

A framework for mitigating unethical practices among construction professionals: Integrating ethical principles and emotional factors

ABSTRACT

In the construction industry, professional training mainly focuses on technical aspects and, unfortunately, overlooks ethics and emotional aspects. This lack of affective and ethical training creates a critical vulnerability, leading to a persistent "rationality paradox" in which extensive technical competence consistently fails to prevent on-site systemic unethical practices. Moving beyond traditional project management paradigms that view engineering failures as purely administrative or procedural breakdowns, this research explores the requirement of ethical principles and the emotion-driven environment for active construction projects.

This study aims to develop an empirically supported framework for mitigating unethical practices in the construction industry by integrating ethical principles and emotional factors. It identifies unethical practices, ethical principles, and emotions through a comprehensive literature review. The review identified 20 unethical practices, 20 ethical principles, and 17 emotions in the construction industry. To identify the prominent unethical practices, method triangulation was employed, drawing on three sources: the Scopus and Nexis Uni databases and unstructured interviews. This approach revealed five prominent unethical practices: collusion, corruption, fraud, money laundering, and negligence. The prominent ethical principles were identified through unstructured interviews and include accountability, awareness, decision-making, leadership, and transparency. Meanwhile, the prominent emotions were recognised through semi-structured interviews and include anxiety, elevation, gratitude, guilt, injustice, pride, and shame.

The relationship between prominent ethical principles and unethical practices was developed using an electronic brainstorming (EBS) session with a panel of 7 experts and the fuzzy synthetic evaluation (FSE) method. This process resulted in the establishment of a clear relationship, culminating in a developed model. The analysis demonstrates that professional unethical practices, including collusion, corruption, negligence, money laundering, and fraud, can be significantly curtailed by reinforcing specific ethical principles. The statistical strength of these interventions is captured by the path coefficients, which indicate the degree of control an ethical principle exerts over specific unethical behaviour.

The relationship between prominent emotions and unethical practices was identified. Due to social desirability bias, which prevents the direct measurement of corrupt behaviours, the study used corruption determinants. Furthermore, acknowledging that various forms of negligence exist within the construction industry, the study specifically focused on evaluating the quality – rather than merely the frequency – of negligent behaviour.

The survey instruments to quantify prominent emotions, corruption determinants, and quality negligence were identified through the literature. Further, the data were collected via a self-administered questionnaire, with site engineers and project managers serving as the primary sampling units. Correlation and best-fit curve analyses were used to identify the relationships between prominent emotions and corruption determinants. A covariance-based structural equation modelling (CB-SEM) analysis was conducted to examine the relationship between prominent emotions and quality negligence. The Correlation's results revealed distinct relationships between prominent emotions, including pride, injustice, gratitude, and elevation, and corruption determinants. Complementing these findings, the best-fit curve analysis mathematically validated that the interactions between these prominent emotions and corruption determinants are predominantly non-linear, exhibiting specific cubic trajectories that explain the sharp, threshold-driven behavioural shifts observed under project pressure.

Concurrently, CB-SEM revealed that elevation, shame, gratitude, pride, and anxiety are closely related to quality negligence.

Finally, the study shows that traditional, purely cognitive ethics training is inadequate for the construction industry because it overlooks the high-pressure and affective realities of construction sites. To address this gap, the study develops the affective-ethical behavioural (AEB) framework. Therefore, the study recommends that training providers incorporate these affective and leadership-driven insights by shifting the focus from passive moral instruction to hardcoded structural governance mechanisms, such as mandatory peer reviews and contractually formalised decision rights. Backed by visible ethical leadership, this transition successfully anchors project integrity within automated organisational systems rather than the volatile, easily compromised emotional states of individual site professionals.