

REVIEWER'S REPORT

Manuscript No.: IJAR-59217

Title: Decision Intelligence Framework Integrating Big Data Analytics for Enterprise Financial Risk Management under Saudi Vision 2030

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer's ID: JPR-002

Detailed Reviewer's Report

- Originality and Contribution:**

The manuscript addresses a timely and relevant research problem by integrating Big Data Analytics (BDA), enterprise financial risk management, explainable AI, governance, and Decision Intelligence within the context of Saudi Vision 2030. The proposed framework attempts to bridge fragmented streams of literature and positions decision-making as the central unit of analysis. This provides a meaningful conceptual contribution, particularly for large Saudi enterprises. However, the authors should articulate more explicitly how the proposed framework differs from existing decision intelligence, enterprise risk management, and analytics-governance frameworks.

- Abstract and Overall Presentation:**

The abstract is well structured and clearly communicates the research problem, methodology, major themes, proposed framework, and practical implications. The identification of five recurring requirements—trusted data, analytical capability, explainability and governance, decision orchestration, and continuous learning—provides a clear summary of the manuscript's contribution. The authors may nevertheless consider reducing some descriptive statements and highlighting the precise research gap and principal contribution more prominently.

- Introduction and Research Context:**

The introduction effectively establishes the relationship between increasing data volumes, financial risk, digital transformation, and organizational decision-making. The Saudi Vision 2030 context is appropriately incorporated, and the manuscript identifies challenges involving readiness, skills, trust, cybersecurity, and governance. The research objectives and research questions are also clearly stated. However, the introduction could be strengthened by establishing a sharper theoretical gap before presenting the proposed framework.

- Literature Review:**

The literature review covers BDA capability, financial-risk analytics, explainability, model governance, ERM, fintech, digital banking, and the Saudi financial context. The critical synthesis is generally strong and appropriately recognizes that technological capability alone does not

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necessarily produce improved decision quality. The authors should further strengthen the critical comparison between competing perspectives and explain more clearly why existing frameworks are insufficient for the specific problem addressed.

- **Review Methodology:**

The structured integrative review methodology is appropriate for synthesizing multiple related research streams. The manuscript identifies databases, search terms, inclusion and exclusion criteria, screening procedures, quality considerations, data extraction, and thematic synthesis. A major strength is that the authors explicitly state that they do not fabricate numerical screening counts and explain why meta-analysis was not appropriate. Nevertheless, the review would benefit from a concise table presenting the search strategy, number of studies initially identified, screening stages, and final studies included, if such information is available.

- **Proposed Decision Intelligence Framework:**

The proposed framework is the central contribution of the manuscript. It consists of six connected layers: data foundation, analytics, risk fusion, decision orchestration, governance and human oversight, and outcome learning. The framework is logically constructed and provides a useful connection between analytical outputs and accountable managerial decisions. However, the authors should provide stronger theoretical justification for the relationships between the six layers and clarify which elements are newly proposed and which are adapted from existing literature.

- **Tables, Figures and Framework Presentation:**

The manuscript includes a cross-theme synthesis table and an operational design table that translate the conceptual framework into practical requirements. Table 2, in particular, links each framework layer with functions, controls, and financial-risk outputs. The figures and tables are useful, but the authors should ensure that all visual elements are sufficiently legible and that the relationships and feedback mechanisms shown in the figures are explicitly explained in the accompanying text.

- **Discussion and Interpretation:**

The discussion successfully connects the literature findings with the proposed framework and emphasizes the complementary relationship between ERM and Decision Intelligence. It also appropriately cautions against viewing increased automation as inherently desirable and emphasizes selective automation and human oversight. The discussion could be improved by providing more explicit consideration of contradictory findings, implementation barriers, and situations in which the proposed framework may not perform as expected.

- **Saudi Context and Practical Implications:**

The Saudi-specific dimension is one of the manuscript's important strengths. The paper connects digital transformation, fintech, open banking, cybersecurity, financial inclusion, and Vision 2030 with enterprise financial-risk management. The practical recommendations concerning model registries, independent validation, decision ownership, override monitoring, and board-level oversight are relevant. However, the authors should distinguish more clearly between evidence directly established by Saudi studies and recommendations that are conceptually transferred from international literature.

- **References, Limitations and Overall Recommendation:**

The manuscript provides a focused reference base of 30 peer-reviewed journal articles, with DOI information supplied for the cited studies. The limitations are appropriately acknowledged, particularly the conceptual nature of the framework, the heterogeneous literature, limited Saudi-specific evidence, and exclusion of non-English and non-peer-reviewed sources. Before publication, the authors should undertake a final reference consistency check, strengthen the theoretical positioning of the framework, and provide further clarification of how the framework

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can be empirically validated. Overall, the manuscript has a clear research focus and a potentially useful conceptual contribution, subject to revision.