

# **E-Tourism and Its Impact of Promotion for the Himalayan Hill Station Sikkim: An Empirical Analysis for Information Management-Online and Off line Service Infrastructure**

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## **ABSTRACT**

The very basic presence of destination management organizations along with the industry players in World Wide Web is not all. Rather, the diversified usability is imperative even with many off line peripheral operations. The new means and uses of ICT have added a new meaning and wide domain with increasing strategic alliances and partnerships. Many off line information retrieving facilities have now become online with a scope for more updates and options. At this juncture of becoming off line to fully online, analysis of choosing a source of travel information for various uses is praise worthy and guide-full to similar tourist destinations of many developing nations in South Asia. The present article is an attempt to determine the future promotional strategy through the formulation of its mix by identifying the source of information (or enquiry) for tourists visiting Sikkim and actual booking made. This is done with a primary data collection in all four districts headquarters in Sikkim and statistical tools are Kendell's coefficient of concordance, Kolmogorov-Smirnov test and simple percentage analysis.

**KEYWORDS:** *E-Tourism, ICT, Online and Off line Service Infrastructure, PNR, PMS, GDSS, VLE, CRS, IDL*

## **Introduction**

Tourism is defined by the World Tourism Organization (NSCB, 2004), as the act of travelling for the purpose of recreation and the provision of services for this act. Tourism is no longer an elitist tag and has some specific advantages over other industries as it helps countries/States that are poor in material wealth but enriched in heritage, culture, history to utilize their unique characteristics as a revenue-generating source. Having been an actual demand, tourism supports many derived demands exhibiting through the networks of different supporting operations like restaurants, hotels, transport services, guides, local small scale industries and many more. This business involves many socioeconomic activities like promotion and advertising tourist spots and destinations, providing effective transport facility, fooding-lodging, entertainment etc. which tends to encourage the overall development of infrastructures that benefits the host countries. This industry is essentially a kind of service industry incorporating attraction features, accommodation units, restaurant facilities, guide services, and many more.

Information and communication is an integral part of any service industry and tourism is found to have been more influenced by the Information Communication Technologies (ICT) with its distinctive features and dimensions. Information Technology breaks the geographical boundaries and share with the global audiences. It integrates between tourism products and requirement of the tourists at door steps or almost everywhere. Information technology is being rapidly diffused throughout the tourism industry and that no player will escape from it in future. Information and Communication Technology (ICT) can lead tourism to emerge as a new mantra for alternative economic development. The importance of tourism has been increasing globally and India is not exception to that. Now, tourism is a vital part of Indian economy and many Indian States sharing the mighty Himalaya are depending more on tourism day after day. Sikkim is the 22<sup>nd</sup> Indian State with excellent scope for tourism. Sikkim is a small hilly state, bounded by vast stretches of Tibetan plateau in the North, the Chumbi Valley and the kingdom Bhutan in the East, the kingdom of Nepal in the west and Darjeeling (West Bengal) in the South. Its latitude is 27°30' north and the longitude is 88°30' east. Sikkim is famous for scenic valleys forest, snow clad mountains, magnificent Buddhist culture and heritage and peace-loving people. Though small, the environmental, social and cultural diversities are not so. Some scholars believe that the word Sikkim involves Nepalese dialect and it refers to a '*now place*' or the term has been derived from a Sanskrit word which means a '*mountain crest*'. The people of Sikkim have ethnic diversity. Now this 22<sup>nd</sup> Indian State (joined Indian Union in 1975) has Over 81% of the total geographical area under the administrative managerial control of the Ministry of Environment and Forest, Government of India. Over 45% of the total geographical area of the state is under tree cover and nearly 34% of the geographical area is set aside as protected area network in the form of national park and wildlife sanctuary. The maximum summer temperature 28°C and minimum winter temperature is 0°C. Sikkim has a variety of mineral resources including coal, limestone, iron ore, graphite, pyrite etc. The temperature in the bottom of the valleys (up to 600 meters) situated at lower elevations, particularly during summers, are similar to the monsoon type of climate. The temperature starts falling between 600 meters to 2000 metres above sea level enjoys cool temperature climatic conditions and further up (2000 meters to 3000 metres) it is cold temperate climate. Arctic type of climate is found above 5000 meters. Sikkim is ecologically a fragile region. The state has the responsibility to conserve its rich biological diversity that includes coexistence and protection of over 5000 species of angiosperm (one third of the total national angiosperms). Again this place has multi-ethnic communities. So the need for ecological, cultural and social diversities is not only essential but imperative as well. The people of Sikkim have ethnic diversity. The Bhutias came from Tibet, the Lepchas were the aboriginal community and the Nepalese came from Nepal. When Sikkim was an independent state it faced many invasion by its neighbouring countries and the king took the help of British India and, later, gifted some of its region including Darjeeling to the British Indian Govt. Ever increasing tourist arrival and increasing dependence on tourism as a powerful industry and employment generating source, restoration of peace and harmony, hospitable people, plenty of diversified natural and cultural resources, a typical interest of the people of India to discover the unknown hidden Sikkim brought

about a new dimension for the development and marketing of tourism in Sikkim. Development and adoption of marketing approach extensively include a demand – supply equilibrium and as such takes into account tourism system. Destination marketing is unlike a marketing of essential consumables as it considers and move towards the characteristics of services. Again, in many cases the adoption and control is not fully devolved upon corporate sectors. As a service marketing sphere, it includes customer relationship management, internal marketing (with respect to a destination where all stakeholders are part of the product and contribute to the image and identity), increased importance of strategic alliances/ linkage etc. Destination marketing should be a part of destination management but in Indian destinations the concept is not in vogue and very often management and marketing are wrongly conglomerated with each other. There are very few destinations well managed by scientific research and background analysis. Sikkim has poor quality database and only in few cases the available data have been scientifically analyzed and interpreted as majority of destination planners and government officials are not from tourism background. So, an understanding of the demand for Sikkim as a destination and the capacity levels (physical, biological, social, psychological, financial) largely contribute to the overall marketing strategy. The government of Sikkim is one of the very few Indian states trying to optimize benefits from tourism for their local people. The recently adopted policy to project the state as an Ultimate Ecotourism Destination was really a committed responsibility towards sustainable development. Next to this is rural tourism and adventure tourism. Almost all these tourism facilities will contribute to the alternative tourism development in the state and the changes in types and forms of tourism will automatically have an impact on the activities of the tourists, duration of stay, the number of tourist arrivals and the tourism industry as a whole. So a proactive environment friendly approach has already been adopted in the marketing mix and Unique Selling Proposition (USP) of Sikkim though there are many things still remaining. The major task for the government is how to coordinate and control interest of all participants and infuse the idea of sustainable practices in the state. The priority area is really confusing as there is a traditional clash between development and conservation. The destination marketing should not only increase the arrival of tourists but also be proactive in selecting target groups and introduce sustainable practices including mass awareness for environmental conservation.

### **Research Objectives:**

The objectives of present study are as follows:

- 1) To discuss about ICT and its impact on tourism in general.
- 2) To figure out different ICT based tourism marketing factors.
- 3) To analyze different sources of information regarding amenities and reservation strategy.

### **Review of Literature**

According to a current report by COMCEC on Effective Tourism Marketing Strategies, there are four active elements that have significant influence on ICT-based tourism marketing and these are skilled workforce, digital marketing strategy, strong ICT infrastructure and public-private participation.

In his article 'Strategic use of information technologies in the tourism industry' Buhalis D. (1998), opined how Information technologies (ITs) prevailed in all functions of strategic and operational management as information was found to be the lifeblood of tourism and provided both opportunities and challenges for the industry. Though he accepted the uncertainty experienced in the development of ITs in tourism, yet the 'only constant found there was change. Increasingly, organizations and destinations, which need to compete, were forced to compute unless the current tourism industry improved its competitiveness by utilizing the emerging ITs and innovative management methods. He warned a danger for exogenous players to enter the marketplace and to jeopardize the position of the existing ones. He mentioned that only creative and innovative suppliers would be able to survive the competition in the new millennium. A continuous business process re-engineering was proposed by him in order to ensure a wide range of prerequisites such as vision, rational organization, commitment and training so they could enable destinations and principals to capitalize on the unprecedented opportunities emerging through ITs.

In their article, 'Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research' Buhalis D. & Law R. (2008) reviewed and analysed prior studies in the context of Internet applications to tourism and projected future developments in eTourism and demonstrated critical changes that were influencing the tourism industry structure. The major contribution of this paper was its overview of the research and development efforts that had been endeavoured in the field, and the challenges that tourism researchers were, and would be, facing.

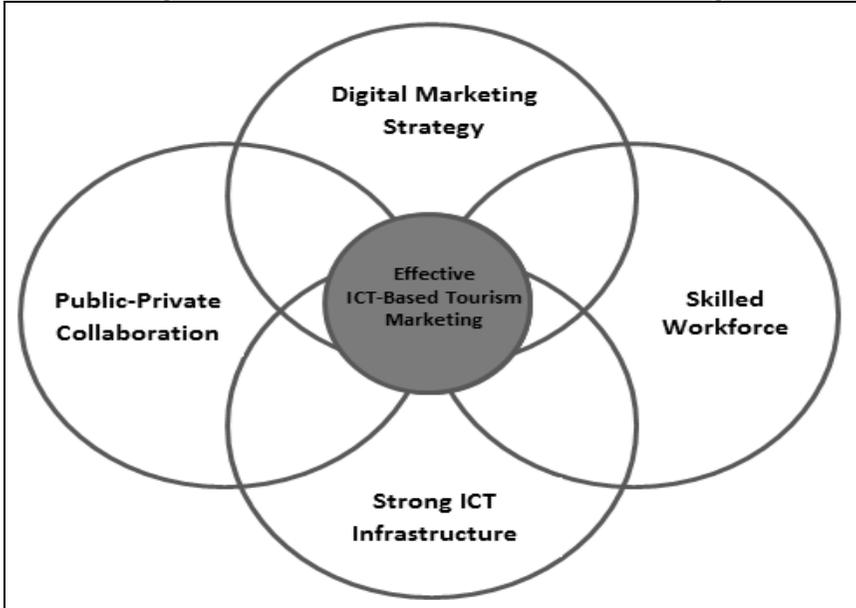
Chaudhuri S. & Ray N. (2016) propounded how tourism industry widely implemented Web based Geographic Information System in order to improve information sharing, monitoring-planning and overall tourism and destination management. Geospatial Mashup is an interactive and collaborative Web 2.0 application that helped in integrating heterogeneous data from various resources to create internet based collaborative geospatial information system. Their paper focused on how the Geospatial Mashups had a huge potential in the field of tourism marketing and promotion. The current study also highlighted on the basic architecture, working principles and effective implementation of Mashup technology in tourism industry. According to their interpretations of strategy and models for strategy formulation in tourism most of those were prescriptive and there was a need for further empirical research about patterns and processes that accompany tourism strategies other than planning (Mintzberg 1994).

According to the Mürstaja H (2003) the best destination development plans were worked out in cooperation with private, public and non-profit sector. Following the opinion of the author, one could win through cooperation and improvement and not through inner competition and division (Godfrey, Clarke 2000). Organizing and coordinating were the activities with the key meaning of development. An ideal variant would be if someone took the whole responsibility for tourism development, but still a better solution would be formation of a holding enterprise that would represent and coordinate different local groups.

Tourism marketing is most effective when it illustrates the composite experience of a destination and not simply a laundry list of attractions and

accommodations. The next section will highlight on some cost-effective and user-friendly ICT initiatives for tourism marketing. Brand Strategy: In any industry, a group of customers rely on the brand name.

**Figure 1: Effective ICT Based Tourism Marketing**



Source : Chaudhuri & Ray (2016) Geospatial Mashups: Internet Based Promotional Tool For Tourism Development, Proceedings

### **Main Sources of Information about the Destination:**

As a majority among all destination stakeholders, tourists were asked as to how they collect information regarding their trip beforehand. An interesting result was brought to notice that the maximum number of tourists of 33.83%, 29.85% and 34.83% depend on internet and use-net facility as a source of updated , reliable information for accommodation, transportation and attraction respectively for Sikkim.

Again, informal destination information (IDI) or what do we understand by information through friends, relatives and other visitors was given the second importance with 26.86% (21.89%+ 4.97%), 31.84% (20.9%+ 10.94%) and 22.88% (12.93% + 9.95%) for, accommodation, transportation and attraction respectively. These figures clearly show that tourists rely more on informal information for their accommodation than any other sources. Internet service is found to be the single largest source of information for attraction with 34.83% followed by guidebook, friends, relatives and other visitors and the offices of the department of tourism with 28.86%, 22.88% and 10.94% respectively.

Keeping in view the importance of each source of information the strategy for sustainable marketing and promotion shall revolve around the weight introduced by per cent ages. Tourists were asked to rank the source of information separately for each principal/service provider to know their preference and access to the

source. This was important for identifying the appropriate mean to use and accordingly to give correct weight. Following is the table showing the number of respondents for each principal supplier of tourism in Sikkim.

**Table 1 : Distribution of Various Sources of Information**

<i>Source of Information</i>	<i>Transportation</i>	<i>Accommodation</i>	<i>Attraction</i>
Guide Book	56 (27.86)	54 (26.87)	58 (28.86)
Print Media	2 (.99)	5 (2.49)	2 (.99)
Television/Radio	5 (2.49)	2 (.99)	3 (1.49)
Internet	68 (33.83)	60 (29.85)	70 (34.83)
Relatives/ Friends	44 (21.89)	42 (20.9)	26 (12.93)
People Visited (other than Friends/Relatives)	10 (4.97)	22 (10.94)	20 (9.95)
Tourism Department (Offices)	16 (7.96)	16 (7.96)	22 (10.94)

Source: Field Survey 2015-16

Note: Figures in the parentheses indicate percentage of respondents marking the concerned source of information as 1 (being the most important).

Apparently, it appears that the maximum number of people use internet as the appropriate source of information even for all major principals of tourism products in Sikkim. The Kolmogorov-Smirnov test was done by setting the null hypothesis that 'there is no preference for selecting a source of information before visiting Sikkim. Here the same test statistic separately for accommodation, transportation and attraction. The calculated value of mode  $[F_0(x) - S_n(x)]$  for each principal is given here under.

**Table 2: Calculated Value of D for the Priority of Source of Information**

<b>Difference</b>	<b>Guide Book</b>	<b>Print Media</b>	<b>T.V./ Radio</b>	<b>Internet</b>	<b>Relatives/ Friends</b>	<b>People already Visited</b>	<b>Tourism Department (Offices)</b>
$[F_0(x) - S_n(x)]$ for Accommodation	0.136	0.002	0.115.	0.081	0.157	0.064	0
$[F_0(x) - S_n(x)]$ for Transportation	0.126	0.008	0.125	0.031	0.097	0.063	0
$[F_0(x) - S_n(x)]$ for Attraction	0.146	0.013	0.115	0.091	0.077	0.034	0

Considering the maximum value of D at each case we can conclude that there is a priority for the selection of an appropriate source of information when planning to

visit Sikkim. But which one or two or more are given priority for each case cannot be computed by the K-Smirnov test and as such Mean of Ranks ( $\bar{R}_j$ ) was used to compute further ranks for each component of travel from Kendall's coefficient of Concordance. A table is given here under showing the Mean of Ranks ( $\bar{R}_j$ ) derived from the test. Here the null hypothesis (H0) was 'Individual wise Ranks are Consistent'. As the P Value was greater than 0.10, we accepted the null hypothesis and considered the mean of ranks as a suitable rank test for showing the ranks of priority considered in each case.

**Table 3: Mean of Ranks for Various Sources of Information Collected by Tourists Visiting Sikkim**

Source of Information	Attraction		Accommodation		Transportation	
	Mean of Ranks	Ranks	Mean of ranks f	Ranks	Mean of ranks	Ranks
Guide book	2.5	2	2.89	2	2.64	2
Print media	4.56	5	4.86	6	4.84	5.5
TV/ Radio	5.52	7	6.13	7	5.81	7
Internet	2.36	1	2.56	1	2.50	1
Relatives and Friends	4.35	4	3.19	3	3.71	4
People already Visited	4.92	6	4.05	5	4.84	5.5
Offices of Tourism Department	3.78	3	4.33	4	3.66	3

Source: Field Survey 2015-16

Note: Statistical analysis has been made using SPSS statistical Package

Though the number of internet users in our country is significantly low, yet the same is not true for tourism industry and as such the use of internet is the most widely used and preferable source of firsthand information before visiting Sikkim. The second most user friendly source of prior information is guidebook for all cases of attraction, accommodation and transportation. Interestingly, third rank (3.19) for the source of information of accommodation was 'Relatives and Friends' while the same rank is given to the 'Offices of tourism Department(s)' for attraction and transportation respectively. For transport and accommodation related information in or around Sikkim tourists depends on Relatives and Friends (3.71) and experienced people (4.05) with the rank four in either case. But the same rank is given to the Guide book as a source of attraction. Fifth rank is given to print media, People already visited and both (5.5) for attraction, accommodation and transportation respectively.

### **Booking Strategy Contributing to Travel Distribution**

Another important area was "encountering with a number of problems while booking". This area was significantly addressing distribution related issues and its strategy while justifying convenient points of sales and suitable access to tourists visiting Sikkim. Considering the major problems of other Indian hill stations four most important problems were incorporated and studied with respect to attraction

(place), accommodation and transportation respectively. The first approach over here was to identify whether there is an important problem area among these four issues. Considering the priority rank one for each case a table is prepared here under.

**Table 4: Table Showing the Severity Rank for Problem(s) Encountered during Booking**

Variables	Unreliable information	Inaccessible booking counter	Unreliable travel agency service	Inhospitable staff
Attraction	75	32	74	20
Accommodation	52	58	50	41
Cab/ Coach	43	64	62	32

Source: Field Survey 2015-16

Note: Figures in the parentheses indicate percentage of respondents marking the concerned problem of booking as 1 (being the severest).

Considering the above table and respective null hypotheses Kolmogorov Smirnov test was used. Here we used the same test statistic separately for accommodation, transportation and attraction.

The calculated value of  $[F_0(x) - S_n(x)]$  for each principal is given here under.

**Table 5: Calculated Value of D for the Booking Problems While Visiting Sikkim**

Difference	Booking Problems while Visiting Sikkim			
	Unreliable information	Inaccessible booking counter	Unreliable travel agency service	Inhospitable staff
$[F_0(x) - S_n(x)]$ for Attraction	0.123	0.032	0.15	0
$[F_0(x) - S_n(x)]$ for Accommodation	0.009	0.047	0.046	0
$[F_0(x) - S_n(x)]$ for Cab/Coach	0.036	0.032	0.091	0

As n is larger than 35, the critical value for D is given by

$$D^* = 1.36 / \sqrt{n} = 1.36 / \sqrt{200} = 0.096$$

The maximum computed value for D was greater only in the case of attraction and it expresses that there was a comparative severity. Surprisingly, the maximum values for other cases were less than the critical value (0.096) and as such we conclude that there was no comparative severity in either case of accommodation and transportation. Kendall's Coefficient of Concordance was used to test the consistency of ranks at individual level. Here, the null hypothesis (H<sub>0</sub>) was 'individual wise ranks are consistent'. The null hypothesis was accepted as the P value was greater than 0.10. Following is the table showing mean of ranks ( $\bar{r}_j$ ) computed to test consistency of ranks by Kendall's Coefficient of Concordance.

**Table 6: Table Showing Mean of Ranks for the Problems of Booking while Visiting Sikkim**

Booking Problems	Attraction		Accommodation		Cab/ Coaches	
	Mean of Ranks	Ranks	Mean of Ranks	Ranks	Mean of Ranks	Ranks
Unreliable information	2.05	1	2.5	3	2.7	3
Inaccessible Booking Counter	2.45	3	2.4	2	1.99	1
Inhospitable Stuff	2.32	2	2.28	1	2.29	2
Unreliable Travel Agency Services	3.17	4	2.82	4	3.03	4

Source: Field Survey 2015-16

Note: Statistical analysis has been made using SPSS statistical Package

Considering the above table we explain that unreliable and misleading information, inhospitable stuff and inaccessible booking counters are among major problems tourists are encountering with. Considering all possible sources of information for attraction, tourists emphasized more on unreliable information as there was a significant gap between the information they were provided and information based on which they have actually experienced the visit. For accommodation, inhospitable staffs were found to be the major problem as the 'moments of truth' or the process of delivering of service was found to be very poor. This is not because of the intention of the staff but the education and training they were not provided with. On the other hand, we feel the need for professional staff responsible for conducting tour and customer interaction. Adequate number of booking counters was not found in all areas of Sikkim as the development of tourism principal suppliers is largely Gangtok-centric and along very few routes in the state. Here, tourists were also asked to consider booking counters in West Bengal and other neighbouring states. A significant number of respondents were combining two or more problems or directly quoting new problems such as poor guiding facility, poor quality food and beverages, poor hygienic conditions, and other basic infrastructure related problems along with these distribution strategy related issues.

### **Relation between Information Technology and Tourism**

Information technology can be used not only for operational purposes, but also for tactical and strategic management. As a result, tourism sector is empowered to communicate directly and more efficiently with prospective travellers and suppliers as well as to achieve competitive advantage. Information Technology is a combination of hard ware and software. Hardware and software include keyboard, mouse, touch screen, optical bar code, etc. Software application includes both system and application of software. Operating systems are DOS, Windows 98, Novell Netware and UNIX becoming more user-friendly and less proprietary allowing different software packages to be used on different traveling operating system. Application software used in tourism includes both generic business software such as spread sheet, database, desktop publishing etc. Airline Sector is a part of Tourism sector. This sector (airline) is a heavy user of information technology. CRS

(Computerized Reservation System) is one of them. Computer reservations system (CRS) is a computerized system used to store and retrieve information and conduct transactions related to air travel. Originally designed and operated by airlines, CRSs were later extended for the use of travel agents; major CRS operations that book and sell tickets for multiple airlines are known as global distribution systems (GDS). CRS helps to store information of schedule, travel routes, fares, fare rules, ticketing, passenger's seat plan etc.

**Table 7: Core Software (Property Management System) Used in Hotels**

ASI Front Desk Freeware 2007	hotel maintenance software, hotel reservations, hotel billing software, hotel accounting accommodation software, and booking software
eZee Front Desk Hotel Software 5.2	eZee Front Desk is a general purpose hotel and motel software which is can be used as a hotel maintenance software, hotel management software, hotel billing software, hotel property management software (pms).
SIMSOFTE Hotel pro 2006	Low-price hotel software, designed for daily operation of jasmine and up to star hotels, includes front office (booking, payment/billing), inventory, housekeeping and bookkeeping (reporting).
room Master 2000 Hotel Reservation Software 11	Advance reservations and deposits handling Group blocks Emailing/Printing of confirmation letters Reception/Front Desk, check-in, check-out, billing, multiple folios per guest Daily banking, Shift changing and financial audit trails Housekeeping, Lost and found and Maintenance.
EXSS Facility Manager 5.2	EXSS Facility Manager is designed specifically for small hotels, universities, fitness centers, SPAs, sports arenas, gymnasiums, rent-a-cars, service areas, sanatoriums, pensions, rental facilities, etc.
Joomla Hotel Booking Component 1.0	Joomla Hotel Booking/Reservation System to be used together with a Content Management System (CMS) called Joomla!. Joomla and Joomla HBS are written in PHP and made for easy use in a PHP/MySQL environment.

Most vital application of information technology used by travel agencies. Amadeus is one of the Computerized Reservation software which provides customer management solutions in aviation sector like solutions; get rid of paper tickets and quickly interline with more than 100 airlines, Fares & Availability Management, fast, flexible and competitive travel solutions. Revenue Integrity, Secures revenue with Amadeus' portfolio of automated integrity tools, Amadeus PNR Data Feed Up-to-date PNR information direct link to data warehouse. They may be used to run other varieties updated software applications like TPS (Travel Policy Software) which helps Agent Details, Agent Pad, Renewals, Agent Returns – Manual from pads and electronic transfer, Agent Invoicing, Premium Calculation, Annual Renewals - Direct Sales or by Agent, tour Operators Returns, Import/Export Data E-mail & Fax

Facilities, FAS (Fare Auditing Software). They often use back office software for their accounting process, tracking their commission, customer information for marketing purpose. In hotels peripherals are usually connected to a central unit. The more advanced property management systems (PMS) provides seamless connections between different elements of hotels operations and creates links to external communication network (Chervenak 1993; Wolff 1998a).

Group Decision Support Systems (GDSS) may play a role in reducing the need for management meetings and in speeding up the decision making process. With GDSS software and the LAN, real time discussion and debates can be held from individual offices and computer screens. Idea generation and brainstorming are argued by some to be particularly well suited to this approach (Davin 1997).

Transportation is a vital key factor of tourism sector. Now a days different mode of transportation vouches are well equipped with good communication equipment. Aviation takes help of modern technology information about weather, altitude, air traffic control. In-flight entertainment like videos, movies, video games. Virtual Learning Environments (VLEs) helps to support their class teaching, distribute notes and link to resources, stimulate discussion and facilitating marking and course administration. E Learning is also utilized as an essential feature of training delivery of guide, but the application of such system and adoption differ one companies to another. It has been accepted as a means of increasing skills and knowledge, and is being integrated into their training strategy along with other methods of delivering training.

Reservation is a core function of tourism. Now days today, the user has direct access to essential travel information and can find further information in all CRSs about trade shows, visa regulations, particular events etc. Passenger Name Record (PNR) or Guest Name Record (GMR) is created for each passenger or each group of passengers at the time of reservation. These records contain all services-related customer information. Other than these services CSR, helps fare quote and ticketing, internal administration, agent commission, invoicing, accounting, customer and quota management increasingly depend on this particular system. The core functions, which a PMS can handle, are reservations, front office operations, some back office operations and some managerial functions. A PMS is commonly used for handling the accounting functions of the various departments in a Hotel. With the ever-increasing need to use the net, Tourism has entered a new era. Virtual travel has gained popularity and a tourist if he wishes can use the various tools and internet, sit at the comfort of his office or home, and do a virtual travel. Earlier there used to armchair travelogue creators who used to design the show from articles and hearsays. Now travel writing has been simplified just because there is a plethora of information in CD's, brochures and on the net. There are even virtual travel agencies on the net, which offers a tour through its gallery and offers a great deal of information. Gone are the days when a guide used to take travellers for ride narrating several cock and bull stories and feeding the customers with false information. Virtual travellers are more informed and many of them do not even need an introduction to a destination, which they plan to visit (Ray et al. 2011).

The wisdom of the markets suggests that hospitality companies must embrace technology to compete with the traditional competitors, as well as entrants that build their businesses with the latest technology. Amidst the environment

dynamics, models of distribution must be designed along with a strategic information management to function and facilitate the business mission of its enterprise through managed information, managed processes, and managed Information Technology (IT). The overall functionality of computer applications is similar across a range of different hospitality organizations though the technology used to support them may vary at micro level. Broadly, applications of computer technology in the tourism sector can be grouped under three main segments: (a) operational – OR (b) guest services – GS and (c) management information – MI. Information technologies applied to the tourism system will increase the efficiency and quality of services provided and leads to new combinations of tourism services. Since tourism is very much to travel, the diffusion of the systems of information technology in tourism has already led to the generation of new services, such as online brochures and interactive video text, which marks the increase in the efficiency, quality and flexibility with the travel services.

Nevertheless, technology has the greatest impact on the marketing and distribution of travel but leaves relatively untouched the human-intensive areas of guest-host relations and supplier-consumer relationships. Together with the manifest of human content to travel and the systematic use of information technologies by all tourism suppliers along with the profound impact on travel industry created the new tourism best practice and total system of wealth creation. The Internet provides many advantages like. Enhanced level of collaboration between tourism operators, for example travel agencies and service provider pre-arrangements with respective suppliers no longer necessary; web service discovery will identify alternatives, enabling holiday packages to be constructed; greater negotiation of service to be purchased and customization of services/activities. Generally greater levels of interoperability with internal and external applications. The use of the Internet by airlines to communicate information is becoming prevalent (Driver 1999). This relates both to hard information, in the form of schedules and the availability of fare information, and to the softer areas of more general company information. Web presence is itself significant but the design of the site even more important. From a consumer perspective it must be relevant and useful, with easy navigation features so that the time spent on a visit is fruitful. Moreover, the site should invite revisiting for there is a critical difference in the initial motivation to visit and to contact again.

## **Conclusion**

Technological advancement that occurred in the 80's was generally due to improved computer hardware and software systems. Reservation system, cost analysis and operational analysis were revolutionized. Data base systems allowed for substantial advances in identifying customers and marketing of tourism products. Despite the value of these advances, industry professionals and hospitality educators now need to recognize the power and limitations of information technology and develop a broader perspective; otherwise, they will lose control over this resourceful industry.

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