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## MOBILE TRAVEL APPLICATIONS AND ITS IMPACT ON CUSTOMERS BUYING BEHAVIOUR IN TOURISM SECTOR

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### ABSTRACT

*Tourism is the fastest growing as well as the largest industry in the world. Information Technology (IT) is developing with high rate and its growth reflects to the tourism field as well. Today's newest phenomenon Smartphone's Mobile Travel Applications in tourism business should be taken into consideration. A traveller needs information in all the three stages of the trip namely pre-trip, in-trip and post-trip. Easiness and convenience are the key elements to Mobile Travel Applications. The tourism industry is extremely customer driven and their satisfaction level can shift the direction of how the tourism sector provides a quality in service. For mobile travel business it is a real challenge to stay in the changing needs and wants of the customers, because in the end customers are the ones who rule the industry. This study focuses on Mobile Travel Applications usage and its impact on customers buying behaviour in tourism sector.*

**Keywords:** *Tourism, Information Technology, Smartphone, Mobile Travel Applications, Customers buying behavior*

### INTRODUCTION

Travel and Tourism is the largest service industry in India. It is expected that the tourism sectors contribution to the country's gross domestic product (GDP) will grow at the rate of 7.8 percent yearly in the period 2013-2023<sup>[6]</sup>. Tourism business is going to be one of the biggest businesses in the global economy when taking into consideration the facts that the world's population ages and travelling becomes cheaper and quicker every day<sup>[5]</sup>. Information technology (IT) has grown tremendously and it has brought many new opportunities to the people in tourism business field. When combining these two, Information Technology and tourism business, it will serve a new area in communication and as a distribution channel for the suppliers in terms of travel services and products but also for electronic travelers, also known as e-travelers, from all over the world<sup>[3]</sup>. Online bookings in flights, hotels, car rental, restaurants, and destination attractions etc. are an effect of Information Technology's control over the tourism industry.

On-line communities are defined as users who live in different places all around the world but communicate with one another through Internet. These virtual communities can be established between people with common interests, therefore travelling and tourism is one good reason to communicate and share experiences through web.



Smartphone's are said to be wearable computing systems which can be used anywhere the person goes. Internet access and calls can be made almost everywhere in the world<sup>[2]</sup>. As a term Smartphone means "an interpersonal communication device to a multimedia machine...It contains functions such as instant messaging, downloading applications, utilizing information services such as Wi-Fi and global positioning system (GPS) and entertainment"<sup>[4]</sup>. Smartphone's are the newest phenomenon in tourism business to taken into serious consideration, especially Mobile Travel Applications (MTA) which can help the traveller to enjoy trip in a convenient way by accessing the information wherever needed. These applications can be divided into travel agencies, hotels, car rental, airlines etc. separate applications or into one whole mobile travel tour operator application. A MTA is seen as an application which can help the user when planning a trip, on a trip and after a trip. Go Tourist is an open data apps challenge which access to service providers to register and dashboard services is displayed both to the service provider and Ministry based on real time feedback received from tourists<sup>[9]</sup>. The customers are in forefront of the marketing strategy because they are telling the companies what they want to get for their money. Customers buying behavior in tourism should be divided into experienced and inexperienced travellers. This distinction should also be made in online users. Money has a bigger value now than ever before<sup>[3]</sup>. Value of time and value of money will also be equally important for the future customers. As Buhalis (2003) states there will be more and more emotional decisions made when a consumer is put under a time pressure situation for example by a travel application provider. The customers' buying behavior is changing towards the mobile world. Future customers seek is the feel of security, easiness and simplicity when using MTA.

This paper is organized as follows. In section 2 reviews the related literature, section 3 & 4 emphasizes on need for the study & statement of problem, and section 5 is devoted to the objectives, section 6 designed for methodology of the research, section 7 for SWOT analysis. The major findings and discussion are demonstrated in section 8, section 9 suggestions on the obtained results and finally section 10 conclusion of the paper.

## LITERATURE REVIEW

Literature review presents a review of the available literature on the topic under study which is searched based on tourism literature through the various databases like online and printed journals, scholarly articles.

### *Information Technology in Tourism sector*

Hemminki (2010) highlights retail is now going to be in the 'market spaces' not in the market places where they physically meet.

Tsiotsou & Ratten (2010) clearly states that new technologies in tourism field are trying to reach their customers by offering customized services, and are also competing efficiently with other retailers and distribution channels Egger & Buhalis (2008) has revealed that to market travelling facilities in the Internet is not only inevitable in today's world but also vital to the tourism business in general. For tourism business, Internet is the primary source to seek information about travelling.

Buhalis & Costa (2006) states that Internet has changed the perception of time and place what means for travel and tourism business new strategic models in marketing and new methods to the field in general.

According to Buhalis (2003) emphasizes that Tourism sector is an industry where businesses rely on their partners and suppliers to collaborate closely to deliver their products to their consumers. With this being said ICTs effect to tourism is immense. That makes it also possible for the travellers and general public to interact with the companies and their partners.

### ***Smartphone and Mobile Travel Applications***

Cao and Nguyen (2012) have implemented a system called the Semantic Tourist information Access and Recommending (STAAR) which helps tourists to find relevant information aimed for them to plan their itineraries and trips using web and Smartphone.

According to Doughty (2011) emphasizes that all over the world the Smartphone sales have exceeded the expectations with approaching the point where one in five mobile phones is smart.

Ting et al. (2011) states that the dual-use of laptop and mobile phone as a Smartphone makes many consumers think about their consuming patterns. Some new buyers of Smartphone have bypassed the usage of laptops and ended their Internet broadband connection to save money and have it as a mobile broadband connection only.

Tsiotsou & Ratten (2010) has revealed that Today's tourists have become the producers of information for tourism suppliers and destinations. They no longer only accept the information that is given to them and consume the tourism services as they are.

Ruiz-Molina et al. (2010) highlights what also can be taken into consideration is that customers guide other customers on their decisions.

### ***Customers buying behavior of Smartphone users***

Dawson (2007) emphasizes a method in measuring, what the consumers expect and want from future services in the mobile world is the "Long Tail" model. The parts of the model can be called: head, shoulder and tail. In the "head" part there is a wide spectrum of different kinds of services and service providers and focus on the audience is broad plus the costs of the production are big. "Shoulder" part is when there is a clear niche for the application, when it is explicit who is the end consumer and the service provider. Lastly "tail" part refers to a micro level audience and the cost of the content production is minimalist.

Buhalis & Costa (2006) states that the new era for travelers to find the best technology to the need identification and personalized content and design of travel has become an important factor.



Tourism marketers on Smartphone the target market needs to be clear before entering the industry. Buhalis (2003) has revealed that Customer satisfaction is dependent on the exactness and comprehensiveness of valid information which concerns destination accessibility, services and attractions.

Buhalis & Laws (2001) states the future consumer applies as well for the Smartphone users and their buying behavior. From their perspective the future consumers insist better service. These consumers are well educated and look for products that can educate and inform them. They are willing to spend more money on travel but on the other hand can have shorter planning horizons, which means quicker action in the service providers' site and in this case in the application providers' behalf. They seek individual travelling packages which results more segmented marketing tactics. They ask more value for their money which makes them more critical consumers than before.

### **NEED FOR THE STUDY**

The need of this study is to give information about how to travel smart when using a Smartphone and the MTA in it. There is a need to know the customers buying behaviour and usability of MTA. Further, it is necessary to find what the customers expect and want from future services in the mobile world.

### **STATEMENT OF THE PROBLEM**

Tourism is the fastest growing and also the largest industry in the world. The effects of the fast grow in the IT has had huge impact on tourism sector. Cooperation of IT and tourism is becoming strongly the backbone that facilitates tourism. This paper examines the customers buying behaviour and usage of Smartphone downloaded MTAs related to tourism business. It discusses the changes that the MTA have brought to tourism sector. This study focused to find the changes of customers buying behavior from traditional to internet and presently towards using MTA. It is also necessary to analyse what is the future customers seek when using MTA.

### **OBJECTIVES OF THE STUDY**

The objectives of the study are:

- a. To know today's implementation of Information technology in tourism sector.
- b. To examine the usability and benefits of Smartphone & Mobile Travel Application in Tourism sector.
- c. To study the impact of Mobile Travel Application on customers buying behavior in Tourism sector.

## RESEARCH METHODOLOGY

The study is based on secondary data. The sources of data are collected from various articles, reports, publications both in printed and electronic form, newspapers and writings in books related to the research study which examines the impact of MTAs on customers' buying behaviour in tourism sector.

### *Needs and implementation of Information technology in Tourism sector*

With changing times and global business conditions, significant changes have been observed in the Indian tourism industry. The advent of Internet and technology has changed the way Indian travellers make bookings. This gave birth to Online Travel Agents (OTAs) that have today emerged as one-stop shops for booking a holiday, anywhere in the world. Make My Trip, Clear Trip and Yatra are some of the online portals that have emerged as giants of the Indian online travel market. They have completely revolutionized the concept of travel and made it easily accessible to the common man. Now you no longer need to take huge risks and rely on scarcely available data while travelling. All the information you need whether it is about the hotel, flight or train tickets, sight-seeing plans, local weather can be accessed at the click of a button on these travel sites.

### *Usability and benefits of Smartphone & Mobile Travel Application in Tourism sector:*

The evolution of Smartphone and mobile applications (apps) has only enhanced the overall booking experience, bringing OTAs to the fingertips of travellers. In fact, travellers have started referring to OTAs for destination research and hotel room comparison. Smartphone helps travellers at various stages when they need during their journey such as checking ticket status, flight information, finding nearby restaurants, search for top destinations, hotel booking, sharing images to social media etc. Space technologies (mobile-apps-for-tourism-industry) provided some statistical data compiled using website surveys as posted on different websites are as follows:

- 95% of all mobile travel information is accessed on apps.
- 85% of mobile users use travel apps while on their travel destination
- Six out of ten mobile users now downloading travel apps
- A survey has found 60% of mobile phone users have now downloaded and used a travel-related Smartphone application.

### *Mobile Travel Application and its impact on customers buying behaviour in tourism sector*

The impact of mobile technology on consumer behaviour is unquestionable and ever-present. Google reports that travellers spend an average of 55 minutes to book a hotel and flights; they visit 17 websites and click four different search ads per travel search and 90% of these travellers use more than one device during the booking process. E-Marketer survey, 2014 saw the highest number of online travel bookings ever, reaching 148.3 million, with 65% of same day hotel reservations made via a Smartphone.

MTA and its impact on customer buying behaviour can be analysed with a study based on Tripagator app - “Be a traveller not a tourist”. Tripigator app launched in partnership with Incredible India, Ministry of Tourism personalized travel planning service in India. It offers three options namely My Trips, Plan a Trip and Discover Places. It provides information about 350 destinations, 4,000 activities, 20,000 restaurants and 18,000 hotels across the country. Provides itineraries matching user preferences based on popular tourist destinations. Collaborate with users travel companions with a single tap and Edit the same plan together. Gives suggestions about destinations based on destinations users current GPS location. The price sensitivity feature offered in the software will help users to plan holidays as per their budget. In Google Play store it has got average rating of 4.5 stars. Mobile data apps usage with global users <sup>[11]</sup> is illustrated in table 1.

**Table 1: Mobile data apps usage with global users**

INFORMATION ACCESS	MOBILE DATA (MB) /DAY		APP CATEGORY USAGE
	GLOBAL AVERAGE	INDIA	
TRANSPORTATION	0.2	0.2	0.1%
TRAVEL & LOCAL	0.4	0.2	0.7%
WEATHER	0.3	0.2	0.0%

**ANALYSIS (SWOC ANALYSIS)**

SWOC analysis is carried out to know the Mobile Travel Application and its impact on customers buying behaviour in tourism sector. The study could identify some of the strengths, weakness, opportunities and challenges as mentioned below.

**➤ STRENGTHS**

- One can compare rates and get the best arrangement. MTA starts helping the tourist even before the tour is commenced. This app can help a tourist in viewing the best hotels of that state, categorically.
- Itinerary Planner - Using the app a tourist can verify famous places in and around the Destination and even get an estimate of the amount of time each place may take to visit.
- Food court: Most tourists find it hard to find an authentic restaurant that provides original local food. Using the app one can find good restaurants that serve the kind of food they like, in a nearby area.



- Event Notifications: Tourist may be alerted about the events taking place during the days of their trip. An Event Registration option may also reduce the effort the tourist has to put in while trying to buy passes for the same.
- GPS: Many tourists have issues finding places at certain destinations and end up getting frustrated, swearing never to return to this place. However adding the map in the app actually helps the tourists in making them reach their destinations.
- Interactive Feedbacks: It helps in making the tourist experience better and also help in increasing popularity of a tourist destination. With the feedback form facility, about the app, state and more.
- Multi-Language Support: It helps users to use this app in the language they are comfortable with. This app can be used by people of any state, region and language.
- Public transport and mobility (to know the information of departures and arrivals times, routes and more, all in real-time).
- The app will be user-friendly and easy to use.

#### ➤ WEAKNESS

- Wi-Fi system failure
- Slow/ Unavailable service (service in the application was running slow/service wanted is not available)
- Pricing of the system is incorrect which can be noticed after purchase.
- Insecurity and social issues
- Mobile device error while using the MTA/ Error in the MTAs while using
- MTA did not correctly charged on the phone due to mischarging
- Open data generators unavailable ( IT components and sensors installation is needed)
- Lack of mobile apps development company
- Lack of face to face communication with personalized reviews of tourist travel package.
- Government lodging options not provided.
- High price of Smartphone.

#### ➤ OPPORTUNITIES

- Tourism is constantly on high demand
- Continuous technological advances and easiest development tool.
- Smartphone, mobile Internet penetration
- Mobile apps usage is suddenly increased worldwide
- Market opportunity is big related to students, professionals and entrepreneur
- Consolidation and emergence of global players
- Better tourist facilities via PPP mode
- Liberation of public data enhance the creation of new services and applications

## ➤ CHALLENGES

- They want one app to meet their needs from the planning stage to the end of their trip.
- With increasing Smartphone penetration and better 3G/4G connectivity, travellers are increasingly turning to mobile apps and Internet for price comparison, destination planning, maps as well as local transport.
- Lack of interest/experience to use MTAs in Government sector since they feel comfortable with traditional or internet usage
- The challenges that need to be addressed, is the lack of an easy-to-use and universal payment mechanism for mobile devices that is simple and adaptive to the bottom-of-the-pyramid consumers. These consumers will increasingly become a relevant audience once low-cost Smartphone penetration reaches the next 100 million consumers in a year.
- The other challenge is the inability to offer a consistent, personalized experience to a traveller across all phases of his/her trip, irrespective of the device he/she is on. There is no way to offer a seamless, personalized, and continuous experience across this journey and mediums.
- A future Mobile Travel Application maker is to make more convenient and trustworthy for the future users in the mobile world.

## MAJOR FINDINGS

The findings of this research paper shows that new IT developments occur almost every day and the demand for this is also growing tremendously. OTA has become a 'click' gateway to the service industry. Easy Internet access is driving people for convenience and choice in the most cost effective way. OTA is the easiest platform for inventory distribution and promotions. With real time inventory access for both hotels and airlines, it is a preferred choice for global e-consumers and suppliers. OTA is on the way to becoming a marketplace for packages, distress inventory sales, holidays packages, and travel related product sales.

Smartphone use had made it possible to book tickets and hotel rooms by using different types of applications or search engines. Mobile device use for researching travel options is rising, but PCs and laptops are still the more commonly used device in this phase. While on the one hand it has become the most powerful medium to promote online travel services and inspire people to plan trips to new destinations, besides discovering and reading about destinations visited by friends, on the other hand tourism related crimes are getting highlighted and overstated more easily among the global audience, and the entire industry suffers from the snowball effect of such unfortunate incidents.

Mobile travel application the newest phenomenon in Smartphone can help the traveller in their trip information access and communication possibilities will impact on tourism when searching travel patterns in travel planning behaviour before, during and after a trip. It is a program that synchronizes the entire trip into the mobile device, having the whole itinerary in one place. These applications can be divided into travel agencies, hotels, car rental, airlines etc., and separate applications or into one whole mobile travel tour operator application for instance TripAdvisor or Tripagator. Apps, mobile Internet, and web services are making life simpler to plan travel. Mobile Travel Application is mostly used on a trip to access the information like accommodation, route maps and travel



guide. However the Smartphone users are still unsecure to use their device to buy trips using the applications. This might be the question of false marketing strategy. There is not enough evidence shown about the safe sides of buying from apps and the word-of-web/word-of-space has not increased among application users of their experiences. The feel of security is also important for the users of Smartphone and its travel applications. For the application makers and marketers the acknowledgement of the customers' needs and wants has to be clear in order the travel industry to succeed with Smartphone.

## SUGGESTIONS

***Highlighted recommendations as a result of this study include the following:***

- Boosting the use of Smartphone and mobile devices for public management processes and online community services will strengthen the image of a tourist destination as a referent of Digital City.
- MTA should contain offline maps facility.
- Tourist offices should promote free or low-cost Wi-Fi zones.
- Update on an ongoing basis.
- Genuineness of information in the MTAs should be examined to sustain the trust of the customers who drive this tourism sector for a long run.
- The price using the service, e.g. roaming costs should be minimized
- The speed to access the travel apps easily should be addressed since the 3G network is too slow.
- Increase marketing campaigns to stimulate the use of mobile apps provided by the city council, through social networks and other media channels.

## CONCLUSION

This paper discussed about the changes made by the IT and its implementation till today. Further the concepts of Smartphone and Mobile travel application is discussed. It examined the usability and buying behavior of Smartphone. Smartphone will be a driving force in 2015 and onwards and are the most exciting opportunity for travel companies to fulfill the expectation of the tourist by providing information to plan a trip smartly with mobile device. The Government of India has realized the country's potential to rise in the tourism industry and taken steps to make India a global hub by initiating the 'Incredible India' mobile application. Mobility is considered best collaborator for the travel industry. SWOC analysis is used to find out consumers buying behavior and usability of the MTAs. The study shows that the Smartphone are being used increasingly and much more is being expected from them and also from their applications. They want one app to meet their needs from the planning stage to the end of their trip. The study shows that customer buying behaviour is slowly changing towards the mobile world. This helps mobile travel businesses to acquire new customers, retain old ones and serve customers in the most convenient way. This is why tourism enterprises need to adapt to this new technological shift and make sure they are able to reach their customers in the mobile environment and become an active part of their digital life. The world of apps has much to offer to the world of tourism. Superior service and customer experience will be the key for growth in tourism sector.

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