

### Review Form 3

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|--------------------------|---|
| Journal Name:            | <a href="#">Asian Journal of Research in Computer Science</a>   |
| Manuscript Number:       | Ms_AJRCOS_127815  |
| Title of the Manuscript: | <b>Mitigating Artificial Intelligence Bias in Financial Systems: A Review of Debiasing Techniques</b> |
| Type of the Article      |   |

#### General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### PART 1: Comments

|   | Reviewer's comment   | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
|---|--|---|
| <b>Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.</b> | This manuscript addresses a highly relevant issue in the application of Artificial Intelligence (AI) within the Banking, Financial Services, and Insurance (BFSI) sector—bias in AI decision-making systems. Given the growing reliance on AI in high-stakes decision-making, such as credit scoring, fraud detection, and hiring, this work is timely and essential. The paper's emphasis on understanding bias origins, evaluating debiasing techniques, and proposing actionable solutions aligns with the need for ethical AI development. The research could significantly contribute to ongoing discourse in algorithmic fairness, ethical AI, and governance within the BFSI sector |   |
| <b>Is the title of the article suitable? (If not please suggest an alternative title)</b>   | The title is suitable, accurately reflecting the content and scope of the manuscript.  |   |
| <b>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</b>      | The abstract provides a comprehensive summary, clearly stating the research objectives, methods, findings, and implications. However, it could benefit from briefly mentioning specific recommendations or the key takeaway for practitioners to make it more impactful.   |   |
| <b>Is the manuscript scientifically, correct? Please write here.</b>  | The manuscript is scientifically robust and well-grounded in a systematic literature review methodology. The use of recent and relevant references adds credibility to the research. The discussion on bias types, fairness, and the limitations of debiasing techniques is nuanced and demonstrates a good command of the subject. However, a critical analysis of how debiasing techniques perform across different contexts within BFSI is somewhat limited and warrants deeper exploration.  |   |
| <b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>                              | The manuscript includes a sufficient number of references that are current, relevant, and well-cited. While it appropriately supports its claims, additional references discussing industry-specific examples (e.g., case studies of BFSI firms successfully addressing AI bias) would strengthen its practical application.   |   |
| <b>Is the language/English quality of the article suitable for scholarly communications?</b>  | The manuscript is well-written and largely free of grammatical errors. The academic tone is appropriate, and technical terms are used effectively without being overly jargonistic. Some sentences in the literature review and findings sections could be refined for conciseness to improve readability.   |   |

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| <p><b>Optional/General</b> comments</p> | <p>The manuscript could benefit from including more visual aids, such as diagrams or flowcharts, to summarize complex concepts like debiasing techniques or the proposed framework. Additionally, a stronger discussion of the practical challenges in implementing these techniques within BFSI organizations would add depth.</p> <p>This manuscript offers a valuable and timely contribution to the understanding of AI bias and fairness in the BFSI sector. The research is well-executed, with a systematic methodology, thorough literature review, and meaningful insights into debiasing techniques and their limitations. However, the practical applicability of the findings can be enhanced with the inclusion of real-world case studies or examples from BFSI firms successfully addressing AI bias. Additionally, the manuscript would benefit from improved visual aids to make complex concepts more accessible to readers.</p> <p>I recommend the authors focus on refining the practical implications section, incorporating examples or frameworks for operationalizing the proposed solutions, and addressing challenges of implementing debiasing techniques in the BFSI context. These additions will strengthen the manuscript's relevance for both academic and industry audiences, ensuring it serves as a critical resource for promoting ethical AI practices.</p> |  |
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### PART 2:

|  | Reviewer's comment  | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
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| <p><b>Are there ethical issues in this manuscript?</b></p> | <p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> |   |

### Reviewer Details:

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