

## ETHICAL GOVERNANCE AND CONTROL MECHANISMS: A MUL-TICRITERIA ANALYSIS OF ANTI-CORRUPTION PRACTICES IN THE FINANCIAL SECTOR

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### ABSTRACT:

This paper investigates the effectiveness of control mechanisms in combating corruption within the Moroccan financial sector through a multicriteria decision analysis (MCDA). Using data from 100 respondents across financial institutions (35), regulators, and audit professionals, the study evaluates fifteen control mechanisms based on five weighted criteria: effectiveness of control tools (30%), implementation obstacles (20%), technological advantages (20%), staff training and awareness (15%) (24), and familiarity with standards (15%).

The results indicate that internal control (7.20) and internal audit (6.80) are perceived as the most effective mechanisms, followed by verification and validation of records (6.35). Conversely, governance frameworks and policy establishment score lower due to implementation weaknesses. The findings also reveal a positive correlation between digitalization and perceived control efficiency, moderated by staff training and ethical culture.

This study highlights that effective anti-corruption frameworks require not only technological innovation and regulatory compliance but also a strong ethical foundation and human competence. The paper contributes to the literature on business ethics by linking control efficiency, digital transformation, and governance integrity in emerging financial systems.

**Keywords:** *Ethical governance; Anti-corruption; Control mechanisms; Financial sector; Multicriteria analysis; Technology; Internal audit.*

### INTRODUCTION

Corruption represents a systemic challenge (33) to ethical governance, financial transparency, and institutional trust (11), (20). In emerging markets, it undermines the legitimacy of financial systems and erodes investor confidence (11), (39). The financial sector, as a key component of national economic stability, must therefore maintain robust internal control mechanisms to ensure integrity, compliance, and ethical conduct (OECD, 2022) (6), (23).

In Morocco, the banking system (4) has undergone significant modernization aligned with international standards such as IFRS, ISA, and ISO 37001 (13), (23), reflecting a growing commitment to transparency and corporate ethics. However, despite this regulatory progress, corruption risks persist due to governance inefficiencies, weak enforcement, and limited digital integration (39).

This paper examines how control mechanisms encompassing internal audit, compliance, risk management, and technological tools contribute to combating corruption. By employing a multicriteria decision analysis (MCDA), it identifies which mechanisms are perceived as most effective and explores how technological innovation and governance quality affect control outcomes.

The research is guided by the following question:

*“Which control mechanisms are most effective in combating corruption in the Moroccan financial sector, and how do ethical governance and technological innovation influence their performance?”*

This study contributes to the literature on business ethics and governance by integrating three perspectives:

**The ethical dimension** of internal control (22) and anti-corruption governance.

**The technological transformation** of control mechanisms.

**The institutional and human factors** shaping control effectiveness in emerging economies.

## THEORETICAL FRAMEWORK

The analysis draws on agency theory (Jensen & Meckling, 1976) (15), (30) and the concept of ethical governance. According to agency theory, corruption emerges when agents (employees, managers) pursue private interests contrary to those of principals (15) (shareholders, regulators). Control mechanisms, audits, compliance systems (18), risk assessments are designed to mitigate agency costs and information asymmetry (7) (3), (31).

However, traditional control tools are insufficient without ethical alignment (34). Ethical governance theory emphasizes integrity, accountability, and moral reasoning within institutions (Trevino & Nelson, 2021) (34), (20). Combining these perspectives suggests that effective anti-corruption systems must integrate technical controls, regulatory frameworks, and ethical culture (21), (20).

The Moroccan context provides a relevant case study, as financial institutions operate under hybrid governance combining state ownership, regulatory oversight, and market-based competition making control articulation a key determinant of ethical performance.

## METHODES

### **3.1. Research Design**

This research adopts a **mixed-method approach** based on multicriteria decision-making (MCDM) (26), integrating quantitative scoring with qualitative evaluation of control mechanisms. Data were collected via a structured questionnaire administered to **100 respondents** across the Moroccan financial sector (1), including:

- Bank employees (audit, risk, compliance, and accounting control units);
- Market regulators (Bank Al-Maghrib, ANRF);
- External auditors (28) and consultants (Deloitte, Grant Thornton (38));
- Academic experts and postgraduate students specializing in auditing and ethics.

This stratified sampling ensured diverse perspectives on corruption risks and control efficiency (21).

### **3.2. Evaluation Criteria and Weighting**

Five criteria were established to measure control efficiency:

**Effectiveness of Control Tools (30%)**: ability to detect and prevent fraudulent acts (2), (41).

**Implementation Obstacles (20%)**: technical, cultural, and organizational barriers (10).

**Technological Advantages (20%)**: contribution of digital tools to control improvement (31).

**Training and Awareness (15%)**: staff competence and ethical preparedness (8), (19).

**Familiarity with Standards (15%)**: knowledge of IFRS, ISA, ISO 37001 (13), and related frameworks.

Each mechanism was rated on a 1–10 scale for each criterion. Weighted scores were computed to obtain an overall performance index.

### **3.3. Data Analysis**

A decision matrix (25) was constructed to integrate the five criteria and calculate a composite score for each mechanism. The weighted average formula was applied:

$$\text{Score} = \sum (\text{Weight}_i \times \text{Rating}_i)$$

This approach enabled ranking and comparative analysis of mechanisms based on perceived efficiency and alignment with anti-corruption objectives.

## RESULTS AND DISCUSSION

### **4.1. Ranking of Control Mechanisms**

The results revealed that internal control (7.20) and internal audit (6.80) were perceived as the most effective mechanisms (12), (29), underscoring their central role in ensuring financial integrity and continuous oversight. Verification and validation of records (6.35) and employee training (6.20) also ranked high (5), (2), reflecting the importance of traceability and staff capacity building in preventing corrupt practices.

At the lower end of the ranking, mechanisms such as corporate governance (5.60) and policy and procedure establishment (5.45) received lower scores (10), suggesting that governance frameworks (27) often remain theoretical without effective enforcement mechanisms.

**Table 1. Decision Matrix of Control Mechanisms by Evaluation Criterion.**

**Decision Matrix**

Control Mechanism	30%	20%	20%	15%	15%	Score
	Effectiveness (30%)	Obstacles (20%)	Technology (20%)	Training (15%)	Familiarity (15%)	
Employee Training	7	4	6	8	6	<b>6,20</b>
Internal Control	8	5	7	8	8	<b>7,20</b>
Internal Audit	9	4	6	7	7	<b>6,80</b>
Internal Investigations	6	6	5	6	5	<b>5,65</b>
Fraud Detection Software	5	7	9	4	4	<b>5,90</b>
Video Surveillance	6	8	6	5	4	<b>5,95</b>
External Audit	7	5	6	6	6	<b>6,10</b>
Corporate Governance	5	7	6	5	5	<b>5,60</b>
Task Separation	8	4	5	7	6	<b>6,15</b>
Compliance Controls	8	4	5	6	6	<b>6,00</b>
Risk Controls	7	5	6	6	5	<b>5,95</b>
Policy and Procedure Establishment	6	5	5	6	5	<b>5,45</b>
Verification and Validation of Records	8	5	5	7	6	<b>6,35</b>
Cash Flow and Transaction Control	8	4	6	7	5	<b>6,20</b>
Risk Evaluation and Control Measures	7	5	6	6	6	<b>6,10</b>

Source. Developed by the author’s

**4.2. Interpretation**

High-performing mechanisms share three characteristics:

1. **Continuous oversight** (internal audit, internal control) (14);
2. **Strong regulatory alignment** (ISA, IFRS);
3. **Human engagement through training and ethics programs.**

Lower-ranked mechanisms, such as corporate governance and policy frameworks, highlight implementation challenges reflecting a **gap between policy design and enforcement.**

**4.3. Influence of Technology**

The integration of digital tools, such as fraud detection (36) software and automated risk management systems, showed mixed results (17), (32). While technology enhances monitoring, its effectiveness is highly dependent on appropriate configuration, staff training, and ethical use (16), (34). The correlation between technological adoption and perceived effectiveness was positive but conditional: insufficient training or lack of cultural adaptation reduced technological efficiency.

This finding aligns with literature emphasizing that **technology without ethics may increase opacity rather than transparency** (Kaptein, 2019) (16).

#### 4.4. Correlation Between Digitalization and Efficiency

A positive correlation was found between digital adoption and perceived control effectiveness, conditioned by the level of staff training and cultural adaptation. Organizations with higher digital maturity reported more proactive fraud detection and risk management (41), (42). However, digitalization also raises new ethical dilemmas regarding data privacy and algorithmic accountability (20).

#### 4.5. Discrepancy Between Perception and Reality

Respondents often perceived certain mechanisms (e.g., video surveillance, automated detection) as effective, yet their real-world impact depends on implementation quality and human interpretation. This gap highlights the ethical dimension of control practices emphasizing that ethics and governance cannot be outsourced to technology alone.

#### 4.6. Ethical Governance Perspective

The findings underline the necessity of a balanced articulation between human and technological components of control systems. Ethical governance requires both accountability structures and moral commitment (34). Training programs and a strong ethical culture amplify the effects of formal controls (8), while standards such as ISO 37001 and ISA provide a normative foundation for consistency and transparency (13), (23).

#### 4.7. Discussion

The results confirm that effective anti-corruption strategies depend on a holistic integration of technical, human, and ethical dimensions (20), (21). The predominance of internal control and audit mechanisms underscores the continuing relevance of human judgment and ethical accountability in governance systems.

Moreover, the analysis demonstrates that technological tools, while vital, cannot replace the ethical reasoning required in complex decision-making environments. Technology acts as an enabler, not a substitute for ethics (16).

The observed gap between perception and actual effectiveness suggests that organizations may overestimate technological efficiency while underestimating the need for ethical culture and training. This calls for a “technological humanism” approach to governance (20) where automation supports but does not supplant moral responsibility.

From a theoretical standpoint, these results extend agency theory (9) by integrating the ethical dimension of control relationships. Agents act not only under monitoring (40) but also within a moral framework influenced by institutional values and leadership integrity.

## CONCLUSION

This research provides empirical insights into how ethical governance and control mechanisms interact to mitigate corruption in the Moroccan financial sector (11), (20). Using a multicriteria analysis, the study identifies internal control and internal audit as the most effective mechanisms (12), (29), supported by training and regulatory compliance.

The findings emphasize that ethical governance emerges from the articulation of three pillars:

1. **Human competence:** trained and ethically aware staff.
2. **Technological innovation:** digital tools integrated responsibly (31).
3. **Regulatory alignment:** adherence to IFRS, ISA, and ISO 37001 standards (13), (23).

Ultimately, effective anti-corruption systems depend on embedding ethics into both governance structures and daily operations. The Moroccan experience illustrates that technological progress must be accompanied by ethical vigilance to sustain institutional trust (37) and transparency.

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## Conflict of Interest

The authors declare no conflict of interest.

## Declaration of Generative AI And AI-Assisted Technologies

During the preparation of this manuscript, generative AI tools were used exclusively for language refinement and clarity improvement. The authors reviewed, edited, and take full responsibility for the content of this publication.

## Author Contributions

Mr Mehdi BOUAICHA is the principal author of this study. He was responsible for the research design, data collection, empirical analysis, and the drafting of the manuscript. Dr. Hicham DRISSI contributed to the critical review of the manuscript and participated in the scientific validation of the article. Both authors approved the final version of the manuscript

## Ethics Approval

This study involved a questionnaire-based survey conducted anonymously. No personal or sensitive data were collected. Ethical approval was not required.

## Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

## Abbreviation

IFRS: International Financial Reporting Standards

ISA: International Standards on Auditing

ISO : International Organization for Standardization

OECD : Organization for Economic Co-operation and Development

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