

## PRISMA 2020 Checklist

### *From Proof-of-Concept to Production: A Techno-Functional Framework for Generative AI Adoption in Enterprise Settings*

| Section and Topic   | Item #   | Checklist Item              | Description                                                                                                                                                                                               | Location in manuscript                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TITLE</b>        | <b>1</b> | <b>Title</b>                | Identify the report as a systematic review.                                                                                                                                                               | The abstract (Page 1, Design and methodology section) states explicitly that the paper's scaffolding rests on "a PRISMA 2020-compliant systematic literature review." The keyword list (Page 4) includes "systematic literature review". Section 3.2 (Page 10) is headed "Systematic literature review". Together these four front-matter signals identify the report as a systematic review. This article is fundamentally a conceptual framework paper that uses SLR methodology as scaffolding |
| <b>ABSTRACT</b>     | <b>2</b> | <b>Abstract</b>             | See the PRISMA 2020 for Abstracts checklist.                                                                                                                                                              | Structured abstract (Page 1), covering Purpose, Design/Methodology/Approach, Findings, Originality/Value, and Practical Implications.                                                                                                                                                                                                                                                                                                                                                             |
| <b>INTRODUCTION</b> | <b>3</b> | <b>Rationale</b>            | Describe the rationale for the review in the context of existing knowledge.                                                                                                                               | Section 1 (Introduction), Pages 2-3. Sets out the enterprise GenAI adoption problem, the specific pattern of high proof-of-concept volume with low production conversion, and the three gaps in the existing adoption literature that the review addresses.                                                                                                                                                                                                                                       |
|                     | <b>4</b> | <b>Objectives</b>           | Provide an explicit statement of the objective(s) or question(s) the review addresses.                                                                                                                    | Section 3.1 (Research questions), Pages 5-6. Three research questions are stated explicitly, spanning antecedents/phases/mechanisms of GenAI adoption, gaps in existing frameworks against the four candidate dimensions, and theoretical anchors for the proposed framework.                                                                                                                                                                                                                     |
| <b>METHODS</b>      | <b>5</b> | <b>Eligibility criteria</b> | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.                                                                                               | Section 3.2, Page 6. Inclusion criterion states the peer-review requirement together with four narrowly-scoped exceptions (canonical scholarly books, influential working papers, public technical standards, direct-comparator preprints); exclusion criteria for narrowly-technical or domain-bounded works are also specified.                                                                                                                                                                 |
|                     | <b>6</b> | <b>Information sources</b>  | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | Section 3.2, Page 6. Five databases named: Scopus, Web of Science, IEEE Xplore, ACM Digital Library, DBLP. Manual citation tracing on seminal works also used. Search dates: between January and March 2026.                                                                                                                                                                                                                                                                                      |
|                     | <b>7</b> | <b>Search strategy</b>      | Present the full search strategies for all databases, registers and websites, including any filters and limits used.                                                                                      | Section 3.2, Page 6. Boolean search strings on technology axis ("generative AI" OR "GenAI" OR "large language model" OR "foundation model") combined with outcome axis ("adoption" OR "implementation" OR "framework" OR "governance" OR "enterprise"). Eight thematic queries listed. Full per-database strings, filters, and result counts archived on OSF at <a href="https://doi.org/10.17605/OSF.IO/9YCTQ">https://doi.org/10.17605/OSF.IO/9YCTQ</a> .                                       |
|                     | <b>8</b> | <b>Selection process</b>    | Specify the methods used to decide whether a study met the inclusion criteria, including how many reviewers screened each record and each report retrieved, whether they worked                           | Section 3.2, Pages 6-7. Title-and-abstract screening and full-text screening conducted independently by two reviewers against the pre-registered inclusion/exclusion criteria; disagreements resolved through discussion with a third-reviewer adjudication clause where consensus could not be reached. No automation tools used.                                                                                                                                                                |

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|  |            |                                                      | independently, and if applicable, details of automation tools used in the process.                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                       |
|  | <b>9</b>   | <b>Data collection process</b>                       | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | Section 3.2, Page 7. Structured extraction matrix used across all included works. Data collection conducted by the lead author with verification by a second author. No automation tools; no data requests to original investigators required for included works.                                                     |
|  | <b>10a</b> | <b>Data items (outcomes)</b>                         | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.                        | N/A. This is a conceptual systematic review that scaffolds a framework paper; it does not aggregate quantitative outcomes across primary studies. Corpus is analysed for framework dimensions, theoretical lenses, and gaps rather than for statistical outcomes.                                                     |
|  | <b>10b</b> | <b>Data items (other variables)</b>                  | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.                                                                                         | Section 3.2, Pages 6-8, and Supplementary File S1 (Data Extraction Matrix). Variables extracted per included work: bibliographic identifiers, publication year, methodology, theoretical lens, sectoral focus, framework dimension(s) addressed, key contribution, and gap relative to the proposed framework.        |
|  | <b>11</b>  | <b>Study risk of bias assessment</b>                 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.                                    | N/A. Formal risk-of-bias tools designed for clinical trials or observational studies were not applicable given the conceptual and non-interventional nature of most included works. A study-quality lens was applied at full-text review: works with insufficient methodology disclosure were excluded at that stage. |
|  | <b>12</b>  | <b>Effect measures</b>                               | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.                                                                                                                                                                  | N/A. No meta-analysis. The review is conceptual scaffolding for a framework paper rather than an aggregative synthesis of quantitative effects.                                                                                                                                                                       |
|  | <b>13a</b> | <b>Synthesis methods (eligibility for synthesis)</b> | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis).                                                                                           | Section 3.2, Pages 6-9. All 60 corpus works entered the qualitative thematic synthesis. Grouping by nine themes derived from the corpus using the constant-comparison method.                                                                                                                                         |
|  | <b>13b</b> | <b>Synthesis methods (data preparation)</b>          | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.                                                                                                                                                | Section 3.2, Page 7, and Supplementary File S1. Data prepared through the structured extraction matrix; no summary statistics or data conversions required given the conceptual nature of the synthesis.                                                                                                              |
|  | <b>13c</b> | <b>Synthesis methods (visualisation)</b>             | Describe any methods used to tabulate or visually display results of individual studies and syntheses.                                                                                                                                                                                               | Table 1 (Page 14-15 - twelve propositions with anchoring theory), Table 2 (Page 19 - comparison against adjacent frameworks), Figure 1                                                                                                                                                                                |

|                |            |                                                        |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                |            |                                                        |                                                                                                                                                                                                                                                             | (Page 8 - the four-dimension framework), Figure 2 (Page 9 - theoretical mapping). Supplementary File S1 tabulates the full corpus.                                                                                                                                                                                                                                                                                          |
|                | <b>13d</b> | <b>Synthesis methods (synthesis method)</b>            | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. | Section 3.2, Page7-8. Qualitative thematic synthesis using the constant-comparison method. Nine themes identified from the corpus. Rationale: the review is conceptual scaffolding for a framework paper, so a qualitative synthesis identifying dimensions, theoretical lenses, and gaps is appropriate rather than a meta-analytic aggregation.                                                                           |
|                | <b>13e</b> | <b>Synthesis methods (heterogeneity investigation)</b> | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).                                                                                                                        | N/A. No meta-analysis; heterogeneity investigation not applicable.                                                                                                                                                                                                                                                                                                                                                          |
|                | <b>13f</b> | <b>Synthesis methods (sensitivity)</b>                 | Describe any sensitivity analyses conducted to assess robustness of the synthesised results.                                                                                                                                                                | N/A. No meta-analysis; sensitivity analysis not applicable.                                                                                                                                                                                                                                                                                                                                                                 |
|                | <b>14</b>  | <b>Reporting bias assessment</b>                       | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).                                                                                                                                     | N/A given the conceptual nature of the review. Publication-bias risks considered narratively but not formally tested; the emerging state of the GenAI-adoption literature mitigates file-drawer concerns.                                                                                                                                                                                                                   |
|                | <b>15</b>  | <b>Certainty assessment</b>                            | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.                                                                                                                                                       | N/A. GRADE and similar certainty-of-evidence frameworks were not applied given the conceptual and non-outcome-based nature of the synthesis.                                                                                                                                                                                                                                                                                |
| <b>RESULTS</b> | <b>16a</b> | <b>Study selection (results)</b>                       | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.                                                                | Section 3.2, Numbers reported inline: 2,562 records from five databases + 24 from manual citation tracing = 2,586 total identified; 1,539 after deduplication; 118 retained for full-text review; 49 GenAI-relevant works included after full-text screening; 11 foundational adoption-theory works added on canonical-status grounds; total corpus of 60. Full PRISMA 2020 flow diagram provided in Supplementary File S1. |
|                | <b>16b</b> | <b>Study selection (excluded)</b>                      | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.                                                                                                                                 | Section 3.2, and Supplementary File S1. Exclusion reasons at full-text stage documented in the PRISMA flow (insufficient methodology disclosure; duplicate findings; domain-bounded with no transferable insight). Aggregate exclusion counts by category provided in Supplementary File S1.                                                                                                                                |
|                | <b>17</b>  | <b>Study characteristics</b>                           | Cite each included study and present its characteristics.                                                                                                                                                                                                   | Supplementary File S1 (Data Extraction Matrix). All 60 included works are listed with methodology, theoretical lens, sectoral focus, framework dimension(s) addressed, key contribution, and gap relative to the proposed framework.                                                                                                                                                                                        |
|                | <b>18</b>  | <b>Risk of bias in studies</b>                         | Present assessments of risk of bias for each included study.                                                                                                                                                                                                | N/A (see Item 11). Study-quality lens applied at full-text screening rather than formal risk-of-bias assessment.                                                                                                                                                                                                                                                                                                            |
|                | <b>19</b>  | <b>Results of individual studies</b>                   | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g.                                                                                                     | N/A. No aggregated statistical outcomes; individual studies are characterised qualitatively in the extraction matrix (Supplementary File S1) and their substantive contributions are integrated narratively in Sections 2, 4, and 6.                                                                                                                                                                                        |

|                          |            |                                                 |                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                      |
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|                          |            |                                                 | confidence/credible interval), ideally using structured tables or plots.                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                      |
|                          | <b>20a</b> | <b>Results of syntheses (summary)</b>           | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.                                                                                                                                                                               | Section 3.2, (nine themes summarised); Section 4, (four framework dimensions with anchoring theory and twelve propositions derived from the synthesis). Supplementary File S1 tabulates contributing studies per theme.                                                                                                              |
|                          | <b>20b</b> | <b>Results of syntheses (statistical)</b>       | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | N/A. No statistical synthesis or meta-analysis.                                                                                                                                                                                                                                                                                      |
|                          | <b>20c</b> | <b>Results of syntheses (subgroup)</b>          | Present results of all investigations of possible causes of heterogeneity among study results.                                                                                                                                                                                       | N/A.                                                                                                                                                                                                                                                                                                                                 |
|                          | <b>20d</b> | <b>Results of syntheses (sensitivity)</b>       | Present results of all sensitivity analyses conducted to assess the robustness of the synthesised results.                                                                                                                                                                           | N/A.                                                                                                                                                                                                                                                                                                                                 |
|                          | <b>21</b>  | <b>Reporting biases</b>                         | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.                                                                                                                                                              | N/A (see Item 14).                                                                                                                                                                                                                                                                                                                   |
|                          | <b>22</b>  | <b>Certainty of evidence</b>                    | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.                                                                                                                                                                                  | N/A (see Item 15).                                                                                                                                                                                                                                                                                                                   |
| <b>DISCUSSION</b>        | <b>23a</b> | <b>Discussion (interpretation)</b>              | Provide a general interpretation of the results in the context of other evidence.                                                                                                                                                                                                    | Section 6 (Discussion),. Section 6.1 addresses interpretation of the framework against the SLR corpus; Section 6.2 explicitly compares the proposed framework against adjacent frameworks in Table 2.                                                                                                                                |
|                          | <b>23b</b> | <b>Limitations of evidence</b>                  | Discuss any limitations of the evidence included in the review.                                                                                                                                                                                                                      | Section 7 (Limitations and Future Research),. Boundary conditions of the corpus discussed: predominance of large-enterprise and higher-education contexts, moderate-to-high regulatory oversight, and English-language full-text availability.                                                                                       |
|                          | <b>23c</b> | <b>Limitations of review processes</b>          | Discuss any limitations of the review processes used.                                                                                                                                                                                                                                | Section 3.3 (Reflexivity), and Section 7,. Practitioner reflexivity of the author team acknowledged explicitly; disciplines used to hold positionality bias in check documented. Conceptual (rather than meta-analytic) purpose of the review discussed as an intentional design choice rather than a shortfall.                     |
|                          | <b>23d</b> | <b>Implications</b>                             | Discuss implications of the results for practice, policy, and future research.                                                                                                                                                                                                       | Section 6.3 (Managerial implications), , and Section 7 (Limitations and Future Research),. Four actionable managerial disciplines set out; three research priorities for empirical validation identified with specific mapping of propositions to research designs (survey/SEM, multi-case comparative, longitudinal cohort, fsQCA). |
| <b>OTHER INFORMATION</b> | <b>24a</b> | <b>Registration and protocol (registration)</b> | Provide registration information for the review, including register name and                                                                                                                                                                                                         | Section 3.2, Page 10. Review protocol registered on the Open Science Framework at <a href="https://doi.org/10.17605/OSF.IO/9YCTQ">https://doi.org/10.17605/OSF.IO/9YCTQ</a> .                                                                                                                                                        |

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|  |            |                                                        | registration number, or state that the review was not registered.                                                                                                                                                                          |                                                                                                                                                                                                                                                                                          |
|  | <b>24b</b> | <b>Registration and protocol (protocol)</b>            | Indicate where the review protocol can be accessed, or state that a protocol was not prepared.                                                                                                                                             | Section 3.2., Full protocol available at the OSF DOI above.                                                                                                                                                                                                                              |
|  | <b>24c</b> | <b>Registration and protocol (amendments)</b>          | Describe and explain any amendments to information provided at registration or in the protocol.                                                                                                                                            | None. No substantive amendments to the pre-registered protocol.                                                                                                                                                                                                                          |
|  | <b>25</b>  | <b>Support</b>                                         | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.                                                                                                              | Funding statement,. No external funding was received for this review; no sponsor or funder had any role in the review.                                                                                                                                                                   |
|  | <b>26</b>  | <b>Competing interests</b>                             | Declare any competing interests of review authors.                                                                                                                                                                                         | Conflicts of Interest statement,. The authors declare no conflicts of interest.                                                                                                                                                                                                          |
|  | <b>27</b>  | <b>Availability of data, code, and other materials</b> | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | Section 3.2, , and Data Availability Statement). Extraction matrix, PRISMA 2020 flow diagram, and search strategy documentation are provided in Supplementary File S1 and archived on OSF at <a href="https://doi.org/10.17605/OSF.IO/9YCTQ">https://doi.org/10.17605/OSF.IO/9YCTQ</a> . |