Asian And Pacific Economic Review
ISSN: 1000-6052

MAPPING CONSUMER BEHAVIOUR IN THE CIRCULAR ECONOMY: A SYSTEMATIC LITERATURE REVIEW AND BIBLIOMETRIC ANALYSIS OF BEHAVIOURAL INSIGHTS

Sunakshi Chadha[1] ***(Corresponding Author)****
PhD Scholar
Delhi School of Management, Delhi Technological University
Shahbad Daulatpur, Main Bawana Road, Delhi
Dr. Vikas Gupta[2]
Assistant Professor,
Delhi School of Management, Delhi Technological University
Shahbad Daulatpur, Main Bawana Road, Delhi

Abstract: The paper offers a systematic literature review of the key aspects of circular economy CE related to consumer behaviour, employing the biblioshiny R package and the Theory, Context, Characteristics, and Methodology (TCCM) structure of the analysis, which counts with publications from 2005 to 2024 retrieved from Web of Science and Scopus. This study identifies a steady increase in the productivity of papers and pinpoints major domains of research interest, which encompass consumer behaviour concerning circularity and sustainable consumption. The TCCM revealed that the Theory of Planned Behaviour dominated the field, geographical concentration in European nations, industry specialization in sustainable fashion and up cycling, and cross-sectional studies. Following from these observations, we outline new research directions that centre on theoretical synthesis, increased geographical coverage and methodological pluralism. Future research directions include examining micro- and macro-level aspects of consumer circular behaviour, defining the relationship between circular consumption and emerging technologies, and defining circularity indicators at the consumer level. Thus, this research plays a valuable role in the existing literature by offering a comprehensive synthesis of the current state of the research in the area of circular economy consumer behaviour, outlining directions for further research, and as such, contributing to the development of the knowledge of the chosen interdisciplinary area of sustainability and consumer research.

Keywords: Circular Economy; Consumer Behaviour; Sustainable Consumption; Product-Service Systems; Up cycling

1. Introduction

The circular economy has emerged as a promising paradigm to address the mounting challenges of resource depletion, environmental degradation, and waste accumulation in our global economic system. With the increased interest in this concept by policymakers, business people, and researchers, there is increased literature that covers the different aspects of circular economy, and the applicability of human behaviour in the transition towards circularity. The shift to circular economy has been identified as one the strategies necessary in dealing with the increasing environmental scarcities and pollution (Geissdoerfer et al., 2017). Consumer behaviour is at the centre of this shift, and is most crucial when influencing the effectiveness and replication of circular economy strategies (Carreira et al., 2023).

Consumers' optimistic considerations, understanding, and perspective towards circular products and services become more critical as they develop better consciousness of the implications of their actions (Hazen et al., 2017; Hartley et al., 2024). Even the behaviour of the consumers in the context of the circular economy helps to understand the drivers and brings an interesting angle to the policies and the business strategies which are being made to develop the appropriate practices (Kirchherr et al., 2018). Furthermore, since circular business models disrupt the conventional way of consumption, knowledge of consumer's acceptance and willingness to utilize these new models is vital for the success of the models (Tunn et al., 2019). It is evident that when the Focus shifts to consumer behaviour and circular economy principles, perfect understanding and effective guidance can assist greatly in encouraging sustainable consumption and consequently hastening the most needed change towards a new economy (Ghisellini et al., 2016).

Considering the growth rate of studies in this area, there is a dire need to provide systematic review of the current state of knowledge. This research gap can be filled by carrying out this Systematic Literature Review (SLR) and bibliometric analysis of the works done of literature in circular economy particularly from the behavioural perspective. This is because circular economy is growing vital for India, a developing country with various environmental issues arising hand in hand with economic development. As of year 2020 report by (Fiksel et al., 2020)India is currently amongst the largest consumers of resources and producers of waste globally owing to its large population of over 1.3 billion coupled with its developing industrialization.

In the research study conducted by Kaza, et al. (2018) in collaboration with the World Bank, India as projected to generate approximately 165 million tons of waste per year by year 2030. On this front, transition to CE seems to be an appropriate strategy that will help organisation to overcome problems related to environmental degradation, resource depletion, and adverse economic impacts in a developing country context (Mallick et al., 2024;Islam et al., 2021).It can build on the country's sustainable development aspiration and mitigate the emerging challenges such as waste management, air and water toxicity, and exhaustion of natural resources. Further, the government of India has identified the need to adopt circular economy principles as seen through the implementation of Swachh Bharat Mission and the formulation of the National Resource Efficiency Policy (NITI Aayog, 2017).

Consumers are crucial to the success of circular economy practices, as their choices and behaviours directly impact the adoption of sustainable consumption models. Their willingness to repair, reuse, share, and recycle products drives demand .The imperative of conducting a systematic literature review (SLR)and bibliomretrics on this topic is important to synthesize existing knowledge, identify gaps in current research, and provide a comprehensive understanding of consumer behaviour in the circular economy context. This review will help inform future strategies for promoting consumer adoption of circular practices and guide policy-making and business decisions in this rapidly evolving field and also to provide the dynamic framework taking into account the constructs taken from literature and then proposing the framework to be used in sub sequential research endeavours in this direction.. Hameed et al., 2021 reported that most urban Indian consumers are willing to observe and follow circular inner design principles and even engage in waste recycling techniques, thereby promoting effective recycling programmes. This volume is also in line with the study of Fiksel et al., 2020; Papamichael, Voukkali,et al. (2024) where respondents underline the importance of government policies and incentives to stimulate circular business strategies. Given the rapid

expansion of research in this field, there is a pressing need for a comprehensive synthesis and analysis of the existing knowledge base. This paper aims to address this gap by presenting the Circular Consumption Dynamics (CCD) Framework, which provides a comprehensive model for understanding and promoting circular consumption behaviours.

1.1 Research Objectives

Here are the objectives reframed as concise research questions:

RQ1: What is the current state of literature on circular economy (CE) and its relationship with consumer behaviour, as revealed through a systematic review and synthesis?

RQ2: What are the key themes, trends, and gaps in the CE and consumer behaviour literature, as identified through bibliometric analysis and the TCCM framework?

RQ3: How is the academic field of CE and consumer behaviour structured in terms of major sources, publications, and research clusters?

This systematic literature review contributes significantly to the conceptual, methodological, and thematic development of circular economy (CE) and consumer behaviour domains, aligning with approaches advocated by Palmatier et al. (2018) and Hulland and Houston (2020). By integrating existing research, identifying knowledge gaps, and developing new theoretical frameworks, this study introduces the Circular Consumption Dynamics (CCD) Framework, a comprehensive conceptual model linking consumer behaviour and CE practices. The CCD Framework offers insights into how behavioural science concepts are applied to CE initiatives, contributing to a nuanced understanding of consumer adoption of sustainable practices by considering factors such as awareness, attitudes, perceived barriers, social norms, product design, economic incentives, and convenience. By employing bibliometrics and the TCCM framework, this study systematically maps the academic structure of the field, revealing major sources and research clusters. The paper offers the key variables, theories and methodologies that can be used in the direction of future research.

2. Methodology

The paper adopts Systematic Literature Review SLR methodology to ensure a comprehensive evaluation of the current literature on circular economy consumer behaviour as this interconnection is of importance (Tranfield et al., 2003; Kitchenham, 2004).

Data collection involved searching two reputable academic databases: Web of Science (WoS) and Scopus. We used carefully crafted search strings tailored to our research focus.

Search String

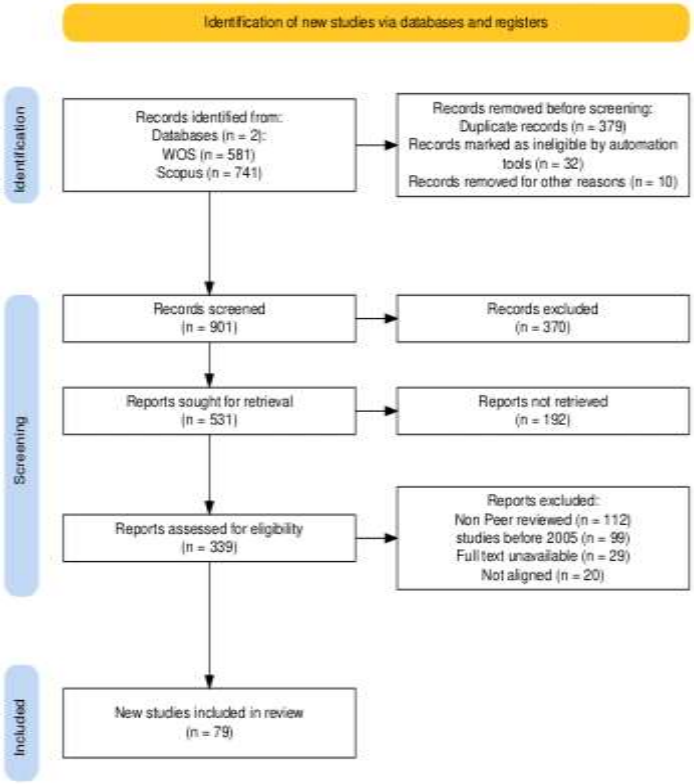
("circular economy" OR "circular PSS" OR "circular practices" OR "business ecosystem") [Topic] AND ("consumer behavio*" OR "circular behaviour" OR "organisation behaviour" OR "behaviour* paradigms" OR "behavioural insights" OR "behavio* drivers" OR "behavio* economics" OR "behavioural change") [All Fields] AND "Green Consumer" [Topic] AND "Circular Consumption" [Topic].

Our inclusion criteria encompassed peer-reviewed journal articles in English, focusing primarily on consumer behaviour in circular economy contexts. We included empirical studies, theoretical papers, and literature reviews addressing at least one aspect of the TCCM framework (Theory, Context, Characteristics, and Methodology).

Exclusion criteria were rigorously applied to ensure the relevance and quality of the selected literature. We excluded as presented in Fig 1:

- Studies published before 2005, focusing on more recent developments in the field
- Non-peer-reviewed articles, including books, book chapters, and grey literature
- Non-English publications
- Studies focusing solely on business models or policy without significant consumer behaviour components
- Articles without full text available.

Fig 1: Prisma Protocol



(Source: Compiled by Authors)

This PRISMA flow diagram illustrates the systematic review process for circular economy consumer behaviour studies. Initially, 1322 records were identified from two databases (WOS: 581, Scopus: 741). After removing 421 records (including 379 duplicates), 901 records were screened, resulting in 531 reports sought for retrieval. Of these, 339 reports were assessed for eligibility. The exclusion process eliminated 260 reports due to various reasons, including non-peer review status

(112), publication before 2015 (99), unavailable full text (29), and misalignment with the study focus (20). Ultimately, 79 new studies were included in the final review. This rigorous selection process ensured that only the most relevant and high-quality studies were included in the analysis, providing a solid foundation for insights into circular economy consumer behaviour research.

For bibliometric analysis and visualization, we employed Biblioshiny, an open-source tool within the Bibliometrics R package. This tool enabled citation network analysis, co-authorship pattern identification, keyword co-occurrence mapping, identification of prolific sources and authors, and trend analysis over time. The extracted data and bibliometric analysis results were synthesized to address our research questions, with findings organized using the TCCM framework to provide a structured overview of the field.

The multi-faceted analysis allowed us to identify key trends, influential research articles, and gaps within the field, contributing to a deeper understanding of the intellectual structure of the literature.

3. Significant Themes

Fig 2: Tree Map

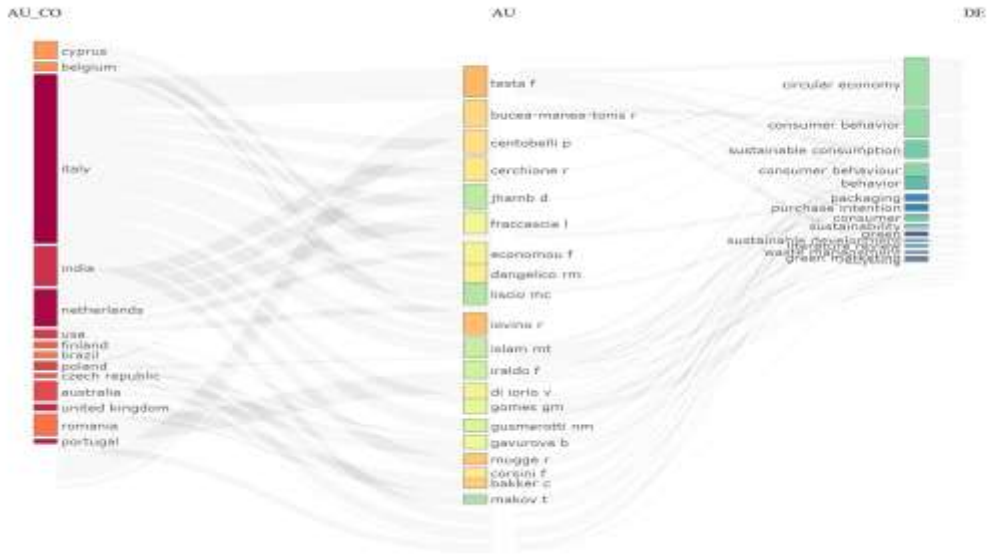
(Source: Compiled by Authors)

The tree map visualization of key themes in circular economy and consumer behaviour literature provides a concise yet comprehensive overview of the research landscape. Circular Economy and Consumption emerge as dominant themes, closely followed by Products and Behaviour with Layoffs. Attitudes, Planned Behaviour, and Sustainability form the next tier of significance. This thematic analysis contributes significantly by offering a clear visual representation of the field's structure, identifying key focus areas, revealing potential research gaps, and providing a framework for organizing the literature review. It enables researchers and practitioners to quickly grasp the current state of knowledge, facilitating more targeted and effective future research and policy development in the rapidly evolving domain of circular economy and consumer behaviour.

4. Three Field Plot

As we can see from figure 3, the network plot captures the relationship between three clusters, specifically AU, EU CO and DE and this reveals critical patterns in sustainable consumption literature. The visualization maps how different theoretical frameworks and methodological approaches have been applied to understand consumer behaviour in sustainability. The dominance of certain pathways, particularly those leading to sustainable consumption and behaviour change outcomes, reflects the field's current emphasis on understanding how to effectively promote environmentally conscious consumer choices. Interestingly, the diagram shows multiple interconnected variables flowing into consumer behaviour outcomes, highlighting the complex, multi-faceted nature of sustainability-related decision-making. The varying connection strengths suggest that while some aspects of sustainable consumption are well-researched, other areas remain less explored, potentially indicating research gaps that future studies could address. This mapping of relationships also demonstrates how different theoretical approaches have contributed to our understanding of sustainable consumption, with some frameworks proving more influential than others in explaining consumer behaviour patterns. The breadth of connections underscores the interdisciplinary nature of sustainable consumption research, showing how various academic perspectives have contributed to our current understanding of consumer behaviour in sustainability contexts.

Fig 3: Three Field Plot



(Source: Compiled by Authors)

5. TCCM Framework

5.1Theory

The theoretical underpinnings of circular economy and consumer behaviour research draw predominantly from psychological and sociological frameworks.

Table 1 : Comprehensive Analysis of Theories in Circular Economy: From Individual Behaviour to System Design

Theory	Brief Description	Key Components/Elements	Application in CE	Contribution to CE Research
Theory of Planned Behaviour (TPB)	Framework explaining individual decision-making based on intentions	Attitudes, Subjective norms, Perceived behavioural control	Consumer adoption of circular practices	Predicts sustainable consumption behaviour
Value-Belief-Norm (VBN)	Links values to environmental beliefs & personal norms	Personal values, Environmental beliefs, Moral norms	Understanding environmental consciousness	Explains pro-environmental behaviour motives
Norm-Activation Theory (NAT)	Explains activation of moral obligations	Problem awareness, Responsibility, Personal norms	Consumer responsibility in CE	Analyzes moral aspects of sustainable choices
Institutional Theory	Studies organizational behaviour through institutional pressures	Regulatory, Normative, Cultural-cognitive elements	Organizational adoption of CE	Examines institutional influence on CE
Resource Based View	Strategic management of organizational resources	Resources, Capabilities, Competitive advantage	Business model innovation	Strategic implementation of CE practices
Cognitive-Affective Theory	Links personality to behaviour patterns	Cognitive processes, Emotional responses	Individual differences in CE adoption	Understanding psychological barriers
Social Cognitive Theory	Explains behavioural learning through observation	Self-efficacy, Social learning, Environmental factors	Social influence on CE behaviour	Social aspects of sustainable consumption
Item Response Theory	Statistical framework for measuring traits	Item difficulty, Response patterns	Measuring CE attitudes	Quantitative assessment of preferences
Technology Acceptance Model	Explains technology adoption behaviour	Perceived usefulness, Ease of use	CE technology adoption	Understanding tech acceptance in CE

Theory	Brief Description	Key Components/Elements	Application in CE	Contribution to CE Research
ABC Theory	Connects attitudes to behaviour and context	Attitudes, Behaviours, Context	Contextual factors in CE	Environmental behaviour analysis
Stakeholder Theory	Management of multiple stakeholder interests	Stakeholder relations, Value creation	Multi-stakeholder CE adoption	Managing diverse interests in CE
Fuzzy Theory	Deals with approximate reasoning	Fuzzy sets, Decision rules	Modeling CE behaviour	Complex decision-making analysis
Random Utility Theory	Choice behaviour based on utility	Utility functions, Choice probability	Consumer preferences in CE	Analysis of consumer choices
Social Identity Theory	Behaviour based on group identity	Group membership, Social identity	Group influence on CE	Social aspects of CE adoption
Critical Theory	Examines social conditions and power	Power structures, Social change	Systemic CE barriers	Critical analysis of CE transition
Zero Waste Theory	Framework for waste elimination	Design principles, System optimization	Waste-free systems	Circular system design
Life Cycle Assessment	Environmental impact analysis	Impact assessment, Life cycle inventory	Product environmental impact	Environmental impact evaluation
Social Practice Theory	Studies routine social practices	Materials, Competences, Meanings	Routine consumption behaviours	Understanding consumption patterns
PROSPECT Theory	Decision-making under uncertainty	Loss aversion, Reference points	Risk perception in CE	Consumer decision analysis
EKB Model	Consumer decision process model	Problem recognition, Information search	Consumer purchase decisions	Understanding consumption choices
Agent-Based Simulation	Complex system modeling	Agent behaviour, System emergence	CE system simulation	Modeling CE scenarios
Fogg's Behaviour Model	Behaviour change framework	Motivation, Ability, Triggers	Sustainable behaviour change	Designing CE interventions

The Theory of Planned Behaviour (TPB) stands as the cornerstone framework, examining how attitudes, subjective norms, and perceived behavioural control influence behavioural intentions and subsequent actions in circular consumption. The Value-Belief-Norm Theory (VBN) complements this by linking individuals' value systems to environmental beliefs and personal norms, emphasizing the role of moral responsibilities in achieving pro-environmental behaviour. On a broader scale, Institutional Theory examines how normative, coercive, and mimetic pressures shape organizational and consumer behaviour, while the Resource-Based View analyses how organizations can leverage their resources for circular economy implementation. More practical frameworks such as Life Cycle Assessment (LCA) provide systematic evaluations of environmental impacts throughout product lifecycles, and Zero Waste Theory advocates for complete waste elimination through circular design principles, emphasizing systemic changes in production and consumption patterns. Detailed explanation of theories in the context is given as in table 1.

Table 2 depicts the theory used in the literature, its frequency and relevant citations.

Table 2: Theoretical Frameworks in Circular Economy Consumer Behaviour

Theory	Frequency	Example Citation
Theory of Planned Behaviour (TPB)	11	Concari et al., (2020) Dangelico et al., (2022); Testa et al. (2022)
Value-Belief-Norm (VBN) theory	4	Koch et al. (2024) Gomes, Moreira, Bouman, et al. (2022)
Norm-Activation Theory (NAT)	3	Concari et al., 2020; Dangelico et al., 2022
Institutional theory	1	(Carlos et al., 2023)
Resource based view theory	1	(Carlos et al., 2023)
Cognitive-Affective Personality System Theory (2022)		Kutaula et al. (2022)
Social Cognitive Theory	1	Liu et al. (2023)
Item Response Theory (IRT)	1	Testa, Iovino, et al. (2020)
Technology Acceptance Model (TAM)	1	Islam et al. (2021)
ABC theory	1	Ogiemwonyi and Harun (2020)
Stakeholder theory	1	Ahmad et al. (2023)
Fuzzy Theory	1	Islam et al. (2021)
Random Utility Theory	1	Koide et al. (2023)
Social Identity Theory	1	ONCIOIU and IFRIM (2022)

Critical Theory	1	Henriques et al. (2023)
Zero Waste Theory	1	Bogusz et al. (2023)
Life Cycle Assessment (LCA)	1	André and Björklund (2023)
Social Practice Theory	1	do Canto et al. (2021)
PROSPECT Theory	1	Das and Dutta (2022)
EKB Model	1	Ghosh et al. (2023)
Agent-Based Simulation (ABS)	1	Raihanian Mashhadi et al. (2019b)
Fogg's Behaviour Model	1	Ackermann et al. (2018)

5.2 Context

The variety of industries included in the study of the circular economy and the consumer behaviour studies suggests the wide scope of the repercussions of the circular economy principles on different spheres. The literature on circular economy and consumer behaviour covers a diverse range of industries, with varying levels of research focus:

1. Clothing and Textiles: Most studied, with 8 studies (e.g., Dangelico et al., 2022; Patwary et al., 2022; Oncioiu & Ifrim, 2022; Gazzola et al., 2020; Ribeiro et al., 2023).
2. Electronics and Smartphones: Examined in 7 studies (e.g., Islam et al., 2021; Cordova-Pizarro et al., 2020; Hunger et al., 2022; Kasulaitis et al., 2020).
3. Food Industry: Focus of 4 studies (e.g., Koch et al., 2024; do Canto et al., 2021; Vrsanska et al.).
4. Plastics: Covered in 3 studies (e.g., Colijn et al., 2022; Testa et al., 2020).
5. Packaging: Examined in 2 studies (Koch et al., 2024; Morashti et al., 2022).
6. Furniture and Transportation: Each represented by a single study (Koch et al., 2024; Barbu et al., 2018).

Table 3: Most Relevant Countries in Circular Economy Research

Region	**Frequency**	**Example Citation**
Global	14	Concari et al. (2020)
Europe	18	Testa et al. (2022)
Asia	5	Tong et al. (2018)
North America	2	Makov & Vivanco (2018); Cordova-Pizarro et al. (2020)
South America	1	Gomes et al. (2022)
Emerging economies	1	Patwa et al. (2020)

The table 3 shows that research on circular economy and consumer behaviour is globally distributed, with varying levels of representation across regions. Europe leads with the highest number of studies (18), followed by global studies (14). Asia is represented by 5 studies, while North America has 2. South America and emerging economies are each represented by 1 study. This distribution suggests a strong focus on European contexts, with significant attention to global perspectives. There's relatively less representation from other regions, indicating potential areas for future research expansion, particularly in South America, emerging economies, and parts of Asia and North America.

5.3 Characteristics

As depicted in table 4, variables can categorized as follows:

Individual /Psychological Factors:

Individual and psychological factors form the foundational elements of consumer behaviour in circular economy adoption. These factors encompass the internal drivers that shape consumer decisions, including environmental consciousness, personal values, and knowledge levels. Environmental awareness serves as a crucial cognitive precursor, influencing how consumers perceive and respond to circular options. Individual attitudes, whether environmental, circular, or green, significantly impact decision-making processes. The research highlights how personal values, create the psychological framework through which consumers evaluate circular consumption choices.

Social and Behavioural Factors:

Social and behavioural factors represent the interpersonal and community-level influences on circular consumption patterns. Research depicts how social norms and peer influence act as powerful external factors emphasizing for circular behaviour adoption. Consumer attitudes toward specific practices like reuse, repair, and sharing are significantly shaped by social context and community acceptance. The behavioural aspects encompass both intentions and actual behaviours, highlighting the complex relationship between what consumers intend to do and their actual actions. Studies show that social pressure and collective behaviour patterns can either facilitate or hinder the adoption of circular practices.

Economic and Product-Related Factors:

The economic and product-related aspects of circular consumption play a vital role in consumer decision-making. This theme encompasses factors such as cost considerations, product quality perceptions, and lifecycle assessments. Research shows that consumers weigh economic benefits like cost savings from reuse and repair against perceived product quality and durability. Product circularity and extended lifecycle considerations influence purchase decisions and usage patterns.

Infrastructural and Contextual Factors:

Infrastructural and contextual factors form the enabling environment for circular consumption. This theme explores how physical infrastructure, such as repair services and second-hand markets, facilitates or constrains circular behaviour. The availability and accessibility of sharing platforms and recycling facilities significantly impact consumer participation in circular practices. Research highlights how institutional-legal conditions and technological infrastructure create the framework within which circular consumption occurs. These factors are particularly crucial as they often represent the bridge between consumer intentions and actual behaviour implementation.

Demographic and Socioeconomic Factors:

Demographic and socioeconomic factors provide crucial context for understanding variations in circular consumption patterns across different population segments. Research reveals how age, gender, education level, and socioeconomic status influence circular behaviour adoption. Cultural factors and regional differences play significant roles in shaping consumer attitudes and behaviours toward circular consumption. Studies demonstrate that these demographic variables not only influence initial adoption of circular practices but also affect the sustainability of such behaviours over time, highlighting the need for targeted approaches that consider demographic diversity.

Environmental Impact Factors:

Environmental impact factors focus on the measurable outcomes and consequences of circular consumption behaviours. This theme encompasses both direct and indirect environmental effects, including emissions reduction, resource efficiency, and overall sustainability metrics. Research demonstrates how consumer behaviour is contributing to the environmental impact and how this can indirectly emphasize the need and importance of communicating these consequences.

Table 4: List of variables

Construct	Sub-constructs/Variables	Example Citations
Attitudes	Environmental attitude, Circular attitudes, Green attitude, Pro-environmental behaviour	Concari et al. (2020); Testa et al. (2022); Ogiemwonyi & Harun (2020); Ratner et al. (2020); Dangelico et al. (2022); Korkmaz & Altan (2024); Tong et al. (2018)
Behaviour	Consumption behaviour, Recycling behaviour, Storage behaviour, Disposal behaviour, Use behaviour	Islam et al. (2021); Cordova-Pizarro et al. (2020); Koch et al. (2024); Patwary et al. (2022)
Intentions	Willingness, Behavioural intentions	Dangelico et al. (2022); Oncioiu & Ifrim (2022); Tong et al. (2018)
Awareness and Knowledge	Consumer knowledge, Environmental concern, Conscience	Islam et al. (2021); Ogiemwonyi & Harun (2020); Dangelico et al. (2022); Korkmaz & Altan (2024)
Social Factors	Social norms, Social influence	Korkmaz & Altan (2024); Oncioiu & Ifrim (2022)
Perceived Behavioural Control	Ease of use, Perceived risk, Usefulness	Korkmaz & Altan (2024); Oncioiu & Ifrim (2022); Barbu et al. (2018)
Contextual Factors	Economic conditions, Infrastructural-technological conditions, Institutional-legal conditions	Concari et al. (2020); Patwa et al. (2020)
Product-related Factors	Extended lifecycle, Product circularity	Patwa et al. (2020); Koide et al. (2023)
Strategies	R strategies (Refuse, Reuse, Reduce, Rethink, Repair, Refurbish, Remanufacture, Repurpose, Recycle, Recover)	Koch et al. (2024); Hunger et al. (2024)
Demographic Factors	Age, Gender, Socio-economic level, Education level	Cordova-Pizarro et al. (2020); Dangelico et al. (2022); Tong et al. (2018)

STEEP Factors	Social, Technological, Economical, Environmental, Political, structural, governance, cultural	Dace et al. (2024)
Behavioural Intention	Gender, field of study, levels of education, pedagogical training, attitude, subjective norm, perceived behavioural control, effect of charges on plastic utensils	Thi (2024)
Recycling Intention	Presence of brand, presence of recycled material, attitude, product perceived value	Testa et al. (2022)
Eco-Innovation	Official development assistance, government investment, eco-innovation inputs, eco-innovation outputs, global innovation index	Stankeviciene et al. (2020)
Values and Willingness	Biospheric values, altruistic values, egoistic values, hedonic values, materialistic values, awareness of consequences, outcome efficacy, willingness	Gomes et al. (2022)
Sustainable Manufacturing	Material application, product life extension, smarter manufacturing	Bigliardi et al. (2022)
Emissions	Greenhouse gas emissions, avoided emissions	Makov & Font Vivanco (2018)
Waste Reduction Practices	Reduce, reuse, refurbish, recycling, redesign, reverse logistics	Papamichael et al. (2024)
Circular Economy	Circular economy business model, regulation, process, product interaction	Carlos et al. (2023)
Green Product Perception	Product familiarity, perceived quality, green utility, perceived consumer effectiveness, environmental concern	Dangelico et al. (2024)
Resource Extraction	Raw material extraction vs. production, B2B vs. B2C	Ungerman & Dědková (2024)

5.4 Methodology

Within these processes, the circular economy consumer behaviour studies have shown numerous methodological designs, namely qualitative, quantitative and in some cases mixed methods. This diversity expresses complexity surrounding circular patterns of consumption and complex determinants that led to them.

The research of circular consumption is carried out by employing a multitude of methods, which incorporate most of the methods that are qualitative and quantitative. However, as surveys are the most preferred design in the qualitative kind of Fuji, et al. (2002). Koide et al. (2023) argues that substituting consumption activities by means of strategies in circular economy involves extending the life cycle of the products and recovering the materials and thereby reducing waste and preventing excessive resource use. As regards quantity scientists employed such instruments as PLS-SEM or agent-based modelling in order to model scenarios (Tong et al., 2018), decision tree and

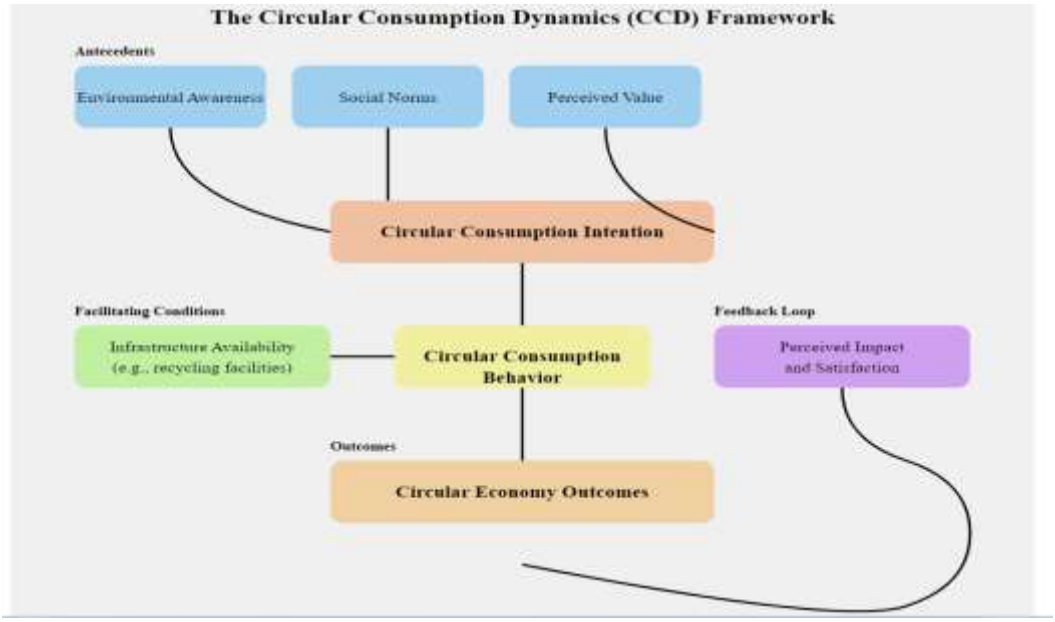
discrimination analyses in order to classify customers, cluster analysis for segmentation. Additionally, techniques like TOPSIS, MULTIMOORA (Stankevičienė et al. 2020), LDA, and various machine learning algorithms like SHAP and MLR (Ghosh et al., 2023) are employed as methods of assessing strategies, topic modelling, and outcome forecasting. Full Life Cycle Assessment (LCA) is defined environmental impact analysis that deals with a holistic approach. Notably, many studies adopt mixed-method approaches, integrating qualitative and quantitative techniques to gain a more holistic understanding of circular consumption behaviours.

6. Proposed Framework

The Circular Consumption Dynamics (CCD) Framework

Based on our comprehensive literature review, we propose the Circular Consumption Dynamics (CCD) Framework.

Fig 4: Circular Consumption Dynamics



(Source: Compiled by Authors)

The Circular Consumption Dynamics (CCD) Framework provides a comprehensive model for understanding and promoting circular consumption behaviours. At its core, the framework posits that circular consumption is driven by a combination of individual, social, and environmental factors, which interact in a dynamic system of feedback and reinforcement.

The schematic has three major antecedents: Environmental Awareness, Social Norms, and Perceived Value. Environmental Awareness includes what people know and care about as factors of that consumption behaviour related to the environment. It is commonly assessed as environmental knowledge using such means as specialized quizzes or the New Environmental Paradigm (NEP) Scale (Saari et al, 2021). Social Norms address the expectation to conform to engage in circular consumption with its descriptive norms (what is done) and injunctive norms (what is condoned) (Korkmaz & Altan, 2024). These include transposed social norms measures targeted at circular consumption. Finally, the perception of its value evaluates its usefulness to the user in terms of

economic, environmental, social, and functional sustainability of circular consumption (Confente et al., 2019). There has been some justification to this in that there has emerged some adapted frameworks for measuring perceived value so as to accommodate the various facets.

These antecedents together force Circular Consumption Intention, which can be explained as the driving force or readiness of a subject to undertake circular consumption practices (Dangelico et al., 2022). This intention can come in several forms such as an intention to use circular products or better, intent to purchase them, participate in the economy sharing, reuse or recycle the products. (Rogers et al., 2021)

A crucial element of the CCD Framework is the Feedback Loop, which captures the perceived impact and satisfaction resulting from circular consumption behaviours (Hou & Sarigöllü, 2021). This feedback includes perceptions of environmental and economic impact, personal satisfaction with choices, and social recognition. These perceptions can be measured using custom scales and open-ended questions about experiences with circular consumption.

Lastly, the framework also incorporates the wider Circular Economy Outcomes that are the result of either individual actions or a combination of actions and are directed at the circular economy and to society at large (Patwa et al., 2020). Such scenarios can be waste elimination, improvements of recycling levels, development of economies of sharing or change in demand towards circular economy products. At this level, measurement usually incorporates the use of aggregate data, market surveys, and lifecycle studies of the products.

Survey research of this type is largely depend on justified assumption that there are more than a few options that are valid to administrate survey at some stage irrespective of the constructs conceptualization. For instance, survey research using large and comprehensive questionnaires may utilize methods covering all constructs while SEM may use all included relationships in order to evaluate the overall model strength or model fit (Ogiemwonyi & Harun, 2020). Any ideas about behaviours need to be put into proper context therefore the place and time of these future behavioural experiments is important.

Experimental studies can test causal relationships, particularly the impact of manipulating antecedents on intentions and behaviours. By testing these relationships empirically, researchers and policymakers can identify key leverage points for interventions to accelerate the transition to a circular economy. (Ahmad et al., 2023).The CCD Framework thus provides a roadmap for understanding the complex dynamics of circular consumption and offers guidance for promoting more sustainable consumption patterns in society (Shevchenko et al., 2023).

7. Implications

The implications of this study can be classified into two major sections: Theoretical Implications and Practical Implications.

7.1 Theoretical Implications

a) Framework Development: The introduction of the Circular Consumption Dynamics (CCD) Framework provides a foundation for further theoretical opportunity and future researchers can draw

their research towards antecedents and the variables establishing the relationship between the variables and their strength.

b) Interdisciplinary Integration: The study highlights the need for integrating theories from psychology, sociology, and behavioural economics to comprehensively understand circular consumption behaviours. This presents opportunities for developing more holistic theoretical models.

c) Methodological Advancement: The combined use of bibliometric analysis and the TCCM framework offers a novel approach to systematic literature reviews in this field. This paper presents most widely used methodologies that could be taken up for the empirical testing and identification of factors affecting intention of sustainable consumption.

d) Longitudinal Perspective: There is a need for theoretical models that capture the dynamic nature of consumer behaviour in the circular economy over time. This could lead to the development of new theories or the adaptation of existing ones to account for temporal factors (Shevchenko et al., 2023).

7.2 Practical Implications

a) Policy Development: The insights from this study can inform the design of more effective policies to promote circular consumption. Policymakers could use the CCD Framework to identify key leverage points for intervention (Papamichael et al., 2024).

b) Business Strategy: Businesses can utilize the findings to develop more appealing circular products and services. The study provides insights into consumer preferences and thus, it can essentially help the marketers in formulating their market capturing techniques targeting the sentiments, behavioural aspects to capture the interest of consumers in sustainable consumption.

c) Consumer Education: The study highlights the importance of raising consumer awareness about circular economy principles. The research draws that any transition requires awareness, thus development of educational campaigns is imperative.

d) Behavioural Intervention Design: Practitioners could use the insights from this study to design and implement more effective interventions to promote circular consumption behaviours (Bigliardi et al., 2022).

e) Measurement and Evaluation: The study underscores the need for better metrics to assess circular consumption behaviours and their impacts. This could lead to the development of new tools and methodologies for businesses and policymakers to measure the effectiveness of their circular economy initiatives

These implications collectively provide a roadmap for future research and practical applications, highlighting the multifaceted nature of promoting circular consumption behaviours and the need for continued scholarly and practical efforts in this field.

8. Discussion, and Future Research Agenda

This comprehensive systematic literature review and bibliometric analysis makes several significant contributions to understanding consumer behaviour in the circular economy context. The study's use of the TCCM framework effectively synthesizes the theoretical foundations, contextual factors, characteristics, and methodological approaches in the field. Notably, the dominance of the Theory of Planned Behaviour (TPB) in theoretical frameworks highlights the strong emphasis on individual psychological factors in circular consumption research, though the inclusion of other theories like Value-Belief-Norm (VBN) and Norm-Activation Theory (NAT) suggests a growing recognition of the role of moral and social factors. The geographical concentration of research in European nations indicates a potential bias and the need for more diverse regional perspectives, particularly from developing economies. The proposed Circular Consumption Dynamics (CCD) Framework represents a valuable contribution, integrating environmental awareness, social norms, and perceived value as key antecedents of circular consumption behaviour. However, the heavy reliance on cross-sectional studies and quantitative methodologies suggests a need for more longitudinal and mixed-method approaches to better understand the temporal dynamics of circular consumption patterns. The study's identification of research gaps, particularly in emerging economies and certain industries, provides clear directions for future research while its practical implications offer valuable insights for policymakers and businesses seeking to promote circular economy practices.

This systematic literature review has revealed critical insights into consumer behaviour within the circular economy context, highlighting both the progress made and the significant areas requiring further investigation. The introduction of the Circular Consumption Dynamics (CCD) Framework provides a comprehensive lens through which to understand and analyse the complex interplay of factors influencing circular consumption patterns.

Our analysis underscores the multifaceted nature of circular consumption, encompassing cognitive, cultural, systemic, and technological dimensions. The research landscape reveals a growing recognition of the need for interdisciplinary approaches, as evidenced by studies integrating psychological theories with circular economy principles (Concari et al., 2020; Dangelico et al., 2022). However, significant gaps remain in our understanding of how these various elements interact over time and across different cultural contexts.

8.1 Future Research Directions

Looking ahead, we propose a research agenda that addresses these gaps and pushes the boundaries of current knowledge:

1. **Cognitive and Cultural Dimensions**

- Develop "circular thinking" models using advanced neuroimaging techniques to map the neural networks associated with circular consumption behaviours.
- Conduct longitudinal studies to capture the evolution of circular behaviours over time, addressing the diverse nature of consumers and their changing preferences

- Create a Global Circular Tapestry by developing a Cultural Compass of Circularity through cross-cultural studies, with majorly focus lied on cross cultural habits and trends.

2. Systemic Approaches and Technological Innovations

- Model Micro-Macro Circular Dynamics to understand the interplay between individual behaviours and broader stakeholder and systemic changes.
- Explore Circular Supply Chain Psychology to reveal consumer perceptions of transparency and traceability in circular product lifecycles
- Investigate the potential of Digital Circular Companions, AR/VR product lifecycle visualizations, in promoting circular practices . Digital technologies have a lot to do with industry 4.0 which is important to be considered for consumption data.

3. **Emerging Paradigms and Future Forecasting**

- Examine the psychology of "access over ownership" in the context of a Post-Ownership Society and its implications for circular consumption (Barbu et al., 2018).
- Study the Gamification of Circular Choices as a means of promoting sustainable behaviours through engaging experiences.

In conclusion, this review highlights the complex and evolving nature of consumer behaviour in the circular economy. The proposed research agenda aims to address critical gaps in our understanding, emphasizing the need for interdisciplinary, technologically-informed, and culturally-sensitive approaches. By pursuing these research directions, we can develop more effective strategies for promoting circular consumption and accelerate the transition towards a more sustainable economic model.

As we move forward, it is crucial that researchers, policymakers, and businesses collaborate to translate these insights into practical solutions. The future of circular economy research lies in our ability to bridge the gap between theoretical understanding and real-world application, ultimately fostering a society where circular consumption becomes the norm rather than the exception.

9. Conclusion

This systematic literature review and bibliometric analysis provides a comprehensive understanding of consumer behaviour in the circular economy context, making several important contributions to the field. Through the rigorous analysis of literature from 2005 to 2024, the study reveals the evolving landscape of circular consumption research, highlighting both its achievements and areas requiring further investigation. The proposed Circular Consumption Dynamics (CCD) Framework offers a structured approach to understanding the complex interplay of factors influencing circular consumption behaviours, integrating individual, social, and environmental dimensions. The dominance of European studies and certain industries (particularly fashion and electronics) suggests the need for broader geographical and sectoral coverage in future research. The methodological analysis reveals a predominance of quantitative approaches, indicating opportunities for more diverse research methods, especially longitudinal and mixed-method studies. The identification of key theoretical frameworks, with TPB being the most prevalent, provides a solid foundation for future research while suggesting the potential for theoretical innovation and

integration. As the field continues to evolve, there is a clear need for more research in emerging economies, development of standardized measurement tools, and investigation of the long-term impacts of circular consumption behaviours. These findings not only contribute to the academic discourse but also provide valuable insights for practitioners and policymakers working to promote circular economy principles. Future research should focus on addressing the identified gaps while building upon the established theoretical and methodological foundations to advance our understanding of consumer behaviour in the circular economy.

8. References

1. André, & Björklund, A. (2023). A framework to open the black box of the use phase in circular economy life cycle assessments: The case of shell jacket reuse. *Journal of Industrial Ecology*, *27*(4), 1137–1150. https://doi.org/10.1111/jiec.13408
2. Ackermann, L., Mugge, R., & Schoormans, J. (2018). Consumers' perspective on product care: An exploratory study of motivators, ability factors, and triggers. *Journal of Cleaner Production*, *183*, 380–391. https://doi.org/10.1016/j.jclepro.2018.02.099
3. Ahmad, F., Bask, A., Laari, S., & Robinson, C. V. (2023). Business management perspectives on the circular economy: Present state and future directions. *Technological Forecasting and Social Change*, *187*, 122182. https://doi.org/10.1016/j.techfore.2022.122182
4. Barbu, C. M., Florea, D. L., Ogarca, R. F., & Barbu, M. C. R. (2018). From Ownership to Access: How the Sharing Economy is Changing the Consumer Behaviour. *Www.amfiteatrueconomic.ro*, *20*(48), 373. https://doi.org/10.24818/ea/2018/48/373
5. Bełch, P., Marzena Hajduk-Stelmachowicz, Katarzyna Chudy-Laskowska, Iveta Vozňáková, & Beáta Gavurová. (2024). Factors Determining the Choice of Pro-Ecological Products among Generation Z. *Sustainability*, *16*(4), 1560–1560. https://doi.org/10.3390/su16041560
6. Bigliardi, B., Filippelli, S., & Quinto, I. (2022). Environmentally-conscious behaviours in the circular economy. An analysis of consumers' green purchase intentions for refurbished smartphones. *Journal of Cleaner Production*, *378*, 134379. https://doi.org/10.1016/j.jclepro.2022.134379
7. Bogusz, M., Matysik-Pejas, R., Krasnodębski, A., & Dziekański, P. (2023). Sustainable Consumption of Households According to the Zero Waste Concept. *Energies*, *16*(18), 6516. https://doi.org/10.3390/en16186516
8. Bucea-Manea-Țoniș, R., Dourado Martins, O. M., Ilic, D., Belous, M., Bucea-Manea-Țoniș, R., Braicu, C., & Simion, V.-E. (2020). Green and Sustainable Public Procurement—An Instrument for Nudging Consumer Behaviour. A Case Study on Romanian Green Public Agriculture across Different Sectors of Activity. *Sustainability*, *13*(1), 12. https://doi.org/10.3390/su13010012
9. Carlos, Kwong, C., & Sena, V. (2023). The effect of consumption and production policies on circular economy business models: A machine learning approach. *Journal of Industrial Ecology*, *27*(4), 1089–1104. https://doi.org/10.1111/jiec.13397
10. Carreira, R. J., José Vasconcelos Ferreira, & Ana Luísa Ramos. (2023). The Consumer's Role in the Transition to the Circular Economy: A State of the Art Based

on a SLR with Bibliometric Analysis. *Sustainability*, *15*(20), 15040–15040. https://doi.org/10.3390/su152015040

11. Cela, N., Giorgione, V., Fassio, F., & Torri, L. (2024). Impact of circular economy information on sensory acceptability, purchase intention and perceived value of upcycled foods by young consumers. *Food Research International*, *175*, 113765–113765. https://doi.org/10.1016/j.foodres.2023.113765
12. Colijn, I., Fraiture, F., Gommeh, E., Schroën, K., & Metze, T. (2022). Science and media framing of the future of plastics in relation to transitioning to a circular economy. *Journal of Cleaner Production*, *370*, 133472. https://doi.org/10.1016/j.jclepro.2022.133472
13. Concari, A., Kok, G., & Martens, P. (2020). A Systematic Literature Review of Concepts and Factors Related to Pro-Environmental Consumer Behaviour in Relation to Waste Management Through an Interdisciplinary Approach. *Sustainability*, *12*(11), 4452. https://doi.org/10.3390/su12114452
14. Confente, I., Scarpi, D., & Russo, I. (2019). Marketing a new generation of bio-plastics products for a circular economy: The role of green self-identity, self-congruity, and perceived value. *Journal of Business Research*, *112*. https://doi.org/10.1016/j.jbusres.2019.10.030
15. Cordova-Pizarro, D., Aguilar-Barajas, I., Rodriguez, C. A., & Romero, D. (2020). Circular Economy in Mexico's Electronic and Cell Phone Industry: Recent Evidence of Consumer Behaviour. *Applied Sciences*, *10*(21), 7744. https://doi.org/10.3390/app10217744
16. Corsini, F., Gusmerotti, N. M., & Frey, M. (2020). Consumer's Circular Behaviours in Relation to the Purchase, Extension of Life, and End of Life Management of Electrical and Electronic Products: A Review. *Sustainability*, *12*(24), 10443. https://doi.org/10.3390/su122410443
17. Dace, E., Cascavilla, A., Bianchi, M., Chioatto, E., Zecca, E., Ladu, L., & Yilan, G. (2024). Barriers to transitioning to a circular bio-based economy: Findings from an industrial perspective. *Sustainable Production and Consumption*, *48*, 407–418. https://doi.org/10.1016/j.spc.2024.05.029
18. Dangelico, R. M., Alvino, L., & Fraccascia, L. (2022). Investigating the Antecedents of Consumer Behavioural Intention for Sustainable Fashion products: Evidence from a Large Survey of Italian Consumers. *Technological Forecasting and Social Change*, *185*, 122010. https://doi.org/10.1016/j.techfore.2022.122010
19. Das, D., & Dutta, P. (2022). Product return management through promotional offers: The role of consumers' loss aversion. *International Journal of Production Economics*, 108520. https://doi.org/10.1016/j.ijpe.2022.108520
20. do Canto, N. R., Grunert, K. G., & De Barcellos, M. D. (2021). Circular Food Behaviours: A Literature Review. *Sustainability*, *13*(4), 1872. https://doi.org/10.3390/su13041872
21. Duarte, N., Pereira, C., Grzywińska-Rąpca, M., Kulli, A., & Goci, E. (2024). Consumers' knowledge and decisions on circularity: Albanian, Polish, and Portuguese perspectives. *Environment, Development and Sustainability*. https://doi.org/10.1007/s10668-024-05077-4

22. Fiksel, J., Sanjay, P., & Raman, K. (2020). Steps toward a resilient circular economy in India. *Clean Technologies and Environmental Policy*. https://doi.org/10.1007/s10098-020-01982-0
23. Fogt Jacobsen, L., Pedersen, S., & Thøgersen, J. (2022). Drivers of and barriers to consumers' plastic packaging waste avoidance and recycling – A systematic literature review. *Waste Management*, *141*(1), 63–78. https://doi.org/10.1016/j.wasman.2022.01.021
24. Gallo, T., Pacchera, F., Cagnetti, C., & Silvestri, C. (2023). Do Sustainable Consumers Have Sustainable Behaviours? An Empirical Study to Understand the Purchase of Food Products. *Sustainability (2071-1050)*, *15*(5), 4462. https://doi.org/10.3390/su15054462
25. Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the Fashion Industry. the Perception of Sustainability and Circular Economy: a Gender/Generation Quantitative Approach. *Sustainability*, *12*(7). MDPI. https://doi.org/10.3390/su12072809
26. Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy - a New Sustainability Paradigm? *Journal of Cleaner Production*, *143*(1), 757–768. https://doi.org/10.1016/j.jclepro.2016.12.048
27. Georgantzis Garcia, D., Kipnis, E., Vasileiou, E., & Solomon, A. (2021). Consumption in the Circular Economy: Learning from Our Mistakes. *Sustainability*, *13*(2), 601. https://doi.org/10.3390/su13020601
28. Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A Review on Circular Economy: the Expected Transition to a Balanced Interplay of Environmental and Economic Systems. *Journal of Cleaner Production*, *114*(7), 11–32.
29. Ghosh, A., Pathak, D., Bhola, P., Bhattacharjee, D., & Uthayasankar Sivarajah. (2023). Analysing product attributes of refurbished laptops based on customer reviews and ratings: machine learning approach to circular consumption. *Annals of Operations Research*. https://doi.org/10.1007/s10479-023-05758-9
30. Gomes, G. M., Moreira, N., Bouman, T., Ometto, A. R., & van der Werff, E. (2022). Towards Circular Economy for More Sustainable Apparel Consumption: Testing the Value-Belief-Norm Theory in Brazil and in The Netherlands. *Sustainability*, *14*(2), 618. https://doi.org/10.3390/su14020618
31. Gomes, G. M., Moreira, N., & Ometto, A. R. (2022). Role of consumer mindsets, behaviour, and influencing factors in circular consumption systems: A systematic review. *Sustainable Production and Consumption*, *32*. https://doi.org/10.1016/j.spc.2022.04.005
32. Hameed, I., Khan, K., Waris, I., & Zainab, B. (2021). Factors Influencing the Sustainable Consumer Behaviour concerning the Recycling of Plastic Waste. *Environmental Quality Management*, *32*(2). https://doi.org/10.1002/tqem.21815
33. Hamlin, R. P., & McNeill, L. S. (2023). Marketing Tactics for Sustainable Fashion and the Circular Economy: The Impact of Ethical Labels on Fast Fashion Choice. Sustainability, 15(13), 10331–10331. https://doi.org/10.3390/su151310331

34. Hartley, K., Baldassarre, B., & Kirchherr, J. (2024). Circular economy as crisis response: A primer. Journal of Cleaner Production, 434, 140140. https://doi.org/10.1016/j.jclepro.2023.140140
35. Hazen, B. T., Mollenkopf, D. A., & Wang, Y. (2016). Remanufacturing for the Circular Economy: An Examination of Consumer Switching Behaviour. Business Strategy and the Environment, 26(4), 451–464. https://doi.org/10.1002/bse.1929
36. Henriques, R., Figueiredo, F., & Nunes, J. (2023). Consumers' Perspectives on Circular Economy: Main Tendencies for Market Valorization. *Sustainability*, *15*(19), 14292. https://doi.org/10.3390/su151914292
37. Hou, C., & Sarigöllü, E. (2021). Waste prevention by consumers' product redistribution: Perceived value, waste minimization attitude and redistribution behaviour. *Waste Management*, *132*, 12–22. https://doi.org/10.1016/j.wasman.2021.07.009
38. Hunger, T., Arnold, M., & Ulber, M. (2024). Circular value chain blind spot – A scoping review of the 9R framework in consumption. *Journal of Cleaner Production*, 140853–140853. https://doi.org/10.1016/j.jclepro.2024.140853
39. Islam, M. T., Huda, N., Baumber, A., Shumon, R., Zaman, A., Ali, F., Hossain, R., & Sahajwalla, V. (2021). A global review of consumer behaviour towards e-waste and implications for the circular economy. *Journal of Cleaner Production*, *316*, 128297. https://doi.org/10.1016/j.jclepro.2021.128297
40. Kapsdorferova, Z., Čereš, M., Zábojníková, V., Švikruhová, P., & Kataniková, R. (2023). Challenges and innovative approaches in the agricultural and food industry and changing consumer behaviour in the milk and milk products market: Case of Slovakia. *Agricultural Economics (Zemědělská Ekonomika)*, *69*(6), 246–254. https://doi.org/10.17221/119/2023-agricecon
41. Kasulaitis, B., Babbitt, C. W., & Tyler, A. C. (2020). The role of consumer preferences in reducing material intensity of electronic products. *Journal of Industrial Ecology*, *25*(2), 435–447. https://doi.org/10.1111/jiec.13052
42. Kaza, S., Yao, L. C., Bhada-Tata, P., & Van Woerden, F. (2018). What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. In *openknowledge.worldbank.org*. Washington, DC: World Bank. https://openknowledge.worldbank.org/entities/publication/d3f9d45e-115f-559b-b14f-28552410e90a
43. Kerber, J. C., de Souza, E. D., Bouzon, M., Cruz, R. M., & Govindan, K. (2021). Consumer behaviour aspects towards remanufactured electronic products in an emerging economy: Effects on demand and related risks. *Resources, Conservation and Recycling*, *170*, 105572. https://doi.org/10.1016/j.resconrec.2021.105572
44. Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Muller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). Barriers to the Circular Economy: Evidence From the European Union (EU). *Ecological Economics*, *150*, 264–272. https://doi.org/10.1016/j.ecolecon.2018.04.028
45. Kitchenham, B. (2004, August). *Procedures for Performing Systematic Reviews*. ResearchGate.

https://www.researchgate.net/publication/228756057_Procedures_for_Performing_Systematic_Reviews

46. Koch, J., Vringer, K., van der Werff, E., Wilting, H., & Steg, L. (2024). Circular consumption to reduce environmental pressure: Potential of behavioural change in the Netherlands. *Sustainable Production and Consumption*, *44*, 101–113. https://doi.org/10.1016/j.spc.2023.12.009
47. Koide, R., Yamamoto, H., Keisuke Nansai, & Murakami, S. (2023). Agent-based model for assessment of multiple circular economy strategies: Quantifying product-service diffusion, circularity, and sustainability. *Resources, Conservation and Recycling*, *199*, 107216–107216. https://doi.org/10.1016/j.resconrec.2023.107216
48. Korkmaz, A. N., & Altan, M. U. (2024). A Systematic Literature Review of Sustainable Consumer Behaviours in the Context of Industry 4.0 (I4.0). *Sustainability*, *16*(1), 126. https://doi.org/10.3390/su16010126
49. Kumar Kar, S., & Harichandan, S. (2022). Green marketing innovation and sustainable consumption: A bibliometric analysis. Journal of Cleaner Production, 361, 132290. https://doi.org/10.1016/j.jclepro.2022.132290
50. Kutaula, S., Gillani, A., Leonidou, L. C., & Christodoulides, P. (2022). Integrating fair trade with circular economy: Personality traits, consumer engagement, and ethically-minded behaviour. *Journal of Business Research*, *144*, 1087–1102. https://doi.org/10.1016/j.jbusres.2022.02.044
51. Liu, Z., Schraven, D., Martin de Jong, & Hertogh, M. (2023). *The societal strength of transition: a critical review of the circular economy through the lens of inclusion*. 1–24. https://doi.org/10.1080/13504509.2023.2208547
52. Makov, T., & Font Vivanco, D. (2018). Does the Circular Economy Grow the Pie? The Case of Rebound Effects From Smartphone Reuse. *Frontiers in Energy Research*, *6*. https://doi.org/10.3389/fenrg.2018.00039
53. Morashti, J. A., An, Y., & Jang, H. (2022). A Systematic Literature Review of Sustainable Packaging in Supply Chain Management. Sustainability, 14(9), 4921. https://doi.org/10.3390/su14094921
54. NITI AYOG . (2017). Strategy for Secondary Materials Management for promoting Resource Efficiency (RE) and Circular Economy (CE) in Electrical and Electronic Equipment Sector. In *https://www.niti.gov.in/sites/default/files/2019-03/E-WasteStrategy.pdf*.
55. Ogiemwonyi, O., & Harun, A. B. (2020). Green product awareness has the potential to promote green consumer behaviour: Evidence from Kuala-Lumpur. *Israel Journal of Ecology and Evolution*, *66(3-4)*, 1–12. https://doi.org/10.1163/22244662-bja10010
56. ONCIOIU, I., & IFRIM, A. M. (2022). Analysis of green consumer behaviour towards the intention to purchase upcycled fashion products. *Industria Textila*, *73*(05), 587–591. https://doi.org/10.35530/it.073.05.202283
57. Otto, S., Strenger, M., Maier-Nöth, A., & Schmid, M. (2021). Food packaging and sustainability – Consumer perception vs. correlated scientific facts: A review. *Journal*

of Cleaner Production, *298*(1), 126733. https://www.sciencedirect.com/science/article/pii/S0959652621009537

58. Papamichael, I., Voukkali, I., Economou, F., Marco Ciro Liscio, Paolo Sospiro, Naddeo, V., & Zorpas, A. A. (2024). Investigation of customer behaviour regarding circular fashion. *Sustainable Chemistry and Pharmacy*, *41*, 101675–101675. https://doi.org/10.1016/j.scp.2024.101675
59. Papamichael, I., Voukkali, I., Economou, F., Naddeo, V., Paolo Sospiro, Marco Cirio Liscio, Zarra, T., & Zorpas, A. A. (2024). Thriving in Circularity: Vitality of Business Models development in Circular (Bio)Economy. *Current Opinion in Green and Sustainable Chemistry*, 100934–100934. https://doi.org/10.1016/j.cogsc.2024.100934
60. Patwa, N., Sivarajah, U., Seetharaman, A., Sarkar, S., Maiti, K., & Hingorani, K. (2020). Towards a circular economy: An emerging economies context. *Journal of Business Research*, *122*, 725–735. https://doi.org/10.1016/j.jbusres.2020.05.015
61. Patwary, S., Haque, M. A., Kharraz, J. A., Khanzada, N. K., Farid, M. U., & Kumar, N. M. (2022). Apparel Consumer Behaviour and Circular Economy: Towards a Decision-Tree Framework for Mindful Clothing Consumption. *Sustainability*, *15*(1), 656. https://doi.org/10.3390/su15010656
62. Pirc Barčić, A., Kitek Kuzman, M., Vergot, T., & Grošelj, P. (2021). Monitoring Consumer Purchasing Behaviour for Wood Furniture before and during the COVID-19 Pandemic. *Forests*, *12*(7), 873. https://doi.org/10.3390/f12070873
63. Poppelaars, F., Bakker, C., & van Engelen, J. (2020). Design for Divestment in a Circular Economy: Stimulating Voluntary Return of Smartphones through Design. *Sustainability*, *12*(4), 1488. https://doi.org/10.3390/su12041488
64. Pravin Kumar Mallick, Kim Bang Salling, Daniela C.A. Pigosso, & McAloone, T. C. (2024). Towards a circular economy: Development of a support tool for designing reverse logistics systems. *Journal of Environmental Management*, *351*, 119819–119819. https://doi.org/10.1016/j.jenvman.2023.119819
65. Raihanian Mashhadi, A., Vedantam, A., & Behdad, S. (2019). Investigation of consumer's acceptance of product-service-systems: A case study of cell phone leasing. *Resources, Conservation and Recycling*, *143*, 36–44. https://doi.org/10.1016/j.resconrec.2018.12.006
66. Ratner, S., Lazanyuk, I., Revinova, S., & Gomonov, K. (2020). Barriers of Consumer Behaviour for the Development of the Circular Economy: Empirical Evidence from Russia. *Applied Sciences*, *11*(1), 46. https://doi.org/10.3390/app11010046
67. Ribeiro, P. R., Batista, P., Mendes-Palma, F., Pintado, M., & Oliveira-Silva, P. (2023). Consumers' Engagement and Perspectives on Sustainable Textile Consumption. *Sustainability*, *15*(22), 15812. https://doi.org/10.3390/su152215812
68. Rogers, H. A., Deutz, P., & Ramos, T. B. (2021). Repairing the circular economy: Public perception and participant profile of the repair economy in Hull, UK. *Resources, Conservation and Recycling*, *168*, 105447. https://doi.org/10.1016/j.resconrec.2021.105447
69. Rosa Maria Dangelico, Ceccarelli, G., & Luca Fraccascia. (2024). Consumer behavioural intention toward sustainable biscuits: An extension of the theory of

planned behaviour with product familiarity and perceived value. *Business Strategy and the Environment*. https://doi.org/10.1002/bse.3774

70. Saari, U. A., Damberg, S., Frömbling, L., & Ringle, C. M. (2021). Sustainable consumption behaviour of Europeans: The influence of environmental knowledge and risk perception on environmental concern and behavioural intention. *Ecological Economics, 189*, 107155. https://doi.org/10.1016/j.ecolecon.2021.107155
71. Shao, J. (2019). Sustainable consumption in China: New trends and research interests. *Business Strategy and the Environment, 28*(8). https://doi.org/10.1002/bse.2327
72. Shashi, Centobelli, P., Cerchione, R., & Jhamb, D. (2023). What makes people hesitant from circularity: An analysis of risk, marketing mix, cost and inconvenience. Journal of Consumer Behaviour. https://doi.org/10.1002/cb.2143
73. Shevchenko, T., Saidani, M., Ranjbari, M., Kronenberg, J., Danko, Y., & Laitala, K. (2023). Consumer behaviour in the circular economy: Developing a product-centric framework. Journal of Cleaner Production, 384, 135568. https://doi.org/10.1016/j.jclepro.2022.135568
74. Stankevičienė, J., Nikanorova, M., & Gentjan, Ç. (2020). Analysis of Green Economy Dimension in the Context of Circular Economy: The Case of Baltic Sea Region. E+M Ekonomie a Management, 23(1), 4–18. https://doi.org/10.15240/tul/001/2020-1-001
75. Tamasiga, P., Miri, T., Onyeaka, H., & Hart, A. (2022). Food Waste and Circular Economy: Challenges and Opportunities. Sustainability, 14(16), 9896. https://doi.org/10.3390/su14169896
76. Testa, F., Gusmerotti, N., Corsini, F., & Bartoletti, E. (2022). The role of consumer trade-offs in limiting the transition towards circular economy: The case of brand and plastic concern. *Resources, Conservation and Recycling*, *181*, 106262. https://doi.org/10.1016/j.resconrec.2022.106262
77. Testa, F., Iovino, R., & Iraldo, F. (2020). The circular economy and consumer behaviour: The mediating role of information seeking in buying circular packaging. *Business Strategy and the Environment, 29*(8). https://doi.org/10.1002/bse.2587
78. Testa, F., Pretner, G., Iovino, R., Bianchi, G., Tessitore, S., & Iraldo, F. (2020). Drivers to green consumption: a systematic review. *Environment, Development and Sustainability*, *23*. https://doi.org/10.1007/s10668-020-00844-5
79. Thi, H. (2024). Antecedents of young consumers' behavioural intention toward plastic waste minimization in Vietnam. *Journal of Material Cycles and Waste Management*. https://doi.org/10.1007/s10163-024-02030-5
80. Tong, X., Nikolic, I., Dijkhuizen, B., van den Hoven, M., Minderhoud, M., Wäckerlin, N., Wang, T., & Tao, D. (2018). Behaviour change in post-consumer recycling: Applying agent-based modelling in social experiment. *Journal of Cleaner Production*, *187*, 1006–1013. https://doi.org/10.1016/j.jclepro.2018.03.261
81. Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management, 14*(3), 207–222. https://doi.org/10.1111/1467-8551.00375
82. Tunn, V. S. C., Bocken, N. M. P., van den Hende, E. A., & Schoormans, J. P. L. (2019). Business models for sustainable consumption in the circular economy: An expert

study. *Journal of Cleaner Production*, *212*(1), 324–333. https://doi.org/10.1016/j.jclepro.2018.11.290

83. Ungerman, O., & Jaroslava Dědková. (2024). Consumer behaviour in the model of the circular economy in the field of handling discarded items. *PLOS ONE*, *19*(3), e0300707–e0300707. https://doi.org/10.1371/journal.pone.0300707
84. van Weelden, E., Mugge, R., & Bakker, C. (2016). Paving the way towards circular consumption: exploring consumer acceptance of refurbished mobile phones in the Dutch market. *Journal of Cleaner Production*, *113*, 743–754. https://doi.org/10.1016/j.jclepro.2015.11.065
85. Vassalo, A. L., Marques, C. G., Simões, J. T., Fernandes, M. M., & Domingos, S. (2024). Sustainability in the Fashion Industry in Relation to Consumption in a Digital Age. *Sustainability*, *16*(13), 5303. https://doi.org/10.3390/su16135303
86. Vidal-Ayuso, F., Akhmedova, A., & Jaca, C. (2023). The circular economy and consumer behaviour: Literature review and research directions. *Journal of Cleaner Production*, *418*, 137824. https://doi.org/10.1016/j.jclepro.2023.137824
87. Wandosell, G., Parra-Meroño, M. C., Alcayde, A., & Baños, R. (2021). Green Packaging from Consumer and Business Perspectives. *Sustainability*, *13*(3), 1356. MDPI.
88. Wang, Y., Zhu, Q., Krikke, H., & Hazen, B. (2020). How product and process knowledge enable consumer switching to remanufactured laptop computers in circular economy. *Technological Forecasting and Social Change*, *161*, 120275. https://doi.org/10.1016/j.techfore.2020.120275