Mobile Apps in Tourism Communication: The Strengths and Weaknesses on Tourism Trips

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Abstract. The IR4.0 wave has fostered the variety of development of mobile apps inclusive of apps that are useful to ensure the smoothness of tourism activities. These mobile apps have replaced many of the functions of tourism workers in the tourism industry. However, the question is to what extent both the effectiveness and weaknesses of these apps can help and satisfy a tourist during his tour visit. Therefore, this concept paper will discuss the strengths and weaknesses of using mobile apps to serve the purpose of smoothening the tour visit and tourism communications. The writing of this paper is based on research focusing on the use of mobile apps in tourism from 2011 to date. The findings of the study indicate that the application of mobile apps in tourism communication isn’t replacing the function of human workers in the tourism sector entirely. Although there are some strengths in using the mobile apps, on the other, it still has much weakness which requires improvements to be made to meet tourist’s needs. Thus, this study will further illustrate the level of effectiveness of using mobile apps in the tourism industry as a source of reference to the mobile apps developer who created the sophisticated apps and fulfills the demand of tourists. This also will further become a reference to LR in improvising the quality of the service of a tourist destination.

Keywords. mobile application, tourism communication, tourism trips, tourism workers, mobile tourism

1. Introduction
The impact of the Industrial Revolution 4.0 (IR4.0) has transformed the world into a world without borders or globalization that has imposed significant impacts on nearly every operating industry around the world to remain competitive globally. The setting off of speed, efficiencies, infinity in widespread and the full impact of information and communications technology (ICT) had become fundamental and essential for today’s human communication. ICT is widely used regardless of distance or time. Under the concept of the cyber era, it is also defined as everything belongs to everyone. This is no exception in the context of tourism communication.

Despite the fact, one is a thousand miles away from a tourist destination but in the virtual world, it is only at your fingertips, within the blink of an eye a visual display of tourist destination can be explored
and this is categorized as virtual travel [1]. Without any requirements of traveling documents, immigration bureaucracy, transportation cost, accommodation cost, and others, one can explore a tourist destination without having to be physically present. Or at least a tourist who physically wants to visit a tourist destination only needs to follow the information available on various social media in today’s virtual world without the hassle of getting information from individuals, local society or travel agents involved with a tourist destination. ICT has been fully utilized in tourism communications so-called the e-Tourism.

IR4.0 has built a platform where consumers can now connect to the World Wide Web via their mobile devices through a stand-alone software commonly known as mobile applications [2] [3]. To date, there are approximately about 300,000 mobile applications has been developed. Over the next ten years or soon, there will be thousands of more mobile applications that will facilitate the day-to-day movement of travelers without the assistance of manpower while traveling. Therefore, with the wide use of tourism applications, it is important for the tourism industry and mobile technology developers to have a solid and deep understanding of the landscape of mobile applications in the market and to see what is lacking.

2. Literature Review

According to [4] among the business apps, travel applications are the seventh most popular category of most downloaded apps and 60% of travelers choose to use mobile apps while traveling. [5] has listed six indicators of mass media use influencing the selection of tour destination, namely; a destination of the tour visit, transportation, accommodation, food and tourism activities such as shopping and leisure activities. Many studies have identified the impact of using mobile applications in smoothening a tour, but however, on the other hand, there are still lacking in other studies in highlighting the weaknesses and shortcomings of mobile applications in a tour session.

Research [6] studied the development and foundation of smart tourism. According to the key aspect of smart destinations is integrating ICT into the physical infrastructure of a tourist destination. This study is seen as the basis for the comprehensive functioning for e-Tourism. Without this facility, a tour would remain traditional or old fashioned. The findings confirm that the use of smartphone for traveling is shaped by complex interactions between contextual factors, cognitive beliefs, past experiences, and daily use, and the use of smartphones has the potential to substantially modify a tourist’s experience.

Similarly to the study [7] found smartphones as a powerful tool and efficient processors, modern operating systems, broadband internet access, and user-friendly interfaces as well as productivity enhancement apps that broadly support the journey of a tour visit. Research [1] [20] analyzed how mobile applications have helped to manage tour trip and its role and functions as a collaborative and dynamic tool in facilitating a sustainable trip. Their research has listed several advantages and disadvantages of using mobile applications. Although some of the issues raised have been resolved over time.

Further, [2] study validates the use of mobile applications by explaining the conceptualization and development of the instrument in tourism. The study [8] likewise looked at the limitations of using mobile technology on tourist experiences during visits to inland tourism destinations. Campsite, for example.

While other studies have observed the dynamics and impact of mobile phone use, while study [9] looked at the concept of passion and affective outcomes of using the mobile phone while traveling. The finding showed that the socialness of the mobile phone significantly affects passionate behavior and affective outcomes. From the other parties in the tourism, research [21] investigated the use of mobile apps from a tour guide needs to smoothening tourist activities.

Studies on the impact of using mobile applications have also been conducted on specific tourism destinations [22-25]. Their researches found that the use of mobile applications greatly contributed to the smoothness of their travel.

The [3] study examined whether mobile applications in tourism is a device that becomes a necessity in the tourism sector. This has been proven by the passage of time in the present that mobile development is
rapidly expanding and mobile phones become a necessity for tourists. The study [10] concludes the use of mobile applications as a whole by developing the taxonomy of mobile apps in tourism from two perspectives. First, the taxonomy of services-related applications; identified seven categories namely, navigation, social, mobile marketing, security/emergency, transactional, entertainment, and information. Whereas second, the taxonomy based on the level of interactivity with mobile applications in tourism is about personal preferences, location, and security, through the web, content addition, aesthetic changes, and those applications that remain the same for everyone.

3. Result and Discussion
Mobile applications are increasingly influential in decision-making and influence the behavior of tourists during tour visits and also at every stage of tourism use [11]. Following are the highlights of strengths and weaknesses in using mobile applications identified in the selected literature review.

3.1 Strengths of mobile apps in tourism
It is undeniable and well-known that one of the main advantages of using mobile applications is that they are easy, fast and regardless of distance and time in a tour trip management [12]. The shift of usage from computer to handphone further enhances the smoothness of a tourist’s journey [13].

Applications that are developed need to be interactive and with the ability to open up two-way interactions in case if there is a doubt or question which requires consultation or assistance. Mobile applications are developed based on automation technologies that do not directly involve a human. It can be summarized that the mobile applications not only serve the purpose of being smart and fast but to overcome the dependency on human resources besides reducing the maintenance costs.

Among the latest mobile apps that able to facilitate travel in a smoother way are Smart Travel, IATA Vision and SITA Smart in which these apps serve as a manual for travelers in completing their matters at the airport that way more innovative. Therefore, travellers no longer have to deal with the manual registration process at the counter and this makes the matters to be easily completed at the airport.

Moreover, with the availability of mobile applications, all accommodation arrangements, e-banking services, destination location navigation, transportation including flight tickets, entry tickets to any tourist or recreational destinations can be made online. Transportation bookings around travel destinations can also be booked via mobile applications, destination information is also accessible, and food can also be booked online without having to visit the restaurants.

Sharing information is also possible through mobile applications despite being thousands of miles away as discussed by [14] [15] [16] [17]. Some of the most trending mobile apps examples used in Malaysia are such as Grab Car, MyTaxi, GrabFood, FoodPanda, Google Map, Waze, and others.

In the past years, the main problem that happened in the tourism sector was due to the language dissimilarity or language barrier that took place between the tourists and the host of the destination. But with the presence of mobile applications like i-Translate, Google Translate, Duolingo, HelloTalk, Triplingo, Waygo, Tandem and more the language barrier between these two parties being resolved gradually. Some of the mobile applications tend to be as interpreters and dictionaries. There are even applications that can interpret the signage by capturing photos convert to conversion from audio to text.

3.2 Weaknesses of mobile apps in tourism
Concerns have often been raised about the security, reliability, and legitimacy of the service over this digital mobile applications system. For example, the Malaysian tourism, according to the report by [18], approximately about 438 cases reported to bare a total loss of RM1.9 million involving low-cost Umrah package due to fraud. Meanwhile, complaints from 20,000 people worth RM10 million losses were filed
for fraudulent victimization in several countries including Taiwan, China, South Korea, Japan, and Hong Kong. Some consumers are required to pay a 50% deposit, and at the very last minute, they were informed that the guaranteed location or accommodation can’t be provided. There are even complaints about the services that were provided are likely to be less satisfactory than what is being advertised, and there are few cases where the travel agency cannot be reached when it is time to depart [18].

Among the disadvantages of using mobile applications in tourism is that not all tourists are well versed in using the internet and digital tools especially the middle-aged people who also belongs to the tourist category and often go for a tour. Since every application is innovated based on knowledge of internet usage or exploring the internet.

On the other hand, the younger generation or the internet savvy will be more dependent on computers, applications, and robotics. The matters get worse in e-Tourism when there are countries that have not reached the satisfactory level of their internet broadband [1], then their advertising strategy and distribution of tourism products will be missed or affected and eventually, this will result the tourist destination in that country might not be preferred anymore to be visited by tourists.

This is in line with the findings by [19] and that each country or city should provide a smart city environment namely a smart city. By using smart concepts, it meets the needs of tourists from before, during, and after their journey, and can enhance destination competitiveness. The human relations values also being affected due to the setting of the IR4.0 era where humans communicate more through the internet on various applications and tend to ignore physical activities that involve human since everything that they are searching for are now available on the internet.

There was also decreasing in the use of manpower which is slowly being affected by the substitution of robots and digital computer systems. Many will lose their job or difficulty in finding a job that will lead to an increased number in the unemployment rate. By the year 2030, 800 million jobs will be replaced by automated systems. Among the most endangered profession in tourism sector are travel agencies, airport workers and hotel workers that use manpower.

There are many other tourism issues arise from the impact of the uses of ICT in the e-Tourism era. It is also imperative to consider the importance of safety in contributing to the smoothness of tourists during a tour visit. Nevertheless, the use of mobile applications does not guarantee the safety of tourists while travels and also can be harmful and dangerous. Besides, the security and safety aspects should be taken into consideration for tourists whose from a developed country such as Japan, America, and Australia, to a developing country like Malaysia, Vietnam, Thailand, Indonesia, and others. This is because tourists from a developed country possibly to get involved in fraud, robbery, and abduction is high as they are the target of local criminals who strived for hasty profit.

Leakage of tourist information moreover not guaranteed simply because of the usage of mobile applications. As reviewed by [11], this phenomena my lead to the intrusion of tourist privacy and the privacy of the use of mobile apps [1]. Travelers’ enthusiasm and desire in contacting people, places and asking for the information of the online goods has made them agree to the terms and conditions provided without reading it beforehand. They may not be aware that they have shared their information with the supplier in which may threaten their privacy and the confidentiality of their data.

4. Conclusion
In the IR4.0 era, there are excessive applications were created to meet the needs or replace the role of tourism workers, but exclude the aspect of safety, trustworthy, harmony, and values in the humanities as described above. It still required human functions to ensure the smoothness of tourist travels. This paper exposes some useful implications for researchers, mobile applications developers, travel-related
organizations and government agencies in providing the mobile applications services and disseminates the information to their potential users.

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