

# A Study On Role of Technology in Tourism

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## **Abstract**

Tourism is travel for recreational, leisure or business purposes. Information technology (IT) is the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a microelectronics-based combination of computing and telecommunications. Information Technology in tourism is of special significance. Information technology is used for Transport sector, Accommodation sector and Attraction sector. These technologies are used in order to find out and satisfy the ever-changing demands for tourism. The information technology (IT) services and IT enabled services industries in India have become highly visible nodes of the global economy, attracting substantial attention from international media and business interests as a prime destination for outsourcing and off shoring. The successes of these industries, as well as the recent anti-outsourcing backlash in the U.S. have produced a new global image of India as a rising economic power. It has also created the figures of the Indian 'techie' and call centre agent as low cost. Technical workers who represent the main threat IT-related jobs in the current decade. IT has come to be regarded as a model for India's future tourism economic growth and E-tourism development, based on the policies of liberalization and globalization.

**Keywords:** Tourism, players involved in tourism, Information technology, services industries Transport sector, Accommodation sector Attraction sector, E-tourism.

## Introduction

Tourism is travel for recreational, leisure or business purposes. The World Tourism Organization defines tourists as people "travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes" E-tourism refers to a phenomenon and research area in which the adoption of information and communication technology (ICT) by tourists and businesses transforms the processes and the value chains in the tourism industry. This development changes the process within a business or organization while reconfiguring the landscape of commerce. IT is the area of managing technology and spans wide variety of areas that include but are not limited to things such as processes, computer software, information systems, computer hardware, programming languages, and data constructs. IT professionals perform a variety of functions (IT Disciplines/Competencies) that ranges from installing applications to designing complex computer networks and information databases. Information technology has deep implications for economic and social development. The most important benefit associated with the access to the new technologies is the increase in the supply of information. Information is shared and disseminated to larger audience. Secondly it reduces the cost of production. Knowledge is produced, transmitted, accessed and shared at the minimum cost. With the reduction in the transactional costs, there is also a reduction in the degree of inefficiencies and uncertainty. Thirdly it has overcome the constraints of distance and geography.

## Need of Information Technology in E-Tourism Development

Travel is a basic human nature. Technological revolutions in the last few decades and the resulting changes in the social systems go faster its intensity in the current century. Thus, tourism is presently a mass phenomenon involving every human being in the world. They need detailed information about each place they intend to visit. The specific elements of such information needs are: Geographical information on location, landscape and climate, etc. Information Needs in Tourism Accommodation, restaurant and shopping facilities Accessibility though air, railway, water and road and availability of scheduled means of transport Social customs, culture and other special features of the place Activities and entertainment facilities Seasons of visit and other unique features Quality of facilities and their standard prices including exchange rates Though the ultimate users of this information are the tourists, the actual benefits in money terms accrue to the tourism industry consisting of the destination managers and service providers. The travel intermediaries like travel agents, tour

operators, and reservation system store such information in respect of each destination to service their clients and improve their business. They need the information in the easiest retrieval format so that the information needs of the clients are met as quickly as possible. Tourists generally need both static and dynamic information. It includes details information about location, climate, attraction features, history, facilities available, etc. Information about airline, train and bus schedules, tariffs of transport and accommodation units and current availability of such facilities is considered as dynamic as they can change very frequently. These items of information have to be gathered, stored and disseminated on a real time basis. All types of reservation systems including air, railway and accommodation sectors contain such information.

The tourism industry is made up of three major components: namely, a) Transport sector b) Accommodation sector c) Attraction sector and Reservation System, such as that of Amadeus, Sabre, etc. are being used for car rental and information. 2) Railways is the most favoured form of travel. The computerization of the railway services was introduced a few years back. The software package used in ticketing and other customer services has been specially designed and developed for Railways. The computerized system broadly centres around the PNR (Passenger Name Report) number provided on each ticket of the customers. Each one of these PNR number is unique and identifies not only the person travelling on the ticket along with the passenger's personal details but also the train and the destination of travel. Now a person can book tickets well in advance of the date of travel and get reservation on the spot. The computerised ticketing system has also shown way to computerised customer service facilities. 3) Airlines The airlines have seen the maximum computerisation in the travel segment. Computer Reservation System (CRS) is widely used to book tickets in all the airlines. The CRS helps in generating a higher rate of occupancy and also provides a better scope of marketing and distribution to the airlines. The increasing popularity of air-travel globally, gave rise to the need of a better and efficient distribution mechanism. In the 1970s, the first Information and Reservation System (IRS) was developed in U.S. This system provided both information of tourism industry, including that of airline industry and also provided CRS for direct booking on the airline of choice. b) Accommodation sector The structure of the tourism industry meant that businesses in the accommodation sector lacked direct access to travellers and consumers. Business has changed the way firms in this sector can do business. In fact, groups in the hotel sector are developing communications networks designed to compete with Global Destination Systems (GDS)-A system containing information about availability, prices,

and related services for Airlines, Car Companies, Hotel Companies, Rail Companies, etc. and through which reservations can be made and tickets can be issued. A GDS also makes some or all of these functions available to subscribing travel agents, booking engines, and airlines. The GDS leaders are Amadeus, Apollo/Galileo/World span, Sabre. These GDS are important technology solutions for information management and are used primarily by travel agencies and airlines. To cope with this new competition, the GDS have become suppliers of technology solutions directed at accommodation. Expedia and E-Travel target leisure and business. c) Attraction sectoring the case of attractions both manmade and natural attraction owners need to communicate or inform their customers and potential customers about their production. Information about the kind of attraction, where they are located and how to get there is of vital importance. The attraction owners particularly the national tourist offices discharge their duty of promoting their country's tourist attractions using the information.

### **Internet and Tourism**

Internet is an interconnected system of networks that connects computers around the world via the TCP/IP protocol. Today, the internet is a global "people's network" for communicating and sharing information. It consists of two powerful tools- email and the World Wide Web. The WWW is the part of the internet where a vast global information resource, or library, has emerged in recent years. The use of the Internet for communicating and transacting with customers has been growing rapidly in the worldwide tourism & hotel industry. There has been rapid increase in the online booking in the hospitality & tourism industry e.g., e-booking of hotel/motel rooms, airline tickets, travel packages etc. due to the fact that the industry is one of several services – which can be checked, inquired, and ordered online easily, and conveniently communicated and delivered electronically via the Internet.

Following are different area where internet is used in tourism industry. a) Marketing Technology tap almost every aspect of marketing, including: online advertising editorial and newsletters Special website to provide information of specific region e. g. <http://www.maharashtratourism.gov.in> search engine marketing email promotion word-of-mouth via social networks like blogs with customer reviews, communities such as the free Flickr photo sharing website and YouTube video sharing site, discussion groups and face book b) Booking systems Latest research suggests that more than half those who travel book online when they have the option so it pays to have a real-time system for sales and reservations. c) Delivery of visitor experiences Tourism operators are using technology to: provide an initial

experience on-line, for example, experience-driven web content or tasters delivered pre-trip by online audio podcast or video clips deliver audio tours for use on-site via MP3 players provide interpretation via mobile phones or handheld devices link customers to other experiences in your region, such as recommending other things to see or do on your website or as part of your tour or experience. In this way, you can help your customers understand how they can be part of a bigger visitor experience

Following are some examples where uses of ICT in E- Tourism are possible.

- Managing destination resources
- Inventory of tourism resources
- Managing sites and attraction
- Identifying suitable locations for tourist
- Manage tourist statistics

## **Methodology**

Overview to review, the aim of this study is to examine tourism and technical computer science student's perceptions on the measurement techniques for Technology influences on the tourism industry. The first part of the thesis consists of a literature review constructed using primary (research, academic journals, IT conference reports, research reports, magazines, university dissertations) and secondary sources (textbooks, academic journal review articles, abstracts, open access journals)

## **E-Tourism Players and their Activities**

The main actors in the tourism industry include governments, tour operators, hotels, airlines and other transport operators, and tourists or consumers. Each of these actors has a stake in the development of the electronic market. Each is expected to be affected in different ways by the changes brought about by electronic commerce.

The concerns and interests of these stakeholders need to be addressed in order to ensure that changes are managed and promoted to the benefit of all. Each of these players utilise information and communication technology in their processes to complement each other on making e-tourism efficient. Some of the e-tourism activities performed by the main stakeholders are discussed below.

**E – Airlines:** Due to the complexity of airline operations, they realised the importance of IT very early as they believed that it will help them making them efficient, quick, low-cost and accurate management of their inventory and in-house organisation. Initially the bookings and reservations were made on physical display boards, where the travellers were listed. Travel agencies had to locate the finest routes and fares in physical and then check availability and make bookings by phone, prior to issuing a ticket manually.

Distribution is a vital component of airlines' approach and competitiveness, as it determines the cost and the capacity to access the travellers. The cost of distribution is increasing considerably and airlines find it difficult to control. Currently, the communication technology is used heavily to support the Internet distribution of airline seats. These systems are at the heart of airline operational and strategic agendas. This is particularly the case for smaller and regional carriers as well as no-frills airlines which cannot afford GDSs' fees and aim to sell their seats at competitive prices. This has forced even traditional or full-service to recognise the need for re-engineering the distribution processes, costs and pricing structures.

E-airlines focus on the following aspects:

- improving the accessibility, customer relationship and their business associates;
- Electronic bookings
- Online ticketing;
- Yield management
- E-auctions for very last minute available seats
- Disintermediation and restructuring of agency charge schemes
- increasing the productivity of the new channel in electronic distribution

Players like Air Asia, Tiger airways, all classical examples for e-airlines that work on customising the services based on the customers to work out on low cost fares. The electronic mode allows the customers to choose the options on unbundled packages in terms of travel insurance, additional luggage, Food, Choice of seat etc.

The Air Asia Web page displaying the online air ticket information and promotions, the web page contain provisions for checking availability, flight information, cost, etc. These web pages are easy and customer friendly and keeps promoting their e-airline initiatives through newspapers, through promotions.



Air Asia– example of an Airline whose business model is powered by the Internet

**E-Hospitality:** E-hospitality is beyond just distributing, servicing, as it offers more than that by supporting proven hospitality and technology products for the Hospitality Industry. Additionally, e -Hospitality offer support and services beyond just that of a front desk system vendor, therefore it is postured to assist properties with all aspects of the front desk and associated guest amenities from the phone system and voice mail to Pay per View (PPV) movies, secure high speed in rooms, lobby kiosks, and even guest printing/faxing from the guest rooms.

Hotels use information and communication technology in order to improve their operations, manage their inventory and maximise their profitability. Their systems facilitate both in-house management and distribution through electronic media. ‘Property management systems (PMSs)’ coordinate front office, sales, planning and operational functions by administrating reservations and managing the hotel inventory. Moreover, PMSs integrate the “back” and “front” of the house management and improve general administration functions such as accounting and finance; marketing research and planning; forecasting and yield management; payroll and personnel; and purchasing. Understandably, hotel chains gain more benefits from PMSs, as they can introduce a unified system for planning, budgeting and controlling and coordinating their properties centrally.

**E-Travel Agencies:** Information and communication technology has become a major tool for travel agencies as they provide information and reservation facilities and support the intermediation between consumers and principals. Travel agencies operate various reservation systems, which mainly enable them to check availability and make reservations for tourism products. Until recently GDSs have been critical for business travel agencies to access information and make reservations on scheduled airlines, hotel chains, car rentals and a variety of ancillary services. GDSs help construct complicated itineraries, while they provide upto-date schedules, prices and availability information, as well as an effective reservation method. In addition, they offered internal management modules integrating the “back office” (accounting, commission monitor, personnel) and “front office” (customers’ history, itinerary construction, ticketing and communication with suppliers).

Multiple travel agencies in particular experience more benefits by achieving better coordination and control between their remote branches and headquarters. Transactions can provide

invaluable data for financial and operational control as well as for marketing research, which can analyse the market fluctuations and improve tactical decisions

## Conclusion

This paper discusses field related to tourism and various information technologies available to enhance the existing infrastructure of tourism industry. The technologies mentioned is mostly applicable in Transport sector, Accommodation sector and Attraction sector. Using this, the present situation of tourism can be improved tremendously with the help of E-tourism strategies.

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