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INPLASY

Organizational Capability Heterogeneity in Fashion Sustainability

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ADMINISTRATIVE INFORMATION

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 December 2025 and was last updated on 19 December 2025.

INTRODUCTION

Review question / Objective Why do studies examining fashion sustainability-performance relationships produce contradictory findings, and how can organizational capability heterogeneity explain these inconsistencies? This systematic review aims to develop a capability-based framework explaining heterogeneous sustainability-performance relationships in the fashion sector from 2015-2025 through comprehensive synthesis following PRISMA 2020 guidelines.

Condition being studied Sustainability-performance relationships in the fashion industry, including fast fashion retailers, luxury brands, sustainable ventures, and multi-sector fashion companies, with focus on organizational capability heterogeneity, resource investment mechanisms, and capability leverage mechanisms underlying competitive advantage.

METHODS

Participant or population Research articles, systematic reviews, and credible industry reports about fashion companies (apparel, textile, garment, clothing sectors) including fast fashion, luxury fashion, sustainable ventures, and circular fashion businesses across multiple firm sizes (SMEs to large corporations) from global markets spanning 2015-2025.

Intervention Fashion sustainability practices measured through:
• Sustainable materials adoption and circular economy business models
• Supply chain transformation and ethical sourcing practices
• Environmental performance initiatives (waste reduction, energy efficiency, carbon footprint reduction)
• Corporate social responsibility (CSR) and ESG integration

• Circular business models (rental, resale, repair, recycling)
• Digital platform adoption for sustainability transparency
• Sustainable innovation and product design
• Stakeholder engagement and consumer education initiatives.

Comparator Fashion companies with conventional/traditional business practices, lower sustainability adoption, or varying levels of organizational capabilities (size, resources, infrastructure, expertise).

Study designs to be included Quantitative empirical studies (cross-sectional analyses, longitudinal studies, panel data analyses), qualitative case studies, mixed-methods research, systematic literature reviews, meta-analyses, bibliometric analyses, and credible industry reports with original data published in peer-reviewed academic journals or reputable industry sources.

Eligibility criteria Fashion sustainability practices measured through:
• Sustainable materials adoption and circular economy business models
• Supply chain transformation and ethical sourcing practices
• Environmental performance initiatives (waste reduction, energy efficiency, carbon footprint reduction)
• Corporate social responsibility (CSR) and ESG integration
• Circular business models (rental, resale, repair, recycling)
• Digital platform adoption for sustainability transparency
• Sustainable innovation and product design
• Stakeholder engagement and consumer education initiatives.

Information sources
Electronic databases:
• Scopus
• Web of Science Core Collection
• EBSCO Business Source Complete
• ScienceDirect
• Wiley Online Library
• Taylor & Francis Online
• JSTOR
Industry and practitioner sources:
• McKinsey reports
• Ellen MacArthur Foundation
• Fashion Revolution
• Boston Consulting Group (BCG)
Specialized repositories:
• SSRN (Social Science Research Network)
• EconPapers
• Google Scholar (supplementary).

Main outcome(s) • Financial Performance: Return on assets (ROA), return on equity (ROE), profitability, revenue growth, market value, Tobin's Q
• Market-Based Performance: Stock returns, market reactions, firm valuation, competitive advantage metrics
• Operational Performance: Operational efficiency, cost structure, supply chain performance, production efficiency, waste reduction outcomes
• Brand Performance: Brand equity, brand reputation, brand differentiation, customer loyalty, customer satisfaction
• Innovation Performance: Sustainable innovation outcomes, product development capabilities, circular business model success.

Quality assessment / Risk of bias analysis
Quality assessment adapted from Schiaroli et al. (2025) systematic review methodology:
For empirical studies:
• Methodological rigor (research design, sampling, statistical analysis)
• Transparency of methods and data reporting
• Relevance to research questions
• Potential bias assessment
For industry reports:
• Data source credibility
• Analytical methodology
• Institutional reputation
Quality categorization:
• HIGH priorit: Anchor studies revealing contradictions, seminal theoretical works, comprehensive systematic reviews
• MEDIUM priority: Supporting empirical studies with robust methodology
• LOW priority: Market forecasts, contextual sources
Assessment criteria included: publication venue credibility (peer-reviewed journals rated highest), sample size and methodology rigor, consistency across multiple corroborating sources, transparency in data reporting and analysis.

Strategy of data synthesis
Five-phase iterative synthesis approach:
Phase 1 - Contradiction Mapping: Systematically identified contradictory findings by mapping performance effects against firm characteristics, revealing contradictions cluster around specific firm types.
Phase 2 - Theoretical Triangulation: Synthesized evidence through Resource-Based View (capability requirements), Complementarity Theory (threshold

effects), and Institutional Theory (identity alignment).
Phase 3 - Mechanism Extraction: Distinguished resource investment patterns (increased costs) from capability leverage patterns (efficiency gains, brand differentiation).
Phase 4 - Threshold Identification: Compiled evidence on minimum capability requirements where sustainability effects shift from negative to positive.
Phase 5 - Integrative Framework Development: Developed capability-based framework with eight interrelated propositions explaining heterogeneous relationships.
Narrative synthesis for all studies given heterogeneous methodologies and outcome measures. Thematic analysis organized by firm types (large established firms, small sustainable ventures, challenger brands), capability dimensions, and performance mechanisms.

Subgroup analysis
• Firm Size: Large corporations vs. SMEs vs. micro-enterprises
• Business Model: Fast fashion vs. luxury fashion vs. sustainable ventures vs. circular economy models
• Capability Dimensions: Organizational capacity, strategic alignment, absorptive capacity, complementarity activation
• Geographic Regions: Global contexts (55.0%), Europe (15.0%), United States (6.2%), Asia (3.7%)
• Temporal Periods: Evolution from 2015-2019 (Paris Agreement era) vs. 2020-2025 (sustainability intensification)
• Performance Outcomes: Financial vs. market-based vs. operational vs. brand performance
• Sustainability Practices: Circular economy models vs. supply chain transformation vs. environmental initiatives.

Sensitivity analysis • Quality-based analysis comparing HIGH priority vs. MEDIUM priority sources
• Temporal sensitivity across publication years to detect evolution
• Geographic sensitivity to assess regional patterns
• Methodological sensitivity comparing quantitative empirical studies vs. systematic reviews vs. industry reports
• Contradiction resolution analysis examining why different firm types experience opposite performance effects.

Country(ies) involved United States (University of South Carolina) and South Korea (Kunsan National University).

Keywords Fashion sustainability, organizational capabilities, firm heterogeneity, circular economy, resource-based view, sustainable business models, resource-performance paradox, capability thresholds, complementarity theory, fashion.

Contributions of each author
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