

From Digital Transformation to Responsible Generative AI: Mapping Human-Centered Readiness in Iranian Public Organizations

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R e v i e w e r s

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the paragraph beginning “The emergence of artificial intelligence has further intensified this transformation process,” the manuscript lists several possible public-sector applications of AI, including policy design, document processing, fraud detection, and citizen communication. However, these applications involve substantially different levels of risk, autonomy, data sensitivity, and decision consequence. The authors should differentiate low-risk assistive uses, such as summarization and drafting, from high-risk or consequential uses, such as eligibility assessment, resource allocation, or regulatory decision support. Without this distinction, the concept of responsible AI remains too general. The revision should explain whether the questionnaire measures readiness for general-purpose administrative assistance, consequential algorithmic decision-making, or both, because the required governance safeguards differ considerably across these application categories.

In the paragraph stating that “generative AI tools are increasingly accessible to ordinary employees and managers across organizational levels,” the manuscript correctly identifies the decentralized nature of generative AI adoption, but it does not define what constitutes generative AI use in the present study. The authors should specify whether the construct includes public

large language models, organization-specific chatbots, embedded office assistants, image-generation systems, coding assistants, or other applications. This is methodologically important because employees' perceptions of trust, confidentiality, accountability, and job threat may differ depending on the type of system they have encountered. The Introduction should therefore include a concise definition of generative AI that corresponds directly to the technologies and use cases contemplated by the questionnaire.

In the paragraph beginning "The adoption of generative AI in public organizations is accompanied by distinctive opportunities and risks," the authors present an extensive list of potential risks, including bias, misinformation, privacy, accountability, and overreliance. However, the manuscript does not organize these risks into a coherent analytical framework. The authors should classify them into categories such as technical risks, informational risks, legal and ethical risks, workforce risks, and institutional risks. Such classification would improve the conceptual coherence of the study and provide a stronger basis for the seven readiness dimensions. In particular, the relationship between "ethical awareness," "algorithmic trust," and "employee concerns" should be explained more clearly because these constructs may overlap unless their conceptual boundaries are explicitly established.

In the paragraph that defines responsible AI as "ethical, transparent, accountable, fair, secure, privacy-preserving, and aligned with human values," the manuscript relies primarily on principle-based definitions but does not explain how responsible AI becomes observable at the organizational level. The authors should distinguish normative principles from organizational capabilities and operational practices. For example, transparency is a principle, whereas disclosure procedures, documentation standards, and explainability protocols are organizational mechanisms. Accountability is a principle, whereas role assignment, audit trails, escalation procedures, and human approval requirements are operational mechanisms. This distinction would strengthen the conceptual validity of the questionnaire and clarify whether the study measures awareness of responsible AI principles, the existence of responsible AI practices, or both.

In the paragraph describing the researcher-made questionnaire, the authors state that the initial item pool was developed from literature on digital transformation, AI readiness, responsible AI, and human-centered AI. However, the manuscript does not report the original number of items, the item-generation procedure, whether items were adapted or newly written, how duplicate or conceptually overlapping items were removed, or how many items remained in each dimension. The complete questionnaire should be provided as an appendix or supplementary file. The authors should also report sample items for every dimension in the Methods section. Without access to the item content, readers cannot assess content coverage, construct overlap, wording quality, or whether negatively framed concern items may have introduced response-method effects.

In the description of the "employee concerns" dimension, the manuscript notes that higher scores indicate stronger concerns rather than greater readiness. This scoring direction creates a serious interpretive problem because the same dimension is included in a broader framework called "overall human-centered readiness." The authors must explain how employee-concern scores were incorporated into the overall readiness score. If the items were reverse-scored for the total score, this should be explicitly stated and justified. If they were not reversed, the overall score is conceptually inconsistent because higher concerns would artificially increase readiness. The calculation formula for each subscale and the overall score should be reported in full, and all tables and interpretations should be reviewed for consistency.

Authors revised the manuscript and uploaded the new document.

1.2. Reviewer 2

Reviewer:

In the paragraph beginning "At the same time, the concept of readiness has gained increasing importance," the manuscript defines organizational readiness using technological, structural, cultural, human, and managerial conditions. However, the authors do not present a formal conceptual model explaining how the seven dimensions were derived. The manuscript would benefit from a table or figure linking each readiness dimension to its theoretical foundation, operational definition, and expected role in responsible generative AI adoption. For instance, technological preparedness may represent enabling capacity,

managerial support may represent institutional capacity, and employee concerns may represent perceived barriers. Such a model would also clarify whether employee concerns should be included as a component of readiness or treated as an inverse or parallel construct.

In the paragraph stating that “a human-centered approach does not reject AI; rather, it seeks to align AI use with human values, professional responsibility, and organizational learning,” the human-centered perspective is described normatively but not translated into measurable organizational practices. The authors should explain more precisely what human-centered work practices mean in a public-sector context. Examples might include mandatory human review, employee authority to override AI outputs, participatory system design, protection of professional discretion, user training, workload redesign, and mechanisms for reporting harmful outputs. This clarification is necessary because the corresponding questionnaire dimension may otherwise appear abstract, and readers cannot determine whether the items measure attitudes, existing practices, or desired future conditions.

In the paragraph beginning “In Iranian public organizations, this issue is particularly significant,” the manuscript describes the Iranian context in general terms, referring to bureaucratic routines, regulatory requirements, resource constraints, and public accountability. This contextualization is insufficiently specific for an empirical study centered on Iran. The authors should provide a more evidence-based account of the current state of e-government, digital transformation, AI policy, data governance, and administrative modernization in Iranian public institutions. The discussion should also explain why Tehran was selected and whether organizations in the capital differ systematically from organizations in other provinces. Without such contextual detail, the manuscript risks treating Iran as merely a geographic setting rather than an institutionally meaningful research context.

In the final paragraphs of the Introduction, the manuscript identifies a gap in the “integrated assessment of human-centered readiness for responsible generative AI,” but the novelty claim remains broad. The authors should specify exactly how the present study differs from prior AI-readiness instruments, responsible-AI maturity models, digital-readiness frameworks, and public-sector AI governance studies. The revision should identify whether the principal contribution lies in the integration of previously separate constructs, the development of a new measurement instrument, the Iranian public-sector setting, the inclusion of employee concerns, or the comparison across occupational and organizational groups. A precise statement of contribution would make the rationale more persuasive and would allow the Discussion to evaluate whether the study actually delivers the claimed contribution.

In the Methods section, the sentence “the statistical population consisted of managers, experts, and administrative employees working in selected public organizations in Tehran” requires substantial elaboration. The authors should report the estimated size of the target population, the number of eligible organizations, the criteria used to determine whether an organization had an “active” information technology or digital transformation unit, and the process through which organizational access was obtained. The manuscript currently reports multistage stratified cluster sampling, but it does not provide sufficient procedural detail to evaluate whether probability sampling was genuinely implemented. The numbers of organizations selected at each stage, the number of participants approached per organization, and the response rate within each occupational stratum should be presented.

In the sample-size paragraph, the manuscript states that Cochran’s formula yielded a required sample of 384 and that 420 questionnaires were distributed. The authors should report the exact formula, assumptions, and resulting calculation, as well as the final response rate of valid questionnaires. More importantly, the sample-size justification should consider the planned analyses rather than relying only on a general formula for estimating proportions. Because the study also reports exploratory factor analysis, subgroup comparisons, and reliability estimates for seven dimensions, the authors should demonstrate that the sample was adequate for these procedures. A power analysis for the ANOVA and t-tests, along with a participant-to-item ratio for the 42-item instrument, would provide a stronger methodological justification.

Authors revised the manuscript and uploaded the new document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.