

# Developing a Resilient Supply Chain Model Based on Industry 4.0 in the Circular Printing Industry

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## E d i t o r

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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:

This is an important conceptual position, yet the manuscript does not explicitly define the operational meaning of “capacities” until much later in the paper. The authors should explicitly introduce and theoretically define the four proposed capacities (transformational, absorptive, adaptive, and continuity) within this paragraph or immediately afterward, including their conceptual boundaries and theoretical origins (e.g., dynamic capability theory, organizational resilience literature). Without early definitional clarity, readers cannot fully appreciate how the model contributes theoretically beyond existing resilience frameworks.

However, the manuscript does not explain how questionnaire items were generated, whether items were adapted from validated scales, or whether pilot testing was conducted. This is a major omission affecting measurement validity.

AVE alone cannot establish full construct validity. The authors should also report cross-loadings, HTMT ratios, or confirmatory factor analysis model fit indices.

Author revised the manuscript and uploaded the updated document.

## 1.2 Reviewer 2

Reviewer:

While the gaps are broadly described, they remain somewhat conceptual. The authors should explicitly formulate these gaps as empirical and methodological deficiencies—for example, lack of causal modeling using hybrid DEMATEL-SEM approaches, absence of capacity hierarchy validation, or lack of industry-specific empirical testing in circular manufacturing sectors. This would strengthen the justification for the chosen methodology.

In the final paragraph of the Introduction, the authors introduce the four capacities but do not present a formal conceptual model or theoretical diagram prior to the empirical sections. A conceptual figure illustrating hypothesized relationships between capacities (transformational → absorptive → adaptive → continuity) should be included in the Introduction to guide readers before presenting empirical validation.

However, later sections indicate causal modeling using SEM. Structural equation modeling goes beyond correlational analysis and involves causal inference. Therefore, the quantitative design should be explicitly classified as causal modeling using SEM, not merely correlational.

The qualitative phase involved 20 experts selected using purposive and snowball sampling. The authors should provide additional justification for the adequacy of this sample size, including reference to qualitative sampling saturation criteria or theoretical saturation. Furthermore, demographic characteristics of qualitative participants should be presented.

Author revised the manuscript and uploaded the updated document.

## 2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.