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Tour(F)ism: An Innovative Start-up Model for Aggregating Aqua-Tourism Experiences

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Abstract

India has made significant strides in fisheries (18.40 million tons; 2nd in aquaculture; 1.12% of national GVA), tourism (5% of GDP; 12.42 lakh direct jobs), start-ups (3rd largest ecosystem; 25% CAGR), eco-tourism (5% of tourism GDP), and agri-tourism (₹60 crore annual revenue in Maharashtra; 0.2% of tourism GDP). Despite this structured growth and progress, *aqua-tourism* – the intersection of fisheries and tourism- remains underdeveloped and fragmented. Currently, there is no structured model in India to connect fish farmers directly with clients seeking immersive, educational, and leisure-based aqua-tourism experiences. Potential tourists face limited booking options, high transaction costs, and a lack of value-added services. At the same time, many fish farmers are willing to offer but are unequipped due to the lack of expertise, digital access, or marketing channels. Existing centres remain isolated and under-promoted. Tour(F)ism aims to fill this critical gap as India's 1st rural aqua-tourism e-aggregator platform. The initiative moves beyond simple digital aggregation by enhancing the aqua-tourism experience through tourism-focused value additions at fish farms, seamlessly combining education, entertainment, and leisure elements. By reducing transaction costs and eliminating costly intermediaries, the platform empowers fish farmers to diversify their income through tourism. Additionally, it offers clients never-before-authentic, affordable rural aqua-tourism experiences. Thus, by effectively bridging the urban demand with rural supply within the fisheries-tourism interface, this novel platform creates a win-win solution for both fish farmers and clients.

Keywords:
Aqua-Tourism, TourFism, Startup, Agri-tourism, Aggregator, Eco-tourism

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Introduction

India's fisheries sector has witnessed remarkable growth with a robust growth rate of 9% CAGR between 2001 and 2020 (Suvetha et al., 2024) and plays a significant role in country's economy, producing over 18.40 million tons of fish with a contribution of 13.91 million tons from Inland sector and 4.49 million tons from Marine sector (2023-24), contributing 1.12% to the Gross Value Added (GVA) and 7.26% to agricultural GVA. India also ranks 2nd globally in aquaculture, with a total production of 10.2 million tons, supporting over five lakh fish farmers (Handbook on Fisheries Statistics, 2023-24).

In parallel to the growth of primary sectors like fish farming, India has also emerged as the home to the third-largest startup ecosystem globally, with 1,59,157 registered startups as of 2024, creating over 16.6 lakh direct jobs across various sectors and growing at a rapid 25% CAGR from 2020 to 2025 (Startup India Annual Report, 2023–24). Within this expanding ecosystem, a significant number of startups are now emerging in agriculture and allied sectors, many of which have been supported through government-supported incubation programs such as the RKVY-RAFTAAR through various Agri-Business Incubators

(R-ABIs). These initiatives play a crucial role in fostering agripreneurship, facilitating easy access to technical and financial resources, and encouraging innovation across various agri and allied domains, including aquaculture, that align with the broader goal of strengthening the nation's primary sectors like fish farming through startup-led solutions.

Beyond production and start-up innovation, a growing focus is being placed on livelihood diversification through allied sectors such as tourism, where India is well known. Tourism sector is contributing around 5% to the country's GDP (2023), creating 4.3 crore direct jobs, with over 2,510 crores domestic and 9.52 million foreign tourist arrivals, with estimated foreign exchange earnings of ₹2,31,927 crores (Handbook on Tourism Statistics, 2023). India also ranks 39th among 119 countries in the Travel and Tourism Development Index 2024, indicating the country's position as a global tourism destination (2024). Within the broader tourism landscape, a primary sub-sector known as eco-tourism has grown rapidly, contributing nearly 5% of India's tourism GDP. Recognising its scope and potential for growth, the Government of India have drafted a National Strategy for Eco-Tourism (2022) to advance eco-friendly travel and establish India as a world leader in this field. Moreover, within this eco-tourism, a major sub-sector known as Agri-Tourism, which blends agricultural farm experiences, rural life with tourism-based activities, has gained tremendous momentum. With a CAGR of 20% (2005-2020), agri-tourism has experienced strong and significant growth in our country. Primarily, in Maharashtra alone, Agri-Tourism generates around ₹60 crore annually through more than 500 Agri-Tourism centres, attracting over 80 lakh tourists and creating one lakh employment opportunities for rural youth (Taware, 2023; NABARD, 2023). This clearly shows the potential of connecting primary sector activities with tourism innovations, enhancing farmers' income and boosting the rural economy.

Aqua-tourism, another sub-sector of eco-tourism, is gradually emerging as a unique experiential tourism model focused purely on recreational and leisure activities centered around aquatic bodies such as backwaters, reservoirs, wetlands and coastal areas and along with these water-based experiences, it provides opportunities also for local farm stays, fish farm visits, offer an untapped potential for promoting rural tourism diversification. However, unlike Eco-tourism, which is performing well in the country and is most preferred among the clients due to its strong structured aggregation services, and Agri-tourism has also been performing reasonably well in states such as Maharashtra due to its modest aggregation. In contrast, despite its growing momentum and considering India's extensive aquatic resources, a significant opportunity exists to develop aqua-tourism, a distinct and underperformed subset of eco-tourism. To address this critical gap, this study proposes the development of Tour(F)ism - India's 1st rural aqua-tourism e-aggregator platform. By directly connecting rural fish farms with tourists and transforming the existing fish farms into vibrant aqua-tourism hubs by adding location-specific, tourism-based value additions. Through customized packages aligned with the needs and interests of different client segments, Tour(F)ism seeks to unlock the potential of aqua-tourism and contribute to rural livelihood diversification.

Startup Ecosystem in India

Startups are the driving forces behind innovation, primarily because of their capacity to create and promote innovative goods and services that tackle current market challenges (Autio *et al*., 2014). These startup ventures show high growth potential and a strong capacity to quickly adapt to uncertain environments (Liguori and Pittz, 2020). The role of startups in economic development is more important, as they promote technological advancements and innovation and generate employment (Elahi and Rehman, 2012). Several factors influence start-up success, such as access to entrepreneurial education, prior industry experience, availability of venture capital, and strong networks (Colombo and Grilli, 2005; Elahi and Rehman, 2012).

Digital technologies have revolutionized how start-ups search for new opportunities and expand their market reach. By using these technologies, start-ups can now access untapped markets, identify emerging trends in the market, and enhance their offerings based on their findings (Rogers *et al.,* 2016). One of the main benefits of this digital transformation is audience profiling, which enables startups to customise their goods and services to meet customers' needs, enhancing customer experiences and encouraging enduring loyalty (Zaheer *et al*., 2019).

Government policies and schemes aimed at providing financial support, tax incentives, and reducing regulatory burdens are essential for ensuring the sustainability of start-ups (Swapna *et al*., 2022). The start-up ecosystem is a pretty complex network consisting of various components such as incubators, accelerators, investors, academic institutions, and government bodies, all of which contribute to an environment conducive to entrepreneurial success (Korreck, 2019). Start-up culture has an impact that goes beyond specific companies because it creates a competitive marketplace that encourages innovation and creates jobs (Jyoti and Singh, 2020). Additionally, start-ups frequently tackle societal problems and promote social welfare by offering solutions that strengthen local communities and promote social and economic sustainability (Sneha *et al.,* 2023). Furthermore, entering food delivery services and digital platforms into rural markets shows how these areas develop into feasible areas for scalable business opportunities (Selvan and Andrew, 2021). This shows the importance of promoting networking and cooperation to guarantee start-ups' expansion and growth in various niche markets (Korreck, 2019)

Aggregation Services in India

Aggregator platforms are the digital intermediaries that coordinate services or products from different providers into a single unified platform, enhancing their access and user experience. Through network effects, aggregators are essential in enabling transactions and co-creating value, as the ecosystem's usefulness increases with the number of users and providers (Parker *et al*., 2016). Aggregators like food delivery platforms in India (e.g., Zomato, Swiggy) follow this model, enabling customers to discover cuisines through various menus and manage their logistics, including delivery and payment processes. However, these platforms also have to deal with operational issues like staffing and training, equipment management, and upholding service standards (Bhotvawala *et al.,* 2016).

Aggregators are a cornerstone of the e-commerce ecosystem. They combine services to address customer-specific needs while maintaining dual roles as providers and consumers within their ecosystems (Tapscott *et al.,* 2009; Papazoglou and Van den Heuvel, 2021). Because of their versatility and ability to generate value, aggregators are essential in today's business-to-business (B2B) and business-to-consumer (B2C) marketplaces, enabling both consumers and entrepreneurs (Amrita *et al*., 2021; Tapscott *et al*., 2009).

The rise of tourism aggregators, or web-based portals that offer travellers services like travel, lodging, and tour planning and booking, has completely changed the travel industry. The tourism aggregators have raised travellers' awareness of possible destinations and decreased the cost of information searches. However, such aggregation models remain absent in aqua-tourism, despite the growing momentum and interest in such experiences among tourists, which prevents innovation within this niche sector. Price, Product, Convenience, and Customer Service are the key success factors for aggregators' businesses, and this has made it possible for some creative tourism trends, such as eco-tourism, adventure tourism, heritage tourism, medical tourism, and pilgrimage tourism (Dash *et al.,* 2018). Indian consumers would be more interested in using these websites for their vacation planning if the services they provide were expanded and pertinent destination information were displayed (Khare and Khare, 2010)

Tourism Sector in India

India's tourism is well known for its diverse offerings of tourism types, such as dark, polar, wellness, film, slum, medical, ecotourism, adventure, coastal, sleep, cultural, business, culinary, fashion, music, and religious tourism, which presents a unique opportunity to attract foreign tourists (Dsouza *et al.,* 2024). As India continues to evolve, implementing adaptive tourism strategies based on the country's resources and goals is more important. India's tourism sector includes support services like publications, event coordinators, transportation providers, and direct suppliers like hotels, tour operators, and travel agencies. Government bodies and financial institutions also play an instrumental role in tourism development by offering incentives and ensuring robust policies (Mishra, 2004). However, if the tourism industry is to realize its full potential, substantial investments in the physical and digital infrastructure are required to support efficient connectivity and accessibility for both domestic and foreign visitors Promoting India's tourism offerings requires effective marketing, especially digital marketing, and a lack of marketing initiatives could seriously impede the industry's expansion (Niroomand *et al.,* 2013).

Eco-tourism

Ecotourism is a unique sub-sector under tourism, which is rapidly expanding in recent times (Xie and Sun, 2021). It is projected to grow at a 5% annual rate, representing approximately 20% of total global tourism (Charters and Saxon, 2015). Local communities' active participation and involvement are crucial to the success of ecotourism destinations (Harun and Chiciudean, 2018). Ecotourism enhances economic growth of rural areas by generating new job opportunities and raising locals' living standards (Rivera and Gutierrez, 2021). Ecotourism always acts as a "double-edged sword" problem for environmental management because, while it can have significant positive economic and social effects on local communities, its quick growth can also affect and lead to ecosystem degradation and unsustainable resource use (Cai *et al.,* 2023). India also offers immense potential in adventure and cruise tourism, further enriching its ecotourism prospects (Venkatesh *et al.,* 2016)

Agri-tourism

Agritourism offers a unique opportunity to tourists with an immersive experience beyond farm visits, allowing them to engage in rural life, local cuisine, traditions, and arts (*Dsouza et al.,* 2022; Shah *et al*., 2023). This kind of tourism is essential to rural economies because it attracts visitors who want to see the authenticity of rural life. They study farming practices, the cultural heritage of farming communities, and organic food production. Experiences like staying on a farm, taking agricultural tours, and working on the farm can create a meaningful connection between urban visitors and rural lifestyles (Ruiz-Labrador *et al.,* 2023). Agritourism promotes social cohesion and rural revitalization by promoting economic stability, cultural preservation, intercultural understanding, and hands-on learning (Satyender *et al.,* 2024). Proper management is essential to ensure that agritourism remains sustainable while maintaining a genuine connection between tourists and the land (Phillip *et al*., 2010; Saluja *et al.,* 2022).

Aqua-tourism

Aqua-tourism has emerged as a quickly growing sector within the tourism sector, due to its unique ability to blend economic, cultural, and environmental aspects (Claesson *et al*., 2005). The aesthetics of the fishing industry itself can be used as a branding mechanism, attracting tourists and niche markets to purchase fish products (Brookfield *et al.,* 2005).

In India, aqua-tourism offers significant potential for employment generation and economic development. The Jasingfaa Aqua-tourism Centre, for example, shows how an innovative project can provide opportunities in a sector in terms of hospitality and employment, especially for the unemployed youth (Das *et al*., 2023). Aqua-tourism also allows fisheries and coastal communities to diversify their income streams through eco-friendly ventures.

Frameworks for managing tourists must be carefully planned and implemented to preserve natural resources and ensure that tourism does not disrupt marine biodiversity (Drumm and Moore, 2005). In aqua-tourism endeavours, women's self-help groups (SHGs) have also been essential in empowering local communities and advancing inclusive development of all genders (Vipin *et al.,* 2017). Coastal communities worldwide have realised how important these initiatives are to sustainable coastal development, which benefits local economies and protects marine ecosystems (Symes *et al*., 2009). Despite its potential, aqua-tourism faces challenges, particularly in coastal and rural regions due to the lack of lodging facilities, transportation and safety measures. However, if these problems can be tackled through innovative thinking and teamwork, aqua-tourism can be a powerful tool for cultural preservation and sustainable development of the fisheries sector (Das *et al.,* 2023).

Eco-tourism, agri-tourism, and aqua-tourism each represent unique approaches to experiential travel rooted in nature, agricultural farms, and aquatic environments. While they share common goals such as rural empowerment, sustainability, and cultural preservation, they have developed unevenly. Eco-tourism develops strongly due to its growing institutional support, and agri-tourism has seen some structured growth due to moderate aggregation in some states like Maharashtra. In contrast, aqua-tourism remains fragmented and unorganized despite its strong potential. These findings reveal an opportunity to integrate the strengths of these models into a unified approach and offer the foundation for the unique value proposition of Tour(F)ism being India's 1st rural aqua-tourism e-aggregator.

Research Gaps and Startup Opportunities in Fisheries Sector

In India, existing aggregation services are predominantly focused on food, logistics, and agriculture, with a noticeable absence in the fisheries sector, revealing a significant and underserved gap. At the same time, experiential tourism is gaining popularity across the country, yet it remains largely centred on agri-tourism, leaving its ally, aqua-tourism, underdeveloped despite its immense potential. Existing aqua-tourism initiatives are also few, fragmented, without value additions like customisation, educational engagement, or integrated tourism-based experiences and mainly concentrated in coastal regions and backwaters, often ignoring the untapped opportunities offered by rural fish farms to be developed as aqua-tourism centres. Moreover, no startups or businesses in the country have noticed this as an opportunity to aggregate and onboard fish farmers in a unified platform that offers a comprehensive package of tourism services tailored to clients' diverse needs and preferences.

Tour(F)ism: An Innovative Startup Model:

Tour(F)ism addresses this market gap by being India's first rural aqua-tourism e-aggregator platform, directly connecting clients with fish farmers and offering a unique, affordable, engaging, and immersive rural aqua-tourism experience. The platform modernises the conventional experiential aqua-tourism sector through its innovative Tour(F)ism model, which transforms existing functional rural fish farms into aqua-tourism hubs by incorporating tourism-based value additions. These include a blend of education, experiential learning, entertainment, and leisure, allowing clients to actively participate in fish farming, rural activities, and cultural experiences rather than remaining passive observers. Additionally, the platform establishes a scalable and sustainable win-win model that expands market reach, making rural aqua-tourism more accessible and affordable for clients. At the same time, it empowers fish farmers to promote their services independently, maximise their earnings, and provide direct financial benefits, ultimately boosting the local rural economy and generating rural employment opportunities.

Tour(F)ism Model

Tour(F)ism follows an aggregator-based business model, acting as a digital facilitator platform that directly connects fish farmers with clients seeking entertainment, educational, experiential and leisure-based aqua-tourism. For fish farmers, the platform adds value by providing them an opportunity to earn additional income, address income irregularities, and a digital marketplace for their produce. It is especially beneficial for those farmers who are willing to provide aqua-tourism but lack the technical know-how or market strategies to do so independently. For clients, it lowers transaction costs and offers affordable, customised packages with value for their money experiences based on their actual preferences and travel motivations. The platform's revenue will be generated through multiple streams: aggregator commissions, merchandise sales, tourism-based value-addition services, subscription fees from registered fish farms, conducting trainings, internships for students and aspiring aquapreneurs, and packaged tourism programs. The digital infrastructure will

Fig 1: Tour(F)ism model connecting fish farms directly with tourists

Note: This is AI generated image for indicative purpose only

consist of a mobile-based application, allowing farmers to list their farms along with their

offerings and clients to book their experiences based on their preferences and availability. The platform's design will be based on the insights from an initial willingness survey to be conducted among both potential fish farmers and clients to ensure alignment with user needs and preferences.

Way Forward

Tour(F)ism is currently in the concept development phase, with initial groundwork underway to establish partnerships with fish farmers, local communities, and key stakeholders. The first phase focuses on conducting an extensive survey to assess potential clients' and fish farmers' willingness, preferences, and expectations. These insights will help design an immersive rural tourism package that integrates educational, entertainment, and leisure elements, ensuring a high-quality experiential aqua-tourism experience. Based on the findings, the next stage will involve the development of a user-friendly e-platform that seamlessly connects both stakeholders while eliminating costly intermediaries. Continuous feedback from users will be incorporated to refine the platform and services, leading to pilot testing in selected regions. The final phase will focus on developing a structured business model, sustainable revenue strategies, and a compelling pricing framework to ensure long-term viability. By systematically addressing these key areas, we modernise the existing conventional experiential tourism sector by introducing an innovative Tour(F)ism model by connecting these potential clients directly with fish farmers and providing them with affordable, direct access to immersive aqua-tourism experiences alongside a rural ambience.

Conclusion

Eco-tourism and agri-tourism have steadily grown in India, supported by its structured aggregation and increasing institutional engagement. In contrast, aqua-tourism, a unique sub-sector under eco-tourism, remains fragmented and underdeveloped, despite India's vast aquatic resources and the rising interest in such tourism experiences due to the lack of structured aggregation initiatives. This gap presents a unique opportunity to design *Tour(F)ism*- India's 1st rural aqua-tourism e-aggregator platform, to transform existing functional fish farms into vibrant aqua-tourism hubs through tourism-based value-addition and digital integration. By bridging rural supply with urban demand, this novel platform empowers fish farmers, enhances client experiences, supports sustainable rural development and revolutionises the entire aqua-tourism sector in the country.

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Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the development or reporting of this startup concept. This manuscript is based solely on independent academic research and conceptual groundwork undertaken as part of a doctoral study.

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