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ROLE OF AI TO IDENTIFY CUSTOMER'S PERCEPTIONS ABOUT HOLISTIC TOURISM: A STUDY FOR CHARDHAM PILGRIMAGES

Dr Ashish Janakray Dave, Dr Dharmendra P Patel, Khushi Soni

Principal, Shri H.K. Commerce College, Ahmedabad.

Assistant Professor, Ashwinbhai A Patel, Commerce College, Gandhinagar

Research Scholar, Sheth Damodardas SOC, Gujarat University, Ahmedabad

Abstract

In today's dynamic world, tourism is at its peak, promoting competition among travel agencies. Therefore their interest in understanding customers' perceptions has become keen, especially in planning spiritual tours. The brightest side is that the growing influence of Artificial Intelligence (AI) has now incredibly opened the doors for understanding customer perceptions, especially about niche areas like holistic tourism. This research aims to study how Artificial intelligence can help understand customers' sentiments and feelings about holistic tourism during the Chardham Pilgrimages, the most sacred sites in India. To conduct this study, secondary data was used. Various reviews and information are gathered from research papers, theses, and other e-travel platforms. The study found out AI can quickly process a large amount of customer data to identify customers' perceptions, everyday thoughts, spiritual awakenings, peace and feelings during Chardham pilgrimages in India. It also found out that this way AI can help tour planners and the government enhance their experience for future visitors and, give a push to spiritual tourism in a better way.

Keywords: *The Role of AI, Holistic Tourism, Customer Perceptions, Sentiment Analysis, Chardham yatra.*

The world has become a dynamic tourism landscape, where travellers are constantly in search of experiences that have extraordinary escape and provide spiritual and emotional wellness. Tourism has risen by 25% over the past decade with the forecast of 1,500 million international visitors by 2020, nearly twice the level at the moment (G. Vinothini et al., 2019). This tourist expectation gave rise to the concept of holistic tourism that nurtures the body, mind and soul through meaningful travel experiences. (Smith & Kelly, 2006). The most significant example in India is the Chardham Pilgrimage, the four sacred places, namely Yamunotri, Gangotri, Kedarnath and Badrinath lie in the lap of the Garhwal Himalayas in Uttarakhand. These places are deeply rooted in Hindu spirituality and recognized for Moksha (Liberation). Millions of pilgrims visit here in search of spiritual growth, inner peace, emotional transformation, and also for religious rituals. (Bhalla & Bhatia, 2021)

With the rising demand for spiritual tours, travel planners, travel agencies and the government are under increasing pressure to better understand and meet the pilgrims ' expectations. Despite service quality reaching several new dimensions, the quality of religious service is very low. (G. Vinothini, R. Priya, S. Jayanthy, 2019). So it has become a great concern to the travel agencies and the government to enhance the experience of visitors by understanding their perceptions. Conventionally, the data used to be gathered through manual feedback methods such as offline or online surveys, interviews, and observations that consume a lot of time and also it was complicated to process the large-scale emotional data.

However, Artificial Intelligence has been incredibly used and become necessary for analysing large volumes of semantic data efficiently (Gretzel et al., 2015). Technologies nowadays are gradually used to boost consumer experience resulting in more enriched and real-time engagement for travellers. (Buhalis et al., 2022) According to scientists, the effective use of AI in the tourism industry can bring high-quality experience to businesses and enhance the quality of data preservation and management. (Indaryanto et al., 2023). The study aims to synthesise the current state of the role of artificial intelligence in Tourism and to study the role of AI in identifying consumer perception for holistic tourism specific to Chardham Pilgrimage.

Research Method:

The study employs the secondary data methodology by gathering data from previously published academic research, theses, e-travel platforms, travel reviews, and blog content related to the topic.

The Role of Artificial Intelligence in Tourism

Forbes report says AI is going to be a $15.7 trillion industry by 2030, and investments are predicted to reach roughly $500 billion by 2024. The AI breakthrough has enabled tourism and hospitality experts to deliver personalized tourist experiences and tech-enhance experiences through the use of various AI applications

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(Parvez, 2021). Various Tourism industry uses AI-powered site search, chatbots, augmented reality, QR Codes, robots, virtual reality, voice assistance, machine translations, kiosks etc (Sousa, A. E., et al., 2024). Existing AI applications improve the visitor experience via personalization, round-the-clock services, and seamless travel. It enhances accessibility, market intelligence, and customer profiling. It boosts visitor flow, traffic management, pricing, and resource use while automating internal processes and customer service. (OECD, 2024).

AI can be used in various areas to enhance knowledge in Tourism and Hospitality. It reduces time and cost when categorizing tourism pictures and analyzing tourism destination images in comparison with manual techniques. Cho et al. (2022). The travel and tourism industry makes significant use of AI in forecasting, demand analysis, and recommender systems. (Kirtil & Askun, 2021). There are AI solutions like big data analytics, machine learning and chatbots which can be used in different settings like sentiment analysis, digital face recognition, augmented reality, robotics in hospitality and service and intelligent chatbots to increase personalization, and precise recommendations in the field of tourism (Filieri et al., 2021; Cheng et al., 2023).

The Role of AI in Identifying Customer Perceptions in Tourism.

Artificial Intelligence can analyze extensive data and come out with latent patterns of human behaviour that can't be done using conventional methods (Sofla, Kowsar, 2024). AI can process large data in very little time and saves human efforts. AI algorithms have the potency to deal with structured and unstructured data from various outlets such as social media, online transactions and demographic profiles to identify important patterns and tendencies. (HARIHARAN V, ADARSH SINGH, 2024). There are various methods such as machine learning, semantic analyses, and natural language processing that analyse consumer behaviour (Prakash et al., 2023). AI can also analyze cultural experiences, spiritual ambience or customer perceptions.

It helps companies to analyze customer needs faster and optimise their marketing strategies Katri (2021). It enables a deeper and more individualized understanding of consumer preferences for destinations, hotels and activities. Sentiment analysis and Natural language processing are widely used to analyze emotional cues and preference patterns of consumers that help holistic tourism businesses. Various online travel agencies use AI to get internet-based suggestions in real time to understand demand shifts, emerging preferences, and customer satisfaction trends for decision-making.

Consumer Perception in Holistic Tourism

Consumer perception in holistic tourism counts traveller's thoughts on destinations that promote comprehensive well-being, be it physical, mental or spiritual health. Chang and Besie-zee (2013), studied the Consumer perception of healthfulness and appraisal of health-promoting tourist destinations. Applied expectation-disconfirmation theory to reveal how health-promoting destinations have a significant effect on health. The study suggests that choosing a destination that tourists believe is healthy can enhance their overall satisfaction. Tourists prefer destinations that are calm, clean and surrounded by nature. These places feel that these places help them. They feel that these places help them disconnect from stress and connect with themselves.

Kumar, J., & Nayak, J. K. (2022) found that yoga tourists' behaviour is significantly affected by perceived service quality. High-quality service leads to overall satisfaction and a higher likelihood of repeated visits. Tourists highly prefer clean accommodations, healthy food and safe environments for holistic tourism. Consumers extremely value health and wellness tourism as a holistic experience where activities associated with recreation, leisure, and culture hold equal importance as health treatments (Hekmat et al. 2022). Lee, J., & Kim, J. J. (2023) have found motivators such as relaxation, nature-friendliness, social relations, luxury, novelty, health-improvement and self-examinations that allows to develop wellness tourism products to specific customer segments. (Harveen Bhandari, 2022) the case study found that spiritual experience should be prioritized in the management of religious heritage sites that enrich the visitor experience. People often choose holistic tourism to feel emotionally and spiritually better.

Chardham Pilgrimage as Holistic Tourism

Chardham is a Hindi word whereby 'Char' stands for four and 'dham' stands for religious destinations. The Chardham pilgrimage refers to the four sacred sites namely Yamunotri, Gangotri, Kedarnath, and Badrinath in Uttarakhand, India.

Yamunotri: The Source of Ganga River

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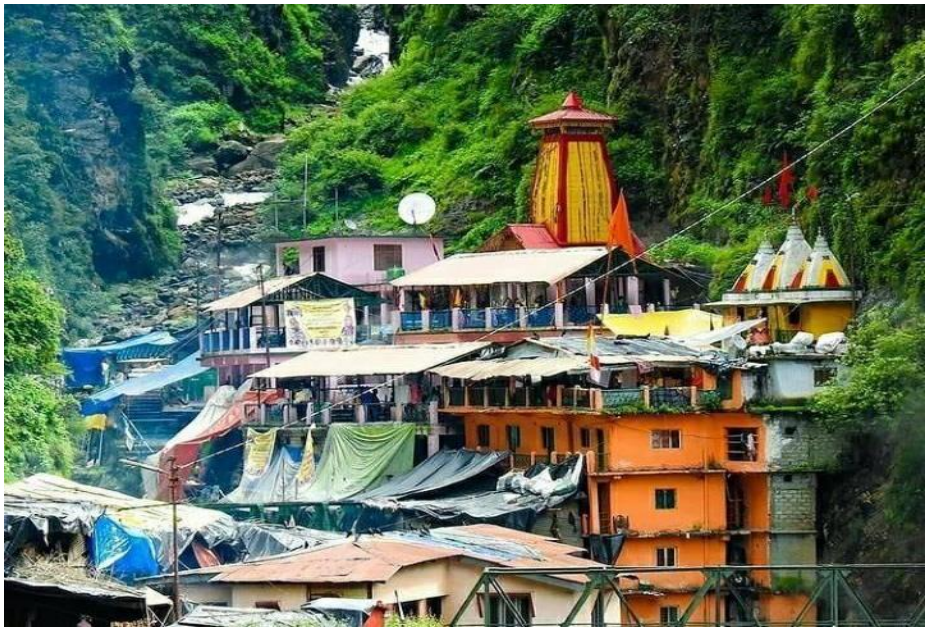

Source: Pinterest

Gangotri: The Origin of the Holy Ganges

Source: Pinterest

Kedarnath: The Abode of Lord Shiva in Garhwal Himalayas

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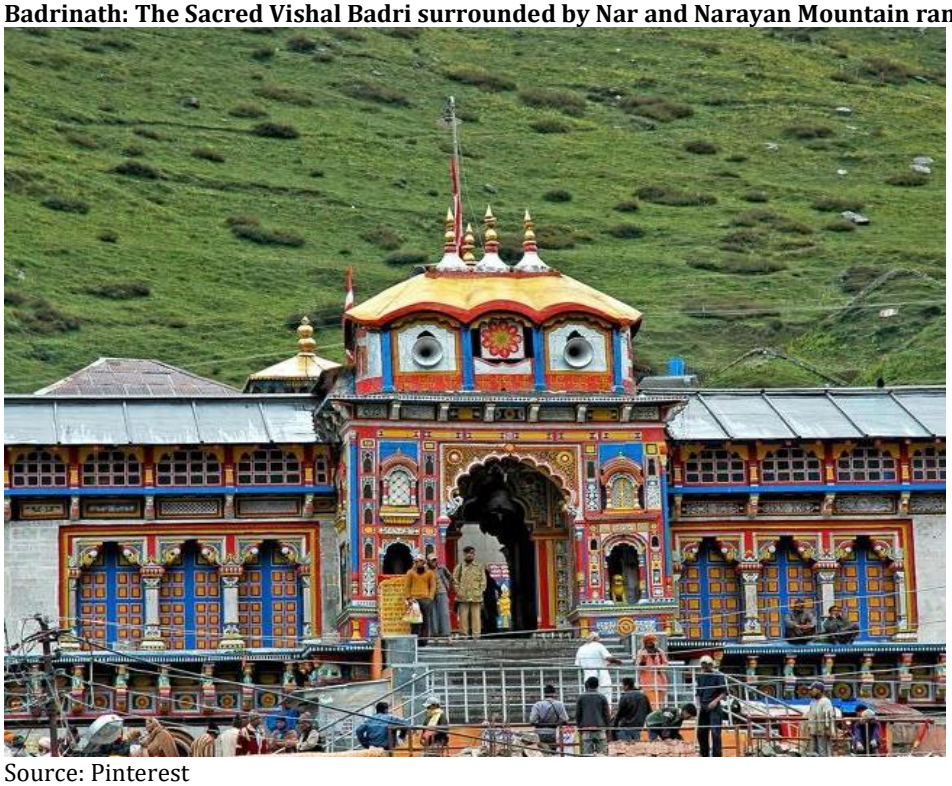
Source: Pinterest

Badrinath: The Sacred Vishal Badri surrounded by Nar and Narayan Mountain ranges



Source: Pinterest

These religious places have conventionally been a deeply spiritual journey for devotees. In today's time, the Chardham pilgrimage has much more beyond religious as visitors consider it as holistic tourism, that integrates physical, mental, and spiritual well-being (Chardham Plan). During this pilgrimage, pilgrims get to engage in physically demanding treks through the Himalayas that offer physical wellness and endurance (Wikipedia). The surrounding Himalayan landscapes hand mental tranquillity, while fostering deep spiritual connections and calming the mind and soul.

Due to its increasing popularity, the sacred sites have to go through various challenges. The pilgrimage turns into a hustling activity, sometimes compromising the serene environments. (The wire) reported that in May

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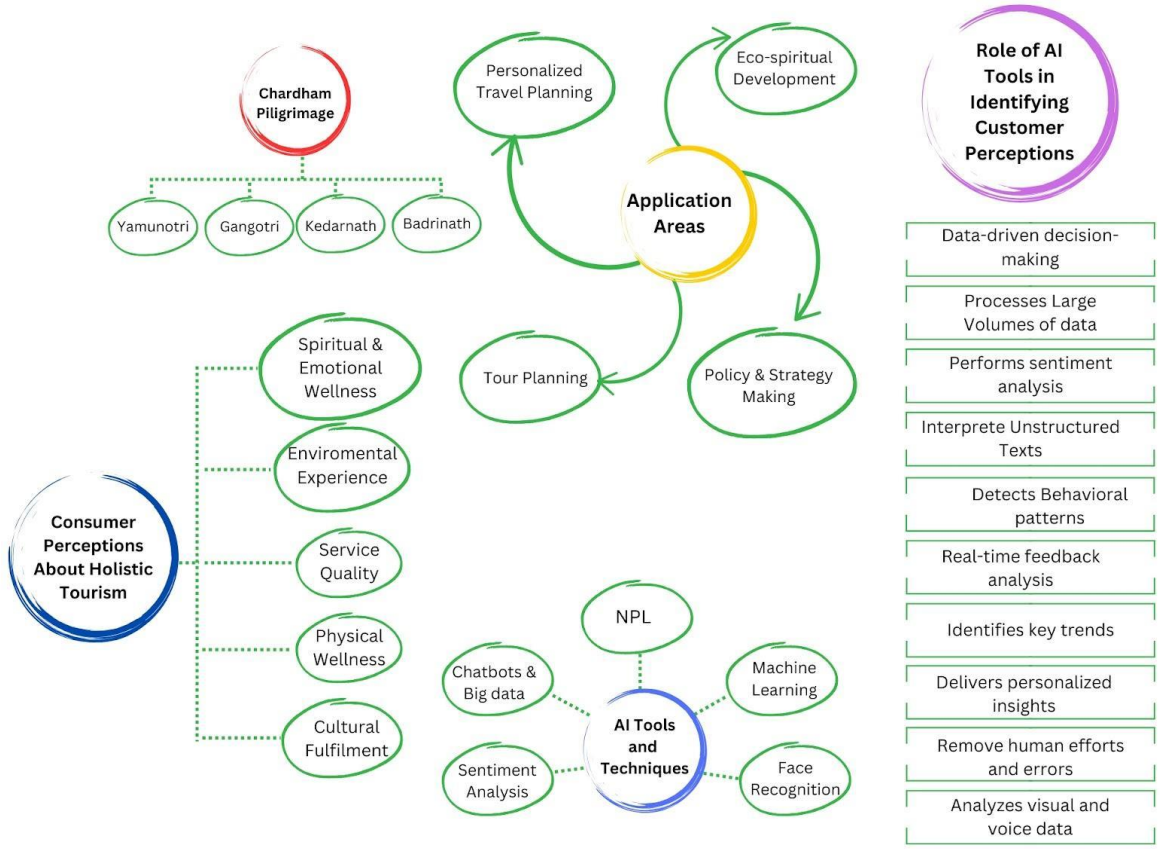
2023, 1.4 million tourists overcrowded the region in the first 20 days. Therefore, it has become quite important to preserve the holistic the essence of Chardham pilgrimage. Using AI for the data analyses on the customer's perception can be managed effectively.

Integrated Model of Chardham Pilgrimage, Customer Perception, AI Tools & Applications



Source: Self-developed by gathering various Literature Reviews

DISCUSSION

There is much importance in understanding consumer perceptions about holistic tourism, especially the Chardham in India. These four sacred religious sites are known for their peace and spiritual wellness. Due to its extreme popularity, it gets overcrowded many times so that visitors get a poor experience instead of holistic tourism. It has become a great challenge for the government and travel planners to deal with the situation. Tourists often express their experiences about spiritual and emotional wellness, service quality, physical wellness, environmental experience and cultural fulfilment. These multi-dimensional expectations lead to challenges in identifying the overall consumer perceptions about holistic tourism and lead to poor planning and management.

To cope with the situations, there are AI tools and techniques such as tools such as Natural Language Processing (NLP), Sentiment Analysis, Machine Learning, Chatbots and Big Data, and Face Recognition that help the tourism sector significantly in understanding consumer behaviour. These tools collect the data, and process and analyze the large-sized customer data way more effectively. These tools automatically analyze the data from various digital platforms be it reviews, blogs, and social media. AI has benefited the tourism sector amazingly by eliminating the need for manual analysis. Sentiment analysis can study emotional responses from textual feedback. The NLP can interpret unstructured texts and categorize them into effective themes. AI tools can also identify behavioural patterns and emerging trends among consumers. It helps to reduce human effort and flaws, analyse voice and visual data from customer interactions, and also provides personalized awareness. Lastly, it provides a 360-degree view of the customer perceptions.

Application Areas of AI in Chardham Tourism

The data analysed by AI has several application areas. It helps to optimize the routes and experience on the basis of real-time tourist expectations. It largely helps in policy and strategy making by enabling data-driven decisions at government and organisational levels regarding infrastructure development, hygiene facilities,

resting areas, and eco-spiritual development. It also helps travel agencies to offer personalized planning on wellness-based packages, off-peak travel options or curated spiritual experiences.

Scope for Future Research

Future studies can investigate how AI can be useful in real-time crowd management, predictive infrastructure planning, sustainability monitoring and various other factors. Also, there is scope for examining how AI-integrated mobile applications, augmented reality experiences and conversational AI can contribute to improving the spiritual journey like Chardham.

CONCLUSION

Using AI in the Chardham Pilgrimage ecosystem can enormously improve the quality, depth and sustainability of the pilgrim experience. With AI integration in tourism, travel planners, government, policymakers and service providers can create a spiritually, emotionally and environmentally fulfilling experience for holistic tourism.

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