Investigating the effect of emotional intelligence components on organizational expert components in the construction projects of first-rate construction companies in Tehran

Reza Reisi[1], Parviz Ghoddousi[2*]
[1]M.Sc., Civil Engineering, Iran University of Science and Technology, Tehran, Iran
[2]Professor, Civil Engineering, Iran University of Science and Technology, Tehran, Iran

ABSTRACT

This study explores the impact of Emotional Intelligence (EI) on Organizational Commitment (OC) within Tehran's top-tier construction firms. EI, comprising self-awareness, self-management, social awareness, and relationship management, is a critical driver for fostering OC, which includes affective, continuance, and normative dimensions. Using a survey-based methodology, data from 271 participants were analyzed through structural equation modeling (Smart PLS). The results reveal a significant positive relationship between EI and OC, with a path coefficient of 0.855. Among EI components, self-awareness demonstrated the strongest influence, particularly on affective and normative commitment. The findings emphasize the strategic role of EI in enhancing employee retention, team cohesion, and overall organizational resilience in high-pressure construction environments. This research contributes novel insights into the construction industry's psychological factors and offers practical recommendations for integrating EI into workforce management strategies.

KEYWORDS

Emotional intelligence, Organizational commitment, Construction projects, Smart PLS, Self- awareness

* Parviz Ghoddousi: Email: Ghoddousi@iust.ac.ir

1. Introduction

The construction industry is recognized for its dynamic and challenging environment, where effective teamwork and emotional resilience are critical for achieving project success. Organizational Commitment (OC) plays a pivotal role in retaining employees and enhancing their motivation, ultimately contributing to overall organizational performance. OC comprises three dimensions: affective commitment (emotional attachment to the organization), continuance commitment (awareness of the costs associated with leaving), and normative commitment (a sense of obligation to remain). These dimensions significantly influence employee behavior and organizational outcomes [1,2].

Emotional Intelligence (EI) has gained significant attention as a framework for improving interpersonal skills and workplace interactions. Defined as the ability to recognize, regulate, and manage emotions, EI encompasses components such as self-awareness, empathy, and relationship management, which are pivotal for fostering collaboration and reducing workplace stress [3]. In high-pressure environments like construction, where deadlines and resource constraints are prevalent, EI can provide the emotional stability and communication skills needed for maintaining team cohesion and achieving organizational goals [4].

Despite extensive research on EI in various industries, its specific impact on OC in the construction sector remains underexplored. Previous studies have primarily focused on manufacturing or service-based industries, leaving a notable gap in understanding how EI influences commitment within the unique context of construction projects [5]. Addressing this gap is essential, given the growing complexity and demands of construction projects in urban environments such as Tehran.

This study seeks to bridge this gap by investigating the relationship between EI and OC among employees in Tehran's top-tier construction firms. By employing structural equation modeling, the research aims to provide actionable insights into how EI components—such as self-awareness and relationship management—affect different dimensions of OC. This study offers a novel perspective on the strategic role of EI in fostering a committed workforce, thereby contributing to improved project outcomes and organizational resilience.

2. Methodology

This study employs a quantitative research design to investigate the relationship between Emotional Intelligence (EI) and Organizational Commitment (OC) in Tehran's top-tier construction companies. A survey-based approach was adopted, targeting employees involved in various roles across construction projects, including project managers, supervisors, and technical staff.

The data were collected using standardized questionnaires tailored to the construction industry context in Iran. The EI component was assessed using Goleman's Emotional Intelligence Questionnaire, while OC was measured using Allen and Meyer's Organizational Commitment Scale. Both questionnaires were modified slightly to align with the specific characteristics of the Iranian construction industry. The validity of the questionnaires was confirmed through expert reviews, and their reliability was tested using Cronbach's alpha, which exceeded the threshold of 0.7 for all components.

The study population included employees from top-rated construction firms in Tehran. Using Cochran's formula, a sample size of 383 was determined. A random sampling technique was employed to distribute questionnaires among participants, and a total of 271 valid responses were collected after excluding incomplete questionnaires.

The collected data were analyzed using structural equation modeling (SEM) via Smart PLS software. This approach was selected due to its robustness in examining complex relationships between latent variables. Descriptive statistics were used to summarize demographic information, and inferential analysis was applied to evaluate the hypothesized relationships. Model fit was assessed using criteria such as R^2 and the goodness-of-fit index (GOF), both of which indicated a strong model fit.

3. Discussion and Results

The analysis revealed a significant positive relationship between Emotional Intelligence (EI) and Organizational Commitment (OC) among employees in Tehran's top-tier construction companies. Structural equation modeling (SEM) results indicated a strong path coefficient (0.855), affirming the hypothesis that EI positively influences OC.

Impact of EI Components: Among the four EI components, self-awareness demonstrated the highest impact on OC, particularly on affective and normative commitment dimensions. This aligns with previous studies emphasizing the role of self-awareness in

fostering emotional attachment and organizational loyalty [1,4].

Self-Management: This component contributed significantly to employees' ability to navigate workplace challenges effectively, enhancing their continuance commitment [6].

Social Awareness and Relationship Management: These components positively influenced team cohesion and collaboration, critical for organizational resilience in high-stress environments [5,7].

Demographic factors, including age, experience, and job role, moderated the relationship between EI and OC. Younger employees exhibited a stronger correlation between EI and OC, potentially due to their openness to adopting emotional intelligence practices [8].

Table 1: Mean and Standard Deviation of EI Components

EI Component	Affective Commitment	Continuance Commitment	Normative Commitment
Self-Awareness	0.91	0.75	0.85
Self-Management	0.83	0.78	0.79
Social-Awareness	0.87	0.81	0.82
Relationship Management	0.89	0.80	0.84

Table 1 presents a diagram illustrating the structural equation modeling (SEM) results shows the relationships among EI components and OC dimensions. Path coefficients for self-awareness (0.93), self-management (0.85), social awareness (0.79), and relationship management (0.72) confirm their significant influence on OC dimensions.

The structural model exhibited excellent fit indices:

R^2 for OC: 0.73, indicating that EI explains 73% of the variance in OC.

GOF Index: 0.514, suggesting strong overall model fit.

These findings support the integration of EI-focused training programs to enhance employee commitment and organizational resilience, particularly in dynamic and high-pressure environments such as construction [4,6].

4. Conclusions

This study demonstrates the critical role of Emotional Intelligence (EI) in enhancing Organizational Commitment (OC) within the construction sector. Self-awareness emerged as the most influential component of EI, significantly affecting affective and normative commitment dimensions, while self-management, social awareness, and relationship management also contributed to fostering employee commitment.

Structural equation modeling results confirm that EI positively influences OC (path coefficient = 0.855), with a robust model fit (R^2 = 0.73). These findings underscore the importance of integrating EI-focused training and strategies to improve employee retention, team cohesion, and overall organizational performance in high-pressure environments like construction.

The research uniquely contributes to understanding psychological factors in the construction industry, providing actionable insights for enhancing workforce resilience and project success. Future studies should explore additional variables like demographic influences and cultural contexts to expand the application of these findings.

5. References

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