

ADOPTION OF CIRCULAR TOURISM PRACTICES AS A TOOL TO ACHIEVE SUSTAINABLE TOURISM IN INDIA: A REVIEW PAPER

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ABSTRACT

Circular tourism is considered an effective tool to accomplish sustainability in tourism. It focuses on the gradual shift of the tourism sector practices and operations from the traditionally linear (take-make-dispose) model to a circular model, focusing on conserving natural capital, optimizing resource consumption, and targeting zero waste generation. Although considerable research has been conducted in the domain of circular economy, very little has been researched on circular tourism economy or the applicability of the circular concepts in the tourism sector. On the one hand, the sector contributes to the growth and development of an economy by contributing to its GDP and providing employment and livelihood opportunities to many. On the other hand, tourism also is one of the most polluting industries that adversely impact the environment. Adopting circular tourism practices can be seen as a means to attain sustainability in the tourism sector. This paper provides a systematic review of the available literature on circular tourism and highlights gaps for future research.

Keywords: *Circular Tourism, Circular Economy, Sustainable Development, Sustainable Tourism, GDP.*

Introduction

The Government of India (GoI), in March 2021, came out with a press release expressing its commitment to transition from the current linear economy to a circular one. Several policies and guidelines formulated by the GoI concerning municipal solid waste management, plastic waste management, construction and demolition waste management, e-waste management, metals recycling policies, natural resource efficiency, and extended producer responsibility – all of which would contribute towards achieving a circular economy. In association with the Niti Aayog and consultation with industry experts, the Ministry of Environment, Forests, and Climate Change have identified eleven (11) focus areas to implement circular practices; and tourism is not one of those focus areas.

Gunn points out that if tourism is developed haphazardly, it could destroy the resources that are the basis of tourism in a community (Gunn, 1994). Tourism is primarily seasonal and is managed by for-profit entities which look for economic benefits and returns on investment; this has made mass tourism to be in vogue in recent times. Tourism service providers find it hard to consider sustainable aspects of tourism while focusing on mass tourism and economic benefits (Kaszás et al., 2022). Tourism activities directly contribute to an increase in the emission of greenhouse gases into the atmosphere (Ciarlantini et al., 2022). Tourism is generally considered an industry without a chimney that contributes to about 8% of the global greenhouse gas emissions (Lenzen et al., 2018). Therefore, the environmental impact caused by it has been ignored for a long (Hsieh & Kung, 2013). Tourism also generates a large quantum of waste at destinations, and tourist accommodations adversely impact the environment by increasing the consumption of water, energy, and other utilities (Rodríguez, Florido, et al., 2020) (Savina Nedyalkova, 2018). For instance, the per capita consumption of water by tourists is higher than the per capita consumption of water by local residents; needless to say, water-based tourism or water amusement parks consume a large quantum of water and must relook at sustainable efforts to conserve and harvest water (Scheepens et al., 2016) (Baporikar, 2020).

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A circular economy has been considered a tool to dissociate economic development from environmental degradation (Pearce et al., 1990). Most of the research on circular economy concepts has been on its applicability in the manufacturing sector focused on producing goods and consuming raw materials. Very little research has been conducted concerning circular economy practices in the services sector, which also follows a linear model.

Academic research on the circular economy concept had gained traction mainly since the beginning of the millennium when sustainability was also being discussed worldwide. In the last decade, there has been an interest in the industry on adopting and implementing circular practices and business models even in the service industry such as finance, insurance, rental, leasing, real estate, tourism et. Cetra. Of all the services, it has been established that tourism contributes the most towards an adverse impact on the environment and natural resources. Therefore, adopting circular practices in tourism would benefit the environment and society (Hsieh & Kung, 2013).

This paper provides a systematic literature review of the research on circular tourism and its applicability in the Indian context. The paper also concludes by setting out the prevalent research gaps for carrying out further research.

Literature Review

Google Scholar, ResearchGate, and JSTOR applications were used to search for relevant literature on the topic. A total of 141 documents, including journal articles, review papers, trend papers, books, book sections, editorials, and reports on the subject matter, were reviewed and are presented in this paper. Given that circular tourism is related to and an outcome of several other concepts such as circular economy, sustainable tourism, and sustainable development, an attempt was made to review literature that was not just limited to circular tourism but also related concepts. Most of the literature reviewed included an overlap of circular tourism with other concepts mentioned above.

Tourism Sector in India

Tourism is a service sector that has been promoted in every country across the world as an economic activity and contributes to about 10% of the global gross domestic product (GDP), and this is expected to grow at an annual rate of 4% (Lenzen et al., 2018). As per the annual tourism statistics published by the Ministry of Tourism, Government of India, in 2020, India witnessed a total of 616.55 million tourist visits, including about 6 million international tourists and that tourism contributed to about 5.16 percent of the total GDP of India; international tourists have contributed about USD 13 billion in receipts.

Tourism is also supposed to have more far-reaching tentacles than any form of development (Gunn, 1994). The multiplier effect on the economy owing to tourism activities and its associated growth and development across tourism products has been widely studied, researched, and established (Khan et al., 1995) (Khan et al., 1995) (Rusu, 2011). This also means that a large number and type of stakeholders are associated with tourism directly or indirectly. Participation and involvement of all stakeholders (for example, the resident population, tourists, local government representatives, local businesses, entrepreneurs, accommodation providers, tour operators, and local administration) are necessary for developing and promoting tourism in any area.

Given tourism's contribution to the economy's growth, the government has issued a National Strategy for Sustainable Tourism, a guide to realizing sustainability in tourism. The strategy indicates the meaning of sustainable tourism and guides stakeholders in realizing sustainability in tourism activities. Subsequently, the government has also set sustainable tourism criteria and indicators for the accommodation providers and tour operators. However, the extent of compliance with the proposed criteria and constraints faced in complying with the list is yet to be studied.

There is hardly any empirical research on circular tourism in the Indian context, where the tourism industry contributes significantly to the country's GDP; this trend has been on the increase for several years (except in 2020-2021, during the time of the pandemic).

Circular Economy

Traditionally, industries have been following a linear economy where natural resources were converted into waste by way of production, which has led to environmental degradation – by the reduction in natural resources and pollution of the environment owing to the waste generated. The process adopted was a take-make-dispose one where natural resources and raw materials were continuously extracted for human consumption without considering that these resources are limited and

sometimes take ages to replenish (Ness, 2008). A circular economy, on the other hand, is an economy that causes no net effect on the environment; it repairs the damage caused to the environment and produces the least amount of waste during the product's lifecycle.

The origin of '**Circular Economy**' is mostly debated. A review of literature on the circular economy shows that the concept is rooted in diverse theoretical backgrounds related to ecological economics, environmental economics, and industrial ecology. (Pearce et al., 1990) believed that the concept of circular economy was first floated when the **closed-loop economy** was discussed in the late 1970s. The eleven core principles of a circular economy business model proposed by several researchers that focuses on value proposition, customer segments, use of virtual channels, produce on demand, revenue streams, essential resource, key activities/ circular movements, key partnerships, optimizing costs, take-back systems, and adoption factors (Lewandowski, 2016) (Pattanaro & Gente, 2017).

The concept of circular economy has been considered a manner in which businesses can operate to realize sustainable development with little to no generation of any kind of waste (Ghisellini et al., 2016). Many researchers have defined Circular Economy differently, and many possible ways exist to explain the concept (Lieder & Rashid, 2016). However, (Kirchherr et al., 2017) conducted a comprehensive and systematically investigated existing definitions of the circular economy, highlighting the main components of the definition.

Most researchers widely acknowledge the Rs associated with the circular economy concept. However, the first research article that introduced the idea of the 3Rs to the world is not known (Yan & Wu, 2011). Many authors identify circular economy with its Rs; compliance with the Rs explains how circular economy can be achieved (Reh, 2013). It all started initially with the 3Rs – Reduce, Reuse and Recycle (Ghisellini et al., 2016). Later, other scholars, including the European Union, looked at adding another R referring to Recover to the 3Rs making it the 4Rs. With time, the 4Rs became 6Rs to include Reuse, Recycle, Redesign, Remanufacture, Reduce and Recover (Sihvonen & Ritola, 2015) and then 9Rs to include Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose and Recycle (Khaw-Ngern et al., 2021).

Given below are a few of the critical review papers on circular economy that explains the concepts of circular economy and the applicability of the circular concepts across sectors;

No.	Study	Focus
1	(Ghisellini et al., 2016)	Summary of about 155 research articles on circular economy
2	(Lieder & Rashid, 2016)	Summary of circular economy literature on the manufacturing industry
3	(Blomsma & Brennan, 2017)	The emergence of the concept of circular economy
4	(Sauvé et al., 2016)	Comparison of circular economy concepts, environmental sciences, and sustainable development
5	(Murray et al., 2015)	Comparison of circular economy concept and sustainable businesses
6	(Geissdoerfer et al., 2017)	Comparison of circular economy concept and sustainability
7	(Brendzel-Skowera, 2021)	Implementing circular economy in Small and Medium Enterprises (SME)
8	(Lewandowski, 2016)	Conceptualizing circular business models
9	(Centobelli et al., 2020)	Designing business models in a circular economy
10	(Rodríguez, Florido, et al., 2020)	Contributions of circular economy to the tourism sector
11	(Camilleri, 2020)	Environmental policy framework for circular economy adoption in Europe
12	(Merli et al., 2018)	Review of 500 articles on circular economy pointing out areas and gaps for further research and an assessment of approach of scholars to the circular economy
13	(Vargas-Sánchez, 2020)	Opportunities and challenges of circular economy in the tourism industry
14	(Kirchherr et al., 2017)	Review of 114 definitions of circular economy to identify the key components
15	(Geisendorf & Pietrulla, 2018)	Review of the concepts that led to the origination of the circular economy

Sustainable Development

The World Commission Report in 1987, also referred to as the Brundtland Commission Report, defined Sustainable Development as development that meets the needs of the present without compromising the ability of the future generation to meet their own needs (Keeble, 1988). The Report set out long-term environmental strategies to achieve sustainable development. The target year for accomplishing sustainability was 2000 (Keeble, 1988). The target was an ambitious one and was hardly realized. Following the Brundtland Commission Report, the world witnessed the adoption of neo-liberalization economic policies such as massive privatization of public assets, globalization, and off-shoring of IT services. This led to increased consumption patterns, which starkly contrasted with what Brundtland's Report proposed. With the United Nations putting forth the **Millennium Development Goals (MDG)** and, subsequently, the **Sustainable Development Goals (SDG)**, countries across the world and the private sector have been incorporating sustainable practices to the extent possible. The Division for Sustainable Development Goals, under the United Nations Department of Economic and Social Affairs provides the necessary support and training to all member nations in adopting SDGs. 17 SDGs, accompanied by 169 targets, have been proposed by the United Nations.

Circular economy practices are linked to many of the SDGs. Research has established the strongest relationship between SDG 6 about clean water and sanitation, SDG 7 concerning affordable and clean energy, SDG 8 concerning decent work and economic growth, SDG 12, which promotes responsible consumption and production, and SDG 15 that, supports life on land. The research also explored synergies that could be created through circular economy practices to achieve SDG targets (Schroeder et al., 2019). Sustainable development depends upon the government's political will that makes decisions on its people's economic, environmental, and social well-being. Sustainable development is based on the triple bottom line – economic, social, and ecological outcomes (Norman & MacDonald, 2004), where each factor is equally important. Sustainable development maximizes economic, social, and environmental benefits under constraints (Rogers et al., 2012).

Modern macroeconomics is explained by a **circular flow diagram** between households and firms based on the production or consumption of goods and services. This flow diagram fails to consider the entropy of energy exchanges between the economy and the ecosystem and thus appears incomplete. The growth theory explained in the most advanced macroeconomic textbooks explains growth or output as a function of labor and capital. There is no mention of resource flow or utilization in this theory. What needs to be understood is that production requires the use of resources, and the same can be used optimally, which can also be a factor to be considered in the study of macroeconomics. The physical exchanges across the boundary between the total ecological system and the economic subsystem constitute the subject matter of **environmental macroeconomics**. These exchanges are measured in terms of the total volume scale relative to the ecosystem (Daly, 1996).

Sustainable Tourism

Sustainability and sustainable development had influenced researchers, scholars, and practitioners in the tourism sector since 1984 when the term sustainable development was coined. However, it was only in the late 1990s that scholars conducted considerable research on the topic. The term 'sustainable tourism' is of a much recent origin, and although sustainable development is based on the three pillars of environmental, economic, and social well-being (Rob Harris, 2002); the focus of both sustainable development as well as sustainable tourism has been on the first pillar – environmental well-being (Swarbrooke, 1999). Swarbrooke stated that the first definition of sustainable tourism was based on the definition of sustainable development. In his book (Swarbrooke, 1999), the evolution of the definition of sustainable tourism is well documented and presented. Given below is the table are two of the foremost definitions of sustainable tourism that primarily originated from the definition and understanding of sustainable development;

Table 1: Foremost Definitions of 'Sustainable Tourism'

No.	Definition and General Understanding of Sustainable Tourism	Basis
1	"forms of tourism which meets the needs of tourists, the tourism industry, and host communities today without compromising the ability of future generations to meet their own needs "	Based on the definition of sustainable development
2	"means tourism which is economically viable but does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community "	Focusses on the triple bottom line – economic, social, and environmental well-being

Source: (Swarbrooke, 1999)

Early on, several other forms of tourism, such as responsible tourism, alternative tourism, eco-tourism, soft tourism, minimum impact tourism, and environmentally-friendly tourism, were considered synonymous with sustainable tourism. However, with time scholars have realized that sustainable tourism is a giant umbrella that can be applied and adopted in all other forms of tourism. Since sustainable tourism is attributed to the environmental and social safeguards while promoting tourism, sometimes a trade-off between sustainability and competitiveness is to be exercised by tourism service providers such as tour operators and accommodation providers (Streimikiene et al., 2021).

The increase in mass tourism worldwide has impacted the local environment, culture, and economy. There has been a need to focus on sustainable tourism that gives due consideration to safeguarding the environment and protecting the social and cultural landscape of the host community without affecting the economic benefits derived from tourism (E. Sirakaya et al., 2003). Many communities have shifted towards more sustainable forms of tourism, such as agri-tourism, eco-tourism, and green tourism. With the objective mentioned above in mind, the sustainable tourism attitude scale was developed by Choi and Sirakaya in 2005 to measure the attitudes of mainly of the resident population concerning tourism activities in their community or destination (Choi & Sirakaya, 2005).

In April 2022, the Ministry of Tourism, Government of India, in association with the United Nations Environment Program and the Responsible Tourism Society of India, launched the National Strategy for Sustainable Tourism. The strategic pillars of sustainable tourism as set out by the strategy are – promoting environmental sustainability, protecting biodiversity, promoting economic sustainability, promoting socio-cultural sustainability, a scheme for certification of sustainability tourism, and IEC, capacity building & governance. The Government of India has also published another document that sets out the parameters to be complied by hotels and tour operators to earn the sustainability tag/ badge from the government.

Circular Tourism

There has been a lot of debate on what constitutes circular practices in tourism. However, implementing circular economy principles in tourism could be one way of referring to circularity in tourism (Rodríguez, Jacob, et al., 2020). The concept of circular tourism has not been researched much, there are very few research articles and literature on the topic, and much on the subject was researched only in the last decade. The tourism sector largely follows a linear economy model that leads to waste generation; scarcity of natural resources must motivate tourists to focus on circular practices. However, tourists do not seem to be primarily affected by this conundrum, and they do not appear to be proactive or action-oriented in implementing or practicing circular concepts in tourism (Larsen & Broegaard, 2019) (Kaszás et al., 2022).

Most of the research papers and articles on circular economy and tourism are from Chinese authors, primarily because China has included circular concepts as part of its planning and development in its twelfth five-year plans (Pattanaro & Gente, 2017). Although circular economy focuses on reducing, refusing, and reusing waste (waste management) and responsible consumption, circular economy in tourism must take into account not just the above but also socio-economic aspects of consumption and production (Tang, 2015). Pattanaro & Gente reiterate that circular tourism must take into account - (a) Focus not just on environmental but also on socio-economic issues associated with tourism; (b) Inclusive of all stakeholders where the tourist gets to make a choice; (c) Creating synergies between different tourism products to optimize on resources, material and value; and (d) Identify new business models and revenue streams such as sharing, collaborating, leasing, renting, et Cetra (2017).

According to (Vatanserver et al., 2021), several barriers make it challenging to transition from a linear economy to a circular economy in the tourism sector. The most significant barrier is the organizational structure/ infrastructure that creates inconvenience with the supply chain during the transition to a circular economy, followed by high initial investment and/ or low returns; lack of corporate social responsibility; the need for additional human resources; and lack of awareness/ preference/ pressure from the consumers. Other barriers, such as lack of new technologies, cost associated with environmentally friendly packaging, lack of governmental support, et Cetra, also affect the transition of the tourism sector from linear to circular. Vargas-Sanchez has written multiple research papers, including review papers on circular tourism, the applicability of circular concepts in the tourism industry, a proposal for research agenda in tourism that provides a good understanding of the concept of circular tourism, and the research gaps in the domain (Vargas-Sánchez, 2020) (Vargas-Sánchez, 2018) (Vargas-Sánchez, 2020) (Vargas-Sanchez, 2019).

Kaszás, Keller and Birkner observed that there are no established models, methods, measurements, especially business models to follow in circular tourism. There is a dearth of governmental support, lack of willingness amongst service providers and industry to cooperate, and absence of trust across the value chain. They also noticed reduced awareness and interest for sustainable models a resistance to change existing behavior, values and attitudes. Interpretation of these challenges could be areas further research in circular tourism (Kaszás et al., 2022).

The choices and actions of a tourist determine whether tourism is a circular one or not. The activities and choices that support a circular approach are - (a) sustainable tourism opportunities offered by the tourism agencies or searching for similar opportunities on the internet, (b) sustainable tourism service providers, (c) the most environmentally friendly transport option, (d) responsible management of the selected services use of locally produced food, crafts and adopted eco-friendly measures, such as waste management, energy and water-saving, et. Cetra.; and (e) feedback between tourists and/or professionals to enhance the sustainable tourism offer (Naydenov, 2018).

Research Gaps

Based on the literature review, the following are the research gaps that have emerged that can be taken you

No.	Literature Reference	Gaps
1.	(Rodríguez, Florido, et al., 2020)	<ul style="list-style-type: none"> • More research is needed about the tourism intersection with CE to generate possible solutions toward a more sustainable tourism industry as it is a relatively young field of study. Therefore, further empirical work and research are needed to improve our understanding of CE in tourism. • Defining a global circular strategy that involves all tourism sector actors and areas on how to attract tourists to a circular hotel or destination • Identify the profile of the most sensitive customers to circular initiatives. • Development of circular certifications for hotels, tourism businesses, or a destination.
2.	(Rodríguez, Jacob, et al., 2020)	<ul style="list-style-type: none"> • How do we generate CE solutions toward a more environmentally sustainable tourism industry? • Defining CE strategies and initiatives for hotels, tourism businesses, and destinations to attract tourists who are more aware of the CE issue. • Investigation of circular practices carried out by hotels and those that must be implemented or promoted to achieve the change to a circular model in the tourism industry.
3.	(Kaszás et al., 2022)	<ul style="list-style-type: none"> • How to market circular tourism services? • How to attract tourists to a circular hotel, circular tourist business, or a circular destination? • What is the profile of the most sensitive customers to circular initiatives? • How to assess the quality of tourism enterprises with particular regard to the development of circular certification of hotels and destinations.
4.	(Falcone, 2019)	Research to investigate and identify the most effective instrument mix for developing the tourism-based circular economy.
5.	(Liu, 2003)	Any research must address the six issues that are often overlooked, such as – <ul style="list-style-type: none"> • The role of demand for tourism at any destination or a specific tourism service, • The nature of tourism resources, • The imperative of intra-generational equity, • The role played by tourism in promoting socio-cultural progress, • The measurement of sustainability associated with tourism, and forms of sustainable development
6.	(Baporikar, 2020)	<ul style="list-style-type: none"> • Encourage research on unexplored segments until now, particularly on those with higher tourism density, impact on natural resources, and problems of over-tourism (such as sun & beach destinations, urban tourism, among others) • Research on not just environmental implications of the transition to circular economy practices but also on the business implications due to transition to a circular economy
7.	(Kaszás et al., 2022)	More research on the circular certification of hotels research on how to market hotels that practice circular economy

The areas of research that have emerged can be segregated based on the tourism stakeholders that it is relevant. For instance, a significant gap in the research is about the attitude and behavior of tourists (primary stakeholders) towards adopting circular tourism practices, as well as the type of marketing efforts that may attract tourists to subscribe to circular products or destinations that promote circular concepts.

Another large stakeholder group includes the tourism service providers (hotels, restaurants, tour operators, and destination management organizations). Factors that induce these service providers to adopt circular practices, what are the commonly adopted circular practices in tourism, certification of hotels/ restaurants that embrace circularity in their operations, assess whether circular certification would translate to increased visitors or customers to such establishments, and finally how to market these establishments that practice circular economy.

Not much has been researched on the perspective of the host communities or the resident population on circular practices as these stakeholders enable/ support or are supported by tourism at their destination. They are always impacted by tourism activities, both positively in terms of income generation and negatively, when tourism adversely impacts the local environment. Whether the host community is in a position to enable tourists to go circular in their consumption practices is another matter that needs to be further researched.

Conclusion

Most of the researchers who have written on this topic are from China (owing to the government focusing on circular economy principles in its twelfth five-year plan) and from the European continent (due to the adoption of the Circular Economy Action Plan by the European Union). Such research would provide the basis for the governments to formulate policies, guidelines, or legislations on sustainable or circular- tourism.

Research on circular economy and circular economy business models, in general, are very recent, mainly in the last twenty years), and the research on circular practices in tourism, in particular, is not only current but also scarce. Most of the research on circular concepts and circular tourism has been conducted by Chinese researchers. Given that tourism, one of the most polluting sectors, is witnessing unprecedented growth, and with levels of consumption across stakeholder segments at an all-time high; introducing responsible production and consumption practices focusing on circularity could serve as a tool to achieve sustainability; and academic research is the area of circular tourism and its applicability in tourist destinations in India is very relevant, necessary, and crucial in the current context.

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