

Original Article

Retailers Impact in Metamorphosing Waste into Sustainable Development in Reference to Kanniyakumari District

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Abstract:

In recent years, sustainable development has become a critical concern, particularly in regions like Kanniyakumari District, where rapid growth often leads to waste management challenges. Retailers play a pivotal role in transforming waste into valuable resources, contributing to sustainable practices. This study examines how retailers in Kanniyakumari District are actively involved in the metamorphosis of waste through initiatives like recycling, upcycling, and promoting eco-friendly products. By reducing plastic usage, encouraging biodegradable packaging, and partnering with local waste management agencies, retailers contribute significantly to reducing environmental degradation. To recognize the quality of recognition among retailers about transforming waste into sustainable development in Kanniyakumari district. This study aims to analyse the latitude in Waste Reduction and to institute strategies to stimulate retailers to ratify sustainable consumption motif. It will explore how retail-driven waste transformation initiatives support environmental conservation while fostering economic growth through new markets for recycled goods. Special attention will be given to small and medium-sized retailers, as they often face challenges such as limited resources and consumer awareness in implementing sustainable practices. The study will highlight successful case studies and identify gaps that need to be addressed to scale these efforts further. Ultimately, this research will offer insights into the role of retail businesses in supporting the district's sustainable development goals by minimizing waste and promoting a circular economy. The findings will be valuable for policymakers, retailers, and environmental advocates in shaping future strategies for sustainable growth in Kanniyakumari District. For this study 96 partaker were selected positively. 96 participants were gathered in Kanniyakumari utilizing the opportunity or availability sampling approach in order to gather the relevant data.

Keywords: Retailers, economy, technological, environment, sustainability.


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INTRODUCTION

The global push for sustainable development has underscored the importance of responsible waste management. In this context, retailers are uniquely positioned to drive significant change due to their

central role in the supply chain and direct interaction with consumers. The retail sector generates substantial waste through packaging, unsold products, and day-to-day operations, making it imperative for retailers to adopt innovative waste management enactment.

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Retailers can transform waste into valuable resources, thereby contributing to the circular economy and curtailing their environmental footprint.

Efficient field stock management, sustainable packaging compounds, and robust recycling programs are some of the strategies that retailers employ to minimize waste. Moreover, the integration of advanced technologies like smart inventory systems and blockchain ensures greater efficiency and transparency in waste management processes. Beyond operational enactment, retailers have a profound influence on consumer behaviour. By endorsing sustainable products and raising recognition about environmental issues, retailers can drive a shift towards an eco-friendlier consumption motif. Indoctrination initiatives and take-back programs further reinforce this shift, encouraging consumers to participate in recycling and upcycling efforts.

Economically, sustainable waste management enactment can lead to significant cost savings and open up new revenue latitude for retailers. curtail waste disposal costs and create marketable products from waste not only benefit the bottom line but also align with the broader goals of sustainable development.

DESCRIPTION OF THE ISSUE

The retail industry faces a significant challenge in managing the vast amounts of waste generated from packaging, unsold goods, and daily operations, which contribute to environmental degradation and resource depletion. Despite the growing recognition of sustainability, many retailers struggle with implementing effective waste management enactment due to economic constraints, technological gaps, and complex supply chains. This issue is made worse by the failure to convert trash into useful resources and the low level of consumer engagement with sustainable practices. Consequently, the core issue is how retailers can overcome these barriers to effectively reduce, reuse, and recycle waste, thereby contributing to sustainable development and mitigating their environmental impact.

SCHOLARLY REVIEW

- **Ghosh, S., & De, P. (2022)** in their article entitled “Technological Innovations in Retail Waste Management”. This article explores the impact of technological advancements like smart inventory systems, blockchain for supply chain transparency, and IoT in enhancing waste management in the retail sector. The study highlights the potential of technology to optimize waste reduction and recycling processes.

- **Gustavsson, J et.al (2020)** in their study entitled “Retailers' Role in curtail Food Waste”. This study examines the role among retailers in addressing food waste, identifying key strategies such as better field stock management, improved supply chain coordination, and consumer indoctrination. It provides a thorough examination of the causes and prevention of food waste in retail.

PURPOSE OF THE STUDY

- To recognize the quality of recognition among retailers about transforming waste into sustainable development in Kanniyakumari district.
- To associate the latitude in Waste Reduction
- To institute strategies to stimulate retailers to ratify sustainable consumption motif

RESEARCH METHODOLOGY

Primary and secondary sources provide for the majority of the study's data. The primary data will be collected in the study region at the sample partaker. A variety of publications, such as books, journals, magazines, the internet, etc., will be the source of the secondary data.

- **Goal partaker**
The target subjects for the study are retailers.
- **Dimensions of the sample**
The sample size for the study is 96.
- **Sampling Method & Type**
The sampling technique adopted in this study is the Convenience sampling method

RESULTS AND DISCUSSION

ANALYSIS AND INTERPRETATION OF INFO

A DETAILABLE PROFILE OF THE PARTAKER:

Personal traits known as demographic factors are employed to assess the information about individuals within a certain population. Personal traits of participants are important in social science research because they influence their ability to express and respond about the role among retailers in transforming waste into sustainable development in Kanniyakumari District. The study's 96 participants' personal details, including their age, gender, marital status, family size, type, and monthly income, are shown in table 1.

TABLE 1: DESCRIPTION OF THE PARTICIPANT

Classification	Choices	No of partaker	Percentage
Age	Below 25	15	16
	25-40	27	28
	40-55	30	31
	Above 55	24	25
	Total	96	100
Sex	Male	62	64.6
	Female	34	35.4
	Total	96	100
Relationship Status	Married	77	80.20
	Unmarried	19	19.8
	Total	96	100
Size of Family	Below 3 members	16	17
	3-5 members	31	32
	Above 5 members	49	51
	Total	96	100
Domicile status	Urban	55	57.3
	Rural	41	42.7
	Total	96	100
Monthly Earnings	Below 10,000	17	18
	10,000-20,000	47	49
	Above 20,000	32	33
	Total	96	100

Source: primary data

From the above table, it shows that 31 per cent partaker were from the age 40-55 years. Gender of the weavers indicates 64.6 percent are male. Majority of the partaker were married, which represented 80.2 per cent. Most of the respondent’s family size is above 3-5 members which constitutes 51 per cent.55 per cent belonged to urban areas. The income of the majority (49 per cent) of the respondent’s range between 10,000 - 20,000 per month.

QUALITY OF RECOGNITION AMONG RETAILERS IN TRANSFORMING WASTE INTO SUSTAINABLE DEVELOPMENT IN RELATION TO THEIR RESIDENTIAL STATUS

Hypothesis I:

To find out whether there is any significant difference between the quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status, ‘t’ test has been applied. Table 2 reveals the quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status.

Null Hypothesis: There is no significant difference between the quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status.

To test the hypothesis there is no significant difference between the quality of recognition among retailers about transforming waste in relation to their residential status, the mean scores of 9 different variables were considered in the present study and the results are given in the table 2.

RETAILERS' AWARENESS OF CONVERTING WASTE INTO SUSTAINABLE DEVELOPMENT IN RELATION TO THEIR RESIDENTIAL STATUS IS CLASSIFIED AS HIGH QUALITY.

TABLE 2

Sr. No	Quality of recognition among retailers	Mean Score		t-Statistics	P- Value
		Urban	Rural		
1	Reduce the Production of Waste	4.07	4.07	-.030	.976
2	Promote Reuse and Recycling	4.18	3.76	3.917	.000*
3	Subscription to Sustainable Products	3.95	3.69	2.958	.003*
4	Implementation of Waste Management	3.88	3.43	2.792	.006*
5	Indoctrination of consumers and associations	3.81	3.65	.957	.340
6	Engagement and Collaborations	4.29	4.32	-.253	.800
7	Enhancements in Operations	3.75	3.65	.675	.501
8	Initiatives in Corporate Social Responsibility (CSR)	4.07	3.31	5.206	.000*
9	New ideas and technological advancements	4.03	3.37	4.489	.000*

Source: Primary Data

***Significant at five percent quality**

As P value is less than 0.05,the null hypothesis is rejected at 5% quality of significant with regard to Promote Reuse and Recycling (.000),

Subscription to Sustainable Products (.003), Implementation of Waste Management (.006), Initiatives in Corporate Social Responsibility (CSR) Initiatives(.000) and New ideas and technological

advancements (.000). Thus, it concluded that there is a significant difference between the quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status.

The null hypothesis is accepted since the P value is greater than 0.05. at5% quality of significant

with regard to curtail Waste Generation (.976), Consumer indoctrination and association (.340), participation and Partnerships (.800) and Operational Improvements (.501) Therefore it realized that there is no significant difference between quality among retailers about transforming waste into sustainable development in relation to their residential status.

IDENTIFY THE LATITUDE FOR WASTE REDUCTION
TABLE 3

Sr. No	Identify the latitude for Waste Reduction	Mean Score	Rank
1	Packaging reform	38.2	VIII
2	field inventory management	84.3	I
3	Product Design and Lifecycle	79.6	II
4	Supply Chain reform	45.1	VII
5	Consumer association	64.9	IV
6	Waste resolve and Recycling	60.1	V
7	Regulatory amenability	72.2	III
8	Technological compounds	49.3	VI

Source: Primary Data

Table 2 shows latitude for waste reduction. In that field inventory management with the mean score of 84.3 contributed first rank, Product Design and Lifecycle with the mean score of 79.6 contributed second rank, Regulatory amenability with the mean score of 72.2 contributed third rank. Fourth rank is for Consumer association with a mean score of 64.9. Fifth rank is for Waste resolve and Recycling with a mean score of 60.1. Sixth rank is for Technological compounds with a mean score of 49.3. Seventh rank is for Supply Chain reform with a mean score of 45.1

and Eighth rank is for Packaging reform with a mean score of 38.2 respectively.

RETAILER REVITALIZATION STRATEGIES APPROPRIATE SUSTAINABLE CONSUMMATION METHODS

The Garrett ranking is used to determine seven characteristics that are then used to analyze the efforts to encourage merchants to embrace sustainable consumption themes. The following table 4 presents the findings.

TABLE 4

Strategies to revitalize retailers	Garrett Mean Score	Rank
Propagandizing and recognition	72.88	I
Financial stimulus	70.67	II
participation and Partnerships	63.28	IV
Technology Adoption	55.98	VII
Ratification and Recognition	60.91	V
Consumer exigency and Market vogue	58.84	VI
Regulatory amenability	66.87	III

Source: Primary Data

The above clearly shows that, the first rank stands for “Propagandizing and recognition”, since it has the highest score of 72.88, followed by second rank is for “Financial stimulus”, with a score of 70.67. The third rank stands for “Regulatory amenability” with a score of 66.87. “Participation and Partnerships” was ranked fourth with a score of 63.28, followed by fifth rank is for “Ratification and Recognition”, with a mean score of 60.91, “Consumer exigency and Market vogue” got sixth rank with a average score of 58.84 and least rank is for “Technology Adoption” with a score of 55.98 respectively.

FINDINGS OF THE ANALYSIS

After the analysis and interpretation of the data these are the following findings were emerged:

- It shows that31 percent of contributors were from the age group of 40- 55 years.
- It is revealed that the gender of the weavers indicates 64.6 percent are male.
- Majority of the contributors were married, which constituted 80.2 per cent.
- Most of the partaker' family size is above 3-5 members which constitutes 51 per cent.
- Majority of the contributors belonged to urban areas which constituted 55 per cent.

- Most of the contributors have an income equality between 10,000-20,000.
- **Quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status**

As P value is less than 0.05, the null hypothesis is rejected at 5% quality of significant with regard to endorse Recycling and Reuse (.000), Sustainable Product subscription (.003), Waste Management enactment (.006), Corporate Social Responsibility (CSR) Initiatives (.000) Innovation and Technology and (.000). Thus, it concluded that there is a significant difference between the quality of recognition among retailers about transforming waste into sustainable development in relation to their residential status.

- **Identify the latitude for waste reduction**

In that field inventory management with the mean score of 84.3 contributed first rank and Eighth rank is for Packaging reform with a mean score of 38.2 respectively.

- **Strategies to revitalize retailers to adopt sustainable consumption motif**

The first rank stands for “indoctrination and recognition”, since it has the highest score of 72.88 and lowest rank is for “Technology Adoption” with a score of 55.98 respectively.

SUGGESTIONS

The researchers have given the following suggestions for further improvement in the study area.

- Retailers can choose suppliers that prioritize sustainable enactment, curtail environmental impact from the outset.
- Implementing eco-friendly logistics, such as using electric vehicles and optimizing delivery routes, reduces carbon emissions.
- Retailers can partner with organizations to upcycle waste materials into new products, creating a closed-loop system.
- Educating consumers about sustainable enactment, such as the benefits of curtail, reusing, and recycling, fosters a culture of sustainability.
- Partnering with non-governmental organizations can enhance sustainability efforts through shared resources and expertise.

CONCLUSION

In conclusion, retailers have a significant and multifaceted role in transforming waste into sustainable development. By implementing zero-waste initiatives, endorsing circular economy enactment, enhancing waste management, and

advocating for sustainable products, retailers can substantially reduce their environmental impact. Engaging and educating consumers further amplifies these efforts, fostering a culture of sustainability that extends beyond the retail sector. Additionally, optimizing supply chain efficiencies ensures that waste reduction is achieved at every stage of the product life cycle. Through these comprehensive strategies, retailers not only contribute to environmental sustainability but also drive progress toward broader sustainable development goals, positioning themselves as pivotal players in the global effort to create a more sustainable future.

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Conflicts of interest

There are no conflicts of interest.

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