The Mediating Role of Echo Innovation between Sustainable Procurement and Reverse Supply Chain

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Abstract

This study investigates the influence of sustainable procurement on reverse supply chain with ecological innovation as a mediator. The information was gathered via a survey spread to 400 working staff in 3 manufacturing firms located in Iraq. A random sampling technique was applied to various departments including logistics, manufacturing and sales. 365 valid forms were scrutinized. A partial least squares structural equation modeling (PLS-SEM) was applied to test the hypotheses. The study found that sustainable procurement (economic, social and environmental) has a significant impact on reverse supply chain. Ecological innovation mediates the relationships between sustainable procurement and reverse supply chain.

Sustainable Procurement

Sustainable procurement is the integration of Corporate Social Responsibility (CSR) principles into your company's procurement processes:

The acquisition of materials and services using the most effective and efficient means with application of the environmental, economic, social and good governance



Reverse Supply Chain

is a process that is almost opposite of a traditional supply chain, meaning the product moves from a customer back to a vendor/supplier/retailer. Reverse supply chain management includes pickups, disposing or cleaning, sorting, repackaging, restoring, and finally reshipping.



Echological Innovation

a specific form of innovation aiming at reducing the impact of products and production processes on the natural environment



Conceptual Model





Hypothesis testing

Proposed Path	Original Sample	Sample Mean	Standard Deviation	t Statistics	P Values	Decision
$SP \rightarrow RSC$	0.667	0.659	0.063	10.769	0.000	Supported
$SP \rightarrow EI$	0.579	0.598	0.062	9.711	0.000	Supported
$EI \rightarrow RSC$	0.451	0.461	0.082	5.823	0.000	Supported
Specific Indirect Effects						
$SP \rightarrow EI \rightarrow RSC$	0.276	0.275	0.056	4.931	0.000	Supported

Conclusion

The exploration of the mediating role of ecological innovation between SP and RSC presents a promising avenue for advancing circularity and sustainability within supply chain management. By fostering the development and integration of innovative technologies, processes, and business models, organizations can unlock a multitude of benefits.