

# Chapter 2

## Exploring Explainable AI Transparency in Managerial Decision–Making: A Multi–Sectoral Analysis of Organizational Trust in Morocco

**Rita El Guermai**

 <https://orcid.org/0009-0005-8304-1784>


*Cadi Ayyad University, Morocco*

**Abdelfattah Jamal**

 <http://orcid.org/0000-0002-8118-5638>

*Cadi Ayyad University, Morocco*

**Karima Aissaoui**

 <http://orcid.org/0000-0002-9884-8266>

*Mohammed First University, Morocco*

### **ABSTRACT**

*The research investigates how managers perceive AI transparency through accessibility, comprehensibility, and fairness which determines their level of interaction with AI-assisted decision systems. Managerial interaction serves as the outcome variable which this study categorizes into three ordered levels: low, moderate, and high. The research combines explainable AI frameworks (LIME and SHAP) with organizational trust and transparency models to connect cognitive and ethical aspects of human–AI interaction. A structured survey was conducted among 180*

DOI: 10.4018/979-8-3373-1737-3.ch002

*managers from three key sectors in Morocco: banking, telecommunications and retail. The questionnaire was developed from validated scales and analyzed by logistic regression models, run in Python for algorithmic flexibility and in SAS to ensure statistical robustness and reproducibility.*

## **INTRODUCTION**

Artificial Intelligence (AI) developed from a distant future concept. Today, it is considered as a fundamental tool for business decision-making. AI systems deliver efficiency and speed, and data-based decisions yet serious issues exist regarding transparency, discrimination, and responsibility (Floridi et al., 2018; Jain et al, 2024). The ‘black box’ problem which describes the opacity of decision making has emerged as a major challenge in AI usage. The lack of understanding about AI-assisted recommendations by managers leads to lower trust in decision making support systems (Adadi & Berrada, 2018). The research problem investigates how AI system opacity damages managerial trust, but the research question examines which transparency dimensions influence manager-AI system interactions. Organizations have attempted to boost managerial trust in AI systems through AI-XAI which has led to an increase in demand for XAI systems because they explain how an AI arrived at a specific outcome. This integration helps the decision-makers in the verification of AI created insights as well as tackles biases and increases trust in algorithmic processes (Toreini et al., 2020). Even though there has been progress in technical transparency, there is a lack of scholarly work regarding the impact of AI transparency on trust along with organizational outcomes (Floridi et al., 2018). The purpose of this chapter is to fill this gap by studying the influence of AI transparency on the level of managerial trust and AI utilization in Moroccan organizations. Even though AI can aid in the improvement of our decisions, managers still seem to lack confidence in AI systems due to an issue of interpretability. AI models that are opaque can conceal important reasoning steps which in turn reduces trust and undermines the organizational value (Adadi & Berrada, 2018). Decision makers across many industries even with the presence of extensive AI use in telecoms, banking, and retail are still reluctant to implement AI-centric suggestions without transparency structures (Gilpin et al, 2018). The existing body of knowledge in organizational trust is rather thin aurally in the influence of AI and trust formation. The financial services industry demonstrates this through credit-scoring algorithms which lack transparency thus creating disputes about loan decisions (Gilpin et al., 2018). The implementation of AI decisions in high-stakes organizational settings requires both technical validity and interpretability together with fairness and justifiability. The recent XAI literature emphasizes the need for local interpretability through LIME

32 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/exploring-explainable-ai-transparency-in-managerial-decision-making/384291](http://www.igi-global.com/chapter/exploring-explainable-ai-transparency-in-managerial-decision-making/384291)

## Related Content

---

### Human Identification System Based on Spatial and Temporal Features in the Video Surveillance System

Sanjeevkumar Angadiand Suvarna Nandyal (2020). *International Journal of Ambient Computing and Intelligence* (pp. 1-21).

[www.irma-international.org/article/human-identification-system-based-on-spatial-and-temporal-features-in-the-video-surveillance-system/258069](http://www.irma-international.org/article/human-identification-system-based-on-spatial-and-temporal-features-in-the-video-surveillance-system/258069)

### Enterprise Digital Transformation in the Food Industry Using Cloud-Based CRM Platforms

Sushmithareddy Bethi (2026). *Modernizing the Food Industry: AI-Powered Infrastructure, Security, and Supply Chain Innovation* (pp. 103-120).

[www.irma-international.org/chapter/enterprise-digital-transformation-in-the-food-industry-using-cloud-based-crm-platforms/385269](http://www.irma-international.org/chapter/enterprise-digital-transformation-in-the-food-industry-using-cloud-based-crm-platforms/385269)

### Evaluation of Logistics Development Under the Visual Field of Low-Carbon Environmental Protection Based on Hierarchical Methods

Jinjuan Wang (2024). *International Journal of Ambient Computing and Intelligence* (pp. 1-16).

[www.irma-international.org/article/evaluation-of-logistics-development-under-the-visual-field-of-low-carbon-environmental-protection-based-on-hierarchical-methods/360709](http://www.irma-international.org/article/evaluation-of-logistics-development-under-the-visual-field-of-low-carbon-environmental-protection-based-on-hierarchical-methods/360709)

### Browsing Large Concept Lattices through Tree Extraction and Reduction Methods

Cassio Melo, Bénédicte Le-Grandand Marie-Aude Aufaure (2013). *International Journal of Intelligent Information Technologies* (pp. 16-34).

[www.irma-international.org/article/browsing-large-concept-lattices-through-tree-extraction-and-reduction-methods/103877](http://www.irma-international.org/article/browsing-large-concept-lattices-through-tree-extraction-and-reduction-methods/103877)

### Adapting to the Future of Work: How Emotional Intelligence Empowers Individuals in a World Driven by Artificial Intelligence.

Okechukwu Amahand Victoria Oluwakemi Okesipe (2027). *Encyclopedia of Modern Artificial Intelligence* (pp. 1-25).

[www.irma-international.org/chapter/adapting-to-the-future-of-work/406741](http://www.irma-international.org/chapter/adapting-to-the-future-of-work/406741)