

Potential of Mobile Apps for Tourism Industry: Trends and Influences

Rashu Sharma¹, Meenakshi², Sourabh Sharma³

^{1,2,3}Research Scholar, Department of Educational Studies, Central University of Jammu, Rahya Suchani, Samba (J & K), 181143

Abstract-- Across many industries, technology has changed the way things are done. There is no exception in the tourism sector. A paradigm shift in the travel and tourist industry was brought about by the new Information and Communication Technology (ICT) era. The development of mobile technology has completely changed how people interact with the world by following through simplicity and accessibility. This paper will focus on the potentials of mobile applications that have made them popular among service providers and customers. Moreover, through this chapter, we examined the significance of mobile technology in the tourism sector, and the phenomena of mobile tourism in the transformation of the travel experience.

Keywords-- Tourism, Mobile Applications, ICT, Sustainability

I. INTRODUCTION

Technology has made the world a smaller, more interconnected community, and this transformation is too having an impact on travel. The tourism sector now has more opportunities because to the new ICT era. It is not unexpected that the concept of smart tourism destinations has emerged quite swiftly given that the tourism industry is one of the well-suited sectors where information technology is extensively used from an operational and business viewpoint (Koo et al., 2016). The time when tourists relied on travel agents to book their trips is long gone. People today choose to book their own trip using portable and user-friendly mobile apps because they have access to digital resources. Users' travel experiences have been greatly enhanced by mobile apps, which have also greatly benefited businesses that rely on tourism. It should come as no surprise that travel and technology are becoming more and more integrated. Technology advancements are clearly influencing how people travel and the experiences they have (Dorcic, Komsic & Markovic, 2019). Overall, among all ICTs, mobile technology has had the greatest impact on the tourism industry influencing tourism destinations, travellers, communities, and stakeholders (Kim & Kim, 2017). Mobile applications are improving traveller experiences and giving different types of power to the service providers in this sector, therefore mobile phones have grown to be a significant influence on travel behaviour.

Travel-related mobile applications are the fifth most downloaded app category. According to a recent eMarketer poll, nearly 60% of Smartphone users routinely use travel apps to plan trips. Information and communication technologies (ICT) have elevated the tourism industry to a new level on the world stage by significantly altering not only commercial practices but also the way that the sector is organised (Porter, 2001). Along with an increase in the number of travellers who plan and share their own vacations online, Condratov (2013) notes that search engine improvements, transportation amplitudes, and network speed have all had an impact.

Unless the advent of travel and tourism apps, for making necessary arrangements in the past the family's head of household had to rely on the schedule and plans provided by the travel agent. To prepare for their upcoming trip and vacation, these agreements are made with other travellers. But fortunately, this period has also ended. The situation has now altered. Additionally, the majority of businesses and tour operators have created their own exclusive travel applications. They are able to provide enticing and compelling deals. These amenities appear too alluring to pass up. They also maintain offering discounts to customers in an effort to win them over and attract new clients to their businesses. ICTs (information and communications technologies) have significantly impacted the whole tourism sector (Buhalis & Law, 2008), resulting in the emergence of a new generation of tourists (Buhalis & Costa, 2006). The production and consumption of tourism goods and services have changed as a result of technological advancements (Stamboulis & Skayannis, 2003). ICTs are becoming a crucial component of the entire journey that visitors take when using technology to build richer experiences (Gretzel & Jamal, 2009) and co-create more intimate encounters (Pralhad & Ramaswamy, 2004). Utilising technology's potential allows for the creation of more alluring tourist experiences for first-time visitors who are constantly looking for a reason to travel (Buhalis & Costa, 2006). Identifying the motivations and meanings that visitors assign to their experiences in the context of daily life in highly industrialised nations has long been a key component of academic research on tourism (Uriely, 2005).



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So, there has been a discernible shift in the ICT industry, which has given special attention to the development and expansion of tools and services that enable cross-border interaction between market participants. In reality, sharing travel-related information with friends and family seems to have become required in recent years. Through the applications, travellers may access all kinds of information, ticket offices, maps, and guides, post comments, rate services, and share images of their journey with their network.

II. MOBILE TOURISM

According to Kenteris et al. (2009), mobile tourism is still a relatively new phenomenon, but it has cleared the way for a variety of services to be offered to travellers at every stop, keeping them informed and more engaged. In the tourism industry, smartphones have emerged as the newest sensation. Tourists have more freedom thanks to new services based on cutting-edge technology, and they can plan their travels independently (Oh et al., 2009). The goal of adopting mobile technologies in tourist locations is to improve the tourists' travel experiences, however doing so alone is insufficient. To successfully implement technology and improve the visitor experience, each tourism destination needs both human and social capital, leadership, and creativity (Boes et al., 2015).

In the tourism sector, there is a clear tendency towards the use of mobile devices. According to Mobile Travel Trends 2019, 61% of travellers 'almost always' or 'sometimes' use a smartphone app to book a flight, and 62% of travellers feel that the ability to book hotels on travel apps is crucial. E-tourism, which may be defined as the digitisation of all processes and value chains intrinsic to tourism (Werthner & Klein, 1999), was formed specifically from this trend of integrating ICT and tourism together.

III. DIGITAL REVOLUTION IN TOURISM

In recent years, the IT sector has been undergoing constant change. Smartphones are the newest trend in the travel industry and a reality of the twenty-first century (Malmir et al., 2017), as mobile devices have evolved into essential tools for travellers to navigate an uncertain setting. They are an essential component of the sector, bringing about a number of developments that are also having an impact on many businesses. One such industry is tourism, which has been greatly impacted by the phenomena of mobile tourism, which is a relatively recent development in the industry (Kenteris et al., 2009).

Due to their increased ability to stay connected at all times and places, smartphones have transformed the customers behaviour (Emek, 2014). The capabilities of the new smartphones enable thousands of applications and significantly increase their functional range (Wang et al., 2012). They are employed in travel planning, tourist information research, and as a travel tool (Hsu & Lin, 2015; Tan, 2017). Access to exclusive services made possible by mobile technology, which allow for highly engaged user experiences, stands out among the various advantages of applications (Yu, 2013). According to Wang, Xiang, and Fesenmair (2014) and Moritze Christian (2015), the information made available by mobile devices is primarily used for restaurant searches and flight status checks, making travellers feel more at ease while travelling, avoiding early planning, and having an enjoyable, educational experience.

Although it is well known that mobile applications for hotels, restaurants, and tourist attractions have emerged in recent years, few tourism businesses are actually making use of this potential. Moreover, in order to close the gap between the user and his surroundings, **SoLoMo** apps—a system that combines social, local, and mobile platforms—are becoming increasingly popular. These services are shown by the applications Groupon and Foursquare, which leverage social media and check-ins to advertise nearby establishments and locales to give users more options. In addition, applications of virtual reality (VR), augmented reality (AR), and other mobile technology, aside from smartphones, have changed travel experiences. Destinations for tourism have collaborated with visitors to co-create experiences (Morosan & Defranco, 2016). Academicians are interested in a new sector of tourism called gamification or augmented reality (AR) applications. Visitors play games to learn more useful information about the site, according to Xu et al. (2016). Games give tourist locations the chance to balance the distribution of visitors throughout time, according to Garcia et al. (2017). Smartphones are the newest trend in the travel industry and a reality of the twenty-first century (Malmir et al., 2017), as mobile devices have evolved into essential tools for travellers to navigate an uncertain environment. They are an essential component of the sector, bringing about a number of developments that are also having an impact on many enterprises, particularly the tourism sector, which has been greatly impacted by the phenomena of mobile technology tourism, which is a relatively recent development in the industry (Kenteris et al., 2009).



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The smartphone and its related applications are revolutionising how travellers negotiate their travel arrangements. This industry's technology is developing quickly, and users and designers are recognising new potential to mediate travel experiences. Smartphones have great promise for the tourism industry, according to technology innovators (Höpken et al., 2010), and computer science research is widely established. On the other hand, research into how mobile media affects travel and tourism, as well as the transportation sector more broadly, is still in its infancy. Leading tourist spots and attractions are using smartphone app technology more and more. Reviewing applications reveals a variety of features are used in the context of the trip experience, ranging from simple systems that offer information via "light" websites to more complex awareness tools. A variety of apps designed for tourism travel have evolved with features adapted to various factors.

The travel and tourism industries have also undergone a significant upheaval because of technology. We have seen closely that how drastically the travel and tourism sector has changed drastically. Without the help of mobile applications, it has never been easier for anyone to plan an exciting vacation with just a few easy clicks because these mobile apps have evolved into an all-encompassing portal for their consumers. Due to the abundance of mobile applications available on the internet market, where you can simply organise your vacations, travel agencies and physical bookings are now worthless. At present, 80% of travellers utilise mobile applications to organise their vacations.

We can easily plan our trips from the comfort of our homes. Due to this change, several travel agencies are attempting to develop their mobile app in order to attract more potential consumers. The number of mobile users has dramatically expanded over the past ten years and beyond, with an average annual growth rate of about 37% from 2005 to 2013. Mobile reservations have been increasing at an ever-increasing rate in recent years. It has been found through research that about three out of ten users have booked through a mobile phone, and more than half have used it to inform and explore places and products. For fast access and practicality in information search, booking through mobile devices is also vital for last-minute orders, which are employed in all phases of the tourist service buying process (from a destination survey and online booking to a post-travel evaluation). In several nations, smartphone barcode scanning is utilised successfully to read promotional offers, describe menu items, and describe landmarks. However, 25% of those using it say they have also booked a vacation component on a mobile device. The preferred method of booking is through a laptop or desktop computer.

IV. USE OF MOBILE APPS FOR TOURISM INDUSTRY

Mobile devices are primarily utilised in tourism for information, reservations, and payments. The suppliers of tourism services create pertinent applications for them. A major benefit of the mobile device is its ongoing touch with tourists. As a result, apps immediately feed it with customised, targeted bids.



Source: <https://tourismexpress.com/photos/images/bigstock-GPS-navigation-concept-82236224-copy.jpg>

Personalized and customized services

Tour packages for various objectives might be among the customised and personalised services. You can always use these services, whether you're travelling on a relaxed vacation or holiday or a professional trip with your coworkers. The experiences offered by these trips and packages are unparalleled. As a result, confirm that your app can offer clients these deals.

No paper work

You may easily save soft copies of bookings, tickets for flights or trains on your smartphones because they are so convenient. They do not need to be physically carried with you everywhere. Since these travel and tourism apps have been released, you may store your critical documents on your devices, making your journey more convenient. The formalities of booking a trip have significantly decreased in favour of the user since the advent of such apps.

No cash travels

The ease of doing online transactions is one of the most valuable contributions that mobile application development has made to the travel and tourist industry.

When you schedule your travel and holiday arrangements, it allows you to pay online. There's no need for you to hold any cash. All throughout the year, without any downtime or failure, you can easily utilise these travel and tourism apps. For travellers travelling to unfamiliar nations and regions for the first time, theft and the difficulty of cash are major security concerns. The advantage of a digital economy is that there are now numerous apps that enable cashless travel and enable all types of payment with a click or tap.

Destination Information

Destinations actively assist tourists in real-time problem-solving by utilising mobile technologies. For instance, Kurata (2012) noted that destination administrators struggle to address crowding, which has become a concern for many travel locations. Using their mobile devices, travellers may access a wealth of information about the best times to visit less crowded areas. Planning for crowd density at specific locations can be done by monitoring people's movements and using the devices on which they are using to measure crowd flow. However, it brings up concerns about data protection and privacy (Raun et al., 2016).

Travellers may make better plans by using real-time weather forecasts with advice on what to bring, what to look out for, and when to book their flights.

Crisis Management

When managing a crisis, such as one involving a natural disaster or an active shooter, portable devices are useful communication tools. They can be used by tourists to find out information about safety assurance, the closest shelter, or evacuation (Kasahara et al., 2013, 2014). Mobile technologies are a great resource for travellers who enjoy biking, hiking, and other outdoor activities for route planning. Pitma et al. (2013) talked about how GPS technologies in cell phones can direct travellers while also assuring safety. The application of practical Quick Response (QR) codes for tourism activities is another benefit of portable mobile technology. In the hotel sector, QR codes incorporated in digital loyalty cards have been widely used, and they are particularly well-liked in the travel sector (Hopken, et al., 2016).

Get real view pictures and travel destination's sights and sounds

How about showing your customers what it's really like to get to their destination? Wouldn't it be wonderful if your consumers knew in advance what to expect from their travel and tourism plans? Thus, for businesses, it works wonders to attract tourists to their vacation spot as it would be simple to tempt and rouse them, and it would make them all eager for the trip. They would eagerly anticipate the vacation schedule in advance. With the advent of modern travel and tourist apps, this is indeed feasible. You can show your clients and customers what they might think about the vacations. Your customers will benefit from this and look forward to the journey because they will have a good idea of the location in advance. The app can also include films to improve the user's experience.

Access to various travel related information

Additionally, travel brokers are becoming more intelligent and thoughtful. They are aware of the importance of giving close attention to the wants and demands of the clients. Smartphones also give visitors instant access to data on the various factors that influence their trip, including weather, lodging, attractions, and transportation (No & Kim, 2014). They have access to a range of information through mobile applications, allowing them to successfully solve issues, share their experiences, and save memories (Wang et al., 2012).

Due to more flexibility, more significant and less planning, and increased travel, access to various information and research sources has changed attitudes and behaviour (Wang et al., 2016). For this reason, it is important to comprehend the effects of smartphones and mobile travel applications (MTAs) on the traveller experience, as well as the main driving forces behind their use and their perceived utility and worth (facilitating tasks at the destination like ordering food, making reservations, and finding guides and maps).

Minimal Human Involvement

While first developed to cut down on labour expenses, it will now allow travel and tourist app development departments to manage front desk help, customer support issues, and other aspects of service management with AI and chatbots. Along with automatic safety check-ins with real-time help, real-time monitoring of travel disruptions, and pre-trip health and safety recommendations.

A single location for booking all types of trips

One of the most alluring aspects of applications for the travel and tourism sector is the ease with which you can quickly book your ideal location with just one click while seated at home. One of the main reasons vacationers cling to mobile apps is the ability to complete the booking procedure for all arrangements in one location. It involves selecting destinations, reserving lodging, calling cabs, purchasing tickets, and more.

Real-time monitoring

Apps for tracking travel in real-time are increasingly common. People can track the mobility of their vehicles, buses, etc. using this service, which is already available on the majority of private forms of transportation. Fortunately, this service will continue to improve as live tracking becomes standard in all transportation in the future. In order to give real-time information regarding buses, trains, etc., public transport companies have started using GPS devices and IoT technologies. To capitalise on this trend, creating a trip time tracker app is a great idea.

Integration with taxi-ordering software

While mobile apps make it easy for customers to book trains, hotels, and flights while on the go, the integration with a cab booking agency enables users to receive real-time information on the precise location and expected arrival time of the cab as part of the destination. To guarantee safe travel, it also provides additional details such as the car's registration number, the driver's contact information, and more.

Tours using images to advertise and persuade tourists

We might anticipate guided virtual tours of museums, theme parks, theatres, and recreation facilities with the introduction of augmented reality (AR) in daily life. When combined with machine learning, it may even help to target those who want to explore new areas but are unable to do so at the moment or who may have already visited there in the past.

Planning social travel

This brings together cutting-edge technology and user recommendations. With the aid of these applications, users may read recommendations and favourites from friends and family, professional advice, and user evaluations to help them make well-informed judgements regarding their travel and tourism choices, including destinations, suppliers, bookings, etc. More than 80% of mobile travellers prefer to read recent evaluations before making a call, according to a study by Adweek, which demonstrates the importance of social amplification. Tourism businesses can provide applications that provide enough social proof to potential customers by integrating social networks (APIs) and vendor feedback.

Localization

There is no denying the popularity of geo-targeted advice in the travel sector. By providing travellers with localised suggestions and offers based on their location and preferences, travel applications can improve the user experience. For instance, Booking.com effectively utilises mobile location analytics and provides value to its users while simultaneously enhancing planning effectiveness and user experience. By utilising APIs to automatically fill out user profiles, transaction histories, and location data, you can offer the most advanced mobile travel experience.

Customised travel applications for your needs

Big data and machine learning will inevitably make tourism apps smarter and more shrewd. Now, more complex travel applications will be built specifically for your vacation plans, timeline, finances, and mode of transportation. These apps will be able to recommend and arrange more effective trips for you based on your travel choices, past travel experiences, and comments.

V. CONCLUSION

The key conclusion is that using mobile travel apps and cell phones can significantly change the visitor experience. Smartphones are significantly changing society's present and relationships with place and objects for travel based on understandings of time augmented contextual tools.

Without a question, the travel and tourism business now relies most heavily on mobile apps. Businesses must take advantage of creating mobile apps in order to put themselves on the proper path for development and revenue production. No doubt, the use of mobile technologies has propelled the tourism industry. Information may be transferred more effectively. Thus it can be said that as new technology trends are emerging so frequently, the tourism industry has a duty to continue to face the challenge of utilising new technologies for the benefit of visitors. By constantly updating and developing new methods to fulfil the present and future wants of destination tourists, the introduction of new technologies will position tourist destinations effectively for future advancements.

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