Factors Affecting Sustainable Consumption in the Era of Consumerism: An Empirical Study in the Context of Circular Economy

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Abstract
Sustainable consumption is one of the best ways to address global environmental challenges in an era dominated by consumerism. The circular economy model emphasizes reducing waste, maximizing resource use, and promoting environmentally friendly production and consumption patterns. At the same time, consumers play an equally important role in this change by making responsible choices that prioritize durability, repairability, and recyclability. But despite growing awareness, challenges such as the intention-behaviour gap and infrastructural barriers still exist, limiting the widespread adoption of sustainable practices. Bridging these gaps requires collaborative efforts across sectors and a cultural shift toward mindful consumption. This paper explores the importance of consumer behaviour, business strategies, and policy interventions in promoting sustainable consumption within the circular economy framework. Greater awareness and encouragement of responsible actions can help society transition towards a more sustainable future, ensuring both environmental preservation and economic resilience. A sample of 209 consumers were surveyed to know the factors that affects sustainable consumption in the era of consumerism and found that Consumer Environmental Awareness, Economic factors, Corporate Practices and Policy Implementation are the factors that affects the sustainable consumption.

Keywords: Sustainable Consumption, Circular Economy, Consumer Behavior, Environmental Sustainability

Introduction
The world today faces numerous environmental challenges, including climate change, resource depletion, and increasing waste. These issues are directly tied to how we produce and consume goods. In response to these growing concerns, the concept of a Circular Economy (CE) has come up as a promising solution for achieving sustainable development. Unlike the traditional linear economy, which follows a "take-make-dispose" model, the CE is about keeping resources in use for as long as possible by focusing on reducing waste, reusing materials, and recycling products. However, the success of CE depends heavily on consumer behaviour, which is directly influenced by various social, economic, and psychological factors. These factors are crucial in promoting sustainable consumption practices that align with CE principles.

Sustainable consumption (SC) refers to making mindful decisions that reduce environmental impact through responsible purchasing and lifestyle choices. In the context of modern

consumerism, where mass production and high consumption rates dominate, SC has become both a challenge and a necessity. SC is essential to achieving sustainable development goals, as it aims to decouple economic growth from environmental degradation by reducing the use of natural resources and minimizing waste. However, SC remains a complex and fragmented concept with overlapping definitions, making it difficult to implement consistently. This theoretical vagueness poses a challenge in creating effective policies and strategies for promoting SC, particularly in consumer-driven economies (Vargas-Merino et al., 2023).

The era of consumerism has amplified unsustainable consumption patterns, with increasing demand for new products leading to resource depletion and environmental harm. Consumers' desire for convenience, affordability, and novelty often outweighs considerations of sustainability. However, the circular economy model presents an opportunity to take consumption patterns toward more sustainable practices by encouraging the use of durable, repairable, and recyclable products. Consumer behaviour and attitudes are significant in driving the transition to CE. Consumers must understand the environmental and economic benefits of their purchasing decisions to make sustainable choices. Yet, many remain unaware of these benefits, resulting in the well-documented intention-behaviour gap, where consumers express a desire to act sustainably but fail to follow through (Bucur, 2023).

The factors influencing sustainable consumption are varied and interconnected too. Social norms, environmental awareness, personal values, and financial considerations all play a role in shaping consumer behaviour. For instance, people may intend to purchase eco-friendly products but refrain due to higher costs or perceived inconvenience. This gap between intention and behaviour calls for targeted interventions to promote SC. Educational campaigns, labelling systems, financial incentives, and policies that encourage repair, reuse, and recycling can help bridge this gap and foster more sustainable consumption patterns.

Traditional business models often focus on maximizing sales by encouraging frequent product replacement. In contrast, business models aligned with CE principles prioritize extending the life cycle of products through repair, refurbishment, and recycling. These models aim to reduce resource consumption while still providing value to consumers. For example, companies can adopt subscription-based services or offer products designed for longevity and easy repair. Such models can influence consumer behaviour by making sustainable choices more accessible and appealing. The transition to a circular economy becomes a framework for addressing the challenges of consumerism by encouraging sustainable consumption. However, the success of this transition depends on understanding the factors affecting consumer behaviour and designing interventions that make sustainable choices easier and more rewarding. By exploring these factors, this paper aims to look into how consumer behaviour can be influenced to support the goals of the circular economy, ultimately contributing to a more sustainable future.

Literature Review
The transition to a circular economy (CE) requires active participation from consumers at various stages of the consumption process, including purchase, usage, and disposal. However, current research shows that consumer behaviour, particularly post-purchase actions like recycling and upcycling, remains underexplored. Vidal-Ayuso et al. (2023) emphasize that key factors influencing sustainable consumption include attitudes, subjective norms, and perceived behavioural control, along with the level of consumer awareness about product materials and lifecycle impacts. Positive drivers such as environmental consciousness and perceived value motivate consumers to adopt CE practices, whereas perceived risks related to quality and functionality deter them. Addressing these risks and encouraging behaviours like repair, reuse, and waste management requires a collaborative effort between businesses and consumers. This

research gap underlines the need for interventions targeting consumer education and risk reduction strategies to sustain green habits beyond initial purchases.

Consumer decisions regarding sustainable products are often influenced by heuristic cues—mental shortcuts that simplify decision-making. Purchasing decisions are driven by both self-interest and environmental motives. Consumers prioritize different cues based on their values, such as personal benefits or environmental impact. However, these heuristics vary across product categories, which suggests that businesses should tailor their marketing strategies to specific consumer segments. Retailers can leverage insights from large-scale purchasing data to highlight relevant product attributes that appeal to specific segments (Eberhart and Naderer, 2017).

Global crises, such as pandemics, have significantly altered consumer behaviour and their approach to sustainability. Cao Minh Trí and Quynh (2024) observed that pandemics have positively influenced sustainable consumption by increasing environmental concern, personal norms, and perceived behavioural control. Also, perceived consumer effectiveness—the belief that individual actions can have a meaningful environmental impact—plays a critical role in translating intentions into sustainable behaviours. Interestingly, traditional social influences, such as subjective norms, were found to be less significant post-pandemic in Vietnam. Businesses, therefore, must adapt their strategies to align with these changing consumer priorities by emphasizing personal accountability and actionable steps to promote eco-friendly habits.

Sustainable consumption behaviour (SCB) is influenced by a combination of internal and external factors. Dimitrova et al. (2022) identified environmental knowledge (EK), materialism (MAT), environmental influences (EI), and the promotion of sustainable consumption (PSC) as key factors shaping consumer intentions. These factors directly impact sustainable actions, with EK and MAT having the most significant influence on behavioural intentions. Age also moderates the relationship between SCB intentions and actual behaviour. This suggests that different age groups respond to sustainability cues differently, making it essential for businesses to customize their approaches based on demographic insights. On top of this, cultural context plays a role in shaping SCB, indicating that strategies must be tailored to specific regional and cultural nuances.

Achieving a balance between environmentalism and consumerism in capitalist societies presents a significant challenge due to inherent contradictions in profit-driven systems. Panizzut et al. (2021) argue that transformational changes are necessary across production, consumption, and lifestyle patterns to reconcile these opposing forces. There are a lot of vulnerabilities in the capitalist model, which became particularly evident during the COVID-19 pandemic. Consumption declines during crises led to widespread social and economic disruptions. There should be an Operations Management Input-Transformation-Output (ITO) model to categorize environmental interventions.

Generations Y and Z hold the potential to drive sustainable consumption practices, yet their behaviour remains inconsistent. Education plays an important part in creating long-term behavioural changes. Younger generations are more likely to engage with sustainability initiatives when exposed to education on recycling, waste reduction, and eco-friendly practices. Digital platforms and social networks significantly influence their attitudes toward sustainability. At the same time, the gap between awareness and action persists. Governments must implement policies and programs that promote sustainability education to encourage proactive decisions from younger consumers (Krasulja et al., 2020).

Consumer acceptance of waste-to-value (WTV) food is essential for promoting circular economy practices in the food sector. Food neophobia (FN) and food technology neophobia (FTN) negatively impact consumers' willingness to buy WTV food products. Consumers who regularly read food labels and believe in the environmental or health benefits of products are more likely to

adopt WTV food. Socio-demographic factors, such as age, income, and trust levels, also shape purchase intentions. Giving clear, accurate product information can build consumer trust and reduce neophobic tendencies (Coderoni and Perito, 2020).

Infrastructural barriers and a lack of knowledge are significant obstacles to pro-environmental behaviour (PEB) in certain regions. Ratner et al. (2020) highlight that sustainable consumption is often inconvenient or inaccessible due to underdeveloped eco-infrastructure. Students and educated individuals are more likely to engage in energy-saving, waste management, and sustainable mobility behaviours, so there is a need for long-term investments in education to improve sustainability.

There is also the need to work on business models to promote sustainable consumption in the CE framework. A study by Tunn et al. (2019) identified four key elements essential for sustainable business models: resource strategy, revenue model, consumer effort, and consumption level objectives. The most promising models are those that reduce overall consumption while minimizing consumer effort. Offering a variety of SC business models tailored to different consumer segments increases the likelihood of meeting diverse customer needs.

One of the key challenges in promoting sustainable consumption is the intention-behaviour gap (IBG), where consumers express sustainable intentions but fail to act accordingly. Georgantzis Garcia et al. (2021) stress that this gap must be addressed to achieve sustainable consumption within the CE framework. They recommend innovative research methods, such as impact-based instruments and incentive-compatible experiments, to measure real consumer behaviour. Businesses should prioritize designing products and services that promote durability, repairability, and recoverability to encourage sustainable practices. Transparent marketing of green attributes and promoting a culture of sufficiency can also help bridge the gap between intention and behaviour.

Goyal et al. (2021) identified critical success factors (CSFs) for adopting sustainable consumption and production (SCP) practices within the CE framework, and the key causal factors include population control, government commitment, top management focus, financial backing, policy formation, and technological upgrades. These factors shape the adoption process by promoting resource efficiency, minimizing waste, and encouraging repair, remanufacturing, and ecological-economic balance. Understanding the interrelationships between these factors can help prioritize actions to promote SCP and CE.

The integration of sustainable consumption and production (SCP) tools with CE practices is essential for achieving sustainable development. Environmental Management Systems (EMS) and Ecodesign Directives show the highest levels of integration with CE by promoting circularity in production processes, but, tools like Green Public Procurement (GPP), Energy Label, and Ecolabel primarily function independently without circular criteria embedded in their frameworks (Marrucci et al., 2019).

Tseng et al. (2020) argue that traditional closed-loop systems overlook the broader economic benefits of multi-loop supply chains. These systems generate a multiplier effect through innovative business models and new demand injections. Effective CE strategies require coordinating multiple supply chains to capture additional value through industrial symbiosis. Government policies must support the restructuring of supply chains to enhance these benefits.

Objective
To explore the factors that affects sustainable consumption in the era of consumerism.

Methodology

A sample of 209 consumers were surveyed to know the factors that affects sustainable consumption in the era of consumerism. This study is based on a survey conducted using a structured questionnaire. The primary data was collected using a "random sampling method," and "Factor Analysis" was employed to derive the results.

Findings

The table below presents the general details of the respondents where male contributes 63.2% to total study survey population and rest 36.8% are female. 34.0% are below 26 years of age, 39.2% are 26-36 years, and rest 26.8% are above 36 years. 32.5% are graduate and below, 39.7% are post graduate and above, and rest 27.8% are having professional degrees. 19.6% are students, 29.7% are in service, 27.3% are in business, 18.2% are self-employed and rest 5.3% are in some other occupational sector.

"Table 1 Demographic details"

"Variable"	"Respondents"	"Percentage"
Gender		
Male	132	63.2
Female	77	36.8
Total	**209**	**100**
Age		
Below 26 yrs	71	34.0
26-36 yrs	82	39.2
Above 36 yrs	56	26.8
Total	**209**	**100**
Education		
Graduate and below	68	32.5
Post graduate and above	83	39.7
Professional Degree	58	27.8
Total	**209**	**100**
Occupation		
Students	41	19.6
Service	62	29.7
Business	57	27.3
Self-employed	38	18.2
Others	11	5.3
Total	**209**	**100**

"Table 2 KMO and Bartlett's Test"

| "Kaiser-Meyer-Olkin Measure of Sampling Adequacy"		.862
"Bartlett's Test of Sphericity"	"Approx. Chi-Square"	3410.597
	"df"	120
	"Sig."	0.000

KMO value in table 2 is 0.862 and the "Barlett's Test of Sphericity" is significant.

"Table 3 Total Variance Explained"

"Component"	"Initial Eigen values"	"Rotation Sums of Squared Loadings"

	"Total"	"% of Variance"	"Cumulative %"	"Total"	"% of Variance"	"Cumulative %"
1	7.590	47.439	47.439	3.488	21.798	21.798
2	2.469	15.430	62.868	3.371	21.069	42.868
3	1.858	11.614	74.482	3.305	20.657	63.525
4	1.521	9.505	83.987	3.274	20.462	83.987
5	0.547	3.419	87.406			
6	0.367	2.296	89.702			
7	0.314	1.961	91.663			
8	0.267	1.668	93.331			
9	0.237	1.484	94.814			
10	0.215	1.347	96.161			
11	0.140	.877	97.038			
12	0.115	.716	97.754			
13	0.106	.661	98.415			
14	0.096	.601	99.016			
15	0.085	.533	99.549			
16	0.072	.451	100.000			

"Principal component analysis" shows 16 variables from 4 Factors. The factors explained the variance of 21.798%, 21.069%, 20.657% and 20.462% respectively. The total variance explained is 83.987%.

Scree Plot
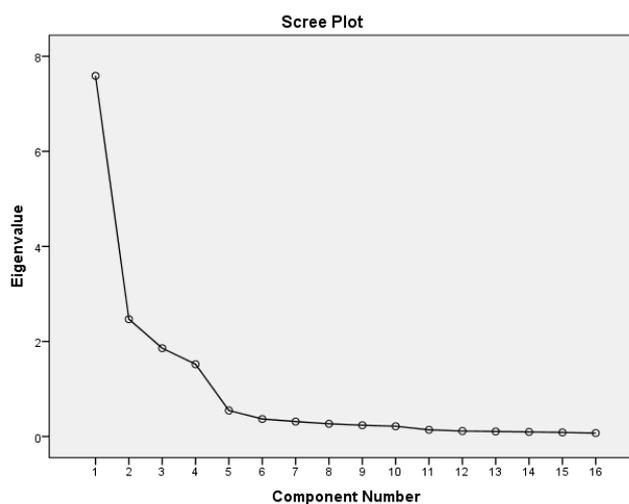
"Table 4 Rotated Component Matrix"

"S. No."	"Statements"	"Factor Loading"	"Factor Reliability"
	Consumer Environmental Awareness		**0.945**
1	Consumers are aware of responsible actions that help society transition towards a more sustainable future	0.891	
2	Consumer are aware about product materials and lifecycle impacts	0.878	
3	Aware of environmental degradation, climate change, and biodiversity loss	0.866	
4	Consumers know the hidden costs of unsustainable consumption	0.863	
	Economic factors		**0.935**

5	Following repair and reuse practices	0.894	
6	Reducing the use of natural resources and minimizing waste	0.852	
7	Subsidies or incentives for solar panels and other sustainable consumption	0.850	
8	Using energy-efficient goods for long-term cost savings	0.847	
	Corporate Practices		**0.925**
9	Coordinating multiple supply chains to capture additional value through industrial symbiosis	0.894	
10	Government policies to support the restructuring of supply chains	0.889	
11	Transparency in supply chains and ethical sourcing	0.874	
12	Investing in research and development sector for biodegradable materials	0.815	
	Policy Implementation		**0.928**
13	Implementation of government policies that encourage sustainable practices	0.876	
14	Policies that provide necessary infrastructure to support sustainable practices in organizations	0.861	
15	Policies and strategies for promoting consumer-driven economies	0.833	
16	Policies to encourage repair, reuse, and recycling practices	0.805	

Table 4 shows factors affecting sustainable consumption in the era of consumerism. Factors "Consumer Environmental Awareness" includes the variables like Consumers are aware of responsible actions that help society transition towards a more sustainable future, Consumer are aware about product materials and lifecycle impacts, Aware of environmental degradation, climate change, and biodiversity loss and Consumers know the hidden costs of unsustainable consumption. Factor "Economic factors" includes the variables like Following repair and reuse practices, Reducing the use of natural resources and minimizing waste, Subsidies or incentives for solar panels and other sustainable consumption and Using energy-efficient goods for long-term cost savings. Factor "Corporate Practices" includes the variables like Coordinating multiple supply chains to capture additional value through industrial symbiosis, Government policies to support the restructuring of supply chains, Transparency in supply chains and ethical sourcing and investing in research and development sector for biodegradable materials. Factor "Policy Implementation" includes the variables like Implementation of government policies that encourage sustainable practices, Policies that provide necessary infrastructure to support sustainable practices in organizations, Policies and strategies for promoting consumer-driven economies and Policies to encourage repair, reuse, and recycling practices

"Table 5 Reliability Statistics"

"Cronbach's Alpha"	"N of Items"
0.925	16

The value of "Cronbach's Alpha" should be more than 0.07. Total reliability is 0.925 for 4 constructs including sixteen, hence it is sufficient.

Conclusion
The move towards sustainable consumption in the era of consumerism is essential for addressing global environmental challenges and the circular economy becomes a framework that helps in

reducing waste, preserving resources, and promoting sustainable production and consumption practices. But the issue is that this transition requires a collective effort from consumers, businesses, and governments. Consumers play the most important role by making responsible purchasing decisions and prioritizing durable and recyclable products. They should also do repair and reuse practices. From the side of businesses, adaptation of their models to support sustainability by offering eco-friendly products and transparent marketing should be done, while governments must implement policies that encourage sustainable practices and provide the necessary infrastructure to support them. Sustainable consumption requires a fundamental cultural change, where the focus moves from excessive consumption to mindful and responsible use of resources.

The study aims to know the factors that affects the sustainable consumption is the era of consumerism and found that Consumer Environmental Awareness, Economic factors, Corporate Practices and Policy Implementation are the factors that affects the sustainable consumption.

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