### Reviews of ECONJOURNAL-D-24-00082R1

The Impact of Firm Digital Transformation on ESG Performance: Evidence from China

## Round 1

#### Reviewer 1

Overall, the manuscript contributes to understanding how digital transformation can positively impact a company's ESG performance. The manuscript offers valuable insights for businesses seeking to enhance their sustainability practices and social responsibility initiatives. However, there are shortcomings in the manuscript that, once addressed, can be reconsidered. These are outlined as follows:

- 1- The abstract does not mention Methodology, sampling, etc.
- 2- ESG should be fully spelled out the first time it appears in the text, regardless of whether it has been fully explained in the abstract.
- 3- The introduction is not sufficiently motivating. The research problem (in the third paragraph) is not well elaborated; its significance and the rationale for the study should be more thoroughly discussed.
- 4- The opening sentences of paragraphs 1 and 2 need literature support. For this purpose, the following references may be helpful:

https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.3494

https://www.riejournal.com/article\_183317.html

https://link.springer.com/article/10.1007/s13132-023-01558-5

5- There is no conceptual connection between paragraphs 1 and 2.

6- Use more up-to-date sources to replace references 2, 3, 6, and 7. For example, the following references could be helpful:

https://www.mdpi.com/2071-1050/14/23/15639

https://doi.org/10.1051/e3sconf/202447403026

https://www.riejournal.com/article\_163094.html

https://www.sciencedirect.com/science/article/abs/pii/S0264999322003388

https://journal-tqfb.com/journal/article/view/16

https://www.journal-mrpe.ir/article 180660.html?lang=en

7- Why is there no discussion of mediating variables in the introduction? Also, regarding control variables!

8- In subsection 2-1, use more up-to-date references instead of 11, 12, and 13.

Some suitable works may be as follows:

https://www.riejournal.com/article\_193185.html

https://journal-scfa.com/journal/article/view/17

https://www.journal-imos.ir/article\_140270.html?lang=en

https://www.journal-aprie.com/article\_144039.html

https://www.journal-dmor.ir/article\_138381.html?lang=en

9- Update reference 24 in subsection 2-2-2. For example:

https://www.journal-imos.ir/article\_136140.html?lang=en

https://www.bidacv.com/article\_143492.html

10- Update reference 30 in subsection 2-2-3. For example:

https://www.bidacv.com/article 190167.html

https://www.journal-dmor.ir/article\_131464.html?lang=en

11- In subsection 3-1, what do you mean by "particular financial condition"?

12- The basis for selecting control variables is not clear. While it is claimed that these variables can affect ESG, no reputable reference in this regard has been provided. Reviewing the following references may be helpful:

https://www.sciencedirect.com/science/article/abs/pii/S1544612324000370 https://masi-journal.com/journal/article/view/18

https://www.acadlore.com/article/JOSA/2023\_1\_1/josa010105

- 13- Has the indirect effect of DT on ESG been measured?
- 14- The second paragraph of the conclusion section lacks a direct connection to the research findings.
- 15- Correct and revise grammatical errors in the text.
- 16- Use a consistent referencing style according to the journal format.
- 17- Recheck references 6, 12, 29, and 42.

#### Reviewer 2

The article studied the relationship between enterprise digitalization and ESG, and validated it using A-share data. The results showed a positive correlation between the two, and the mechanism was also explored. The research content has a certain degree of innovation.

However, there are some suggested modifications:

- (1) The first letters of 'financial' and 'technical' in Figure 1 should be capitalized
- (2) Consider adding a collinearity test for Part 4.2.
- (3) Some statements in the paper that state 'we' are not appropriate.
- (4) The citation [37] only should include the surname of author.
- (5) Add more discussion on H1-H4.
- (6) Inconsistent format of references.

Therefore, it is recommended to accept after the minor revison.

#### Reviewer 3

- 1) Wording problem. In summary, "A-share quoted firms" is kind of weird. A common expression is "A-share listed firms".
- 2) Format problem. In summary, there is a missing space before "Additionally".
- 3) Consistency problem. In summary, there exists a mixed choice of "the study" and "the research". In the following text, there also exist other expressions such as "this paper".
- 4) Consistency problem In Figure 1, the initial letter should keep uppercase.
- 5) The derivation of the hypotheses could be improved. The author reviewed many relevant literature. But the formulation of the hypothesis is not straightforward. The author could present his own expected results in the analysis process, which naturally leads to hypotheses.

- T6) The discussion depth needs to be strengthened. For the robustness test, why do results show such forms in Table 4 columns (3)-(5)? What are the underlying reasons? The author does not give explanations.
- 7) The derivation of research conclusions should be based on results.
- 8) Native-speaker proofreading or copyediting is recommended.

# Round 2 Reviewer 1

Congratulations to the authors for their excellent work!

#### Reviewer 2

The author has made revisions to the paper according to all requirements, and I suggest accepting this paper.

#### Reviewer 3

This paper examined how digitalization in businesses affects ESG ratings. Findings suggest a positive correlation between digital initiatives and ESG metrics improvements. These findings are consistent even after multiple robustness checks. Additionally, this paper delves into the mechanisms driving this primary relationship, discovering that digital advances in firms enhance ESG scores by easing financial limitations, diminishing information disparities, and bolstering technological innovation. This paper further reveals variable impacts based on firm size and geographical location. I find the topic is interesting and the empirical part is rigorous. The reviewer comments are also handled well.