment relationship. Such measures should be implemented in ways that take account of differences in professional responsibilities and employees' working conditions, rather than assuming that a single managerial approach will produce the same outcomes for everyone.

The study also has limitations that should be acknowledged. Its empirical scope is restricted to two social-security institutions in Blida, and its findings cannot automatically be generalized to other organizations or sectors. In addition, the use of questionnaire data and statistical comparisons provides evidence of associations and group differences but does not establish causality. Future research could expand the sample to include other institutions and regions, incorporate qualitative interviews to gain a deeper understanding of employees' experiences, and examine additional organizational factors such as leadership, organizational justice, perceived organizational support, and professional development opportunities. Particular attention should also be paid to distinguishing work engagement from organizational commitment, as these concepts are related but theoretically distinct.

In conclusion, the study emphasizes the importance of understanding employees' organizational attitudes as outcomes associated with a broader set of individual and organizational conditions. Although the findings do not confirm most of the proposed relationships, they draw attention to the psychological contract as a potentially important dimension of the employment relationship. For the institutions examined, strengthening trust, reciprocity, fairness, and professional support represents a relevant direction for human resource management. Further research is required to determine how these factors interact over time and under what organizational conditions they contribute to stronger engagement, organizational commitment, and sustainable institutional performance.

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