



AGILE SUSTAINABLE MARKETING

NAVIGATING TOWARDS A GREENER FUTURE

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Dipak Saha
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Sustainable Management Practices

(Volume 1)

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PREFACE

It gives us immense pleasure to introduce “Agile Sustainable Marketing: Navigating Towards a Greener Future” for marketers, business leaders, entrepreneurs, academicians, and research scholars who are committed to bringing out positive change in the world. This book explores the intersection of agility and sustainability in the context of marketing, providing insights, strategies, and practical tools to thrive in a rapidly changing landscape. As the global community faces unprecedented environmental challenges, consumers are increasingly demanding transparency, responsibility, and authenticity from the brands they support. Agile Sustainable Marketing offers a roadmap for businesses to align their marketing efforts with sustainable practices, fostering trust, loyalty, and long-term value creation.

In today's rapidly evolving business landscape, the fusion of sustainability principles with agile marketing strategies has emerged as a pivotal approach for businesses seeking to navigate environmental challenges while staying responsive to consumer demands. This book delves into the convergence of agile marketing and sustainability, offering a comprehensive exploration of innovative practices and strategies that promote environmental stewardship and consumer engagement. Through a diverse array of topics, this book provides a glimpse into how agile sustainable marketing can catalyze positive change toward a greener and more resilient future.

This book introduces the concept of a comprehensive sustainable marketing strategy, emphasizing localized and community-based waste management methods within a circular economy framework. It also addresses the need for resilient pivot strategies to enable businesses to adapt to changing market dynamics. The volume explores consumer behavior analysis concerning environmentally friendly products and the influential role of eco-labeling in promoting sustainable consumption.

In the digital age, social media platforms are crucial for facilitating green brand engagement and advocacy. Digital technologies have also transformed destination marketing and the tourist experience. Moreover, the volume inquires into collaborative efforts between brands, consumers, designers, and stakeholders to co-create eco-friendly fashion solutions, promoting innovation and circularity in the fashion value chain. Digitization holds promise for enhancing the supply chain efficiency and sustainability in agriculture, contributing to food security and environmental conservation. Moreover, the book introduces a holistic marketing model for the tea industry in India, addressing sustainable development goals.

The book also examines challenges and opportunities in implementing sustainable marketing strategies and explores innovative sustainable packaging strategies. Public-private initiatives for sustainable tourism are highlighted, along with the application of agile methodologies to sustainability initiatives, promoting iterative experimentation and continuous improvement. The expressive power of coffee consumption and branding is explored, along with opportunities for sustainable practices and conscious consumerism in the coffee industry. Furthermore, the book investigates marketing's role in preserving traditional crafts and promoting rural sustainability. Lastly, the book addresses the significance of integrating sustainability principles into business education, fostering responsible leadership among future business leaders through an importance-performance matrix analysis from a student's perspective.

"Agile Sustainable Marketing: Navigating Towards a Greener Future" provides a thorough examination of agile marketing practices and sustainable strategies spanning various

industries. Through the integration of agile methodologies with sustainability principles, the book highlights the potential for businesses to foster innovation, resilience, and positive social and environmental impact. By embracing these approaches, organizations can contribute to creating a more sustainable and equitable future, aligning business objectives with broader societal and environmental goals.

This book equips readers with the knowledge and skills needed to integrate sustainability into every aspect of marketing strategy. Agile Sustainable Marketing provides actionable insights and inspiration to propel your business toward a greener, more prosperous future. Join us as we embark on this transformative journey together.

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INTRODUCTION

The fusion of sustainability principles with agile marketing strategies has emerged as a pivotal approach for businesses seeking to navigate environmental challenges while staying responsive to consumer demands. This book delves into the convergence of agile marketing and sustainability, offering a comprehensive exploration of innovative practices and strategies that promote environmental stewardship and consumer engagement. Through a diverse array of topics, this book provides a glimpse into how agile sustainable marketing can catalyze positive change toward a greener and more resilient future.

This book offers a holistic approach to sustainable marketing, focusing on localized and community-based waste management within the context of a circular economy framework. By emphasizing strategies that prioritize sustainability at the local level, businesses can contribute to environmental stewardship while also engaging with their communities.

Chapter 1 encapsulates the essence of sustainable waste management and its integration into broader ecological and economic frameworks. By emphasizing a holistic approach that considers resource consumption, community involvement, and tourism development, the author highlights the interconnectedness of environmental sustainability and socio-economic well-being. The focus on regenerative tourism and the circular economy underscores the importance of not just minimizing waste, but actively restoring and enhancing natural and cultural resources. This integrated approach not only benefits local communities but also promotes resilience and competitiveness in the global market. It presents a compelling argument for embracing sustainability as a core principle in all facets of development.

Chapter 2 delves into a crucial aspect of modern tourism management, highlighting the transformative role of Information Technology (IT). It effectively points out the disparities in IT adoption across different sizes of tourism enterprises, shedding light on the challenges faced by smaller organizations in embracing these technologies due to perceived costs. However, it also emphasizes the significant benefits that IT integration can offer, particularly in marketing and customer engagement. This research paints a comprehensive picture of the intersection between IT and tourism management, showcasing both the challenges and opportunities that come with technological integration. By highlighting the potential of IT to revolutionize marketing strategies and customer experiences, it provides valuable insights for industry practitioners and researchers alike.

Chapter 3 provides a comprehensive exploration of the complex dynamics surrounding consumer behavior in the context of sustainable development. It adeptly captures the evolving landscape of environmentally conscious consumerism, emphasizing the importance of sustainable ideals in mitigating environmental damage and promoting responsible consumption habits. The discussion on the role of governments in promoting eco-friendly choices and the imperative for companies to develop and market green products underscores the multi-stakeholder approach required to drive meaningful change in consumption patterns. By highlighting the challenges associated with translating environmental concerns into actual purchasing decisions, your chapter sheds light on the gap between consumer attitudes and behaviors, influenced by various factors such as product attributes and perceived efficacy.

Chapter 4 provides a thorough examination of the role of eco-labeling in promoting sustainable purchasing behaviors and shaping consumer perceptions. By categorizing eco-labels into distinct types and delving into consumer psychology, the study highlights the significant influence of eco-labels on trust, perceived value, and the halo effect associated

with eco-labeled products. The study also presents prospective developments and innovations in eco-labeling, considering factors such as standardization, transparency, health concerns, corporate social responsibility, and emerging environmental issues. Overall, the chapter emphasizes the importance of collaboration among stakeholders in the eco-labeling ecosystem to optimize its positive effects on sustainable development. By addressing worldwide issues and aligning efforts for sustainable consumption, such collaboration can drive meaningful progress towards a more environmentally conscious society.

Chapter 5 offers a comprehensive analysis of the intersection between sustainable marketing practices and Artificial Intelligence (AI) approaches in the healthcare industry, utilizing a bibliometric analysis to identify significant themes and trends. By examining contributions from prominent scholars, organizations, and nations, the study sheds light on key developments and trends in the field. Theme clusters such as Digital Healthcare, Personalized Healthcare Services, and Sustainable Development Goals highlight the diverse applications of AI in enhancing operational effectiveness and promoting sustainability in healthcare. This study contributes valuable insights into the evolving landscape of sustainable marketing practices and AI integration in the healthcare industry, highlighting opportunities for future research and emphasizing the role of AI in advancing sustainability goals in healthcare marketing.

Chapter 6 effectively delves into the symbiotic relationship between social media and environmentally responsible brands, emphasizing the pivotal role of digital platforms in promoting sustainability. By highlighting the benefits of green brand involvement in social media, such as increased exposure, community development, and educational opportunities, the study underscores the transformative impact of this digital revolution on environmental initiatives. The exploration of social platforms' role in promoting sustainability projects underscores their potential to advance environmental objectives and foster a conducive environment for environmentally aware firms to connect and thrive. This study contributes valuable insights into the intersection of social media and environmental responsibility, highlighting the transformative potential of digital platforms in driving sustainability efforts and fostering a prosperous environment for environmentally conscious brands.

Chapter 7 provides a comprehensive examination of the relationship between green marketing strategies and consumption patterns of energy-efficient products, focusing on the unique context of Kerala, India. Amid growing environmental concerns and a heightened focus on sustainability, the study seeks to understand how green marketing initiatives influence consumer behavior in a region known for its biodiversity but facing environmental challenges. The results reveal a solid and moderately strong positive relationship between various green marketing strategies and sustainable consumption behavior. Factors such as energy savings, government incentives, and after-sale services emerge as particularly influential in driving consumer decisions. Significantly, the study underscores the impact of government incentives on sustainable consumption behavior, offering valuable insights for businesses, policymakers, and marketers seeking to promote sustainable practices.

Chapter 8 delves into the evolving landscape of sustainable fashion, highlighting the transformative potential of co-creation in fostering environmentally mindful fashion trends. By investigating collaborative efforts among designers, customers, and other stakeholders, the research explores how these partnerships can drive the adoption and popularization of eco-friendly methods amidst the environmental challenges posed by fast fashion. By shedding light on the changing dynamics of the fashion industry, this article underscores its potential to promote positive environmental change through co-creation initiatives. It highlights the importance of collaborative efforts in creating green trends that satisfy consumer demands

while upholding ecological responsibility. Overall, the study offers valuable insights into the intersection of sustainability, fashion, and collaborative innovation, emphasizing the importance of collective action in driving meaningful change within the industry.

Chapter 9 provides a comprehensive exploration of the transformative impact of digital technologies on agricultural supply chains, addressing longstanding challenges related to inefficiency, waste, and transparency. By leveraging digital innovations such as the Internet of Things (IoT), blockchain, Artificial Intelligence (AI), and data analytics, the agricultural sector has seen significant advancements in efficiency and sustainability. The paper highlights the positive environmental and social impacts of digital technology adoption in agriculture, including reduced chemical use, improved water management, and enhanced food safety. However, it also acknowledges concerns such as labor displacement and data privacy, emphasizing the importance of addressing these issues as technology adoption continues to accelerate. The paper underscores the transformative potential of digital technologies in shaping the future of food production and distribution, with a strong emphasis on efficiency and sustainability.

Chapter 10 outlines an innovative approach to promoting social, environmental, and commercial sustainability goals through community and indigenous branding, particularly focusing on tea gardens in the eastern region of India. By developing a comprehensive digital flavor map that integrates local culture, cuisine, and identity, your project aims to create a symbiotic relationship between ethnic communities and enterprises. By offering refined customers both domestically and abroad an opportunity to explore and taste local foods and beverages, the digital flavor map taps into the growing trend of gastro-cultural tourism. Overall, it presents a holistic approach to sustainable development by leveraging local culture and resources to drive economic growth, promote tourism, and mitigate environmental impact for fostering social, environmental, and commercial sustainability.

Chapter 11 delves into the unique challenges and opportunities of marketing Pattachitra, a traditional art form, in the rural village of Bharatpur in West Bengal, India. Recognizing the distinct marketing landscape of rural villages, the research aims to provide insights for marketers and businesses seeking to promote rural crafts effectively. By examining relevant literature and case studies, the paper offers valuable perspectives on marketing strategies tailored to rural village markets. It also analyzes the impact of various independent variables on product, price, place, and promotion, using regression models to understand their influence on marketing outcomes. Overall, the research contributes to a better understanding of marketing dynamics in rural village settings and offers practical insights for promoting rural crafts such as Pattachitra to drive business success in rural markets.

Chapter 12 provides a comprehensive overview of the shift towards sustainability in the packaging industry, driven by increasing environmental consciousness globally. It rightly emphasizes the urgent need to move away from traditional packaging materials towards environmentally friendly alternatives to mitigate pollution and resource depletion. Moreover, the inclusion of the 5 Rs of sustainability—refuse, reduce, reuse, repurpose, and recycle—as guiding principles for sustainable packaging strategies is essential. These principles emphasize the importance of minimizing waste and maximizing resource efficiency. Overall, this chapter provides valuable insights into the importance of sustainable packaging and outlines practical strategies for achieving it. By considering environmental sustainability seriously and implementing these strategies effectively, businesses can contribute to a more sustainable future while meeting consumer demands for eco-friendly products.

Chapter 13 offers a comprehensive exploration of the role of Public-Private Partnerships (PPPs) in promoting sustainable tourism development and its impact on poverty alleviation in host communities. By employing an explorative design, the research extensively reviews international and national literature to provide insights into the historical background, objectives, and relevant works to design models for sustainable tourism through joint alliances between private and public institutions. Identifying four key pillars—product and business development, capacity development, utilization of Information and Communication Technology (ICT), and managerial efficiency—the study highlights their integral role in enhancing socio-economic sustainability and environmental conservation within the tourism industry. Overall, this research adds to the existing body of knowledge on sustainable tourism development and PPPs, offering valuable insights and guidance for policymakers, practitioners, and researchers alike.

Chapter 14 provides a thorough examination of the importance and challenges of implementing sustainable marketing strategies in today's competitive business environment. It acknowledges the increasing consumer demand for environmentally and socially responsible products and the need for organizations to align their marketing efforts with sustainability goals. By defining sustainable marketing as the promotion of products that are environmentally and socially responsible, this chapter highlights the growing trend among businesses to prioritize sustainability in their marketing strategies. It emphasizes that sustainable marketing not only benefits society and the environment but also contributes to improving a company's bottom line. Overall, this chapter provides valuable insights into the evolving landscape of sustainable marketing and offers practical guidance for marketers looking to implement sustainable strategies and evolve as sustainable marketers.

Chapter 15 This chapter is a fascinating exploration of the intersection between agile principles and sustainability in business. It's crucial to recognize how these two frameworks, seemingly unrelated at first glance, can complement each other in promoting adaptability, efficiency, and ethical practices within organizations. By leveraging agile principles, businesses can potentially enhance their sustainability efforts through iterative development, rapid response to changing environmental regulations or consumer preferences, and fostering a culture of collaboration and continuous improvement and also uncover connections between agile practices and sustainability initiatives, highlighting both successful case studies and potential challenges that arise when integrating these frameworks. Overall, this exploration highlights the transformative power of integrating agile principles into sustainability practices, paving the way for more resilient, responsive, and responsible businesses in today's rapidly changing world.

Chapter 16 provides valuable insights into the growing significance of sustainable packaging in today's consumer landscape. With environmental concerns becoming increasingly prominent, consumers are placing greater emphasis on the sustainability of the products they purchase, including the materials used in their packaging. By exploring consumer perceptions and behaviors surrounding sustainable packaging, the study sheds light on the factors influencing purchasing decisions and brand loyalty. This understanding is crucial for businesses seeking to appeal to environmentally conscious consumers and differentiate themselves in a competitive market. The study's recognition of sustainable packaging as both an ethical imperative and a strategic advantage is particularly noteworthy. Overall, this study provides compelling evidence for the importance of incorporating sustainable packaging into business strategies, emphasizing its potential to drive both ethical and competitive advantages in today's marketplace.

Chapter 17 delves into a critical aspect of modern supply chain management: traceability, particularly in the context of the food industry. With increasing concerns about food safety, quality, and sustainability, traceability has emerged as a key strategy for ensuring transparency and accountability throughout the supply chain. The study's focus on the interplay between sustainable supply chain practices, such as ecocentricity and traceability, and their impact on both environmental and operational cost performance is particularly intriguing. By examining how these practices moderate the relationship between supply chain management techniques and performance outcomes, the research provides valuable insights into the complexities of sustainability within supply chains. Overall, this research contributes significantly to our understanding of the complex dynamics involved in sustainable supply chain management, offering valuable implications for businesses seeking to enhance both their environmental sustainability and financial performance.

Chapter 18 offers a fascinating exploration into the intricate relationship between coffee consumption preferences, engagement with coffee-themed merchandise and branding, and the construction of personal identity. By delving into the motivations and cultural significance underlying individuals' coffee choices, the research sheds light on how coffee has become more than just a beverage—it's a symbol of self-expression, social affiliation, and cultural belonging. The findings underscore the deeply personal nature of coffee consumption, with participants expressing how their choices reflect not only their taste preferences but also their self-concept and social identity. The study contributes to our understanding of how consumption practices intersect with broader aspects of identity formation in contemporary society. Overall, this research offers valuable insights into the multifaceted nature of coffee culture and its impact on individuals' lives, highlighting its role as more than just a beverage but as a meaningful aspect of modern identity construction.

"Agile Sustainable Marketing: Navigating Towards a Greener Future" sounds like a valuable resource for businesses seeking to align their marketing strategies with sustainability objectives. By exploring the integration of agile methodologies with sustainable practices across various industries, the book offers a comprehensive examination of innovative approaches to promoting environmental and social responsibility.

The emphasis on fostering innovation, resilience, and positive social and environmental impact underscores the transformative potential of agile sustainable marketing. By embracing these approaches, businesses can not only drive business success but also contribute to creating a more sustainable and equitable future.

Overall, this book seems to provide practical guidance and actionable insights for businesses looking to navigate the evolving landscape of sustainable marketing. By aligning business objectives with broader societal and environmental goals, organizations can position themselves as leaders in promoting sustainability while also driving positive change in their respective industries.

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CHAPTER 1

A Comprehensive Sustainable Marketing Strategy: Localized and Community-Based Methods of Waste Management in a Circular Economy

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Abstract: An all-inclusive approach to sustainable waste management is the new work order. Resource consumption with a comprehensive outlook enables an eco-sensitized biobased approach to building a circular economy. The ideology of enhancing sustainable development demands a co-creative strategic intervention for a synergized system in a localized setting. The communities eventually are to be backed by a regenerative tourism philosophy, which fosters a destination's resource efficiency and creates a mindset that eventually supports the communities to preserve natural resources, and foster transformative potential for building a more resilient and sustainable future. More resilience and sustainability open up opportunities for self-sufficiency and regenerative pedagogy to practice tourism in an intelligent, sustainable environment. The most effective ways to close the gap and enhance a destination's well-being are through recycling and upcycling. Regenerative tourism is fundamentally about revitalizing and restoring the environment, culture, and natural resources. The circular economy's potential as a key strategy is driven by creating room for innovation, differentiation, and revenue diversification, which creates a space for investors and the governance to unleash a value-based networked environment. The academic orientation dwells on the social, and environmental facets of destinations for increased competitiveness and self-sufficiency.

Keywords: Community engagement, Circular economy, Destination wellbeing, Resilient community, Regenerative tourism.

INTRODUCTION

Green practices in a destination's setting facilitate an andragogical ideology to be adopted by all tourism stakeholders and service providers to meet the core objectives of sustainable development. Sustainable renovation is pivotal for the

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future expansion of the tourism industry, to reduce social, economic, and ecological impacts of waste management, which helps achieve sustainable cities and communities (Cheunkamon *et al.*, 2021; Buczek, 2017; Oriade & Cameron, 2016). Sustainable construction practices and adequate solid waste management in rural areas reduce environmental and health threats, improving local conditions and potentially having a global impact on climate change and environmental pollution (Fava *et al.*, 2021). Sustainable E-waste management strategies, such as green-product design, circular economy practices, extended producer responsibility, and the 4R principle, are crucial for reducing environmental impacts and overall sustainable development (Li *et al.*, 2023). It involves the participation of all stakeholders, including waste generators, waste processors, formal and informal agencies, non-governmental organizations, and financing institutions (Joseph *et al.*, 2020).

Innovative ideas and technology are needed to realize the benefits of circular economy concepts (Li *et al.*, 2023). By providing new employment and more inclusive local value chains, the circular economy may improve the positive effects of tourism on sustainable development and foster positive relationships between local communities and companies (Li *et al.*, 2023). Similarly, when it comes to the transformation of the entire tourism ecosystem through behavior change, travelers may benefit from the circular economy by travelling with a purpose, leaving a good environmental impact, and perhaps experiencing multiplier benefits (Joseph *et al.*, 2020). In a Circular Economy, by extending the lifespan of materials, resources, and products, the circular economy eliminates the concept of waste and converts the inefficiencies of the present linear “take- make-trash” economy into commercial value (Cimpan *et al.*, 2015). Regenerating natural capital makes it possible to consider how a Circular Economy may rebuild human and social capital by generating worthwhile employment opportunities and ensuring a more equitable and just allocation of financial and material resources (Ahmed & Ali, 2004).

The tourism industry stands to gain a great deal from implementing the circular economy by lowering its environmental footprint and promoting sustainable practices (Nanda & Berruti, 2021). The concept of value creation in a Circular Economy, in keeping with Circular Economy's “regenerative goal,” implies that conducting business should contribute to positive outcomes from a wider perspective: for the planet (by regenerating natural capital and avoiding all forms of waste), for people (happy tourists, healthy local communities, equality, *etc.*), and for businesses through competitiveness and profits that eventually get fairly distributed and contribute to overall social wellbeing (referred to as “planet, people, profit” or “PPP” principles) (Manniche *et al.*, 2021). The travel and tourism industry can achieve greater sustainability by implementing circular

economy ideas and practices. Implementing Circular Economy practices can be considered a necessary precondition for sustainable development to achieve the Sustainable Development Goals (SDGs) and, eventually, a fully sustainable society in which a prosperous and equitable socio-economic system can be sustained for both the present and future generations within the planet's carrying capacity (Manniche *et al.*, 2021). Here, a decentralized waste management system can play an important role in delivering such an innovative approach and has the potential for a sustainability transition of the water supply and sanitation sector, by treating waste materials close to their source (Anilir, 2008). Local communities may attain economic, ecological balance, and socially conscious waste management solutions by putting in place decentralized waste management systems and embracing the circular economy. Concentrating on trash reduction, recycling, and reuse allows circular economy concepts to be applied to decentralized waste management systems. Decentralized waste management and the circular economy are two concepts that complement each other to reduce waste and promote sustainability in any tourism destination.

Therefore, this study presents a strategy for sustainable waste management, a shift towards localized, community-driven initiatives within a circular economy framework. By embracing resource efficiency, community engagement, technological innovations, and collaborations across sectors, this comprehensive approach aspires to create resilient and self-sustaining waste management systems that mitigate environmental impact while fostering economic and social benefits.

DECENTRALIZED WASTE MANAGEMENT

Waste management can be particularly relevant for the tourism industry, as it can help reduce the environmental impact of tourism and waste management can benefit the local community by involving and empowering them in waste management decision-making, building local capacities in the waste management sector, and providing environmental and economic knowledge. Decentralized waste management refers to a waste management system that involves local institutions and communities taking responsibility for waste collection and management (Levaggi *et al.*, 2018). Decentralized waste management systems can also reduce the cost of waste management for the tourism industry by minimizing transportation costs and leveraging local resources, as long-distance transportation to central hubs is not necessary and the garbage is treated locally using inexpensive methods (Nanda & Berruti, 2021).

Managing hazardous waste, encouraging appropriate waste segregation and recycling, and supporting sustainable tourism are just a few of the ways that decentralized waste management may help lessen the negative effects of tourism

CHAPTER 2

Information Technology and Tourism: An Overview**Nilanjan Ray^{1,*}, Mainak Chakraborty² and Shafique Ahmed³**¹ *School of Management Studies, JIS University, West Bengal, India*² *Department of Management Studies, Swami Vivekananda University, West Bengal, India*³ *Department of Management Studies, Supreme Knowledge Foundation Group of Institutions, West Bengal, India*

Abstract: The advent of Information Technology (IT) has profoundly transformed the landscape of global business operations, with its impact particularly pronounced in information-intensive sectors. Among these, the tourism industry stands out. This research delves into the integration of Information Technology within tourism management. It uncovers disparities in IT adoption and attitudes toward its utility across various sizes of tourism enterprises. Smaller organizations often perceive the accessibility of the Internet and online systems as a costly venture. However, for tour operators, travel agents, and direct tourism suppliers, the utilization of information technologies presents an avenue to effectively convey destination imagery to potential consumers. The introduction of Computerized Reservation Systems (CRS) enables the direct marketing of travel products to prospective customers. Furthermore, this paper explores diverse applications of IT such as Virtual Reality (VR) simulations and e-payment systems, alongside CRS, to bolster the tourism market. Despite the nascent state of VR technology, its potential for interactivity holds promise. Through VR, consumers can envisage a destination experience from the comfort of their current location, thus transcending geographical constraints.

Keywords: CRS (Computer Reservation System), Geographic information system, Geospatial information technology, Information technology, Tourism industry.

INTRODUCTION

Tourism stands as one of the most rapidly expanding industries, trailing only behind sectors such as oil and jewelry. It has emerged as a catalyst for alternative

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economic development, with successful applications in various nations. According to the World Tourism Council, tourism presently contributes approximately 10% to the global GDP (Gross Domestic Product), with projections indicating a potential rise to nearly 11% by 2014. One of the paramount advantages of information technology in tourism is its ability to enhance the dissemination of information to travelers, transcending geographical boundaries and reaching a global audience. This integration of information technology aligns tourism products with the evolving demands of tourists. Information technology has rapidly permeated throughout the tourism industry, impacting all stakeholders. The genesis of technological innovations can be traced back to the 1970s, when major airlines pioneered Computerized Reservation Systems (CRSs) to establish a global distribution network for their services. This initiative catalyzed the automation of distribution processes, involving a widening array of tour operators, carriers, hospitality firms, and other entities within the tourism ecosystem.

LITERATURE REVIEW

Information technology has transformed destination marketing by providing platforms for tourism organizations to reach a global audience. Social media, websites, and mobile applications enable destinations to showcase their attractions, events, and experiences in real time. For instance, Buhalis and Law (2008) highlight the role of Web 2.0 technologies in facilitating user-generated content and enhancing destination marketing efforts. Through platforms like Trip Advisor and Yelp, travelers share reviews, photos, and recommendations, influencing others' travel decisions. Xiang, Du, and Ma (2017) discuss the role of mobile technology in enhancing tourists' experiences by providing location-based services, real-time recommendations, and instant communication with service providers. Law *et al.* (2014) emphasize the importance of IT integration in tourism enterprises to achieve competitive advantage and sustainable growth. IT has streamlined business operations within the tourism industry, improving efficiency, reducing costs, and enabling innovation. Online booking systems, revenue management software, and Customer Relationship Management (CRM) tools optimize resource allocation and enhance decision-making processes. Strandberg *et al.* (2018) discovered a clear trend in tourism research, indicating a significant shift towards exploring the impacts of digital technologies on the tourism industry. However, they noted that while there is a vast amount of research available, it tends to be fragmented, lacking a consolidated overview of the existing findings. This gap highlights the need for a comprehensive synthesis of the literature to provide a unified “big picture” of the relationship between information technology and tourism. There has been an increase in the number of publications in the last few years highlighting smart tourism, robotic implementation, robust recommender systems, implementation of virtual and

augmented reality in tourism, social network sites, 3D visualisation and web personalization, digital architecture, human-less interaction in tourism, tourism 4.0, and the major trends in the tourism industry (Singh and Bashar, 2021). Several studies have determined the evolution of mobile technologies in the tourism industry over the years (Chen *et al.*, 2020; Ortega-Fraile *et al.*, 2018). Some studies related to social media in tourism and hospitality have presented the social structure of collaborative networks (Mehraliyev *et al.*, 2019) or a systematic literature review (Nusair *et al.*, 2019). Durán-Sánchez *et al.* (2019) presented trends and performance in the field of tourism innovation. Besides, 'sustainability through technology' became one of the most popular themes in tourism research (Corte *et al.*, 2019; Segu Amortegui *et al.*, 2019; Serrano *et al.*, 2019; Ray *et al.* 2024). Paloma *et al.* (2017) presented how tourism research has made use of new data techniques like structural equation modelling, big data, and data mining over the past two decades.

METHODOLOGY

This study employs a mixed-methods approach to examine the integration of Information Technology (IT) in the tourism industry. A qualitative analysis is conducted through a systematic literature review, drawing from peer-reviewed journal articles, industry reports, and case studies to establish theoretical foundations. Additionally, quantitative data is gathered *via* structured surveys distributed to tourism professionals, including travel agents, tour operators, and hospitality managers. The survey focuses on IT adoption levels, perceived benefits, and implementation challenges. Statistical tools, such as regression analysis and descriptive statistics, are used to identify trends and correlations. Furthermore, case study analysis highlights real-world applications of IT, such as Computerized Reservation Systems (CRS) and Virtual Reality (VR) in tourism marketing. This methodological triangulation ensures a comprehensive understanding of IT's impact, addressing both industry-wide patterns and contextualized insights. The study adheres to ethical research guidelines, ensuring respondent confidentiality and data integrity.

INFORMATION TECHNOLOGY IN TOURISM: THEORETICAL BACKGROUND

Information Technology (IT) exerts significant influence over the tourism industry, permeating various facets such as tourism services, management, marketing, and public relations. The evolution of technology and the application of information have become pivotal factors in determining the success of the tourism sector. IT plays an indispensable role for both managers and entrepren-

CHAPTER 3

Consumer Behavior Analysis in the Context of Environmental Friendly Products for Sustainable Development: Trends and Patterns

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Abstract: The rising demand for products in modern society has led to increased pollution and environmental issues, prompting a reevaluation of consumption habits. Environmentally conscious consumerism, rooted in sustainable ideals, is essential for reducing environmental damage and fostering responsible consumer behavior. In the green economy, such approaches support long-term growth, resource efficiency, and public interest. Governments must actively promote eco-friendly choices, and researchers are studying the factors driving sustainable consumer behavior. As awareness of eco-friendly products grows, consumers are making more environmentally conscious decisions. Strict regulations and limited resources push companies to develop and market green products, necessitating a deep understanding of consumer attitudes. Despite consumers' stated environmental concerns, translating these into actual eco-friendly purchases remains challenging, influenced by product attributes and perceived efficacy. This chapter examines consumer behavior toward eco-friendly products, highlighting the complexities of sustainable consumption and the importance of perceived efficacy in purchasing decisions. The study reveals that while there is a shift toward eco-friendly preferences, sustained adoption is difficult, emphasizing the need for effective green marketing strategies. The chapter provides significant insights into the dynamics of consumer behavior in the context of sustainable development.

Keywords: Consumer behavior, Eco-friendly products, Green marketing, Sustainable development, Sustainable consumption.

INTRODUCTION

The emergence of the COVID-19 epidemic resulted in an unexpected revelation in the chaos: increased consumer awareness of the environmental repercussions of their purchase decisions. While shortages of vital products such as toilet paper and bread dominated headlines, the unanticipated surplus of time resulting from stay-

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at-home policies caused people to rethink their daily routines, including their consumption patterns. During the epidemic, there was a noticeable movement toward addressing the environmental impact of purchasing.

Even before the global crisis, there was a perceptible shift in consumer behavior, typified by a growing preference for sustainability. However, the epidemic functioned as a catalyst, driving more people to seek products that not only met their requirements but were also environmentally sustainable. Actively searching out things with eco-friendly packaging and actively reducing reliance on plastic has evolved as common activities. This group of mindful shoppers is a growing population that is altering the retail scene. Their purposeful choices prioritize products that are local, ethical, and environmentally sustainable. Their choices extend beyond the product itself, to the ideas and social responsibility supported by the businesses they choose to support. This evolving trend represents a significant shift in consumer behavior—a shift toward intentional purchasing decisions with broader implications beyond personal usefulness.

The indisputable change in consumer preferences has prompted merchants and brands to react. Recognizing their influence on affecting consumer behavior, many organizations have begun to offer sustainable alternatives and incentives to encourage environmentally responsible decisions. At the same time, there is an increasing expectation for governments to address environmental challenges on a systemic level, highlighting the need for collective responsibility in ensuring a sustainable future. Within this developing paradigm, multinational corporations are considering the long-term changes in customer behavior caused by the epidemic. Consumer packaged goods, retail, and grocery stores are acutely aware of the growing demand for environmentally friendly items. Understanding and adapting to these changing preferences not only meets immediate customer wants, but also makes a tangible contribution to a more sustainable future.

This chapter goes deeper into the nuances of this emerging consumer paradigm, examining the patterns and trends related to consumer behavior when it comes to eco-friendly products. Its goal is to explain the motivations, challenges, and repercussions of the conscious consumer movement. The chapter intends to advise businesses and governments in aligning their strategy with growing consumer preferences, producing a more sustainable and responsible consumer environment.

LITERATURE REVIEW

Growing environmental concerns have significantly influenced consumer behavior, leading to a preference for eco-friendly products. This literature review explores recent studies to understand the key factors affecting green purchasing

decisions. It also examines the difference between consumers' positive attitudes toward sustainability and their actual buying habits. Additionally, the review highlights how these studies contribute to narrowing the gap between theoretical concepts and real-world sustainable consumption practices.

Factors Influencing Green Purchase Behavior

Several key factors shape consumer decisions regarding environmentally friendly products:

- **Environmental Awareness and Knowledge:** Consumers who are well-informed about environmental issues are more likely to choose eco-friendly products. Educational programs and accessible information play a crucial role in increasing awareness. (*Sharma, K., Aswal, C., & Paul, J. 2023*).
- **Perceived Consumer Effectiveness (PCE):** When individuals believe their purchasing choices can positively impact the environment, they are more motivated to buy sustainable products. A sense of personal contribution strengthens green buying behavior. (*Barbu, A., Catană, Ș. A., Deselnicu, D. C., Cioca, L. I., & Ioanid, A. 2022*).
- **Social Norms and Peer Influence:** The influence of society and peer groups significantly affects consumer choices. When sustainable consumption is widely accepted as a norm, individuals are more inclined to follow suit. (*Sharma, K., Aswal, C., & Paul, J. 2023*).
- **Product Attributes and Perceived Quality:** Consumers assess green products based on quality, performance, and design. If eco-friendly alternatives are perceived as inferior to conventional products, it may discourage purchases. (*Camilleri, M. A., Cricelli, L., Mauriello, R., & Strazzullo, S. 2023*).
- **Price Sensitivity and Perceived Value:** The higher cost of sustainable products can act as a deterrent. However, consumers are more likely to accept premium pricing if they recognize benefits such as health advantages or long-term savings. (*Malhotra, R., Garg, V., Aggarwal, P., Aggarwal, A., Bansal, O., & Tusnial, B. 2024*).

Bridging the Gap Between Theory and Practice in Sustainable Consumer Behavior

Understanding consumer behavior toward eco-friendly products requires both theoretical perspectives and real-world applications. Recent studies have identified key strategies to bridge this gap, ensuring that sustainable consumption is both achievable and practical.

CHAPTER 4

The Role of Eco-Labeling in Shaping Consumer Choices

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Abstract: This extensive analysis focuses on how eco-labelling promotes sustainable purchasing behaviours alongside how it shapes consumer behaviour. Following the footsteps of organic product certification, the study categorizes eco-labels into three distinct types per the ISO recommendation. Upon conducting an in-depth analysis of consumer psychology, this study reveals that eco-labels substantially influence consumers' trust, perception of value, and the halo effect linked to products bearing ecological labels. Regulatory and industry responses are currently deliberating regarding the challenges that eco-labelling encounters despite its widespread adoption, including issues of greenwashing and uniformity. The diverse adoption trends and eco-labelling innovation cycle started from organic certification, a government-sponsored program, third-party certification, industry-specific labels, multi-criteria, and life cycle assessment to technology integration. The study posits prospective developments and innovation in eco-labelling, considering standardization and transparency, health concerns, corporate social responsibility, ethical aspects, and emerging environmental issues that attract customers. Among the recommendations for enhancing the efficacy of eco-labelling are implementing augmented reality and blockchain technology to standardize the process and initiate educational campaigns and government support along with standard rules and regulations. In order to optimize the positive effects of eco-labelling on sustainable consumption and address worldwide issues and efforts for sustainable development, the chapter asserts that collaboration among all relevant parts of the eco-label is essential.

Keywords: Consumer behaviour, Eco-labelling, Sustainable consumption, Psychological analysis.

INTRODUCTION

As individuals worldwide have grown more cognizant of environmental issues, they have carefully considered how their purchases affect the environment. Because of this rising consciousness, eco-labelling, a system for informing buyers

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about a product's environmental impact, has seen a dramatic uptick in popularity. Energy efficiency, recyclability, and sustainable sourcing are just a few of the environmental qualities that eco-labels aim to highlight on products. In this chapter, we will look at how eco-labelling influences sustainable consumption habits and consumer decisions. Economic and trade policies are giving environmental concerns more weight due to rising environmental consciousness in developed and developing countries. An example is the push to educate buyers about the full range of issues related to the goods they purchase, not just the ones that directly affect their health, like food additives, but also the broader environmental impacts of production. One definition of eco-labelling is giving consumers information about a product's environmental and human health impact.

When customers voice their environmental concerns, the eco-labelling innovation cycle kicks off and is helpful in creating innovation in it. The most environmentally conscious businesses then work to meet these demands by enhancing their current offerings or collaborating with more sustainable vendors. These measures will help them provide more excellent value to customers than their rivals. The cycle then repeats itself as customer expectations for the environment rise. Throughout this process, governments and institutions actively promote sustainable consumption and production. One instrument they employ is the environmental label, which provides visual information about a product or service's environmental impact (Vanessa Prieto-Sandoval a, José Antonio Alfaro Tanco b, Andrés Mejía-Villa c, Marta Ormazabal Goenaga (2016). Ecolabelling is a cornerstone of future sustainable consumption and production strategies, primarily aiming to boost both the supply and demand for environmentally friendly products. From the start, it is evident that ecolabels would play a vital role in this system, serving as a tool for manufacturers to showcase the “green credentials” of their goods and giving consumers accurate information (Fabio Iraldo *et al.*, 2020). Environmental labelling is an effective means of communication and marketing that enhances the visibility and disclosure of the environmental characteristics of products, processes, and services (Reinaldo Joaquim dos S. Dórea *et al.*, 2021). Consumers cannot confirm the green characteristics directly and must depend on indicators like eco-labels to validate assertions (Lucy Atkinson & Sonny Rosenthal (2014)).

Indian Perspective on Eco Label/ Eco Marking

According to the Ministry of Environment, Forest and Climate Change, Government of India: CPCB | Central Pollution Control Board,

in 1991, the Government of India introduced the eco-labelling scheme called 'Ecomark' to enhance consumer awareness by providing a simple way to identify

environmentally beneficial products. An environment-friendly product refers to any item manufactured, utilized, or discarded in a manner that effectively minimizes the negative impact it might otherwise have on the environment. The standards adhere to a comprehensive strategy encompassing a product's entire lifecycle, including the extraction of raw materials, the production process, and the disposal phase. The 'Ecomark' designation is granted to consumer items that satisfy the designated environmental criteria and the quality standards set by Indian authorities. The Ecomark guarantees that any product bearing it is an optimal environmental decision. The environmental implications of a product are assessed based on the following key factors:

- These products exhibit significantly lower pollution potential than similar products across their whole lifecycle, including manufacture, usage, and disposal.
- They are either recycled, recyclable, composed of recycled materials, or biodegradable when comparable products are not.
- They significantly contribute to the conservation of non-renewable resources, such as non-renewable energy sources and natural resources, when compared to similar products;
- The product must contribute to reducing the adverse principal criteria that have the most significant environmental impact associated with its use. For each product category, these requirements need to be carefully established.

Evolution of Product Labels and up to Eco-Labels

Eco-labels' evolution reflects a transformative journey in response to increasing global environmental concerns and the growing demand for sustainable practices. Considering the history and many forms of eco-labelling is essential for grasping its relevance, (Iraldo, F., Griesshammer, R. &Kahlenborn, W (2020)). Product labelling has grown more significant in public policy to increase consumer product safety, environmental efficiency, and quality since the late 1970s. Labelling was intended to protect consumers from product hazards and environmental quality. The labelling technique protected consumers and gave them the information they needed to make the best choice. Quality labels inspired Eco-labelling and product labelling. From marketing to public policy, its environmental success has been quick.

It started with the Blauer Engel in 1978; labelling, branding, and other symbols and claims to promote product environmental quality proliferated in the 1980s. Many of the following labels were self-declarations by companies or certificates awarded by private institutes and bodies that assessed specific ecological features of the product, unlike the Blauer Engel, which was designed to be a third-party

CHAPTER 5

AI in Healthcare Marketing: A Review, Synthesis and Research Agenda

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Abstract: This study investigates the relationship between sustainable marketing practices and Artificial Intelligence (AI) approaches in the healthcare industry using a bibliometric analysis. The study uses VOSviewer to extract significant themes and trends from a dataset of 99 articles that were published between 2014 and 2023. The global health crisis and the increasing demand for data-driven decision-making in sustainable healthcare practices are the reasons for the highlighted spike in scholarly interest after 2020. Important contributions from eminent scholars, organisations, and nations are analysed, exposing important developments and trends in the field. The various ways that Artificial Intelligence (AI) is being applied to improve operational effectiveness and advance sustainability in the healthcare industry are highlighted by theme clusters like digital healthcare, personalised healthcare services, and Sustainable Development Goals (SDGs). Notable journals are also noted, offering scholars and professionals a useful resource. The study's conclusion outlines the directions for future research and emphasises how AI has the potential to spur sustainability and innovation in the field of healthcare marketing. AI has the potential to influence effective healthcare policymaking frameworks and contribute to the advancement of sustainability within the healthcare sector.

Keywords: Artificial Intelligence, Academic trends, Bibliometric analysis, Digital healthcare, Healthcare sector, Personalized healthcare services, Research patterns, Sustainable development goals, Sustainable marketing, VOS viewer.

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INTRODUCTION

The integration of Artificial Intelligence (AI) in marketing has significantly transformed the healthcare industry by enhancing efficiency, reducing costs, and improving patient outcomes. AI-driven marketing strategies enable healthcare organizations to better understand patient needs and preferences, leading to more personalized and effective communication (Ameen *et al.*, 2021). This transformation is fueled by the vast amounts of data available, which AI algorithms analyze to identify patterns and predict patient behavior, thereby optimizing marketing efforts (Mukherjee *et al.* 2024).

AI technologies, such as machine learning and neural networks, can analyze large volumes of structured and unstructured healthcare data to gain insights into patient behaviors, preferences, and needs. By leveraging AI-powered tools, healthcare marketers can create targeted campaigns that resonate with specific patient demographics, enhancing engagement and improving patient outcomes (Barredo *et al.*, 2020). For instance, AI can analyze patient data from Electronic Health Records (EHRs) to identify patterns and predict future health needs, enabling personalized marketing strategies that address individual patient requirements (Mukherjee *et al.* 2024). Additionally, AI-driven chatbots and portals improve patient access to information and services, further enhancing the effectiveness of marketing efforts (Bleier *et al.*, 2020).

The COVID-19 pandemic has accelerated the adoption of AI in healthcare marketing as the industry faced new challenges and needed innovative solutions to maintain patient engagement and care delivery. AI applications in medical imaging, diagnostics, and virtual patient care have also been promoted through targeted marketing, highlighting their benefits in early disease detection and management (De Bruyn *et al.*, 2020). Furthermore, AI has played a crucial role in drug discovery and development, with marketing efforts focusing on the speed and accuracy of AI-driven research and its potential to bring new treatments to market faster (Burr *et al.*, 2020).

Incorporating AI in healthcare marketing also supports sustainable development by optimizing resource allocation and reducing unnecessary costs. AI's ability to interpret massive amounts of data can help healthcare organizations develop more efficient and cost-effective marketing strategies (Mukherjee *et al.* 2024), ultimately contributing to a more sustainable healthcare system. For example, AI can assist in monitoring and analyzing the effectiveness of marketing campaigns, providing real-time feedback, and enabling continuous improvement (Butkus, 2020).

AI's predictive capabilities and data analysis potential make it a powerful tool for tailoring sustainable marketing campaigns in the healthcare sector, addressing both patient needs and organizational goals (Calvano *et al.*, 2020). The use of AI in neuromarketing has shown success in other sectors by providing valuable insights into consumer behavior, which can be adapted to the healthcare sector to create sustainable marketing campaigns that generate long-term value while minimizing negative environmental impacts.

Despite the numerous benefits, the implementation of AI in healthcare marketing is not without challenges. Ethical considerations, data privacy, and the need for effective governance to ensure patient safety and trust are critical factors that must be addressed. Nevertheless, AI continues to revolutionize healthcare marketing by providing more accurate, efficient, and personalized solutions, ultimately enhancing the overall quality of care and patient satisfaction.

Here are the questions this study aims to answer:

- What is the current research that focuses on AI-driven sustainable development in the healthcare sector?
- Who are the leading authors, organizations, and publishers contributing to this field?
- Which journals are the most influential and impactful in the field of AI in Healthcare?
- What are the most prevalent themes in this field of study?
- What are the most prevalent keywords exist in this field of research?

RELATED WORK

Advanced technologies driven by AI are transforming the healthcare sector, enhancing patient care, optimizing resources, and ensuring long-term sustainability. AI chatbots and portals empower patients with easier access to information and streamline appointment processes, tackling misinformation and inefficient management practices (Deorukhkar, 2023). AI plays a critical role in optimizing blood supply chains through omnichannel models, ensuring a balanced supply-demand dynamic, especially crucial for emergencies (Ghouri *et al.*, 2023b). Integrating AI into healthcare revolutionizes resource allocation, making the sector more sustainable by reducing costs and improving care efficiency (Sciarretta *et al.*, 2022). AI-powered social media analysis can identify unmet needs and pave the way for new healthcare services. The Musawah approach, for instance, utilizes machine learning to analyze Twitter data and discover service gaps, ultimately improving prevention, treatment options, and support structures (Alahmari *et al.*, 2022). Wearable healthcare devices powered by AI and the Internet of Things (IoT) can improve energy efficiency, reliability, and battery

CHAPTER 6

Social Media and Green Brand Engagement

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Abstract: Exploring the mutually beneficial assembly between social media and environmentally responsible brands is critical at a time when the entire globe is focusing on sustainable developmental approaches. This study reconnoiters the crucial significance of social platforms in promoting sustainability and highlights the tendencies accelerated by this digital revolution. By emphasizing the benefits of green brand involvement, this highlights the increased exposure, development of a community, and educational prospects facilitated by social media. Key elements for achieving successful engagement are discussed as fundamental components, including interactive content, user-generated material, and strategic relationships. The study further highlights the tangible effects of social media on the success of environmentally friendly brands, using persuasive case studies as evidence. Moreover, it illustrates the essential role of social platforms in promoting sustainability projects, demonstrating their ability to advance environmental objectives. This effectively demonstrates the importance of social media in fostering a prosperous environment for environmentally aware firms to establish connections, educate, and thrive. Finally, the above entities were achieved through a well-organized design that incorporates informational sections, strategic insights, and visual components.

Keywords: Communities, Green brand engagement, Social media, Sustainable cities.

INTRODUCTION

The growth of social media has necessarily restructured our communication landscape, making it a critical platform for engaging with environmentally conscious brands, a phenomenon known as green brand engagement. This interactive platform goes beyond conventional marketing, enabling firms to foster direct, reciprocal engagements (Chuang and Chen, 2023). This level of interaction transcends mere sales pitches, allowing organizations to communicate their values, beliefs, and sustainability initiatives authentically. Transparent

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communication cultivates trust and loyalty among environmentally concerned consumers, who seek genuine connections with firms that share their ethical and ecological principles coupled with data privacy and security safeguarding customer information (Shafik, 2024a).

With the current technological development and public acceptance, social media acts as a catalyst, driving sustainability trends into the mainstream (Li *et al.*, 2023). The platform enhances the prominence of environmentally friendly efforts, ranging from advancements in sustainable packaging to campaigning for renewable energy. The advent of digital technology has significantly increased awareness and concern for the environment, prompting brands to embrace more sustainable and ethical approaches (Abdou *et al.*, 2023). The proliferation of user-generated content that promotes environmentally conscious lifestyles not only reinforces existing patterns but also has a far-reaching impact on a wide range of consumers on different social networks (Lin *et al.*, 2021).

Social media platforms function as central hubs for fostering community engagement and collaboration in the pursuit of sustainability. Brands that participate in meaningful discussions organize informative sessions or launch environmental challenges to foster lively online communities. These online platforms enable the exchange of knowledge, encouraging individuals to adopt more environmentally friendly lives (Zhang *et al.*, 2023). The resulting feeling of belonging and shared purpose enhances the connections between brands and consumers, building brand loyalty that goes beyond simple transactions. Fig. (1) presents some tools for measuring social media success.

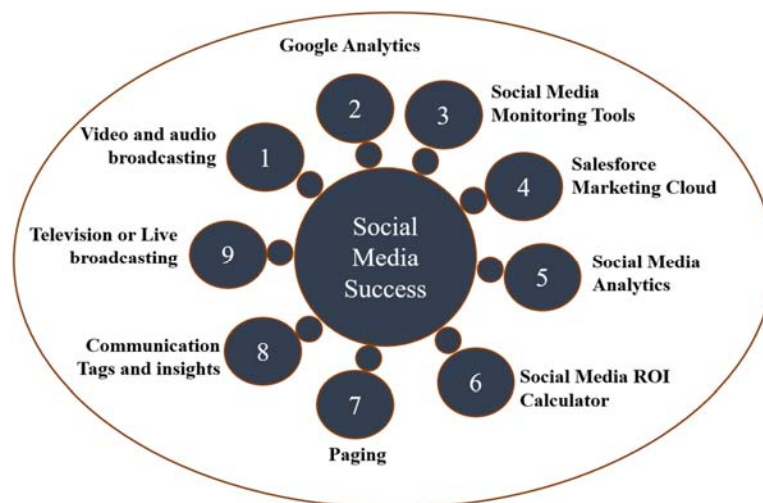


Fig. (1). Tools for measuring social media success.

Brands utilize social media platforms not only for promotional endeavors but also as instructional resources. Their role is to distribute knowledge regarding environmental concerns, sustainable methods, and the ecological consequences of consumer decisions. This educational campaign fosters the development of knowledgeable customers who link their purchase behaviors with environmental awareness (Li *et al.*, 2023). Informative content helps build businesses as authoritative figures, boosting credibility and fostering consumer trust.

Interactive content is becoming a crucial tactic that engages audiences in significant discussions. Quizzes, polls, and challenges stimulate dynamic engagement, fostering immersive brand encounters. Moreover, user-generated material empowers customers, allowing them to exhibit their environmentally conscious initiatives, and cultivating a sense of inclusion within a wider sustainability movement (Abdou *et al.*, 2023). Partnerships with influencers, Non-Governmental Organizations (NGOs), or other environmentally-minded organizations enhance the exposure and reputation of the company. Strategic alliances utilize common principles, expanding influence and connecting with varied audiences.

Chapter Contribution

This chapter presents the following contributions:

- Explores the emergence of social media and its influence on communication, specifically within the realm of green brand engagement, and illustrates prominent sustainability themes that the impact of social media has expedited.
- Examines the impact of social media on increasing the visibility of environmentally concerned firms, hence expanding their audience, and explores the way social media platforms facilitate community involvement in promoting sustainable practices.
- Presents the utilization of social media as a means of educating audiences about environmental concerns. Explores the significance of interactive material, such as polls, quizzes, and challenges, in effectively captivating viewers.
- Emphasizes the influence of content created by users in promoting environmentally friendly products and the concept of sustainability and examines the advantages of collaborating with influencers and organizations that share similar interests to improve engagement.
- It provides concrete instances of environmentally conscious firms efficiently utilizing social media platforms to communicate with their audience and achieve success.
- Finally, it summarizes the key lessons learned, highlighting the essential role of social media in promoting sustainability.

CHAPTER 7

Shaping Sustainable Consumption: The Influence of Green Marketing Strategies on Energy-Efficient Product Purchases in Kerala

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Abstract: This research delves into the intricate relationship between green marketing strategies and the consumption patterns of energy-efficient products, focusing on the distinctive context of Kerala, India. In light of mounting environmental concerns and a growing emphasis on sustainability, the study investigates how green marketing initiatives influence consumer decisions in a region renowned for its rich biodiversity but grappling with environmental challenges. Employing a mixed-methods approach, the study combines quantitative analyses—such as correlation, multiple regression, and T-test—with qualitative insights to comprehensively explore the factors shaping sustainable consumption behavior. The research targets consumers in three Mid-Kerala districts—Palakkad, Thrissur, and Ernakulum—using a multi-stage cluster sampling method to select a representative sample of 150 respondents who participated in a structured questionnaire. Rigorous validation, including a pilot survey, Cronbach's Alpha, and robust statistical analyses, ensures the reliability of the study. The findings unveil a solid and moderately strong positive relationship between various green marketing strategies and sustainable consumption behavior, with energy savings, government incentives, and after-sale services emerging as particularly influential factors. Multiple regression analysis reveals that 53.7% of the variability in the influence of green marketing strategies on sustainable consumption behavior can be explained by the included variables. Significantly, the study underscores the impact of government incentives on sustainable consumption behavior, providing valuable insights for businesses, policy makers, and marketers aiming to promote sustainable consumption patterns. The emphasis on energy savings, government incentives, and after-sale services in green marketing strategies is highlighted, contributing to global discussions on fostering sustainable practices amid environmental challenges and offering practical implications for businesses operating in Kerala and beyond.

Keywords: Consumption patterns, Energy-efficient products, Green marketing strategies, Purchasing behavior, Sustainable consumption.

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INTRODUCTION

In an era marked by escalating environmental concerns and a growing emphasis on sustainable practices, the intersection of green marketing strategies and consumer behavior has become a focal point of exploration. This is particularly pertinent in the unique context of Kerala, a state situated on the southwestern coast of India, renowned for its rich biodiversity and picturesque landscapes. Despite the region's natural splendor, Kerala grapples with environmental challenges, including climate change, deforestation, and resource depletion. Against this backdrop, consumers in Kerala are increasingly motivated to align their purchasing decisions with environmentally responsible choices. Green marketing has emerged as a powerful tool addressing this shift, with businesses incorporating eco-friendly messaging into their product promotion strategies. This article delves into the intricate dynamics of sustainable consumption in Kerala, aiming to comprehensively explore the relationship between green marketing initiatives and consumer purchasing behavior, specifically focusing on energy-efficient products. The chosen product category encompasses a range of kitchen appliances, including refrigerators, dishwashers, ovens, induction cooktops, microwaves, range hoods, coffee makers, and smart appliances—all designed to minimize energy consumption while maintaining optimal performance. The study, titled “Shaping Sustainable Consumption: The Influence of Green Marketing on Energy-Efficient Product Purchases in Kerala,” focuses on the districts of Mid-Kerala—Palakkad, Thrissur, and Ernakulam. Through an examination of various components of green marketing tactics, this research seeks to uncover the factors propelling consumers to embrace sustainability, the persuasive power of green marketing in shaping preferences, and the role of societal and cultural norms in this transformative process. The study's findings are not only relevant for businesses operating in Kerala but also offer valuable insights for policy makers, environmentalists, and marketers worldwide, contributing to the broader discourse on promoting sustainable consumption patterns and addressing environmental challenges. The research problem of this study is “To what extent does green marketing influence the purchasing behavior of energy-efficient products among consumers in Kerala, India?”. The major objectives of this study are: (1) To research the elements that determine the effectiveness of green marketing strategies on energy efficient products consumers’ consumption pattern, (2) To investigate the relationship between green marketing techniques and the consumption pattern of energy efficient products’ consumers, (3) To create a conceptual model that interrelates the aspects that determine the success of green marketing tools on consumption pattern of energy efficient products’ consumers, (4) To prove a conceptual model that interrelates the aspects that influence the success of green marketing tools and tactics on the consumption pattern of energy

efficient products' consumers, and (5) To update/finalize the conceptual model using accepted hypotheses.

REVIEW OF LITERATURE

Assessing the awareness and perception of green marketing among consumers in Kerala is a critical undertaking, given the growing emphasis on sustainability in today's market. Previous research, such as the study conducted by Ottman *et al.* (2006), highlights the importance of consumer awareness and eco-consciousness in influencing green product purchases. Ottman and her colleagues emphasize that consumers who are more aware of environmental issues and the benefits of eco-friendly products are more likely to make green choices. Furthermore, Kotler and Keller (2012) underscore the role of effective marketing strategies in promoting environmental responsibility among consumers. Their work emphasizes the need for businesses to communicate their green initiatives effectively to connect with eco-conscious consumers. These foundational theories serve as a solid base for investigating the consumer landscape in Kerala, where environmental concerns are gaining prominence. To determine the influence of green marketing strategies on the intention to purchase energy-efficient products in Kerala, researchers can draw upon insights from Peattie and Peattie (2003). The Peatties stress the significance of aligning marketing efforts with sustainability goals, emphasizing that the way green products are marketed can significantly affect consumers' intentions to purchase them. Their research suggests that strategic communication and marketing techniques can enhance the appeal of energy-efficient products in the Kerala market.

Additionally, studies like those by Chen and Chang (2012) and Lee *et al.* (2009) provide valuable insights into the factors driving consumers' intention to purchase green and energy-efficient products, which can be applied to the Kerala context. These studies emphasize the importance of factors such as perceived value, trust, and environmental attitudes in influencing consumers' purchasing decisions, shedding light on how these elements may operate in the unique market conditions of Kerala. Examining the factors that mediate or moderate the relationship between green marketing and energy-efficient product purchases in Kerala calls for a comprehensive understanding of the local market dynamics. Scholars like Biswas and Roy (2015) have explored the mediating role of environmental attitudes, suggesting that consumers' attitudes towards the environment may mediate the effect of green marketing on their energy-efficient product purchases. This insight is particularly relevant when considering how Kerala's cultural and environmental context may shape consumer attitudes and behaviors. Furthermore, other researchers, such as Chan *et al.* (2015), have examined the moderating effects of various variables like price sensitivity. Their

CHAPTER 8

Green Trends: Exploring the Power of Co-creation in Crafting Sustainable Fashion

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Abstract: This study explores the dynamic field of sustainable fashion, emphasising how co-creation can revolutionise fashion trends that are sustainable. It investigates how cooperative efforts among designers, customers, and other stakeholders might contribute to the creation and popularisation of eco-friendly methods while the fashion industry struggles with the environmental effects of fast fashion. The study develops a conceptual model based on a thorough literature review to analyse the role of co-creation in a sustainable fashion. Based on the insights gathered from the literature, the proposed conceptual model was framed to illustrate the key factors influencing sustainable fashion practices through co-creation. We explore the role of power dynamics in co-creation processes using case studies and industry examples, considering how they affect the adoption of sustainable materials, moral manufacturing practices, and circular fashion models. With the advent of social media and technology, collaboration between consumers and brands is contributing towards sustainable fashion. This chapter sheds light on the changing dynamics of the fashion industry and its potential to promote beneficial environmental change by examining the effects of co-creation on customer attitudes and actions. It emphasises how important it is for groups to work together to create green trends that satisfy both consumer demands and ecological responsibility.

Keywords: Co-creation, Environment, Fashion, Green trends, Sustainability, Sustainable fashion.

INTRODUCTION

The fashion industry, long lauded for its creativity and dynamism, often finds itself entangled in the threads of environmental exploitation and unethical practices (Claudio, 2007; Bick *et al.*, 2018; Niinimäki *et al.*, 2020). However, a revolutionary shift is emerging that rewrites the fashion narrative from a singular story of production and consumption to a vibrant tapestry woven through co-creation (Palakshappa *et al.*, 2024; BUJOR *et al.*, 2017). At a crossroad, the fas-

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hion industry—often linked to extravagance and temporariness—faces an urgent need to address the environmental effects of its rapid pace and constantly shifting aesthetics (Niinimäki *et al.*, 2020). The industry must reevaluate its core as ethical concerns and climate change become more pressing issues (Claudio, 2007). With sustainability and co-creation weaving a tale of hope, ingenuity, and shared responsibility, the chapter aims to shed light on the way forward. Vital to this investigation is the understanding that customers are now active participants rather than passive observers, seeking an active role in the items they choose to use.

With co-creation, customers may now become co-creators, collaborators, and contributors to the fashion story, marking a radical departure from traditional top-down design methods. It is an acceptance of a more democratic, inclusive discourse rather than the idea of fashion as a monologue. It is crucial to realise how urgent it is to acknowledge the environmental cost brought on by the fashion industry as we set out on this investigation. The environmental impact of fashion is evident, ranging from resource-intensive production procedures to the mountains of textile waste that is generated, leaving a huge negative impact on the environment. Each year, 92 million tonnes of textile waste are created (Igini, 2023). This collaborative approach, where designers, consumers, and even nature become active participants in crafting garments, fosters sustainable practices and injects the industry with fresh perspectives and innovative solutions.

Gone are the days of dictatorial trends trickling down from fashion houses to blindly obedient consumers. Today, empowered individuals yearn for a voice in the clothes they wear, demanding transparency, ethical sourcing, and environmental consciousness. This desire for conscious fashion aligns perfectly with the burgeoning co-creation movement, which envisions a future where consumers are no longer passive bystanders but active partners in the design process (Frow *et al.*, 2015).

This is not just about feel-good buzzwords; the potential of co-creation in achieving genuine sustainability is undeniable. Imagine clothing upcycled from discarded textiles, infused with natural dyes created in community workshops, or customized with locally sourced materials – all co-designed by the very people who will wear them. Such collaborative practices promote resourcefulness, reduce waste, and celebrate cultural diversity, paving the way for a more mindful and environmentally friendly fashion ecosystem. By venturing beyond the traditional top-down model, co-creation invites us to reimagine the entire lifecycle of a garment, from the selection of raw materials to the end-of-life stage. Open-source platforms allow designers to crowdsource ideas, while recycling initiatives empower communities to transform discarded clothing into vibrant new creations.

As Kate Fletcher emphasises in her book “Overconsumption,” “We need to move away from mass production and mass consumption towards a more personalised, localised, and circular system” (Fletcher, 2014). Co-creation serves as a potent catalyst for this transformation, fostering a sense of ownership and responsibility that extends far beyond the point of purchase.

This is not to say that the path ahead is free of challenges. Integrating diverse perspectives and navigating logistical complexities require a shift in mindsets and business models. Yet, the potential rewards are immense – a fashion industry that is not only commercially viable but also ecologically sound and deeply connected to the communities it serves.

At the centre of rapidly evolving consumer products lies the dynamic industry of fashion. The fashion industry encompasses more than just the design and style of apparel, accessories, and shoes. The apparel market includes every type of clothing, including business and sportswear, as well as affordable and luxurious items (Smith, 2023). It also involves the production, supply, distribution, and sales of these products, all of which are backed by a global network of manufacturers and workers in the retail and manufacturing sectors of the business. Consumer demand, which drives up production and sales, is the source of the fashion industry's power and appeal (Statista, 2022). The biggest B2C eCommerce market is fashion. The fashion business is predicted to bring in US\$760.00 billion in sales by 2024. The fashion market is expected to have 2.9 billion users by 2028 (Statista, 2023). This industry has grown astronomically during the last few decades; between 2000 and 2014, the apparel output doubled. People only wore apparel for half as long in 2014 as they did in 2000 while buying 60% more of it (Remy *et al.*, 2016). The fashion industry is expanding quickly, but this growth has a number of negative consequences on the environment for which it is responsible. The apparel sector is responsible for 10% of the world's carbon emissions and depletes water supplies, and contaminates rivers and streams. Furthermore, each year, 85% of the world's textile waste ends up in landfills (UNECE, 2018). Fast fashion, in particular, is extremely popular among the masses and is easily accessible to consumers worldwide, but it comes with a huge price to the environment. It is imperative that we reconsider fast fashion in light of the environmental and social costs associated with it. This also highlights the need for more sustainable business structures and practices (Geneva Environment Network, 2023). More frequent introduction of new lines by garment manufacturers has also been made possible by shorter lead time. On an annual basis, Zara introduces 24 new apparel collections; H&M launches 12 to 16 and updates them on a weekly basis (Remy *et al.*, 2016), but this increase in production and consumption has a severe negative impact on the environment, and brands need to make sustainability a goal and take preventive measures. Due

CHAPTER 9

Digitization in Agriculture: Leveraging the Digital Economy for Enhanced Supply Chain Efficiency and Sustainability

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Abstract: The global agricultural supply chain is of paramount importance, serving as the backbone of food production system and a significant contributor to the global economy. However, traditional agricultural supply chains have long faced challenges related to inefficiency, waste, and a lack of transparency. The emergence of the digital economy has ushered in a new era of agricultural innovation, offering solutions to these longstanding issues. This paper explores the transformative impact of digital technologies in enhancing agricultural supply chain efficiency and sustainability.

The adoption of digital technologies, including the Internet of Things (IoT), blockchain, Artificial Intelligence (AI), and data analytics, has revolutionized agriculture.

The paper highlights the positive environmental and social impacts of digital technology adoption in agriculture, such as reducing chemical use, improving water management, and enhancing food safety. However, it also addresses concerns about labor displacement and data privacy.

As the agriculture sector continues to evolve to meet the demands of a growing global population and adapt to a changing climate, the digital economy is expected to play an increasingly significant role. The paper underscores the transformative potential of these technologies, shaping the future of food production and distribution, with a strong focus on efficiency and sustainability.

Keywords: Agriculture, Digital economy, Digital technologies, Supply chains, Sustainability.

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INTRODUCTION

Agricultural supply chains play a pivotal role in ensuring the production and distribution of food, making them not only a cornerstone of global food security but also a critical component of the global economy. According to the Food and Agriculture Organization (FAO), agricultural supply chains support the livelihoods of over a billion people worldwide, with food systems contributing approximately 10% to the global GDP (FAO, 2021). Moreover, disruptions in these supply chains, such as those caused by climate change, geopolitical conflicts, and pandemics, have led to significant food shortages and price volatility, highlighting their central role in economic stability and food security (World Bank, 2022). Given their importance, strengthening agricultural supply chains is essential for sustaining global food production and ensuring equitable access to food resources. The importance of agricultural supply chains can be understood through the following key points:

- **Food Production:** Agricultural supply chains are the backbone of food production, encompassing the processes involved in planting, cultivating, harvesting, processing, packaging, and distributing agricultural products. Without efficient supply chains, it would be virtually impossible to get food from the fields to the consumers' tables.
- **Global Food Security:** The ability of a nation or region to feed its population is directly linked to the efficiency and resilience of its agricultural supply chains. In a world with a growing population, ensuring that food reaches those who need it is of paramount importance. Effective supply chains are essential to prevent food shortages, reduce food waste, and address food security challenges.
- **Economic Contribution:** Agriculture is a significant contributor to the global economy. It encompasses not only the production of raw materials but also the agri-food sector, which includes food processing, distribution, and retail. Agricultural supply chains create livelihoods for millions of people, support various industries, and contribute significantly to a country's GDP.
- **Trade and Export:** Agriculture is an international business, and the efficient functioning of agricultural supply chains is critical for international trade. Many countries rely on exports of agricultural products to boost their economies. Global supply chains ensure that these products reach international markets, enabling trade and economic growth.
- **Innovation and Sustainability:** With the global focus on sustainability, agricultural supply chains are evolving to reduce their environmental impact. Sustainable practices in agriculture and supply chain management are crucial to preserve natural resources, reduce waste, and mitigate climate change. The adoption of digital technologies and precision agriculture is transforming supply chains to be more sustainable.

- **Meeting Consumer Demand:** As consumer preferences and demands change, supply chains must adapt. Consumers are increasingly looking for diverse, organic, and locally sourced food products. Supply chains play a key role in meeting these demands and ensuring that consumers have access to the food choices they desire.

CHALLENGES FACED BY TRADITIONAL AGRICULTURAL SUPPLY CHAINS

Traditional agricultural supply chains face a range of challenges that can impede their efficiency, sustainability, and ability to meet the demands of a rapidly changing world. Some of the key challenges include:

- **Limited Visibility and Traceability:** Traditional supply chains often lack transparency, making it difficult to trace the origins of agricultural products. This lack of visibility can result in food safety concerns and difficulties in addressing issues such as contamination or disease outbreaks.
- **Inefficiencies in Production and Distribution:** Traditional supply chains may involve multiple intermediaries, leading to inefficiencies, delays, and increased costs. Excessive handling and transportation of products can result in product deterioration and waste.
- **Resource Management:** Traditional farming and supply chain practices may not prioritize resource efficiency. Overuse of water, chemical fertilizers, and pesticides can lead to environmental degradation and reduced agricultural sustainability.
- **Market Access and Inequities:** Smaller, less affluent farmers may struggle to access wider markets. They may lack the means to compete with larger, more established players. This can perpetuate inequalities in the agricultural sector.
- **Weather and Climate Variability:** Agricultural supply chains are highly vulnerable to the effects of climate change. Extreme weather events, changing rainfall patterns, and increased temperatures can lead to crop failures and disrupt supply chains.
- **Lack of Technological Adoption:** Many traditional supply chains have been slow to adopt modern technologies such as data analytics, IoT, and precision agriculture. This results in missed opportunities for improving efficiency and reducing environmental impact.
- **Food Safety and Quality Concerns:** Traditional supply chains may struggle to meet evolving food safety and quality standards. These challenges can lead to issues with product recalls and consumer trust.
- **Rural to Urban Migration:** Younger generations in rural areas often migrate to urban centers in search of better economic opportunities. This trend can lead to a reduced labor force in agriculture, impacting traditional farming practices.

CHAPTER 10

Community Based Branding: An Inclusive Marketing Model for Tea Industry in India Addressing the Sustainable Development Goals

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Abstract: The project is fundamentally based on the premise of social-environmental-commercial sustainability goals, which has become a mantra for enterprises and businesses across the world, especially for the ones that work closely with the community and society. A community or indigenous branding project can significantly enhance the value of a place and the enterprise or firm associated with it, and at the same time, address the issue of climate change and reduce excessive dependence on pure-play commercial branding elements. A focused branding approach towards the development of ethnic groups and integrating their identity and culture into the brand would lead to a reduction of commercial marketing activities, which adds to more emissions and would bolster community-based sustainable marketing and consumption. The purpose of this research is to develop a comprehensive digital flavour (food and culture) map for hundreds of tea gardens in the eastern region of India, which can later be extended to the remaining geographic locations of the country where tea gardens are present. This flavour map is not going to be a mere tool for navigation but will become a bedrock of the symbiotic relationship between ethnic communities and enterprises in India. This will play a formative role in providing impetus to gastronomic and cultural tourism and more importantly, contribute towards achieving four interlinked objectives of sustainable development goals namely, climate action, reduced inequalities, responsible consumption and production, and partnership for goals.

Keywords: Branding, Community, Flavour map, Inclusion, Sustainability.

INTRODUCTION

The relationship between growing inequalities, the concentration of wealth, polarised commercial activities, and growing emissions has been established. The world's wealthiest nations are disproportionately responsible for global warming

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to date, as reported by the United Nations. Rich countries, including the United States, Canada, Japan, and much of Western Europe, account for just 12 percent of the global population but are responsible for 50 percent of all the planet-warming greenhouse gases released from fossil fuels and industry over the past 170 years (Global carbon project, Annex II, United Nations). Further, following the same guidebook for development, some of the world's largest developing countries have also embarked on the same journey. For example, China, home to 18 percent of the world's population, has been responsible for nearly 14 percent of all the planet-warming greenhouse gases released from fossil fuels and industry since 1850. But today it is the world's largest emitter by far, accounting for roughly 31 percent of carbon dioxide.

It is not that distancing an economy from industrialization is the way to reduce emissions, but working closely with communities and building an inclusive and participative model can reduce dependence on excessive commercial marketing activities to the extent of exploitation. Technology can be made to play an integrative role by bringing enterprises/brands and local communities together as a part of the value chain.

The integration of technology with local communities and their values can create an organic pull for modern tourists who can become new residents (temporary) in those communities (Ticau, Cioranu, and Stoicescu, 2022).

The proposed digital tea flavour map is expected to bring people together organically through gastro-cultural tourism. It will help in the natural balancing of consumption (food and culture) with travel and tourism without excessive commercial marketing activities, which lead to more emissions. As, local communities are going to be part of the map, with tea, food, and culture as the central architects, inequality would be naturally addressed. There will be a higher and deeper convergence of cultures (between guest and host). Sustainable development demands participation, which can be achieved to a large extent by this approach. The idea is to look for ways to access and attract end-consumers who value sustainability and high quality. The method would remain the same: pursuing high-quality tea production and focusing on food and cultural branding.

The project would also be an attractive proposition for tea brands or enterprises that are in the commercial tea business and for tea gardens. Indian companies are blessed with a market size (domestically), which is very often compared metaphorically with the size of a continent (in terms of population and consumption potential). The exponentially growing aspirations of the people, who are majorly the young cohort seeking experience in each and everything that they consume, are compelling businesses to migrate from a commodity and product-

based business model to an experience-based model. Inclusiveness, integration, and experience creation have become priorities for businesses now. Companies like Nestle and Unilever have adopted this model long back and hence, have become ubiquitous. The commercial benefits of working closely with the community are undeniable. This creates a sustainable stream of revenue and profits at a significantly lower cost, for the company.

In the year 2022, Airbnb, the largest accommodation provider across the world and the disruptor in the hospitality business partnered with more than 1,20,000 wine yards to create a unique vacation experience for people who are interested in wine tourism. As a matter of fact, people across the world are demonstrating a willingness to stay in such properties and are ready to pay more for a unique experience.

The same trend is also observed for coffee and tea consumption. As people have started spending more on experiences rather than only consumption, there is a greater scope for engaging the community in the process of value creation. Naturally, when people travel to different destinations, the indigenous businesses prosper and evolve to match the expectations of the guests and thereby, turn themselves into “entrepreneurial hosts”.

LITERATURE REVIEW

The availability of literature in this area is not substantial as the idea of community-based branding and its impact on social and environmental sustainability needs long-term focus and commitment. It also demands the involvement of various types of stakeholders.

Though, some of the works done by scholars in the past have highlighted the importance of community-based branding but had no connection with SDGs.

Community-based branding involves the development of brand identities, narratives, and relationships that resonate with and are co-created by local communities. It emphasizes collaboration, authenticity, and shared values between brands and their communities (Aaker, 1997; Hatch & Schultz, 2010).

Community-based branding draws on social identity theory, which posits that individuals derive a sense of self from their identification with social groups. Brands can leverage this by aligning with community identities to foster stronger connections and loyalty (Tajfel & Turner, 1979).

Research on brand communities explores how consumers form relationships with brands and with each other based on shared interests, values, and experiences.

CHAPTER 11

Role of Marketing in Traditional Crafts: An Empirical Study Towards Rural Sustainability

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Abstract: The present study focuses on the issues and challenges of marketing image, and its prospects in Bharatpur, a rural village in the Kandi subdivision of Murshidabad district in West Bengal (India) for their Pattachitra. Rural villages offer a distinctive and separate marketing landscape that necessitates specialized research investigations to ascertain suitable marketing strategies. The marketing image holds significant importance in shaping consumer behavior and achieving business triumph. Nevertheless, executing marketing image strategies in a rural village can present distinctive prospects and obstacles. Through an examination of relevant literature and case studies, this paper seeks to provide valuable perspectives for marketers and businesses looking to navigate and thrive in rural village markets. The study further analyses the role of marketing in promoting rural craft and the impact of various independent variables on four different dependent variables by using four regression models, *i.e.*, product, price, place, and promotion models. The dependent variables were extracted as principal components scores, and significant relationships between the dependent and independent variables were studied using multiple regression analysis. The study found that digital access contributes significantly to the pricing of Pattachitra arts which may help in promotion in rural areas of Bharatpur, West Bengal.

Keywords:: Marketing image, Marketing strategies, Patuas, Pattachitra, Principal components analysis.

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INTRODUCTION

Marketing plays a crucial role in expanding the reach of rural crafts and captivating potential customers. Additionally, it aids in building a distinctive brand identity and fostering a positive perception of rural crafts among consumers (Lekhanya and Mason, 2013). Bharatpur is a village in the Bankura district known as “Chitrakar village.” Its headquarter is Chhatna block. This village is situated in the lap of Sushunia hill. In the winter season, lots of tourists come to Sushunia Hills to enjoy the scenic beauty, and for trekking and picnics.

At such times, travelers also purchase unsought craft products. Most of the travelers are familiar with the terracotta items of Bankura, but they are not aware of the Pattachitra, which brings the glory of the Bankura district. Moreover, pricing can present a hurdle in rural areas due to the notable variations in purchasing power between the local population and urban areas (Susilo *et al.*, 2020). Determining the optimum pricing strategy that strikes a balance between affordability for customers and profitability for businesses can be a challenging task (Lekhanya and Mason, 2013). Through effective marketing strategies, rural crafts can distinguish themselves from mass-produced goods and attract consumers who appreciate artisanship and cultural traditions. Additionally, marketing plays a crucial role in establishing market connections and networks to promote rural crafts effectively.

LITERATURE REVIEW

Ghosal *et al.* (2020) found that artisans in India as well as West Bengal use traditional technology for their art work. They have no intention of bringing innovation to their production. Illiteracy, lack of awareness about modern information technology and applications in businesses, lack of awareness about the usage of online marketing facilities, interference of middlemen, and the usage of artificial or synthetic materials for their craft work pull the artisans behind in the competitive market.

According to Guha *et al.* (2021), social media plays an important role in the promotion of craft work. But, most of the artisans have no knowledge about the social commerce facilities. Illiteracy and poverty have stopped them from using social media as a promotional tool for craft items. Datta and Bhattacharyya (2016) found that artisans in India use limited product lines. They are unaware of the modern technology of production. The demand for craft products is heavily influenced by the income elasticity of consumers. Many artisans lack familiarity with contemporary promotional techniques for marketing and showcasing their goods.

A significant number of them rely on family members to act as sales representatives for their craft items. Due to poverty and limited financial resources, they are unable to utilize electronic media for advertising their products. Trade fairs and exhibitions serve as popular platforms for promoting artwork. However, the rising costs of transportation discourage artisans from participating in such events. Ghosh (2014) highlighted that lack of market opportunities, price hikes in transportation costs, small market expansion, and the demotivation of young artisans are the major problems faced by the rural artisans in West Bengal. These obstacles lead to sustainability issues, including low productivity, inadequate wages, and unpleasant working conditions for rural artisans (Bandyopadhyay, 2020).

Ghosal and Prasad (2019) show that a lack of awareness about modernization, unawareness about the competitive market, lack of awareness among consumers for craft items, and having no idea about proper branding and packaging strategies of craft items compel them to migrate their work into another profession. Devaraj (2021) found that the obstacles encompass a deficiency in knowledge regarding modernization, unfamiliarity with the competitive market, a lack of awareness among consumers regarding craft items, and a restricted comprehension of branding and packaging strategies for craft items.

OBJECTIVES OF THE STUDY

The major objectives of the present study, based on the above literature review, are:

- To discuss the issues and prospects of marketing image on Pattachitra in Bharatpur village.
- To analyze the role of marketing in promoting rural craft in the context of Pattachitra.
- To conduct analysis by using four regression models namely Product Pricing Model, Marketing Communication Model, Target Market Model, and Product Development Model.

RESEARCH METHODOLOGY

A. Data

B. The data used in the present study was collected through a primary survey using 19 questions (Table 1) in Bharatpur village during the period December 2022 to May 2023. The respondents were the residents of the village, herein referred to as “Patuas.” A total of 250 respondents were surveyed out of which 245 completed the survey. After clearing the data for outliers, a total of 211 respondents’ data was considered for the study. The sample consisted of 119

CHAPTER 12

Sustainable Packaging Strategies**Renu Agarwal^{1,*}, Harini Palani¹ and Sri Varshni Jayaraman¹**

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Abstract: The packaging business is experiencing a shift in perspective towards sustainability as a result of rising environmental consciousness globally. The shift to environmentally friendly alternatives is essential because of serious pollution and resource depletion caused by traditional packaging materials. Among the most important strategies is the incorporation of environmentally friendly resources, like recycled content and biodegradable polymers. This shift reduces the impact on the environment and brings businesses in line with the increasing demand from customers for products that have been produced wisely. Sustainable packaging is defined as identifying, creating, and applying packaging solutions that have the fewest adverse consequences on the environment. It is a packaging that is created and utilized to improve sustainability including package usage guidance, life cycle assessment, and inventory management, which should be used more regularly. Replacing the petrochemical resources with biological-derived resources named bio-based packaging, such as starch and edible film, is considered a sustainable way of packaging. Sustainable packaging must be considered seriously while assessing environmental sustainability. The strategies to be followed for sustainable packaging have been discussed in this chapter. The essentiality of adhering to the standards, as evidenced by the Bureau of Indian Standards (BIS) for both environmental and public health safety, has been analyzed briefly. The 5 R's of sustainability, which comprise refuse, reduce, reuse, repurpose, and recycle, are discussed under the strategies in addition to the creative ways of informing the consumers regarding sustainability.

Keywords: Bio-based packaging, Environment, Packaging, Sustainability, 5.R's of sustainability.

INTRODUCTION

In the year 1987, the World Commission on Environment and Development defined the term, Sustainable Development as “Addressing the current demands without sacrificing the capacity of future generations to address their own needs”

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In the corporate sector, eco-friendly activities used to be highly innovative. Going green was something that only specialized or progressive businesses would advocate for a few years ago. However, sustainable methods are no longer optional; rather, they are quickly becoming the norm. Everyone is responsible for environmental preservation because there is only one habitable planet.

Sustainability is the capacity of a process to continue over an extended period. Three fundamental ideas are commonly used to define sustainability which are;

- Economic
- Social
- Environmental

Economic sustainability refers to an economy's capacity for sustained growth, achieved through effective resource management and the equitable distribution of wealth. The idea of social sustainability ensures fair access to improve the well-being of individuals. Consideration of environmental sustainability necessitates consideration of sustainable packaging. Finding, creating, and utilizing packaging solutions with the least amount of negative environmental effects is known as "Sustainable packaging." Packaging that is developed and used to increase sustainability is known as sustainable packaging. This entails using life cycle assessment and assessing the inventory more frequently to assist in directing the usage of packaging. One relatively recent contribution to the concerns about the environment for packaging is sustainable packaging. The use of limited materials, energy conservation, recycled content, recyclable, reusable packaging, and the use of biodegradable and compostable supplies are some examples of factors that go into such package design. The principles of sustainability are Reuse, Recycle, and Reduce (Sustainable Packaging Coalition, 2006).

Impact of Modernization on Goods

Unprecedented digitalization brings a new perspective on goods and speeds up sustainable production and consumption. The interaction between people and manufacturing machines has been the primary focus of the contemporary era to promote social and economic well-being as well as sustainable development objectives. The packaging strategy ought to adjust to the changing demands of consumers for goods that are safe and of high quality, as well as for recyclable or ecologically friendly packaging. As a result, new technologies are being applied to the packaging of goods to enhance product quality, extend shelf life, cut waste, and have a positive environmental impact.

Intelligent packaging extends a product's shelf life while simultaneously making it possible to trace and monitor a product's quality and safety. The technological

advancement necessitates new business approaches, which calls for innovative and knowledgeable insight to study this shift.

Furthermore, as customer interactions are now crucial to a company's success, a volatile, unpredictable, complex, and ambiguous environment suggests that businesses prioritize the requirements of their customers and wish to acknowledge their influence on their business models. The development of smart packaging helps in waste reduction in addition to the provision of information about the product packed, and track of the product during transit (Palazzo, 2023).

The 5 R's of Sustainability

The 3 R's of sustainability have now transformed into the 5 R's, which include refuse, reduce, reuse, repurpose, and recycle. Various industrial sectors obtain this strategy, especially sectors such as food and beverage, healthcare, wholesale and retail, *etc.* This principle functions as a guideline to promote a less wasteful and more sustainable life. The first step, "Refusing," involves eliminating anything that is not needed, as shown in Fig. (1). "Reducing," as the second step, suggests the reduction of any material that is wasteful, harmful, and non-recyclable. The third R of "Reusing" the waste helps in saving energy, money as well as resources used. The idea of "Repurposing" is the fourth step involving the upcycling of the used products, and the last R of the 5R process is "Recycling," which is a form of waste management that focuses on converting waste into reusable materials (Com *et al.* 2022).

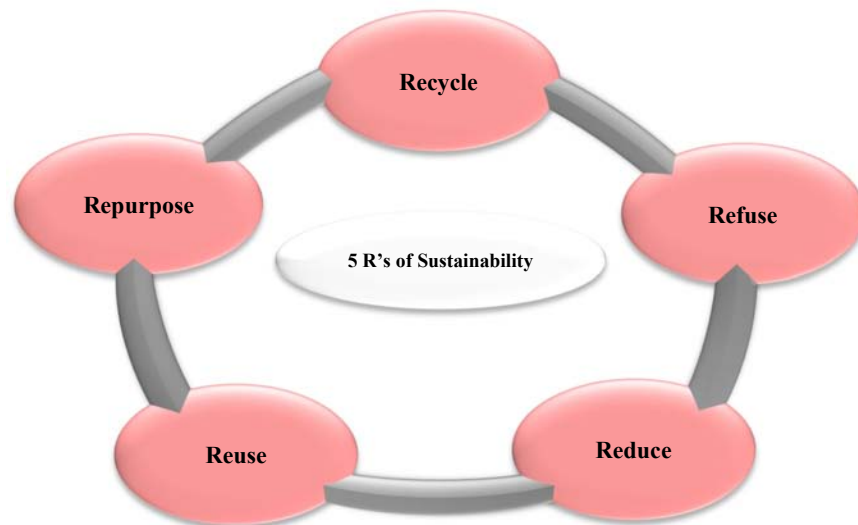


Fig. (1). 5 R's of sustainability.

Public Private Initiatives to Support Sustainable Tourism- An Innovative Approach

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Abstract: Promoting sustainable tourism is crucial for fostering economic growth, social responsibility, and environmental preservation. This study focuses on assessing the role of Public-Private Partnerships (PPPs) in sustainable tourism development and their impact on poverty alleviation in host communities. Using an explorative design, the research extensively reviews international and national literature to provide insights into the historical background, objective, and relevant works to design models for sustainable tourism through a joint alliance between private and public institutions to serve the larger interests of the majority of stakeholders. The study identifies four key pillars—product and business development, capacity development, utilization of Information and Communication Technology (ICT), and managerial efficiency—as integral components for enhancing socio-economic sustainability and environmental conservation within the tourism industry. The findings of the study will contribute to ongoing initiatives in alignment with Sustainable Development Goals fulfilling the socio-economic interests of local communities and governments. The wide-scale applicability to diverse geographical regions across boundaries underlines the expected long-term benefits of a collaborative approach to sustainable tourism development to alleviate poverty. The research work crafts a theoretical framework for achieving socio-economic and environmental goals by identifying the critical factors and limitations, giving valuable insights into the effective implementation of the PPP model for sustainable tourism development, and recommendations for similar studies in the future.

Keywords: Environmental conservation, Public-private partnership, Socio-economic growth, SDGs, Tourism development.

INTRODUCTION

Tourism is one of the largest employment generating service industries that consumes huge amounts of natural resources from the environment. Although local economies and countries have flourished economically with rapid growth in tourism, it has led to faster depletion of natural resources for the local community

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due to overcrowding, pollution, waste disposal, and other resource management issues. Local residents have been raising awareness about the negative consequences affecting their community. These consequences have prompted leaders and governments of many nations to engage in discussions and formulate strategies to address stakeholder concerns. Numerous researches that highlighted the positive impact of tourism on economic growth and development triggered the development of tourism at an unchecked pace failed to identify the social and environmental concerns that have threatened the ecological biodiversity and livelihood of local residents.

Sustainability confers economic, socio-cultural, and environmental dimensions of development in tourism, according to the World Tourism Organization (UNWTO). It strikes a balance between social benefits and social cost of tourism within a region which follows the triple bottom line approach. Sustainability concerns require a comprehensive measurement scale and rational framework to address the concerns of development competitively yet with differentiation and innovation. Therefore, sustainable tourism is not a product but rather an ethos that is fundamental to integrating socio-economic benefits and environmental considerations for the long-term viable interest of stakeholders.

Increasing tourist awareness of climate change, the socio-economic interests of the community, and the regulatory framework of the governments across borders have defined the persistent need to address the delicate equilibrium among all aspects. However it requires revising current production and consumption patterns as per the sustainability benchmarks of regenerating the resources (Antimova *et al.*, 2012; Manniche *et al.*, 2021). However, the evaluation of the needs of tourists, host community, industry, and environment can be addressed through strategic involvement of the corporate industry that comprises a vital element of the tourism vertical. Incremental efforts of industry pursuing socio-economic benefits along with reducing the negative impact on the environment like—reduction in carbon emissions, pollutants, solid waste, and deforestation (Gross and Grimm, 2018).

World Tourism Organization underlines three prime elements of sustainable tourism: optimal use of environmental resources, respect for cultural heritage framework, and ensuring viable socio-economic opportunities for the host community. The Ministry of Tourism unveiled “The National Strategy for Sustainable Tourism and the Responsible Traveler Campaign” based on the guidelines and discussion under Sustainable Development Goals by the United Nations for fostering long-term economic. Financial and social-cultural stability for conservation of natural resources with effective use of information, education, and communication technology for capacity building, governance, and

certification schemes. National Tourism Authorities are looking forward to establishing a long-term collaborative and strategic relationship between private entities, non-government organizations with better technological knowledge, resources, and managerial efficiency along with public agencies having more control over natural resources and funds (Central financial assistance) to promote sustainability practices in the tourism industry (GOI., 2022).

Public Private Partnership fosters a strategic bond between the different entities that cater to the long-term sustainable development goals of collective governments of the world to bring socio-economic benefits and address environmental concerns. The mutual gains with effective resource utilization and accountability address the financial, technical, and managerial concerns. The public sector projects were facing numerous hurdles due to poor commitment, lack of trained and skilled personnel, and risks from time and cost overruns. The PPP model in the past decade has been a successful depiction of sharing collective responsibility through ethical industry practices and governance (Franco and Estevao, 2010). It has addressed the government concerns for infrastructure development (Mumbai Airport, Delhi Airport, Bangalore Airport, and Cochin Airport), developing professional skills to stimulate sustainable development of economic markets and cultural heritage centres (Wong *et al.*, 2012; Aggarwal and Suklabaidya, 2017). It further ensures better quality and faster delivery of products and services. The innovative approach of a unique partnership of academia, industry, host community and government in developing nations will answer the investment and managerial concerns with a broader perspective. The research study tries to identify the promising factors and limitations of Public Private Partnership models aligned with social and economic benefits and address climate change and other sustainability issues.

REVIEW OF LITERATURE

Destinations worldwide confront serious and potentially irreversible repercussions stemming from the growth and advancement of tourism. Blundell *et al.*, 2020 state strategies such as limiting access to identify the unintended adverse effects. The study aims to conduct a semi-structured survey in Australia to understand the relationship between Dark Sky Tourism (DST) and sustainability within the context of regional tourism. It develops a conceptual model outlining sustainability ethics and education.

Tourism research increasingly focuses on sustainability, community engagement, and environmental considerations. (Ohe, 2019) underscores the significance of

CHAPTER 14

Challenges and Opportunities of Implementing Sustainable Marketing Strategies

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Abstract: As competition intensifies, Marketing sustainability has become a useful tool for any business that wants to maintain profitability while being socially and environmentally responsible. This chapter investigates the barriers to and the prospects for using sustainable marketing strategies, paying particular attention to how these strategies impact brand equity, customer loyalty, and compliance with laws and regulations. Some of the key challenges include costs, concerns over greenwashing, and integration into supply chains. Drawing from empirical and scholarly literature, the chapter provides relevant suggestions to overcome those challenges. The results deepen knowledge of sustainable marketing, suggest policy recommendations for business corporate social responsibility policies, and guide future studies.

Keywords: Challenges, Marketing strategies, Opportunities, Sustainability, Sustainable marketing strategies.

INTRODUCTION

The modern goal of growth and development of any business requires building strategies around socially and environmentally responsible sustainable marketing. This approach tackles the problem of marketing growth and profitability, taking advantage of the increasing consumer concern and regulatory scrutiny on sustainability. Unlike traditional marketing, which focuses on profit maximization in the short run, sustainable marketing seeks to achieve profitability while integrating ethical, social, and environmental concerns into business practices for enhanced brand value and consumer loyalty over time. Nevertheless, adaptable marketing faces numerous hurdles including cost restrictions, legal frameworks, and doubts of the consumers regarding the sustainability claims made by the businesses.

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Debates in Literature

The last few decades have witnessed considerable evolution in the ideas and practice of sustainable marketing. It is understood, in most simple terms, as the attempt to integrate marketing environmental, social, and ethical concerns with the triple bottom line profitability for the business in the long run effectiveness. A growing pool of literature studies suggests that sustainable marketing can increase brand loyalty, improve corporate reputation, and sustain competitive advantage in a more responsible marketplace (Ottman, 2011; Belz & Peattie, 2009). This is called business CSR and responsible consumption. It should optimize businesses' market positions while achieving broader societal objectives (Carroll, 1999). While most practitioners accept these advantages, there are more unanswered questions – how to implement sustainable marketing strategies in practice?

Contradicting that viewpoint, some researchers point out the merits of establishing sustainability-oriented practices, which include positive financial returns and increasing brand goodwill. Geissdoerfer *et al.* (2017), for instance, argue that sustainability can serve as the basis for innovations that can facilitate the development of markets as well as ensure long-term loyalty from consumers. Contradicting that viewpoint, some Polish scholars (Polonsky 2011) and “Martin and Schouten” (2012) raised other issues that stem from the phenomenon of sustainability. These issues consist of the hesitancy of consumers to pay a premium for sustainable goods, the underlying complications of greenwashing, and the relatively large expenditures that must be covered to initiate useful sustainability practices. Moreover, there is still no agreement on whether those methods are successful in creating a real sustainable impact.

Using Empirical Evidence To Identify Gaps and Objectives in the Research

Although there is greater attention to sustainable marketing, gaps remain unaddressed. First, the majority of studies conducted on the concept of sustainability have tended to neglect the empirical aspects of what challenges businesses face when trying to achieve these sustainability goals. Second, the influence of sustainable marketing practices has not been sufficiently studied within different industries or global cultures. Third, the marketing literature tends to neglect internal stakeholders such as employees or supply chain managers who can contribute to the successful implementation of sustainable marketing. All these gaps need to be filled in order to formulate specific and effective strategies for sustainable marketing.

This chapter intends to achieve the objectives outlined above by carrying out the following steps:

- Analyze the role of sustainability in customer retention for increased customer loyalty.
- Determine the value of companies adopting sustainable marketing policies and practices.
- Identify the issues that marketers encounter during the application of sustainable marketing.
- Devise adequate answers to the problems stated above to enable the successful implementation of sustainable marketing policies.

Motivation and Contribution

This study's foremost contribution is for both scholars and practitioners – it provides a framework for understanding sustainable marketing approaches businesses can utilize through the integration of concepts found in scholarly writing and reports from the field. In addition, the results keep alive the debate on the practice of sustainable marketing and provide useful hints to policy makers as well as business managers. The study furthers the knowledge of how sustainable marketing leads to enduring value creation as it encapsulates corporate profit with social and environmental obligations to society. Further, the developed findings are more than just an academic curiosity; they are also practice-oriented in that they help businesses and other strategic marketing units to answer the question of how to deal with the major challenges of sustainable marketing practice.

DISCUSSION

“A successful sustainable marketing strategy is not just about selling products; it's about selling values, building trust, and inspiring positive change in the society and environment, for now and future generations.” Implementing sustainable marketing strategies is the only way to survive and grow profitably. But, at the same time, every new opportunity brings with it its own challenges!

To Understand the Importance of Sustainability

In the paper titled *Sustainable Marketing Strategies as an Essential Tool of Business*, Jin Yong Park, Shriram V.P., Shouvik Sanyal, and B An. Nguyen (2022) claimed that sustainable marketing benefits the environment and the business by developing goods and services with environmentally and socially acceptable features. These beneficial characteristics encourage brand loyalty and support best practices. Sustainable marketing is not limited to particular products or transient promotions; rather, it incorporates the goals of the entire firm. However, it might be emphasized for short periods of time for certain goals, such as increasing awareness of some of the business's unique selling propositions (White *et al.* 2019).

CHAPTER 15

Can Agile Principles Help Businesses to Become More Sustainable?

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Abstract: The Agile Manifesto emphasizes core principles such as individual interaction, working software, customer collaboration, and responding to change. It is a framework that allows teams to tailor it according to their specific needs, unlocking its potential for adaptability and success. Sustainability has become a crucial factor for modern business success, as consumers demand ethical practices and transparency from brands. Businesses that operate sustainably attract and retain top talent. They also reduce costs through resource efficiency, waste minimization, and lower energy consumption. Proactive sustainability efforts can mitigate regulatory risks and prepare businesses for stricter environmental and social governance standards. This chapter explores the potential of agile principles in promoting sustainability in firms. It uses theoretical perspectives, empirical insights, and practical implications to develop innovative strategies for sustainable business practices in a rapidly changing global market. The methodology, based on secondary data sources, explores the relationship between sustainability and agile principles, their similarities, instances of integration, obstacles, benefits, and methods. The paper provides a comprehensive overview of agile principles, their connection to sustainability, their association with sustainable practices, practical strategies for managers to enhance sustainable practices, and calls for future research in this area, emphasizing the importance of iterative, collaborative, and adaptable work methods in driving sustainable business practices.

Keywords: Agile, Agility, Business efficiency, Sustainability, Sustainable business.

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INTRODUCTION

The Agile Manifesto outlines core principles favoring individuals and interaction over processes, working software over documentation, customer collaboration over contracts, and responding to change over following a plan (Schwaber and Sutherland, 2017). Beyond these, additional values like sustainable development, self-organizing teams, and technical excellence contribute to an iterative and adaptable approach (Agile Alliance, 2023). Remember, Agile is a framework, not a rigid set of rules, allowing teams to tailor it for their specific needs and unlock its potential for adaptability and success. In today's world, sustainability has transcended being just a good PR move and transformed into a crucial factor for modern business success. Consumers are increasingly environmentally and socially conscious, demanding ethical practices and transparency from brands (Cone Communications, 2023). Businesses that operate sustainably attract and retain top talent who seek purpose-driven workplaces. Moreover, sustainable practices can reduce costs through resource efficiency, waste minimization, and lower energy consumption (WBCSD, 2021). Additionally, proactive sustainability efforts can mitigate regulatory risks and prepare businesses for stricter Environmental and Social Governance (ESG) standards (UN Global Compact, 2023). By embracing sustainability, businesses not only contribute to a healthier planet and society but also ensure their own long-term resilience and profitability. Exploring the intersection of Agile and sustainability offers immense potential for modern businesses due to their shared values and complementary approaches. Both Agile and sustainability emphasize continuous learning, adaptation, and collaboration. Agile's iterative feedback loops align well with the dynamic nature of sustainability challenges, allowing for quick course correction and innovation (Schwaber & Sutherland, 2017). Agile teams can rapidly experiment and implement sustainable solutions, minimizing waste and maximizing resource utilization, which directly contributes to environmental goals (Agile Alliance, 2023). Furthermore, the focus on stakeholder engagement in Agile extends to incorporating diverse perspectives on sustainability, building a shared commitment, and amplifying the impact. By strategically combining Agile principles with sustainability goals, businesses can unlock a powerful path to long-term success, contributing to a more positive and resilient future for themselves and the planet.

The purpose of this chapter is to advance academic knowledge and encourage discussion about how agile principles might help firms become more sustainable. In order to create novel strategies for sustainable business practices in a fast-paced global market, it synthesises theoretical viewpoints, empirical insights, and practical implications. Regarding methodology, this chapter was written by reading scientific articles from a number of sources, such as Springer Link,

Science Direct, Wiley Online Library, and Google Scholar. All of its foundation comes from secondary data sources. The terms “Agile,” “sustainability,” “agility and sustainability,” and “agile sustainable business” have also been used in other internet sources in addition to these ones. The most recent information regarding the notion of sustainability in business, the relationship between sustainability and agile principles, the similarities between sustainability and agile, instances of companies integrating sustainability and agile practices, obstacles and difficulties in putting agile principles into practice for sustainability, potential benefits of doing so, and methods for doing so have all been researched and compiled.

UNDERSTANDING AGILE PRINCIPLES

Agile methodology, popularized in software development, embraces an iterative and flexible approach to project management. Instead of rigid plans, it emphasizes adaptability and collaboration, focusing on Iterative Development by breaking down projects into short, manageable cycles (sprints), allowing for continuous feedback and improvement (Gomes Silva *et al.*, 2023). Managing Self-Organizing Teams by empowering cross-functional teams to make decisions and manage their work fosters ownership and agility. Agile Alliance (2023), enhancing Customer Collaboration by building close relationships with clients ensures continuous value delivery aligned with their needs (Schwaber and Sutherland, 2017). Working on the Continuous Improvement of the projects by embracing the idea that projects are never truly “finished” encourages ongoing learning and adaptation.

Key concepts within agile methodologies include Sprints (Fixed-length time periods dedicated to completing specific tasks), Kanban boards (Visual tools for managing workflow and optimizing team efficiency), Daily stand-up meetings (Brief team huddles to track progress, identify roadblocks, and stay aligned), Retrospectives (Regular sessions to reflect on what worked well and areas for improvement). Thus, agile is not a one-size-fits-all solution but rather a framework adaptable to various contexts and needs (Schwaber and Sutherland, 2017).

The core of agile development revolves around the 12 Agile Manifesto principles, prioritizing value delivery, collaboration, and responsiveness. These principles emphasize customer satisfaction through early and continuous software delivery, embracing changing requirements to gain a competitive edge, and delivering frequent working versions in short cycles (Horlach *et al.*, 2020). Close collaboration between business and developers throughout the project empowers motivated individuals with the right environment to excel. Face-to-face communication fosters clarity, while working software is the true measure of

CHAPTER 16

Consumer Perception and the Effect of Shifting to Sustainable Packaging in the Beverage Industry

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Abstract: Sustainable packaging is gaining momentum as a vital approach to minimizing environmental impact. This study explores consumer perceptions and behaviour regarding sustainable packaging, emphasizing the importance of aligning packaging practices with sustainable supply chain management. Consumers increasingly value eco-friendly packaging, which influences their purchasing decisions and brand loyalty. The study underscores the need for businesses to adopt sustainable packaging to appeal to environmentally conscious consumers and reduce their carbon footprint. It also highlights the importance of strategic organizational changes to attract socially conscious consumers and employees. Ultimately, the study suggests that sustainable packaging is not only an ethical imperative but also a strategic advantage for businesses in a competitive market. This study is conceptual in nature and highlights the “Eat Raja” fruit beverage shop as a case to support the positive effects of shifting to sustainable packaging in the beverage industry.

Keywords: Brand loyalty, Carbon footprint, Purchase decision, Sustainable packaging, Supply chain management.

INTRODUCTION

The traditional method of packaging, especially using plastics, contributes to the waste generation that pollutes the environment. Even burning rejected packaging waste to recycle contributes to carbon dioxide (Ncube *et al.*, 2020). In contrast, sustainable packaging refers to the use of materials and processes that have a reduced environmental impact compared to traditional packaging. It aims to minimize waste, promote recycling and reuse, and lower the carbon footprint associated with packaging.

Approximately 400 million tons of food are discarded each year across the world, accounting for nearly 30% of the supply chain of agricultural products (Cederberg

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and Sonesson, 2011). This wastage has significant environmental consequences, including a substantial carbon footprint, excessive water usage, and inefficient land utilization (Vermeulen *et al.*, 2012). By 2050, the amount of food waste is projected to double, while there will be a global demand for a 50% increase in food supplies. Although the connection between shelf-life and food loss is not direct, a significant portion of food wasted can be attributed to the limited shelf-life of many fresh produce items, which is inherent to their biological nature (Licciardello, 2017).

Modern life heavily relies on packaging to safeguard and transport products. However, packaging is often seen as an indispensable evil due to its association with waste and its negative impact on the environment. After the product becomes available, the packaging has served its purpose and reached the end of its life cycle. The importance of packaging has experienced tremendous growth in parallel with the development of culture and urbanization. The association between the distribution of goods and the latter has had a significant impact on all industries, as well as consumer consumption behavior, resulting in an enormous strain on our planet (Pongrácz, 2007). The relationship between packaging and sustainability is complex. Packaging is often unable to meet sustainability expectations because it is designed to be disposed of after fulfilling its basic functions. As a result, the energy required to produce packaging may not align with its relatively short lifespan (Kozik, 2020). The adoption of sustainable packaging is on the rise as stakeholders across various sectors are calling for a shift towards environmentally-friendly packaging alternatives. Furthermore, an increasing number of organizations are working towards establishing an ethical packaging industry that takes into account both the environmental and social aspects, in addition to the economic considerations of packaging (Marsh and Bugusu, 2007).

Packaging has been recognized as a crucial factor in tackling the main obstacle of sustainable food consumption in the food industry. It is attracting attention from scientists (Licciardello, 2017). Packaging plays a crucial role in maintaining the quality of food by primarily regulating the exchange of pollutants, gases, and water droplets in the air with the surrounding environment. It helps preserve the quality of a meal during preservation, prevents food safety problems such as foodborne illnesses and chemical contamination, and extends the shelf life of food (Angellier-Coussy *et al.*, 2013). Shelf-life extension, achieved through the use of well-designed packaging materials that meet the preservation requirements of food, is anticipated to yield substantial advantages in terms of reducing food waste (Matar *et al.*, 2018; Verghese *et al.*, 2015). However, packaging is sometimes mistakenly viewed as an extra financial and ecological burden rather than a beneficial factor for reducing waste. Furthermore, the existing principal

packaging is not consistently suitable for food requirements, resulting in inadequate preservation of the product's shelf life (Wikström and Williams, 2010). Over the years, For the beverage sector, implementing sustainability has been one of the most important and challenging tasks. The reason behind this is that consumers are making environmentally conscious decisions while purchasing and considering their impact on society (Rodriguez-Sanchez and Sellers-Rubio, 2021). The current studies aimed at understanding how the fruit beverage sector, especially at the packaging stage of their production, can adopt sustainable practices that have less negative impact on the environment.

Literature Review

The growing concern among the public, industry, and politics over environmental issues linked to product packaging has led to an upsurge in the number of corporate efforts towards sustainable packaging design. (Intel, 2024). Numerous sustainability initiatives align with the principles of the circular economy, which has become increasingly significant among consumers and corporate decision-makers (Geissdoerfer *et al.*, 2017). Fundamentally, the circular economy is a sustainability framework that centers on creating restorative and regenerative systems that maintain the highest value and utility of products, components, and materials continuously (Ellen MacArthur Foundation, 2015). The circular economy often serves as a substitute for the linear economy's "take, make, dispose" model (Bocken *et al.*, 2016).

The implementation of circular or linear economy paradigms is highly dependent on business and design strategies (Bocken *et al.*, 2016; Bocken *et al.*, 2014; de Koeijer *et al.*, 2016). Sustainable packaging design solutions can be categorized into a circular design for technical cycles (*e.g.*, recycling, reuse), circular design for biological cycles (*e.g.*, renewability, biodegradability), and design through linear reduction strategies (*e.g.*, reduce, lightweight), according to the conceptualization of Bocken *et al.* (2016). This classification is evident in packaging design innovations, such as Coca-Cola's PlantBottle™ packaging, which uses renewable materials, and Unilever's compressed deodorants, which require 25% less packaging material due to compression.

Studies employ the circular economy concept to differentiate between various sustainable design strategies and examine their impact on consumers' purchase intent. Three research questions are posed based on the literature: first, do consumers have different purchase intentions for packaging redesigned using circular *versus* linear sustainability strategies? Second, if so, what consumer perceptions and inferences drive this difference? Finally, are purchase intentions higher for packaging designs that incorporate multiple sustainable design

CHAPTER 17

Optimising Cost Performance through Tracing and Tracking in Green Supply Chain Management

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Abstract: Recently, the traceability of food supply chains has garnered enormous interest. This is because interest is spurred by regulatory action from government agencies and demands to protect key resources' safety, quality, and sustainability. Sustainable supply chain management is increasingly becoming a determinant of a company's success. One key managerial obligation is an understanding of the interdependency between performance improvement and the environment. This research explores the moderating roles of eccentricity in the supply chain and traceability on SCM practices and its impact on the company's environmental and operational cost performance. By employing a quantitative research method, data were obtained from 273 supply chain managers from different sectors using a well-structured questionnaire. Exploratory Factor Analysis (EFA) and moderated hierarchical regression analysis were used to establish hypotheses and analyze the effect of these moderating variables. The results show that SCM practices positively affect environmental and cost performance, but excessive supply chain traceability reduces the relationship between SCM and environmental performance. The results add to the sustainability strategy by underscoring the varying effects of eccentricity and traceability on supply chains.

Keywords: Cost performance, Eco centricity, Environmental impact, Operational costs, Supply chain management, Sustainable supply chains, Trace, Track.

INTRODUCTION

The food industry has undergone dramatic change, primarily driven by food safety and quality management concerns. Food safety policy has moved towards guaranteeing quality assurance and combined quality and food safety management systems (Pinto *et al.*, 2006; Trienekens and Zuurbier, 2008). To achieve these regulations, traceability systems must be put in place, which not only ensure compliance but also support food chain safety, build consumer confidence, and

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bridge the gap between producers and consumers (Kher *et al.*, 2010; Regattieri *et al.*, 2007; Paliwal and Raskar, 2020). Traceability is thus an indispensable component of modern food supply chains that ensures food quality, safety, and sustainability. Globalization has introduced added issues in the form of origin fraud, quality problems, and food safety hazards that compromise the integrity of the food chain.

Globalization brought new problems, such as origin fraud, quality problems, and food safety hazards, that undermine the integrity of the food supply chain. Traceability emerged as a key indicator of quality and safety to consumers. This satisfies these needs by providing end-to-end food traceability systems that track production, distribution, and consumption. These systems integrate information technology and novel food and feed analysis methods, forming an operational traceability system (Schwägele, 2005). Farm-to-consumer whole-chain traceability is important for the food quality assurance system (Opara, 2003). The food industry can ensure high-quality, safe, and nutritious food products through such measures while re-establishing public confidence in the food supply chain. The United Nations Food and Agriculture Organization (2003) asserts that all parties to the food chain are responsible for food safety and quality management.

The contemporary complexity of Supply Chains (SCs) has made them more susceptible to threats, fluctuations, and disruptions (Pettit *et al.*, 2013). In 2019, 13% of companies that suffered disruptions had losses of more than €1 million (Business Continuity Institute, 2019; Chang *et al.*, 2020). The Fourth Industrial Revolution, a revolution in SC management driven by recent technology and digitization, is the potential solution to these problems. These developments have enabled companies to forecast and track crises in real time (Ivanov and Dolgui, 2020). Industry 4.0 is marked by increased end-to-end transparency and connectivity, which is enabled by Cyber-Physical Systems (CPS), 3D printing, advanced robotics, Artificial Intelligence (AI), Unmanned Aerial Vehicles (UAVs), Big Data Analytics (BDA), blockchain, the Internet of Things (IoT), and Augmented Reality (AR) (Hajar and Kazemi, 2021).

Traceability, which is traceable to technological innovation, has the promise to solve current food systems' problems. Higher visibility in supply chains has proved to reduce waste, enhance efficiency, combat food fraud, and raise levels of food safety. Further, openness can make tracing and estimating food system externalities easy, thus fostering sustainability goals. By linking producers to markets and offering access to low-cost credit, traceability can empower producers and is even more important in light of the large amount of trade between developing and developed countries (Tripathy *et al.*, 2021). Although traceability has primarily been studied by previous research within the context of

developed economies, it is critical to consider how it can help developing countries. Supply chain losses, a substantial concern for all nations, are particularly burdensome for emerging economies, where processing losses can account for 14-21% of fruit and vegetable output, starkly contrasting industrialized regions with a mere 2% (World Bank, 2011). Technology-enabled traceability promises to reduce food waste, improve supply-chain efficiency, and enhance accountability, ultimately increasing the income of small-scale farmers. Additionally, traceability can be key in reducing food fraud and outbreak hazards, which are overwhelmingly common in developing economies, where one-third of deaths from food-borne diseases happen (Grace *et al.*, 2015). As these tiny producers, processors, and distributors do not necessarily have the budget to conform to new protocols, adding traceability could also bring with it new complications. Traceability pilots have recently been launched, but they must become established programs to unlock their full potential. This study seeks to inform scaling traceability technologies for wide-ranging impacts on food systems.

In this research, the connection between a firm's SCM policies and its economic and environmental performance depends on the ecocentricity and traceability of its supply chain. A range of factors influencing a firm's capacity to satisfy corporate sustainability needs can be traced upstream to the firm's suppliers (Grimm *et al.*, 2016). Moreover, environmental knowledge from alternative supply chain stakeholders, including Non-Governmental Organizations (NGOs) and industry associations, tends to be underutilized. A firm's ability to trace commodities through consumption to source is critical for locating and countering environmental threats in its supply chains. Traceability issues in the supply chain are significant (Hartmann and Moeller, 2015). This paper explores the intricate link between SCM practices and performance regarding environmental sustainability and cost within supply chain traceability and ecocentricity. This study examines the complicated relationship between SCM practices and environmental sustainability and cost performance in light of supply chain traceability and ecocentricity.

LITERATURE REVIEW

Need for Transparency

According to the European Commission of 2007, the European Union's (EU) food safety strategy relies to a great extent on traceability. Traceability is significant for managing food and feed risks because it enables contaminated or risky food to be removed, withdrawn, or recalled from reaching consumers. Scholars have determined that traceability systems within food supply chains have the potential

CHAPTER 18

Brew Your Style: The Expressive Power of Coffee and Badging in Modern Lifestyle

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Abstract: This study investigates the interrelationships between coffee consumption preferences, engagement with coffee-themed merchandise and branding, and the construction of personal identity in modern society. Drawing on qualitative data gathered through semi-structured interviews with coffee enthusiasts, the study explores the motivations underlying individuals' coffee choices, the cultural significance of coffee-related material artifacts, and the ways in which these factors contribute to the formation of personal identity. Findings reveal a strong relationship between individuals' coffee consumption preferences and their construction of personal identity, with participants expressing how their choices reflect their self-concept and social identity. Engagement with coffee-themed merchandise and branding emerged as a tangible expression of affiliation with coffee culture, facilitating connections and conversations among like-minded individuals. The study highlights the significance of coffee culture as a medium for self-expression, social affiliation, and cultural belonging and underscores the importance of considering individual motivations, cultural meanings, and external influences in understanding the dynamic interplay between coffee consumption and personal identity in contemporary society.

Keywords: Coffee consumption, Cultural significance, Engagement with merchandise, Lifestyle branding, Personal identity.

INTRODUCTION

Coffee has evolved beyond being merely a morning ritual; it has become a symbol of personal identity and lifestyle expression in contemporary society (Smith, 2020). With each sip, individuals not only seek the caffeinated boost but also project their values, preferences, and aspirations. This phenomenon reflects the profound impact of coffee culture on modern lifestyle choices and self-expression (Johnson, 2018). The rise of coffee culture, particularly in the last few decades,

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has been monumental. From the bustling streets of major cities to the quaint corners of suburban neighbourhoods, coffee shops have become ubiquitous fixtures in our daily lives (Brown, 2019). This cultural shift underscores the transformative power of coffee beyond its basic function as a beverage.

In recent years, scholars and marketers alike have recognized the significance of coffee as a vehicle for personal expression. Social media platforms are brimming with posts featuring intricately crafted latte art or snapshots of aesthetically pleasing coffee shop interiors (Lee, 2021). These online spaces serve as virtual stages where individuals curate their coffee experiences to reflect their unique personalities and lifestyles.

Furthermore, the allure of coffee extends beyond the beverage itself; it permeates into the realm of branding and fashion. Coffee-related merchandise, adorned with catchy slogans or minimalist designs, serves as badges of affiliation for enthusiasts (Garcia, 2023). From enamel pins to graphic tees, these accessories not only proclaim one's love for coffee but also signal alignment with particular cultural movements or values.

In this research paper, we delve into the intricate interplay between coffee consumption, personal expression, and lifestyle branding. By examining the expressive power of coffee and its associated badges in modern lifestyle, we aim to uncover the underlying motivations driving this cultural phenomenon and its implications for individual identity formation and community belonging. Through a multidisciplinary lens, we explore the dynamic landscape of coffee culture and its role in shaping contemporary lifestyles.

Literature Review

The intersection of coffee culture, personal expression, and lifestyle branding has garnered significant attention from researchers across various disciplines. Scholars have examined the multifaceted nature of coffee consumption, exploring its cultural, social, and psychological dimensions.

Historical Context and Cultural Significance

Coffee's journey from its origins in the Ethiopian highlands to its global ubiquity has been well-documented by historians and cultural scholars. Tracing its trajectory through the bustling coffeehouses of 17th-century Europe to the contemporary specialty coffee movement, researchers have highlighted coffee's role as a social lubricant and cultural marker (Pendergrast, 2019). These historical insights provide a rich backdrop for understanding the enduring allure of coffee and its symbolic resonance in modern society.

Social Dynamics and Community Building

Coffee consumption is often intertwined with notions of community and social connection. Studies have explored the role of coffee shops as “third places” — informal gathering spots outside of home and work where individuals forge social bonds and engage in meaningful interactions (Oldenburg, 1999). Researchers have investigated how coffee consumption facilitates social cohesion and fosters a sense of belonging among diverse groups, from urban millennials to retirees seeking camaraderie (Hampton, 2016).

Personal Identity and Lifestyle Expression

The relationship between coffee consumption and personal identity formation has emerged as a central theme in contemporary scholarship. Drawing on theories of consumption and identity, researchers have examined how individuals use their coffee preferences to construct and communicate aspects of selfhood (Ahuvia, 2005). Whether through the choice of coffee bean origin, brewing method, or brand affiliation, coffee enthusiasts engage in acts of identity performance that reflect their values, tastes, and aspirations (Cronkleton, 2020).

Branding and Commodification

The commodification of coffee and its associated paraphernalia has also attracted scholarly attention. Marketing scholars have analysed the branding strategies employed by coffee companies to appeal to distinct consumer segments and cultivate brand loyalty (Schultz *et al.*, 2017). From upscale specialty roasters targeting affluent urbanites to mass-market chains catering to convenience-oriented consumers, coffee brands deploy a range of visual and narrative cues to position themselves within the competitive marketplace (Mugny, 2022).

Coffee Merchandise and Badging

The emergence of coffee-themed merchandise as a form of personal expression has been explored in recent research. Sociologists and cultural theorists have investigated the cultural significance of coffee-related accessories, such as enamel pins, tote bags, and apparel adorned with coffee motifs (Schmitt, 2018). These material artifacts serve as badges of identity, allowing individuals to signal their affiliation with coffee culture and assert their membership in various subcultures and communities (Meyers, 2021).

Through a synthesis of existing literature, this review highlights the complex interplay between coffee consumption, personal expression, and lifestyle branding. By elucidating the cultural, social, and psychological dimensions of

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