

Emergence of Technology in Pakistan Tourism Industry



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Abstract

The focus of this study is to discuss “The Emergence of technology in Pakistan Tourism Industry”. The AIM was to study the use of technology in Pakistan tourism industry and the Objectives where to determine the elements that are affecting the growth of the industry or to develop and discuss the technology trail in tourism. In this study, we researched about the technology that how technology helps to improve Pakistan’s tourism industry. This research also discusses upcoming new technologies, the status of the tourism, and the future of tourism with technology and implementation of new technology. Also focused on the difference of how old tourism works and how new tourism affect the industry. The survey consists of twelve major questions and their results with four focal questions. These focal questions are capable to decide the results of the major technology trend. Our research question shows and conclude that most of the people are using E-tourism, E-tourism “means” buy tickets online through websites, which is very easy now a day for the person to buy their tickets online. Most of the people show their interest and prefer that the E-tourism is more reliable. There are many online apps in Pakistan, which are helpful in our tourism industry

Chapter – 1: Introduction

1.1 Introduction

This project revolves around the study of technological impacts on Pakistan Tourism growth. The goal is to get enough statistics from in-bound traffic with the help of survey and in accordance of those stats determination of the growth of Pakistan Tourism Industry. The intended audience is the in-bound tourists who used to visit Pakistan and experience the quality and availability of technology promoting and being used in tourism here in Pakistan. Pakistan is located on a very ideal location from the tourism perspective. Here in Pakistan we have Northern areas and a huge mountain series that covers the adventurous tourist's spots. Sea, beaches and islands in Karachi and sea shore of Pakistan are a huge source of tourist attraction. There are many historical places as well that shadows the ancient culture and art of living. Pakistan has a big tourism industry and promotes tourism to international level. After being properly safe and peaceful declared country Pakistan's Tourism industry is getting boasted day by day. This shows the scope of the project and will help to get the statistical data precisely. Introduction of technology in any industry help in its growth in an effective manner and these technological advancements is also showing its result in tourism industry. The approach we are using is to get knowledge from previous research articles regarding tourism and then to survey the questions among visitors. This work is based on the assumption of current tourism status of Pakistan. Some new technological concepts are also being used in the project to attract the investors for the investment in this area of concern. The revolution from traditional tourism to the modern tourism. Timeline of technology that shows when it started first did then it Impacted the whole world.

1.2 AIM

“To study the use of technology in Pakistan tourism industry.”

1.3 Objectives

- To determine the technological effect on the tourism trends in Pakistan.
- To develop, analyze and discuss the technology trail in tourism industry of Pakistan.
- To determine which elements are affecting the growth of the industry.

1.4 Background

Immense and well-preserved culture of Pakistan has a lot of potential regarding tourism. Emergence of technology in Pakistan tourism is a mechanism of generating income in both formal and informal sectors and supplements foreign exchange earnings. Technological trends reform the way of advertising, connections, innovations and responsible growth strategies. The integration of media platforms (Digital and Social Media), emergence of Navigation services (GPS), Feedback contents and the influence of Artificial Intelligence is a combination of technological advancements which facilitates Pakistan tourism in finances, infrastructures and other developments.

Chapter – 2: Literature Review

By synthesizing and studying previous researches towards the goal of analyzing the impact of technology we are extending prior researches to indicate the comparison of technology emergence in worldwide tourism industry and Pakistan (Yuan, 2019). We came to a belief after several interviews by tourism firms' experts that Pakistan tourism industry is almost 15 years far behind other world's industry(Khan, 2020). It has been proved that block chain mechanism is a key element in tourism industry, studies also shows its benefits towards tourism wide business operations(Murat Kizildag; , Tarik Dogru ; , Tingting (Christina) Zhang ; , Makarand Amrish Mody; , Mehmet Altin; , Ahmet Bulent Ozturk; , Ozgur Ozdemir, 2019). The significance of tourism marketing is enhanced by ICT (Information and Communication Technology)(Kyung-Hyan Yoo; , Ulrike Gretzel;, 2016). Technological advancement has improvised management tourism, it has also affected the marketing and business operations as a whole (Ante Mandić; , Daniela Garbin Praničević;, 2019). Demonstration of travel destinations by the use of VR technology has been adopted worldwide and is a great way to increase exposure of tourist attraction sites (Julia Beck; , Mattia Rainoldi; , Roman Egger;, 2019), websites in Pakistan has also opted for VR tourism and examples like hd360.pk is one the best example here. Notorious effect of full platformisation within tourism which includes affecting traditional tourism company's approach (Indrek Ibrus; , Alessandro Nani;, 2019). E-commerce has also been boosted its growth by technological approach of tourism industry as there is dynamic and interactive relation between it (Nan Hua, 2016). From converting traditional tourism to Electronic tourism, it accelerates the growth of industry and provides extensive exposure by using social media marketing to attract foreign tourists/visitors (Eleonora Pantano; , Loredana Di Pietro;, 2013). It has also been stated that Institutional framework is a real challenge in a tourism public sector (Silja Lassur; , Külliki Tafel-Viia;, 2019).

Chapter – 3: Methodology

3.1 Research Design

Limitations regarding access towards research within inbound sources of research papers restricted us in plenty of dimensions during this COVID-19 pandemic. We tried to cover as much as we had through inbound sources. We used a cross-sectional research design to determine the "the use of technology in Pakistan Tourism Industry". We designed a questionnaire efficiently and used it as a focal point for our study. Our designed questions are focusing on the usage of mobile apps and digital platforms by tourists by gathering the data about it we can form a conclusion that what percentage of people are adopting the e-tourism and is there any lag in Pakistan tourism industry regarding technological adaptation. The literature was searched for experimental studies and theoretical studies as well to cover every aspect. To be precise with our measurement, a simple Institutional framework of PTDC wouldn't be considered as emergence of technology. Simple survey questions were asked to inbound (Foreigners) visitors which had visited Pakistan. After collecting the data, it was statistically organized for the results to be concluded. The limiting factor that we faced was; limited sources that we can use to collect data via surveys by staying home.

Null-hypothesis (H0): -

“There is no relation between technology advancements and tourism growth in Pakistan Tourism Industry.”

We will be using convenience sampling method to conduct our research on Google Forms and by analyzing the data collected and hypothesis testing by previous researches; we will be generating our findings and conclusions. Data collected through survey research will be demonstrated as document is preceded further. It will be demonstrated using frequency distribution, bar charts and pie charts separately. Chi-square test data analysis will also be carried out in order to accurately conclude the results of this research (If applicable).

We also used travel forums on [booking.com](https://www.booking.com) and [traveladvisor.com](https://www.traveladvisor.com) to reach out dozens of people that visited Pakistan recently and shared their review on the websites respectively.

3.2 Sample Size

Sample size; we decided to conduct a survey using an online platform called, “Google Forms”, to study the effect of technology on Pakistan Tourism Industry growth using our designed questionnaire by inbound tourists visiting Pakistan. To calculate the sample size, we estimated a total number of inbound tourists (i.e. “n” Population) for the year 2018 was around 17,823 foreign tourists(Foreign tourists in Pakistan up 70% in 2018, 2019). We considered 95% confidence level and 5% of confidence interval for our survey study. After using formula, we got our sample size of **376 surveys** to be filled.

Chapter – 4: Impacts of Technology on Pakistan Tourism Industry

When we talk about technology, its presence affects any industry as a whole. Tourism industry is following the adaptation of technology in terms of digital marketing, email marketing, print media and social media promotions etc. These main stream channels are been used in Pakistan aggressively to capture the local tourists (Impact of travel technology on people and culture?, 2019). When it comes to international tourists, there are numerous tourism agencies that are offering different packages for different regions around the world. Firstly let's just swap the discussion to the usage of technology for traveling in Pakistan; Mobile applications are being used to navigate on the roads of Pakistan to explore its beauty and booking/reservation apps such as [booking.com](https://www.booking.com), [bookme.pk](https://www.bookme.pk), [Trips.pk](https://www.trips.pk) etc. Pakistan is known for its natural beauty and recently Pakistan has made it to the top 20 best holiday destinations around the world in 2020 (LIZZIE POOK, 2020).

Recently in news, it was stated that social travel search engine is under development which will allow the tourists to find attractive places in Pakistan more conveniently and would show real reviews on the places with real information. Travel queries would also be answered quickly.(Impact of travel technology on people and culture?, 2019)



Figure 1. Technology Usage during Traveling

Source: Trips.pk

4.1 Emerging Technology Trends

In the outside world, the term “Smart Tourism” is widely used to indicate the reformation of tourism industry due to technology advancements (Pencarelli, 2019). A new technology trend brings innovation in the hotels, cities or industries as a whole. The adaptation of technology eliminates the barrier of border lines across the countries and it is easy to attract new tourists. Outside world is attracting millions of tourists from different regions to their countries and boosting their economy. But in the current scenario, amid COVID-19 it is not possible to travel freely and attract visitors as airline operations are abandoned for health and safety reasons. After this crisis, Pakistan’s new government is planning to change the whole eco system of tourism sector in Pakistan, it will glorify the natural beauty and bring back the image of safe travel.

If we talk about introduction of technology trends in hospitality sector as it also is dependent on tourism industry. The trends are propelling rapidly due to response rate of consumers and operators. The use of technology in hospitality sector allows the customers to choose their ideal location of a hotel or affordable rates according to their budget planning. This also incentivizes hotel business owners to attract specific region by promoting digitally across different platforms like; Google AdWords, Facebook post boosting, Instagram ads etc. This makes it easy to track and analyze the audience attraction for the hotel owners. This makes the reservation systems and payment transactions one click away which benefits the both customers and operators. It results in negative impact on traditional tourism which means old ways to book or reserve hotels by going to the receptions and time wasting at different hotels to find affordable prices. (Release, 2019)

Following are the technology trends used in Pakistan Tourism Industry;

4.1.1 Extranet Applications

The concept of using extranet apps basically means a single platform used by numerous business operators; in the case of tourism industry which is hotels, agents etc. For example, [Booking.com](https://www.booking.com) and [Jovago.pk](https://www.jovago.pk) are using the same concept of extranet, which allows the operators (hotels and airline tickets) to make reservations and update prices according to the season demand on the same platform. This is now vastly used in Pakistan industry even in the North Pakistan because the internet services have reached the new heights among mountains. The use of extranet apps

also allows operators to analyze the customer satisfaction levels and demand trend periodically.(Release, 2019)

4.1.2 Online Payment Solutions

MasterCard and Visa are the most used financial service providers around the world. They recently tried to penetrate Pakistan’s payment ecosystem to upgrade to a new level, they introduced “QR Payments” by collaborating with all of the top banks in Pakistan (Introducing Masterpass™ QR, 2019). The response was quite immersive and millions used it to catch the discounted prices at various restaurants as well as at hotels. It resulted in more new financial institution evolvments and tried to provide the same QR payment solutions such as; [Finja.pk](#), SimSim by Finca and [Keenu.pk](#) etc. They are now also providing one click payment solutions to all the business inside Pakistan.

Saying of online payments, tourism industry in the outside world is taking advantage of it completely. Because you don’t need local currency to pay, any room in any hotel in the Europe for example can be reserved by just paying online through Booking.com platform. And speaking of this trend in Pakistan only famous hotels and restaurants are benefiting from this method. It also allows the operator to keep the record and relate to the transaction from any location, just the internet connection is needed for everything!

4.1.3 A Mobile Application is all we need!

Technology is considered as an element to ease the lives of people around the world. And the most growing sector in technology is “Mobile Apps”, it is because every person in this world has its smartphone and it consists of different applications which has different functions(Release, 2019). Daily hundreds of mobile applications are developed for different purposes and tourism industry is totally focusing on using mobile apps to offer a single platform for everything! This everything consists of booking of tickets, reservations of hotel rooms, calling a taxi and accepting digital payments online to eliminate the hassle of exchanging currencies for tourists. The first platform that comes into my mind is [Booking.com](#), it is the most used application in the outside world and in Pakistan many of the famous hotels are supporting it. It also satisfies the customer by offering “Book now, Pay Later!”[Jovago.pk](#) for instance is a Pakistan company that is following the same concept of booking.com and it has over 2000 hotels listed on their platform in Pakistan.

4.2 Positive Impacts of Technology in Tourism Industry

Technology has completely made the life easier of everyone by changing the way technology is used in everything (Johnson, 2020). Tourism industry is one of the sector that has been nourished by the essence of advantages that technology implementation brings to it. In the outside world, almost everyone has adapted the technology advancements with time. But when we talk about adaptation in Pakistan Tourism Industry, it is not up to par. More awareness is required and must be spread to take the advantage of borderless and fast-pace business environment (Muhammad Irshad, 2017).

Tourism and hospitality industries are both very much related to each other and they are the top performing industry in the case of both international and domestically. In 2004, Garzotto published his research study and concluded that, most of the business operators in hospitality and tourism has adopted the technology and implemented in their businesses to take advantage of its essence in the form of huge investment returns (Garzotto, 2004). Now a days, computerized reservation systems are used to process orders more quickly and track the history of it (Johnson, 2020).

In today's era, we're surrounded by technologies and taking advantage in every aspect of our lives. Internet has become an essential element in everybody's life that without it you can't perform business functions properly and efficiently. For example; reservation systems are fully computerized, online website setup by airlines, hotel reservations online, emails, fax machines, mobiles etc. The factor why all of the industries use technology, because it allows businesses to perform efficiently and effectively. Cost-cutting is the main factor of all. Secondly, it allows tourism industry to perform international marketing which in return attract foreigners and that's how they boost their tourism growth (Johnson, 2020). In Pakistan, digital marketing is used on the domestic level via social media pages. Facebook allows you to advertise on their platform on the basis of pay-per-click basis and on the impressions/post reach basis. (Facebook Ads: Online Advertising on Facebook, n.d.) The best part is, it allows you to target a specific audience as per your choice and by this method tourism agencies can also target international tourists to visit Pakistan by presenting eye-catching prices or packages. Tourism agencies in Pakistan are using it widely and converting it into leads.

Another benefit of technological implementation in tourism industry is that it eliminates the barrier that is set as boarder-lines. Which means you can apply marketing strategies internationally by using digital media platform, which attracts millions of customers to one country. Use of internet also disperses the hassle for tourists to use digital payments i.e. cash-less payments rather than bringing cash (local currency). Mobile applications in tourism businesses are also used to track customers' purchase behaviors and locations they usually go in their leisure or holiday relaxing days(Johnson, 2020). For instance, it is recently stated by (Cristiana, 2008) that more than 75 million people use internet to find their tour destination and use digital platforms to book & pay their trips online.

People use extranet applications such as, Booking.com or Jovago.pk to search their desired place, check hotels, compare prices and schedule their trips accordingly. This indicates the transformation of tourism industry that how tourists book the places prior to reaching the place by themselves via online booking(Johnson, 2020).

Tourists also take advantages of using online navigation maps to search for new attractive places, searching routes to desired destinations, search for restaurants and recently Google maps has also introduced "cab booking" in collaboration with UBER for the ease of traveling for tourists(Request a ride on Google Maps by UBER, n.d.).

Facebook and other social media platforms are used by around 2.95 billion users (Clement, 2020) where they interact with each other and share information. Therefore, social media platform is immensely used by everyone and tourism industry is using it to market their services to billions of people or their desired targeted audience. People gets information about travel destinations and other tourism services from social media platform and this all contribute majorly to the success of tourism industry as a whole(Jungsun, 2010).

All the details discussed are summarized as follows; (Benefits of using technology in tourism industry)

- Domestic and International Marketing of travel destinations.
- Use of Social Media Platform to target specific niche or market audience.
- Digital Payment Solutions.
- Computerized Reservation Systems.

- Online Navigation Maps i.e. Google Maps.
- Use of Extranet Applications i.e. Booking.com, Jovago.pk.
- Online Reservations/Booking of Places.
- Cash-less payments.
- Border-less Business Functions.
- Use of Mobile Applications to provide tourism services.
- Cost-cutting strategies are easy to implement.

4.3 Disadvantages of Technology in Tourism

Besides of advantages, technology also has disadvantages but not more than the benefits because it is worth of this hassle and risk. Technology implementations required maintenance activities and up gradation time to time. And using technology in the business model make classified information of the businesses vulnerable to hackers and cybercrimes. The hacking could be done because, websites or applications are built on cloud servers and different platforms, and security is dependent on the hosting company that is running the website(Jungsun, 2010).

Another disadvantage is that using technology in the tourism industry has also brought unemployment due to cost-cutting strategies adopted by different hotels and restaurants. Booking through traditional method (by visiting tourism agencies) has been significantly decreased and people are opting for online bookings, which is resulting in non-creation of jobs in the industries(Johnson, 2020).

It is also difficult to get the desired result from online advertising due to digital marketing saturation, the potential customers are difficult to capture(Patel, 2018). To use technological changes in a business, it requires advance expertise and know-how to reap the benefits from it.

4.4 Data Analysis, a Valuable Asset

In the tourism industry, improving the experience of customers is an essential element to grow rapidly and tourism sector is following this growth using technology based implementations which greatly help in acquiring desired data and then analyze it to make flexible changes to improve integrated experiences of bookings and reservations online. Here, data is the key in order to achieving this(Díez, 2017).According to estimation made by Statista in 2016, travel sales in 2019 was expected to be around \$817 billion and increasing annually(Global digital

travel sales 2014-2020, 2016). Therefore, tourism businesses are evolving and adapting the technology shifts to reap benefits from it and attain greater profits for long time.

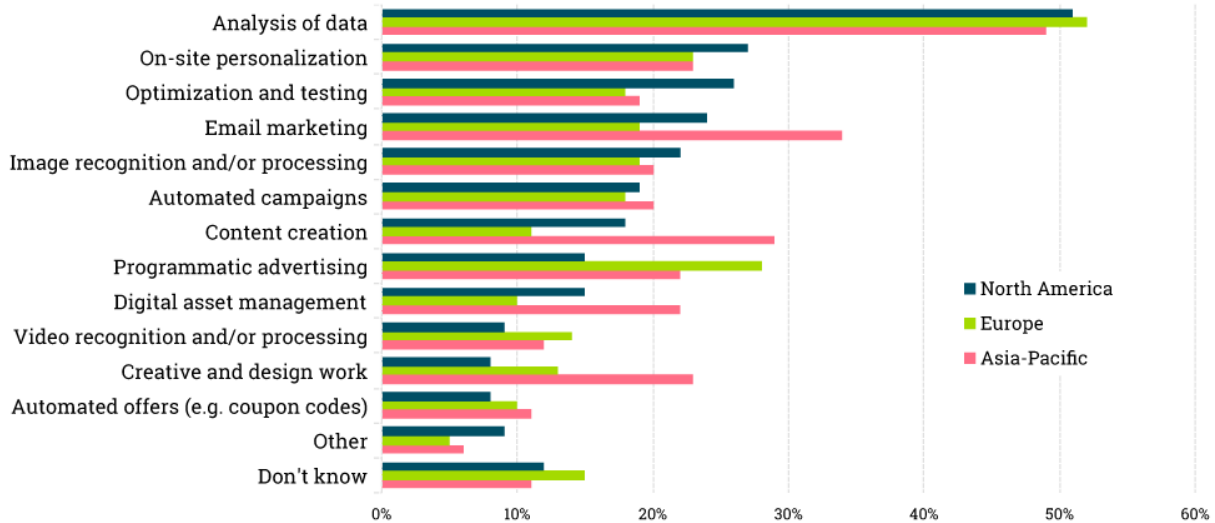
To acquire consumers' information and their buying behaviors about where they usually spend their holiday vacations, applications and websites are used to track down these details and then used to analyze for the improvisation of services accordingly by considering the market demands(Díez, 2017). Analyzing data information also help to enhance customer satisfaction levels by meeting the demand that is created in the market, for example, in 2019 Pakistan was declared in the list of 2020 for top 20 destinations to spend holidays(Pakistan is 2020's top holiday destination, 2019), a huge potential tourists demand is created which would most likely to visit Pakistan during summer vacations or other holiday seasons. But in the current situation due to pandemic COVID-19, this demand shattered the tourism sector growth for some time now, it is likely to expected 60-80% downtrend due to this crisis (Ahmed, 2020). Now it is expected that tourism sector would be open completely for tourists in 2021.

Another aspect of importance for tourism companies to collect data from customers is to reduce costs, increase the operational efficiency and effectiveness, enhance the marketing efforts to reach more potential audience, innovate new products or services to penetrate the market and takes a leap advantage against the competitors in the



market by predicting the trends of future(Díez, 2017). Mobiles are now the most used “Artificial Intelligence source” of collecting useful data which is now and then used to predict customer’s buying behavior and use it to capture the market(Díez, 2017). In the recent reports, it has been proved by many experts that Google has also been always collecting information via listening to your talks about brands or specific products to use it in running their Google AdWords program(Aten, 2019), which is basically used by famous recognized brands to advertise their products to millions of online customers on pay-per-click basis, which is a means of digital marketing online(Google Adwords, n.d.).

How Companies Are Currently Using AI



Published on MarketingCharts.com in March 2018 | Data Source: Econsultancy / Adobe

Based on a survey of almost 12,800 digital marketing and e-commerce professionals. The plurality of respondents are from Europe, with the Asia-Pacific and North American regions the next-most heavily represented. Respondents came from a mix of company sizes, types, job titles and roles.

Figure 2: How Companies are currently using AI for data analysis.

Source: <https://project-management.com/the-future-of-ai-and-project-management/>

4.5 Effects on Tourism Sector Jobs

Technological advancement in tourism industry results in fast-paced growth as a whole, meanwhile on the other hand it eliminates the old jobs that are being performed by employees in the sector, who doesn't know the skills of digitalization or automation of technology in tourism. Implementing technological advancements also creates brand new jobs which requires specific skills and experience in Information Technology sector to reap the benefits to its potential. Automation of tourism sector has eliminated the traditional tourism to such an extent that, tourists always prefer to book their trips from their homes in a few taps! (Ivanov, 2020)

Implementation of automation would result into a competition not on the basis of attitude and appearance but only skills that are effective towards automation of technology in tourism. Use of technology in tourism has proved massive benefits and most of the outside world countries are reaping it(Ivanov, 2020), but unfortunately in Pakistan there is no awareness about the advantages of technology in tourism sector and how it can be used to boost the growth of the industry. Pakistan's new Prime Minister (Imran Khan) is highly fused on reviving the tourism in Pakistan with the help of technology. Recently government has introduced E-VISA for

international tourism visits which received a huge response in 2019(Tourist Visa, n.d.).Following is the international tourism revenue displayed in the map;



Figure 3: International Tourism Receipts in 2017 Source: ICAO (2018), "Travel and Tourism a Force for Good in the World," accessed November 7, 2018, <https://www.icao.int/Meetings/iwaf2018/Documents/Travel%20and%20Tourism.pdf>

4.6 Emerging Digital Platforms Usage in Tourism

Automation and digitalization has made revolutionary change in the tourism sector around the world. And in some parts of the world, for example in India, there are only 35% people that like to book their trips online. To be flexible throughout the market shifts, tourism companies are adopting digitalization and smart solutions to make it easier for booking leisure trips with few taps from home(Jain, 2019).Now everything that you want to order or book is just a click away, digital platforms has now made it possible to easily purchase flight tickets, book hotel rooms and cinema tickets as well by paying through credit/debit cards wherever you are. There are also some websites, when searched for desired destination or place to go, it shows hundreds of discounted price offering from different operators i.e. airlines and hotels; which makes consumer easier to opt for the choice that suits the budget(Cheap Flights, n.d.).



Figure 4: Virtual Reality Future Predictions.

Source: (Ralf-Christian Härting & Nina Härtle, 2017)

Discussion of digital platform usage in

tourism always erupts the advantages of the technologies which has made imagination into reality. In tourism industry, VR (Virtual Reality) tourism is now getting the attention due to its increasing demands in the outside world. Whereas, in Pakistan tourism industry, this trend has also been adopted by some websites and it is quite fascinating to see how they are trying to replicate the experience just by staying at home for tourists. Tourists now can also be able to do virtual tours (3D tour) of travel places in Pakistan by using HD360.pk. The use of these websites has also made it easier for the consumers to make smart decisions without paying extra fees to travel consultants.

One of the biggest advantage of adopting digitalization is to attract millions of potential consumers through “digital marketing”. As discussed in Chapter 4.2, we’ve discussed the positive impacts of digital marketing and how it can be beneficial by engaging at large scale to attract consumers and grow the industry as a whole. Social media platforms are used as a WOM (Word of Mouth) about the services tourism companies delivers and discussion about travel places also takes place by consumers, the key into digital marketing is engagement(How digitalisation is revolutionising the travel industry, n.d.).

The term digitalization can be defined as the “adaptation of digital technologies to improve the business functions” (Ralf-Christian Härting & Nina Härtle, 2017). A recent study proved that; digitalization of tourism industry has influenced the following main elements;

- Increase in sales
- Sharing economy
- Companies giving personalized offers to attract consumers
- Social media marketing

There is a huge probability in the tourism sector that competition between traditional travel agencies and personalized offering companies through digitalization would compete with each other to stand-out and capture the customers. Every person on the internet always wants to tell the world that he/she visited Eiffel tower for instance. The power of social media is used by tourism companies today and by using its full potential it completely eliminates the boundaries that has been faced in traditional tourism bookings (Ralf-Christian Härting & Nina Härtle, 2017).

It has been reported that, one of the third world's population use a mobile application to book a hotel room and to be noted, travel agencies using digital platforms i.e. websites, mobile apps etc. in Asia region has around 49% of share (Summer Travel, 2018).

The wide usage of digital platform in tourism industry is searching for information about the travel places by the customers. Almost 90% of the users search their desired destination's information online before making any reservations. This has been resulted into uptrend in customer satisfaction levels (Shigaonker, 2018). Digital platforms have also enabled the tourism companies to introduce new business models that can provide services that are customizable and liked by the users.

Chapter–5: Current Status of Pakistan Tourism Industry

The economy of a country is very much depended on the tourist's attraction. It creates opportunities for the employment and enhanced the income. The foreign exchange is boasted from the visitors and some specific products and goods are also produced to entertain the foreigners. This rapid boast and growth in the economy attracts more and more tourists from all over the world. People love to come and to visit the country if the country is economically stable and easily approachable. This ultimately clears the way in growth of foreign reserves of any country.

Being a well preserved cultural nation Pakistan has very high potential to attract tourists. From beautiful sea view in Karachi to one of the biggest sea port in the world at Gawadar, from Badshahi Mosque in Lahore to breathtaking sights in northern side Sawat Kalam, from china border to the essence of freshness in Islamabad every part of it has its unique culture traditions and values. This uniqueness in culture boasts the interest.

World economic Forum published a report stating that tourism industry of Pakistan contributes about 5.8% of total GDP in one year, in 2018. Government has set a target of Rs1 trillion to be achieved in one calendar year of 2025. Government is making different efforts to promote tourism and to take full advantage of this enriched soil.

These are good figures but not the best yet. There were some major reasons Pakistan as a country was fighting with including terrorism, load shedding and intensity on borders at line of control. These reasons took shape of obstacles in the way of tourism for years and somehow Pakistan manages to get out of it. There is always room for improvement in every aspect. It is very important to preserve the natural heritage a tourist's attractions. For years' tourism industry is not at the priority of the government and due to this there is visible development and success in this sector. It has been calculated that public and private sectors have not gained the desirable targets to be achieved and gradually earned less in the market. This leads to fewer investments and less new business startups in the sector. Even in the budget very less amount of money has been granted to this sector particularly as compare to the less important sectors. There are some private investors and corporations that have shown interest in investing in this sector and to help

government established tourism in a better way. Some new projects including new roads contracts, new buildings, hotels, air networks, technological enhancements have been established afterwards the state is clear state free from terrorism and other hurdled forces. (Emerging Pakistan, n.d.)

5.1 Tourism Revenue since 1995-2018

Taking a brief look at the tourism revenue from 1995-2018 in Pakistan, USD 818mn is recorded in Dec 2018 as the revenue from the sector. It was around 866mn USD in the previous year i.e. 2017. The data of Pakistan Tourism is being updated regularly for one calendar year. The highest recorded data from 1995 to 2018 was in the 2011 when the revenue reaches a height of 1,127mn USD and the lowest one year gain revenue was in 1999 i.e. 492mn USD.(Pakistan Tourism Revenue, 2019)

Hospitality and tourism in Pakistan is been phenomenal in the year 2019. Many targets have been achieved and many new and better milestones have been set by the government. These targets were vision of new government promoting tourism and investing in this sector. New technological enhancements have been introduced with sustainability and eco-tourism was one of the major efforts done by government that attracts the tourists from all over the world to come and visit Pakistan. These successful models were based on the phenomena of some other countries having a large range of tourism like Philippines, Sri Lanka, Maldives, and Switzerland. These countries are famous for their tourist's attractions and recorded growth in this sector. Now technology has made travelling much more easily.

5.2 Pakistan Tourism in recent years

In 2019, arrangements were made to bring tourism stakeholders at a single platform and to check the opportunities and hurdles in the way, then to go for their solution to help promote and development of the tourism sector. There were some major events organized to spread awareness and to create opportunities with the help of public & private partnerships. A web portal was also launched by PTDC to aware people and to excel in this sector. This was mainly for the ease of travelers coming from all over the world to have a historical reading background before they come to Pakistan. Ministry of tourism was developed in the 18th amendment under the federal constitution of Pakistan in 2010 and then PTDC (Pakistan Tourism Development Corporation)

promotes tourism at a better scale. The challenges faced by the PTDC always took this sector unfocused. The main challenge remains always the financial allotments. Funds were not enough for PTDS to work properly and in the execution of the framework at provincial levels. (NTCB) National Tourism Coordination Board was formed by government in 2018. It was a major step towards bringing the provinces near to each other in sense of harmony, territories and areas. The NTCB then worked for the revival of tourism industry having the main focus on domestic and international tourism creating more opportunities and investments.

In the first quarter of 2019, NTCB took some remarkable steps. They give PTDC right and all the authorities to provinces in order to attempt the empowerment and to make their own tourism strategies in their limited assets provided by federal government. NTCB also introduced the new VISA policy for all the foreigners including 48 countries to VISA on arrival and 175 countries to provide online visa facilitation. This step was very beneficial with respect to the boasting of tourism and this let many international sponsors to be work with Pakistan Tourism Industry. This changed the trend of international tourism and thus the sector gets boasted. Different international bloggers and Vloggers were invited in 2019 to come visit Pakistan and capture the purity of the land and culture. These international visitors shared their experienced on international platforms and showed world the hospitality and beauty of the land. The recent visit of Royal Couple Prince William and Kate took the image of Pakistan to the international forums and made it the no. 1 destination of the year in world. (Pirzada, 2020)

5.3 Contributions of Tourism Industry

Tourism industry contributes in many ways involving

1. Around 2.8% of GDP is carried out by the tourism industry. It stimulates the growth.
2. Trade & commerce internationally increases with tourism.
3. Tourism is the second rapidly growing industry with respect to the direct foreign investments. In 2017 an investment of worth Rs.410 Billion was made.
4. Sectors related to tourism are also enhanced as the tourism grows, this includes the medical facilities, aviation sector, railways, infrastructure of roads, water and energy reservoirs.
5. International tourists support the low income economies by the foreign exchanges.
6. Huge amount of employment and different opportunities are being produced.
7. Backward and rural areas are being empowered with the international tourist's activities.
8. With tourism, the technology is improved as the new gadgets are being introduced in the market and digital platform is established.
9. The awareness of rise in temperature and climate change helps preserve the nature.
10. Not only internationally but also the inter-province harmony is established with tourism. People used to visit one province to another and this strengthen the love and ultimately the economy of a state. (Rafique, 2019)

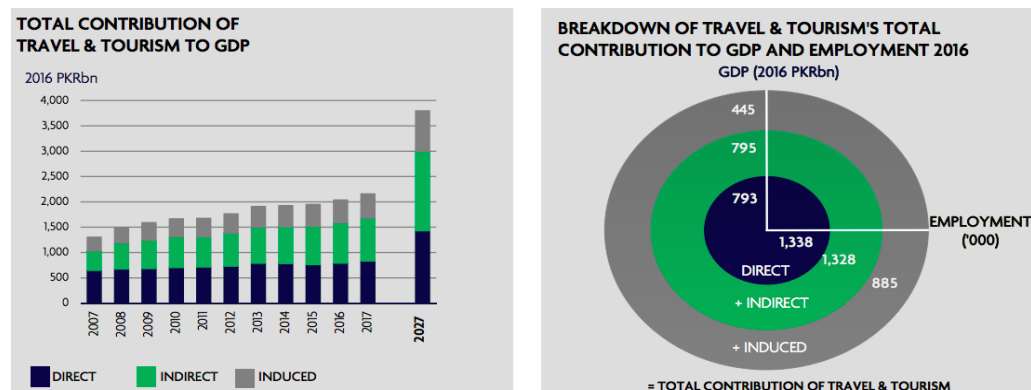


Figure 5: Contribution of tourism Industry

Source: (Haq, 2018)

5.4 SWOT analysis of Pakistan Tourism

A very important role is being played by tourism specially countries which are in a developing position. As we've discussed above tourism creates multiple employment opportunities and it also improves the infrastructure and rural areas of the country. This study intends to measure the strength of Pakistan tourism through SWOT analysis i.e. strength, weakness, opportunity and threat. Any state has multiple strengths that are the power factors and helps in basting the economy. Where there is strength there is weakness too, weakness is a weakness as long as it is undiscoverable, once the weakness is discovered that is not a weakness any more it is negligence then. Opportunities and threats are also there. To study any specific sector or industry SWOT analysis gives the best precise data to look over and then make framework for the improvement. Specifically, Tourism Industry of Pakistan, this SWOT analysis shows the tourists experience too.



Strengths Of Tourism Industry

- Places like Mohinjodaro in Sindh, ghnndara and taxila in province are a view of ancient civilization
- Different Museum
- Mughal Rulers Architecture that includes (old ancient buildings, beautiful gardens and mosques)
- The coastline like Marakan
- Infrastructure like silk road
- Second highest peak in the entire world, K-2
- Beautiful Swat Valley, it is also known as the Switzerland of Asia.
- Valley of Kaghaan
- Four complete seasons
- A range of salt mines
- Stunning lakes in mountains
- Festivals to be held in spring seasons
- The culture of Pakistan
- Various shopping items like handicrafts, jewelry, gems and many more
- Natural food and resources
- Huge investments and opportunities of business startups
- Cheap labor
- Cheap accommodations
- International level hotels and restaurants
- Growing market
- Rapid establishment

Weaknesses Of Touri8sm Industry

- Lack of structural facilitations
- Less effective advertisements
- Not sufficient services for international tourist's
- Lack of new startups and initiatives by concerned government departments
- Law & order in specific attraction for tourist's spots in northern places.
- Lack of technology
- Lack of trained technical personals
- Lack of needs for example the acceptance of credit cards, ATM machines, Navigation aids
- Bad image in the world via social media platforms
- Very low allotted budget annually by the government
- Undiscovered beauty sites inside the country
- In mountain areas lack of infrastructural facilitations
- Less understanding for the needs of tourists.
- Lack of new facilities in hilly areas i.e. no new cars, old hotels no food for international travelers
- Less financial resources
- Language barriers
- Less developed road in northern areas

Opportunities Of Tourism Industry

- Marketing of our culture and in heritage to the Europe and eastern side.
- Mountaineering regions need some innovation in order to entertain the mountaineers.
- Foreign investments can be made for the hotel management side
- Hotels can be developed more with respect to the international visitors
- Confirmation of sustainability in law and order
- To take advantage of foreign tourism business models.
- New business startups with foreign investors as partnership
- To create a positive image on the world of Pakistan by media
- Technological enhancements
- Understanding the needs and demands of foreign and local visitors
- Up gradation of new transport
- Development of infrastructure, making more new airports, improving the road networks and motorways.
- Money exchange and ATM facilities even in northern areas
- Improvement of navigational aids
- Making good relations with other countries
- Participations in international events

Threats Of Tourism Industry

- Recession of economy
- Downturns of economy through pandemic
- Lack of training centers in Pakistan for tourism
- Due to change of government after tenor, unexpected ups and down in budget for the sector
- Lack of qualification
- Administrative issues
- Economic inflations
- Language barrier due to low literacy rate in many areas
- Rapid increase in pollution
- Shortage of electricity power supplies
- Lack of water reservoirs
- Alcohol prohibited
- Some uncertain events as 9/11
- Lack of marketing and advertisings
- Lack of promotional activities
- Security reasons
- Less web facilities
- Lack of tourism awareness in general public
- Increasing amount of taxes
- Big currency difference with other developed countries
- Trust issue with locals
- Less international brands at tourists' spots
- Terrorism
- Political instability

In accordance with the SWOT analysis of tourism industry of Pakistan we can say that there are numerous no. of strengths that shows the potential in this sector and much more yet to be explore, talking about the weaknesses there is always room for improvement nothing is so perfect that it does not need and more improvisations. There some of the opportunities which will lead this sector to more and more business and many people will get their jobs in this sector providing specific trainings and development programs. Threats could be handled easily with some efforts and looking onto the weaknesses. (Fakhar, 2008)

5.5 Tech companies playing role in Tourism Industry

In accordance with the study at Google, 74% of the travelers are now planned their trip on internet and only 13% still use the traditional way like travel agents and councilors (Vidal, 2019). When we talk about numerous choices in hotels, reasonable rates and ease for the consumer's, tourism industry has found its perks. This not only strengthens the experience of customers but also plays a vital role in contribution towards the economy of a country. This perk is known as technology. Advancements are made in the perspective of both business and customer's services to make experience better in communication, reservations and check in. The platform of E-commerce has improved the tourism any has many benefits. The Hospitality sector of Pakistan shifts its trend with respect to technology.

One cannot deny the benefits and ease technology has brought into this sector for its users. Different activities in the world are now just at distance of a click to facilitate travelers with many choices. When we see it from broader perspective, we get to know that advancement in technology pull more customers towards the business and numerous services are being provided. Travelers now have freedom of choice with this digitalization. Travel is all about to connect far places, make lifetime memories, experiences and innovation in technology providing ease in this sector make this even easier.

5.6 Technology shifts trends in Pakistan tourism sector

New revolution changes have been directed towards advancements in technology for the easy solution of consumer. This results as enhancement in whole experience of travel. Online booking portals are now operating on websites providing ease to international travelers. Many other technological changes are being improvised to this sector (Pakistan's Hospitality Sector, 2017).

An important role is being played by the information technology since the last decade. It helps in cost cutting, operational efficiency is being enhanced and the improvement of services is also made. Not only for the customers but also for the business, technology benefits the both with their communication, booking systems and guest services. Expensive human labor has been replaced by technology for the industries and hospitality sector. With the help of this customer issues are being avoided and also very cost efficient. Let's discuss some example of how technology has changed the trend of tourism industry.

5.6.1 Marketing and Internet

Internet has very effective impact on tourism and hospitality. Now days, customer first visit of your business is now at the website. Pictorial representation always fascinates the most. It's the human nature. Sensible promotions, admirable advertisements, usage of social media platforms, blogging and online buying have helped the customers in their approach and convinced them to travel more and more. Marketing is a very powerful tool in terms of growth off any business or even any firm and internet is the main source now days to attract millions of users. Customer wants everything at just one click with ease. Customer does not want to spend time on visiting offices and looking for services, so a impactful marketing can help boasting the business.

5.6.2 Computer Software

Communication between hotel chains at larger scale is made easier with the help of computer specifically designed software. All the information of the arriving guests is very easy to handle in those systems. Information and data of the staff working in the hotels is easy to manage. Different pictorial presentation of hotel rooms and attractions can be uploaded on the websites and social media platforms to gauge the audience interest.

5.6.3 Mobile Communication

Large desktop systems have been replaced by smart phones and tablets to make them portable. This saves electricity, consumes less time, more ecofriendly and cheaper comparatively. This is also very useful for the travelers as they can carry smart phones instead of a big camera and no issue of storage too. Navigational aids, ease in reservation, accommodation and to get different type of offers are the things users can take advantage of this smart technology. (Starr, 2019)

5.6.4 Online Payment Methods

Besides all other advantages of technology, online payment method has benefits in bundles. When international tourists have to pay for anything the online payment method is free of hassle. Different banks offer multiple transactions ease to be made online, they are then linked with the hotels and other spots tourists used to visit the most. Innovation development is empowering blast in the travel industry in nation. The effects of technology on movement can't be disregarded. Subsequently, many companies are continuously taking a shot and investigating and improving offices for neighborhood and to consolidate it with most recent innovative apparatuses to indulge comfort. Explorers around the globe through online means can without much of stretch appreciate online payments whether it is Credit or Debit card. (Technology Trends, 2017)

5.6.5 Augmented Reality

Its true now that augmented reality also known as virtual reality have entered the tourism world. It's rapidly on its way to be the trend because of all the possibilities it can offer to customers. Across the entire globe, many countries are now using it to show users a glimpse interface of the destinations they want to travel. This not only attracts and convinces the customer but also a very good source of business. A beautiful cruise ship, high up there on mountains or even the Great Wall of China augmented reality is winning hearts all over.

5.6.6 Virtual Assistants

Alexa and Siri are now familiar to everyone. Very much of our needs are meet with virtual assistance like the weather out today, the traffic on the roads, the music system playing inside the house, temperature control and many more. International level hotels are now introducing the virtual assistance in rooms for their customers designed for the environment. Watson Assistance and AI-powered assistance are now introduced by the IBM in countries which interacts with the consumers and could be adapted for the needs. This would be an open technology which everyone can use by their own way. With the help of this hotel could be able to give its his own name instead of Watson or AI-powered. (VIDAL, 2019)

Chapter – 6: E-tourism vs. Traditional Tourism

6.1 E-TOURISM

E-tourism means the Electronic Tourism first of all the definition of the E-tourism which is following:

“E-tourism is also known as the travel technology and “e-travel” it is referring to the appearance and research area in which use of new technology and adoption of the information and communication technology by the tourists and businesses transforms the processes and the value chains in the tourism industry.”

6.1.1 History and Growth of E-tourism

Dynamic of the e-tourism is closely related to the growth of information and communication technology. As we know that in the past all the airlines manually managed the reservations through a card system, and the advertisement for the hotel bookings tapes posted in the walls. And then the first electronic general motive computer, ENIAC, appeared in 1946 and airlines started to adoption of this type of technology and the American airline installed that automated booking system at same year. Some other airline starting adopting the ICT to build computer reservation system in 1960s or 70s. In 1980 all some airlines and the hotel system start moving toward the new system electronic system.

During the 1990s, the wide reception of the Internet made new roads of distributions and methods of arriving at tourism sectors, making the Internet begin rearrange the structure of the travel industry areas in the 21st century mobiles and the social media technology totally changed the ways that consumers access information's it totally changed the power structure and balance between consumers and businesses. (Bing, reaserch gate, 2015)

6.1.2 The implications of e-tourism for visitors

E-tourism involves the following aspects for the consumer's information and e-reservation as well as e-payments. These are the things which are in e-tourism.

6.1.3 E-information

This means that tourists are provided with the information from specialized touristic sites, sound touristic guides, photograph collections, genuine or virtual pictures or video cuts through which they can think about that territory. E-booking is mostly used by the hotel, air travel and rent a car sector-booking as information services, it is very help full for the consumer because tourist reservation for all the thing which tourist need during trip. The consumers book their tickets and hotels for their trips by using credits cards, digital cash when they only to pay few cents. Many of the electronic payments are the equivalent of everyday operation and payments.(amelia, Electronic tourism, 2008)

6.1.4 Role of E-tourism

- Expansion into new market
- Empowering of employees
- Lowering of cost
- Enhancing distribution
- Speed of thought
- Easy access

6.1.5 New technologies in E-tourism

There are many types of new technologies which are helping to improve the tourism and made the trip easier. Some of technologies are like Collaborative filtering, CRS,GDS, Profiling , Knowledge software, Electronic payments, Virtual reality through these types of technologies the customer get knowledge about their trip and feel easy to go for it.(Bhattacharjee, PGDM in tourism, 2013-2015)

Different typologies of advances are utilized in e-tourism travel industry. Therefore, three sub-regions have risen: operational devices and frameworks utilized by the travel industry, accommodation organizations and associations to build productivity and seriousness and plan their outings, make buys, and share encounters and conveyance and business instruments which offer appropriation channels. There are some technologies which are web services, intelligent agent's recommender system and context awareness technology, mobile tourism guides.

Operational advancements include numerous frameworks. A property the board framework is utilized by the convenience division for reservations, appointments, bookings, point to sale, retail location, telephone administration, housekeeping, and different administrations and other services. It regularly interfaces with different frameworks, for example, a worldwide dissemination framework, client relationship the board, income the board, and HR.

6.1.6 Use of ICT

The wide use of ICT by the travel industry organizations and tourists produces a lot of information from data searches, exchanges, and spatial development. The present tourists will probably carry many technology gadgets and use them to communicate with ICT assets. A visitor will produce and contribute a gigantic measure of information, incorporating information focuses in a travel industry site's examination information, a lodging versatile application's log information, call focus logs, the measure of traffic at a goal, the business records of the travel industry administrations, web crawler inquiry volumes, internet based life makes reference to, area information from mobile phones, GPS and photographs, and so on. These are potential pointers of a vacationer's preferences, inspirations, arranging conduct, and genuine stay encounters.

6.1.7 Research area & benefits of e-Tourism

All around, e-tourism the movement business has formed into a settled sub-discipline with several particular affiliations, journals, and get-togethers, similarly the same number of research articles showing up routinely. Its affiliations join Hospitality Financial and Technology Professionals, the International Federation for Information Technologies in Travel and Tourism, and the International Hospitality Information Technology Association. Some have related social occasions and journals, for instance, HI TEC, the ENTER e-Tourism Conference, the iHITA yearly gathering, the Journal of Information Technology and Tourism, and the Journal of Hospitality and Tourism Technology.(Bing, reaserch gate, 2015). E-tourism playing a big role in the tourism industry due to the new technology all the parts of the tourism became easy for the tourists. There are many benefits which is very helpful for industry and consumers. There are some benefits which are following:

- Loyalty programmers
- Brand Enforcement

- Industry structure changed
- Profit maximization
- personalize
- Expand market share
- Increased efficiency and productivity
- Manpower reduction
- Centralized management.(Bhattacharjee, PGDM in tourism, 2013-2015)

6.1.8 Advantages of E-tourism

By the passage of time the tourism is going to be very easy for tourist due to the electronic tourism. There are many things which are related to the technology which help the tourists for their trips. Electronic tourism made all type of tourism and travel easier for all people. Tourist can easily get all information online through net or sites and they can easily book and pay a ticket of course, rooms, hotel, resorts and rest house, all type of transport and also tourist can plan its entire trip by using web apps. E-tourism helps the tourist to find and get easily directions for their desired destination. In the conclusion I think that the E-tourism performed a big role in the tourism industry this electronic tourism made many things easy for all tourist and travelers it solves many problems which the tourist faces when there is no electronic tourism.

6.2 TRADITIONAL TOURISM

6.2.1 Definition

Before the electronic tourism the Traditional Tourism for the essentially to seek food or to escape danger and also travel for the undertaken for trade after the passage of time the traveling use for tourism for the enjoyment and visit the culture of other countries and visit places like historical, adventure but in the Traditional Tourism there are many problems which are face by the travelers and tourists.(elisabeta, 2011)

6.2.2 History of Traditional Tourism

In 20th century the status was uncovered by the nature of the destination. Travel and the tourism industry has been going on since immemorial time, and for the 'twentieth century vacationer, the

world has become one enormous retail chain of wide open spaces and urban communities by 21st century, travel turned into another economy and travel industry available to all. The concentration in the travel industry has moved from air travel, expedites, suppers, meals, overnights to add up to make your dreams true. There are no app and advertisement for the tourism through which the costumers attracted toward the tourism mean that there is no technology which make the trips easy for the tourists in 1990s the tourism is very difficult there are many problems which are face by the tourist because they have no idea which type of process they face during trip, they have to by ticket which are in the shape of card because they have no concept of online tickets, online hotel booking, the tourist have to do all the thing physically.(elisabeta, 2011)

- No Airline Tickets
- No hotel bookings
- Very less advertisement
- In charged travel industry
- Attraction focused
- No online payments

6.2.3 Characteristics of Traditional Tourism

There are some characteristics of the Traditional Tourism which are in points in the following:

- Jet aircraft, cheap charter flights
- Paid holidays
- Short of economic growth
- Entrance of multinational companies in travel industry
- Higher income

These are some characteristics which help the industry to improve tourism that why now a day the tourism in on the best place.

6.2.4 Traditional Systems

As we know that there was no technology before e-tourism so that the system use on that time which is very simple but it needs your physical presence means that if you want to buy your ticket, you have to contact with agent or buy ticket from the ticket counter. If you planned a trip you have to go to that place and then book your hotel on the spot. Airlines issue your ticket on a

paper slip when there were no electronic systems or online system. In short you have to go physically to that place that you want to visit and buy your ticket by your hand

ENDORSEMENTS/RESTRICTIONS (CARBONS)		ORIGIN	DESTINATION	FROM/TO	CARRIER	FARE CALCULATION	SEE BELOW FOR AIRLINE FORM SERIAL NUMBER	
NAME OF PASSENGER CHESI / HR		CONNECTION TICKETS	ISSUED IN EXCHANGE FOR	DATE OF ISSUE 24 APR 80	PASSENGER COUPON	PLACE OF ISSUE - AGENCY UTRAS S.P.A. MILANO-ITALY 36-2 2393 1		
COUPONS NOT VALID BEFORE 1 103 2 MAY 80	ISSUE	CARRIER FORM & SERIAL NUMBER	FLIGHT DATE	AGENTS NUMBER	CODE			
COUPONS NOT VALID AFTER 1 22 MAY 80	2 80	FARE BASIS	ALLOW	CARRIER	FLIGHT/CLASS	DATE	TIME	
NOT GOOD FOR PASSAGE		YEAH	20 TW	890	APR 24	18 30	OK	
TO		YEAH	20 TW	890	MAY 6	05	OK	
FROM		ROME						FARE
TO		TEL AVIV						FARE
TO		ROME						FARE
FARE	EQUIV AMT PG	ROUTE CODE	ADDITIONAL ENDORSEMENTS/RESTRICTIONS		CPI	FORM & SERIAL NUMBER		
IT X						015	3239604597 5	
TAX	TOTAL							

Figure 6: Air ticket used in 1980s

Source: (IATA passenger ticket copy, n.d.)

6.2.5 How Traditional Tourism works

In the traditional tourism there are many things which are done by you (physically) because there are not electronic systems on that time so the ways are simple difficult. Electronic tourism make all the services more easy and all the booking are depend upon the consumers but Traditional Tourism there is no technology through which you book online your tickets and hotel bookings. At that time the trips or tours are very time required things and difficult for the people. Traditional Tourism all work done on papers their all records all information's save in the shape of papers after that time going toward technology all things are change with time which have many benefits for all tourists. It is a wonderful economic contribution for today's economy. There are many people who don't spend their money on tours because they think this is difficult to travel form one place to other but now people spend their money on their trips and also attract by the electronic technology.(Franklin, 2016 editor)

6.3 E-tourism vs. Traditional Tourism

The main differences between the E-tourism and Traditional Tourism is given below:

E-Tourism	Traditional Tourism
<ul style="list-style-type: none"> ➤ Consumer is in charge ➤ Focused on experience ➤ New technology ➤ Online systems ➤ Tourism app (for booking) ➤ Smart work (you plan your trips by yourself) ➤ Increase travel experience ➤ Increase in economy ➤ Tourism increase ➤ Easy access for online websites 	<ul style="list-style-type: none"> ➤ Travel industry was in charge means tourism was changing ➤ Focused on attractions ➤ Old technology ➤ No internet ➤ No internet ➤ Specific trips ➤ Less travel experience ➤ Less travel experience ➤ Less tourism

These are some points which shows that the difference between the Traditional Tourism and e-tourism through these points we can clearly know about that the Traditional Tourism have many difficulties but after the e-tourism the tourism technology make tourism easier.(Markus Schuckert, January 2015 and 2017)

For better understating, graphical data is given below.

Graphs 1:

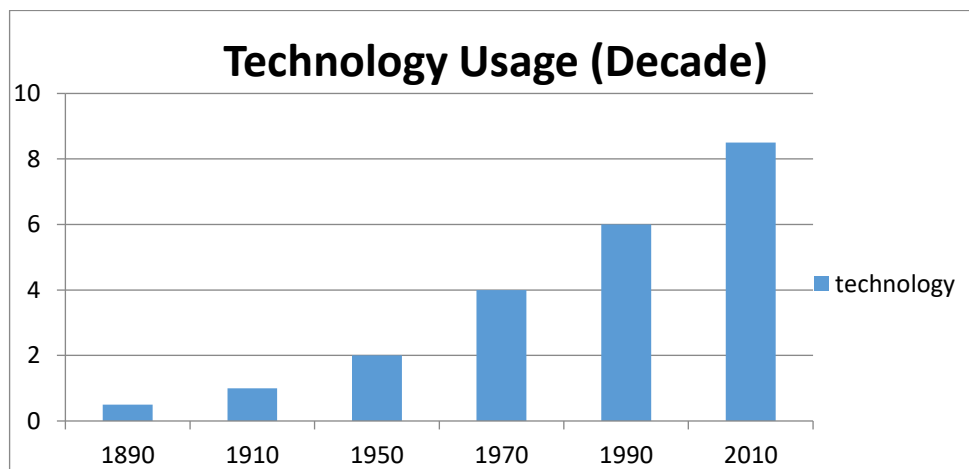


Figure 7: Technology Usage (Source: Markus Schuckert, January 2015 and 2017)

As you can see in this chart the technology is increasing year by year which show you in this map in 1890 introduced X-ray then in 1910 plastic after that 1950 technology introduced the emails and ATM and there are many online app and applications that are introduced by technology. By the time the technology come into our life and my many things easy for us.(Martin, 2018)

Graph: 2

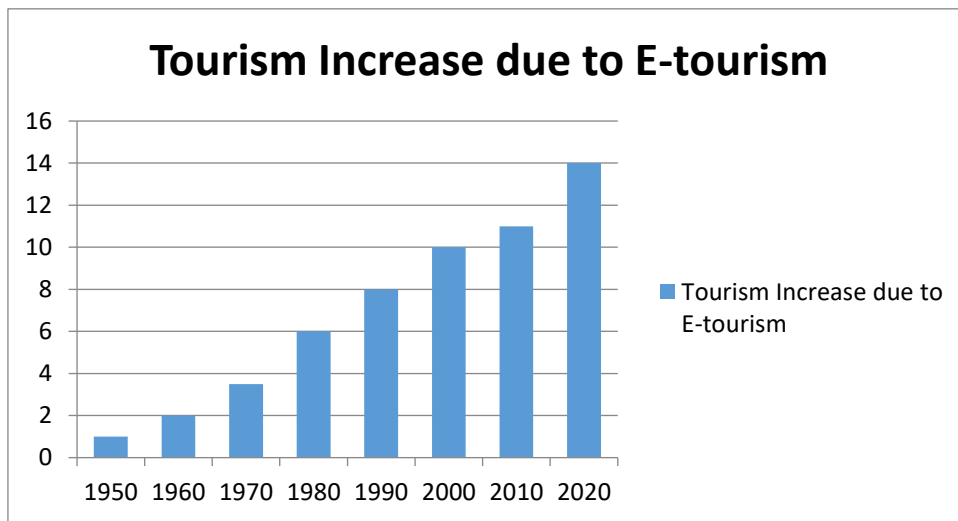


Figure 8: Tourism increase due to E-Tourism (Source: coolgeography, 2014)

This graph show the last 60 years growth in tourism, this is increase from 10 million in 1950 to 694 million in 2004.tourism increase in East Asia, Asia and America because of the technology electronic tourism which play an big role in the tourism industry.(coolgeography, 2014)

Under E-tourism and Traditional Tourism we can learn many articles and search about these topics and in the end we conclude that the e-tourism is very beneficial for the tourism industry because it introduced many app, web, and lot of things like that which are helping in our tours and trips. In Traditional Tourism style there are many difficulties which are facing by the tourist, Traditional Tourism style s without any technology or less technology that why this is very slow and it required time. Now a day technology is increasing day by day so there are many options that help to choose your trip mean you want anything during your trip you have to order online, so I think the Electronic tourism is very help full for tourist and it increase tourism in the world.

Chapter – 7: Future of Tourism Industry in Pakistan

7.1 Introduction

Pakistan is a blessed country. Beauty, diversity and rich culture of Pakistan is well known. Multiple opportunities will be the standing point of Pakistan tourism. Pakistan tourism highlights its different branches which include religious tourism, traditional tourism, nautical tourism, e-tourism and cultural tourism.

Every part of the world promotes their- selves for tourism in a wide manner. It's one of the major industries in the world to stable economy, growth and development. The dominance of rich culture would be beneficial for the Pakistan tourism industry in the future. (Unknown, 2020)

7.2 Instabilities and causalities effect

Tourism industry in the world has faced several issues which were difficult to ignore. One of them was 9/11 who shook the tourism industry. Such unfortunate incidents turn global tourism to change their policies. Pakistan was one of those countries who had a negative impact on tourism activities. Instability occurs but this time its change the condition and situation is worse just because of COVID-19 (Covid-19 is discussed further in this chapter). (McKibbin, 2019)

7.3 Travel and tech trends to be seen:

7.3.1 PTDC app

The tourism industry would be the new source for bringing the new 5th industry revolution. The tech trend plays a vital role in tourism. Pakistan tourism sector is looking forward for PTDC App This app would provide a platform to tourists. This app would be the revolution in tourism industry as these platforms are the main attention seeker of the tourists. The app will be directly in control of the government which means it would be ease to deal locally for foreigners. The tech trends are the new advent for tourism industry. The innovations are pretty shocking and

interesting interim of tourism. Tourism will re-evaluate where we will go. There are new travel trends which are being ready to be the part of tourism industry. (2020)

7.3.2 Space tourism

Space Tourism would be the finest revolution of all time, it gives us chance to visit the space. Still this will be only available to those members which will be connected to Virgin Galactic. It was stated that the owner of amazon Jeff Bezos announced to test crewed flight New Shepherd craft first in 2020. Space X plans to be the visitor of moon among the Japanese Billionaires in 2023. And 100 paying earthlings could be the first ever space hotel by 2025. They are also offering private residence, bars and restaurants. (Cobb, 2020)

7.3.3 Electric plane

In a short time, there would be an amazing innovation which would be emission free. The electric planes are being introduced soon which would be capable to fly 300mph. The industry would shake if this technology would be successful. The first company in line to unveil this fantasy is Rolls Royce. Rolls Royce plans to fly their plane ACCEL in 2020. Following up the new trend Airbus, Israel Aviation and Easy Jet partnered with Wright Electric to introduce electric fleet. (MagniX, 2019)

7.3.4 Block-chain

The new mechanism ready for the market is "Block-chain". The perfect mechanism for the storage of information every travelling activity, the information related to trips, people and their residence would be entertained in it. The transactions information related to tours would be confidential and will be stored in this mechanism. The era of cyber security needs such mechanism for the safety of information related travelers. (Li, 2019)

7.3.5 Smart integrations and personalization

Smart Integrations and Personalization is the most important factor for the hospitality in tourism industry. A profile setup is begun to install whenever the tourist would experience the hotels. A profile of every visit, Feedbacks and his demands would be stored. And updated after every visit this makes hospitality premium in the tourism industry. The innovation of PMS in hotels for guest profiles is the rich idea. The innovation of VR, IR and AI system is helping the tourist to get information related hospitality in a graphic model vision. (Badiu, 2019)

7.3.6 Recognition technology

This would be the game changing technology for the tourism industry. The adaption of modern technology would be a new revolution for travelling and hospitality experience. The semi-contactless checkouts, facial recognitions, Biometric recognitions and retina recognitions would change the perspective of safety and security of tourism industry. (Li, 2019)

7.3.7 Nakations

Nakations is the other revolution growing up in the tourism which will allow people for naked holidays. It's not a technological gadget but it is urban trend for the hibernated feel for the tourists. The spots will be provided across the different places. One of them will be a restaurant in London "Bunyadi" nude restaurant. It is not limited here there will be adventurous trip while being naked. (JORDAN, 2019)

7.3.8 Ancestry travel

Variety of choices will be given to people in the future. One of them will be the helping technology towards findings their origin. Plenty of people are getting fond of "Ancestry Travel". This travel trend allows people to find their roots by making DNA test available for tourist which are in search of their roots. Airbnb's recent partnership with DNA lab 23 makes it possible. Soon it will rise as a travel trend. (Herrmann, 2019)

7.3.9 Spartians holiday

Tourism is attracted towards the earlier living style. There is a new holiday travel trend soon going to be spread into the industry which will be known as the SPARTIAN HOLIDAY. This led tourists to tour at places where they could carry lesser materialistic things to unburden their selves mentally and physically. Combination of "digital detox and minimal living" is the perfect example of stress free zone. Pair of underwear and few analogue would be enough for these destinations. There will be rise tech free micro forest hotels which will catch the hike and will provide free arena to experience your feeling with the nature. (SOUTHAN, 2020)

7.3.10 Climate neutral trip

Looking forward to global warming and for the collection of donation for the renewable energy projects, to highlight carbon offsetting the new travel is going to announced in 2020 named as "Climate Neutral Trip". Climate crisis looms travelers will do their best to balance the negative point. This travel trend will be the market entrant for the development of nature's hunt tourism. (SOUTHAN, 2020)

7.4 Upcoming trends of artificial intelligence

The Artificial-Intelligence is the important sector for tourism if we need the development and growth for the industry. If we discuss about its impact, we could highlight:

7.4.1 Customer online services

"Customer Online Services" which would help the tourist to get information related the different hotels which would be used as their accommodation. Chabot's and complain centers for the tourist. The online service emerges to be the positive sign of network update.

7.4.2 Robot hospitality services

The other innovation of Artificial-Intelligence is Robot Hospitality, with speculation at peak level. Technology is showing the dominancy in the world. The face to face customer interactions, the interpret information provider, the historian guide and the customer service provider.

7.4.3 Analysis of data processing

To shape the business strategies, we ensure the Artificial-Intelligence as an analyst of data processing. This would extract the needs of customers which would be given by them in feedback content. The number of tourist per year would be emerge as a big data which is complicated to deal so for the better managements deals of record the analysis is required by Artificial-Intelligence tools. (vaidai, 2014)

7.4.4 Platforms for recommendation

Tourism needs guidance and that will be provided by the Artificial-Intelligence use. One travel stands and powerful AI platform for the pro-tips of travelling and customizations of travel plans. The use of recommendation tool within Ai would help to grow the rental sector within tourism industry to be advertised in front of the tourist and by this they would have the recognition for which they are so into it. Initially travelling websites and trip advisor apps are the best example of it. (Matheui, 2019)

7.5 Potential of tourism industry in future

The tourism industry has the capability of raising the GDP single handed. The industry is getting prepared for a wide promotion. As the report of WTTC stated that the employment rate was increased to 6.3%. The total number of jobs was 3.85 million which were created just by developing the tourism industry. (world travel and tourism council, n.d.)

The tourism industry will be the game changer for Pakistan economy. The new tourist's sites are getting developed for tourist attractions. The Government now set priority for tourism industry. The industry is setting up contactless screening solutions for travelers to facilitate them. The tourist attraction will be increased when their will be proper state of art solutions. To deal with travelers around the globe the government is planning to use modern technology to monitor the travelers. The thermal screening technology would be introduced for covid19 specially. (technologytimes, n.d.)

To enable the jobs, resources and tourist attractions the platforms are getting developed which would highlight the new sites, the challenges faced by industry, the proper roadmap and the portal for industry feedback. The government pledged to the private sectors for the investment. The investment will be focused at eco-tourism. The infrastructure is getting upgraded to accommodate more tourism. The government places are provided for tourism. (tourism in PK, n.d.)

The government has finally decided to provide e-visa facility to 175 countries which will increase the international tourist. The government is also working on idea of single-tourist visa for all members of CAREC (Central Asia Regional Economic Cooperation) which will be a beneficial initiative for tourism industry. (DESK, 2019)

7.6 Future challenges of tourism

7.6.1 Low supersede of tourism

The deliberate focus of the government is necessary which could be the next big issue for the growth in tourism. The tourism is not the utmost priority of government which lack them to be the one of the best tourist places. The development of infrastructure is slow which would be the main hurdle for economic growth. (IqbaL, 2017)

7.6.2 Visa acquiring difficulty

The unstable condition of geopolitical and the safety compromises will be the critical reasoning behind the delays and cancellation of tourist visas. The issues become critical when a tourist from India visits Pakistan. (IqbaL, 2017)

7.6.3 Department's coordination

The rise in any industry needs the attention and focus regarding their development. The departments linked with tourism are working solely. The interaction between the departments will be the beneficial factors. This industry is linked with Wildlife, Environment, Forestry, etc. To obtain the opportunities the departments need to work together. (IqbaL, 2017)

7.6.4 Imbecility of tourism institutions

The industry has different institutions for every province and federal. Each one has its own working cell for the industry. The industry lacks in research, innovations, promotions, capital for infrastructure and growth development. The industry spreads among different province. The institutions among our country are TDCP (Punjab), TCKP (Khyber Pakhtunkhawa), STDC (Sindh), Culture, tourism and archives department Baluchistan, Azad Jammu & Kashmir Tourism, and Archaeology Department. (IqbaL, 2017)

7.6.5 Incompetent usage of it for promotions

The institutions at provincial level are fulfilling the basic needs of advertising. The promotional material and strategies are not updated. The websites are not up to the requirements. The slow promotions pay a heavy effect on capital growth. Lack of Promotion regarding hotel packages, rental packages and rides will pay a negative effect when the number of tourist will increase. (research gate, n.d.)

7.6.6 Fruitless effort in global tourism fair

The selection of delegates for representation at international level is miss used. The delegates are not part of the tourism sector always. Irrelevance and lack of participation in global fairs will not help the tourism in future. In past the Pakistan was at ranking 125/136 for promotions and advertising of their tourism at international level. If the participation in global fairs will not be improved, then the standards will not be updated. (World travel and tourism council, n.d.)

7.6.7 Uncertainty of health facilities

Lack of mobile hospital services, dispensaries, health team and productive activities of medical at tourist hotspots will be the problem for tourism industry. The healthy places always meant be too good for new business developments and tourism. The health sector in tourism needs new infrastructure, strategies and teams to make tourism industry eye catching. If the lackness continues Pakistan tourism industry would be facing difficulties. (shahbaz, n.d.)

7.6.8 Negligence of law and order

In any country the law and order is the important tool for developments and growth in any sector. Peace and security is the beneficial feature in global tourism. The tourist is attracted by the safety and productive law of the industry. Political economic system assures the economic safety towards tourism. If the system will acquire the best policies for safety it would be helpful to economic growth. The amplifications of laws are lacking which will be one the issues in Future. (IqbaL, 2017)

7.7 Future of tourism after COVID-19

COVID-19 has upended global travel and made the world standstill. For the very first time in histories 90% of world is having travel restrictions. Airlines, travel agencies are most effected sector at this time. An estimated 25 million aviation jobs and 100 million travel and tourism jobs are at risk. Between five and seven years' worth of industry growth will potentially be lost.

We will start travelling again but with a massive change. Even if borders reopen, travelers must trust that boarding a plane is safe and that they will be able to enter the destination country. New health safety protocols and systems will need to be in place, and these have yet to be defined. (Rehle, 2020)

This pandemic is the biggest challenge that any country could ever face the country economic is at great loss estimating 25% one month with is equal to 3 months of earned.

During this time when on-ground activities are not possible, we are already planning ahead so that whenever there is a slight need of travelling to any of our clients a slight window need to be open and we can give our best to them

Since travel has become an important part of everyone's life and is no longer considered as a luxury but a necessity to break away from a mundane routine and revitalized, we are positive that travel will revive soon. (MARWA, 2019)

7.8 Making travel touch-free

In order to uphold distance and cleanliness measures, as well as to we need to take best safety measures until any vaccine is invented to get rid of this thing and this difficult time everyone is facing and taking best measures that help us to prevent ourselves from catching this virus. (ROGER, 2020)

Chapter – 8: Charts Illustrations and Cross-tabulation

Specifically, *bar charts* and *pie charts* are used to illustrate the responses received from the intended audience. Following are the charts that are illustrated for comparison purpose and used to draw conclusions and discuss them in the next chapter;

Count of 1. What is your gender?

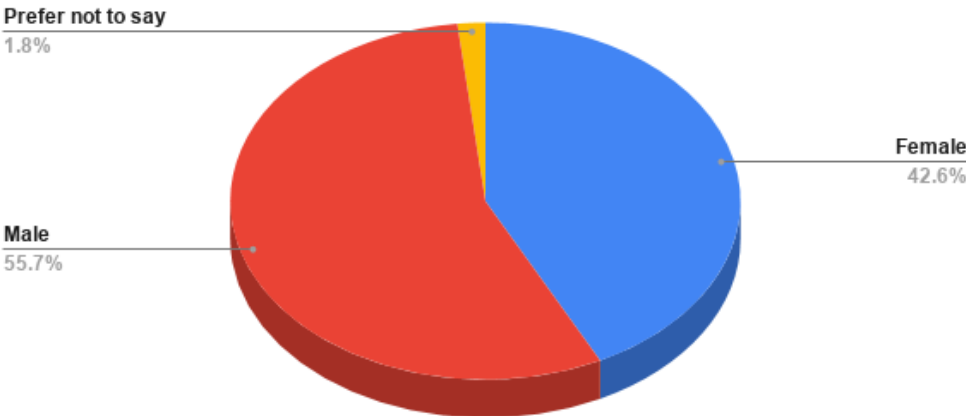


Figure 9: Question 1 Chart (Source: Survey)

Count of 2. What is your age group?

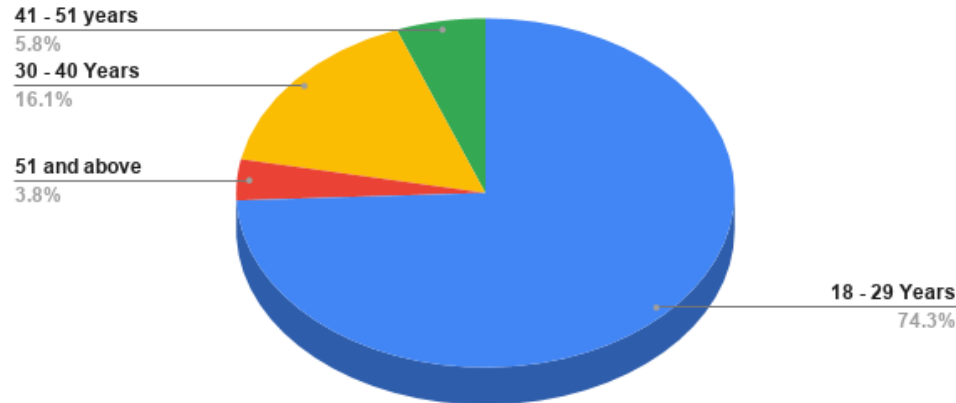


Figure 10: Question 2 Chart (Source: Survey)



Figure 11: Question 3 Chart (Source: Survey)

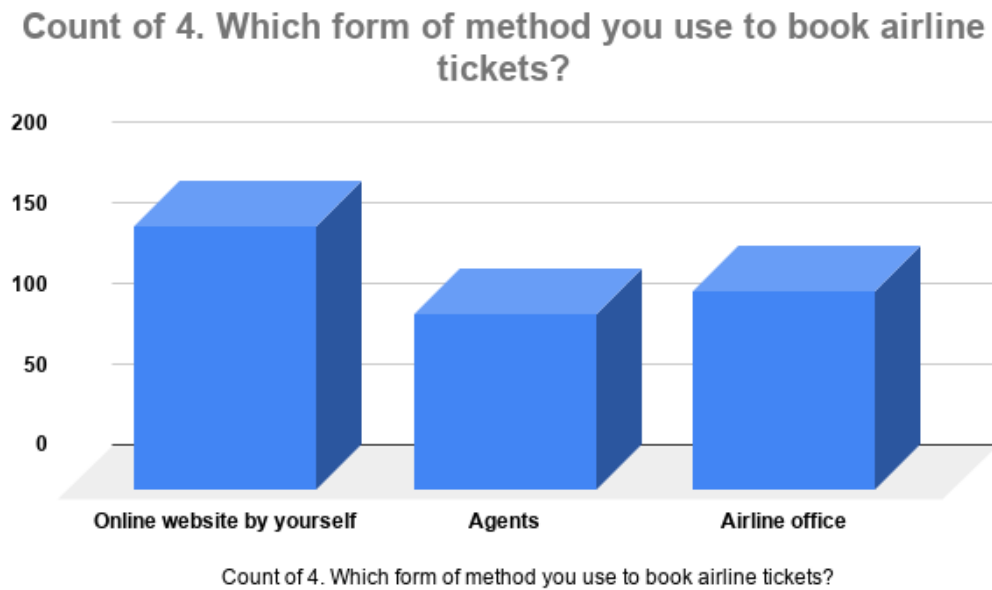


Figure 12: Question 4 Chart (Source: Survey)

Count of 5. Which form of method do you prefer?

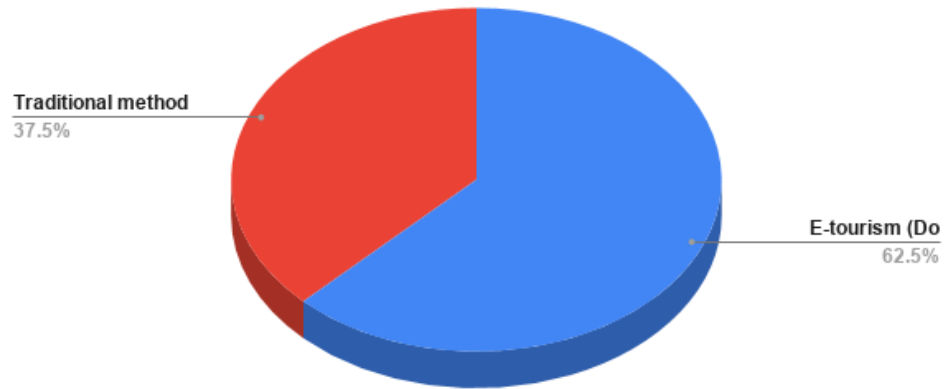
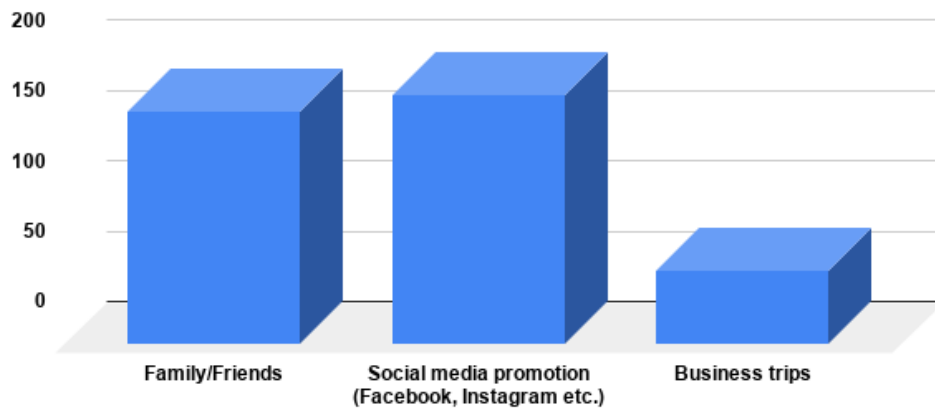


Figure 13: Question 5 Chart (Source: Survey)

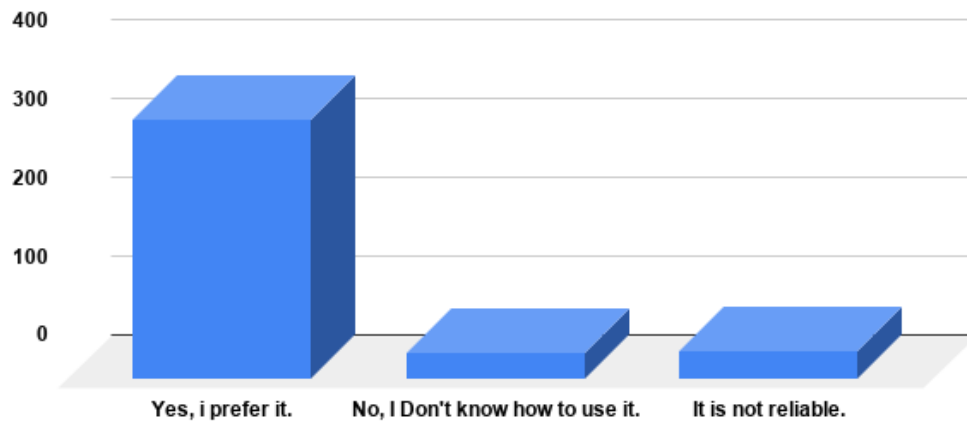
Count of 6. How you came to know about tourists attractions in Pakistan?



Count of 6. How you came to know about tourists attractions in Pakistan?

Figure 14: Question 6 Chart (Source: Survey)

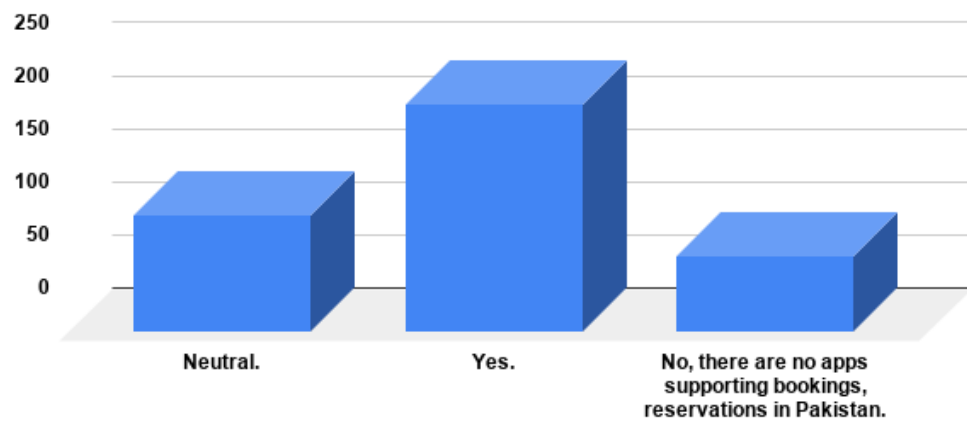
Count of 7. Do you prefer to use online navigation maps to explore different tourist's sites?



Count of 7. Do you prefer to use online navigation maps to explore different tourist's sites?

Figure 15: Question 7 Chart (Source: Survey)

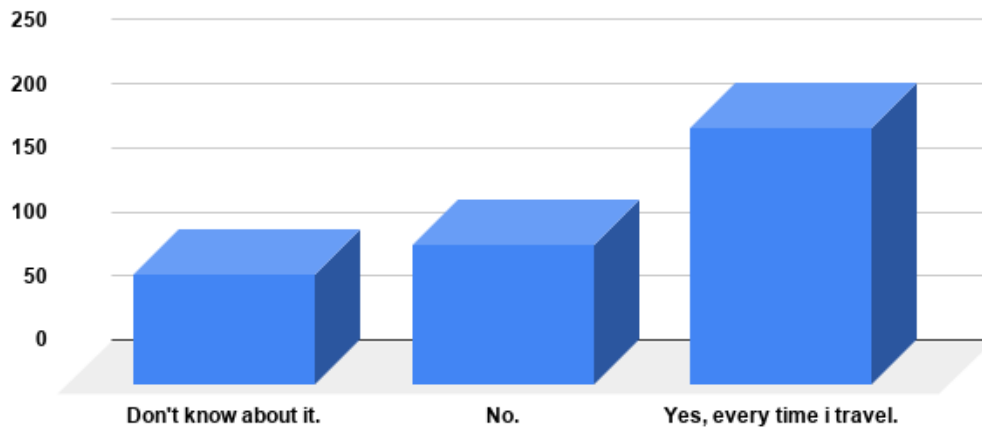
Count of 8. Did you find useful mobile apps for booking and traveling in Pakistan?



Count of 8. Did you find useful mobile apps for booking and traveling in Pakistan?

Figure 16: Question 8 Chart (Source: Survey)

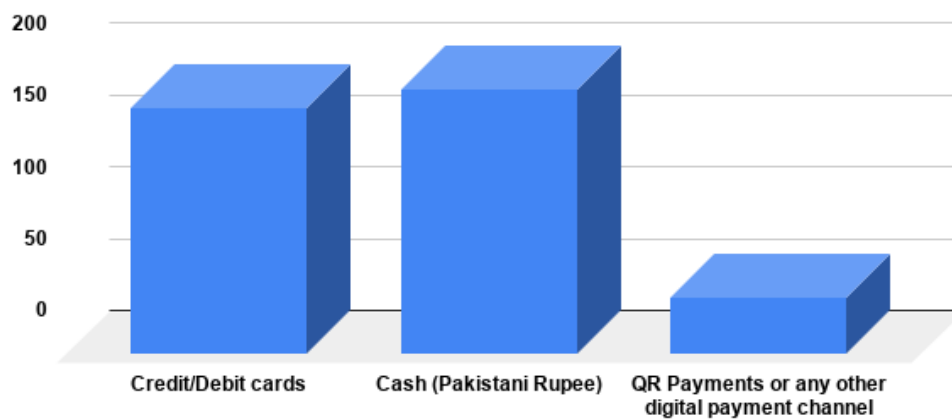
Count of 9. Do you use google live transcribe app to eliminate language barrier during your travel?



Count of 9. Do you use google live transcribe app to eliminate language barrier during your travel?

Figure 17: Question 9 Chart (Source: Survey)

Count of 10. Which method do you use for transactions during travel in Pakistan?



Count of 10. Which method do you use for transactions during travel in Pakistan?

Figure 18: Question 10 Chart (Source: Survey)

Count of 11. Do you intend to visit Pakistan in Future?

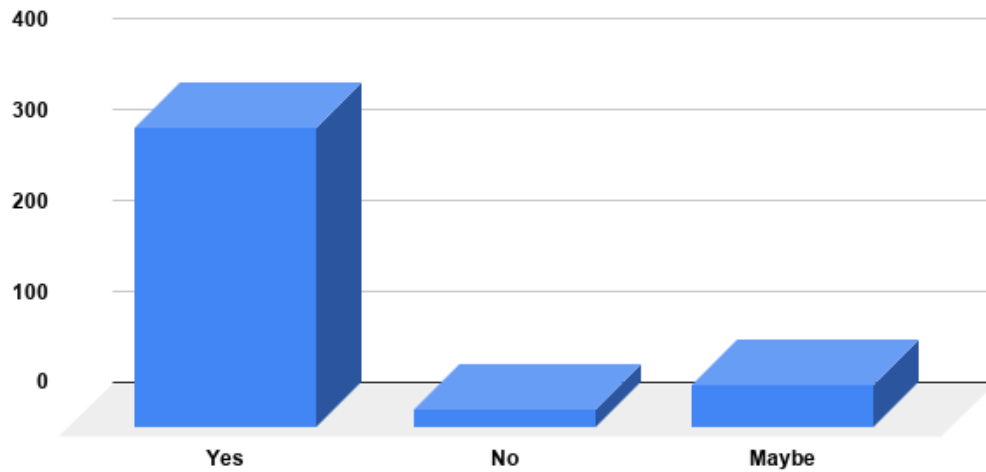
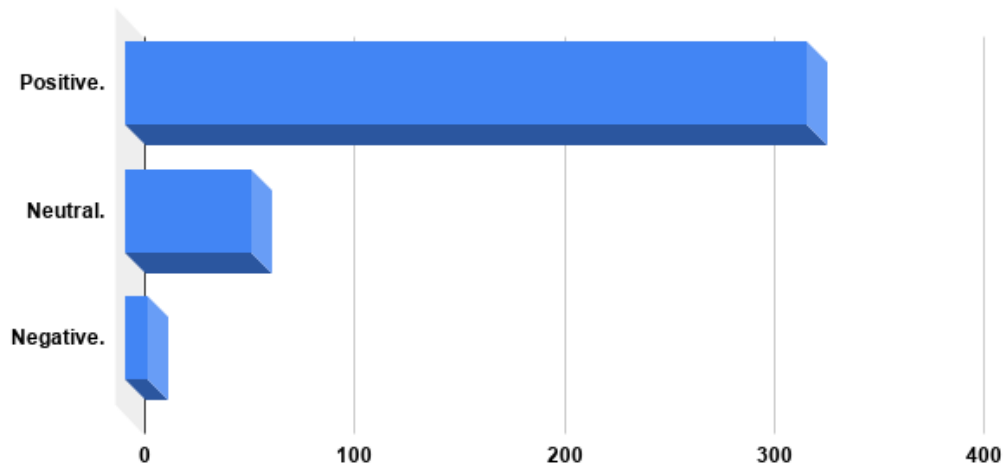


Figure 19: Question 11 Chart (Source: Survey)

Count of 12. How was your experience visiting Pakistan?



Count of 12. How was your experience visiting Pakistan?

Figure 20: Question 12 Chart (Source: Survey)

8.1 Cross Tabulation of Age Group with Question 5

Age * Question_5 Cross tabulation

		Question_5		Total	
		E-tourism (Do booking by yourself online)	Traditional method (Booking through agents)		
Age	18 - 29 Years	Count	188	107	295
		% within Age	63.7%	36.3%	100.0%
	30 - 40 Years	Count	38	26	64
		% within Age	59.4%	40.6%	100.0%
	41 - 51 years	Count	13	10	23
		% within Age	56.5%	43.5%	100.0%
	51 and above	Count	9	6	15
		% within Age	60.0%	40.0%	100.0%
	Total	Count	248	149	397
		% within Age	62.5%	37.5%	100.0%

Chapter – 9: Results

To gather the right information related to tourism trends among the people i.e. whether majority goes with the traditional tourism or people like e-tourism the most we conducted survey. Our survey consists of twelve major questions with four Focal questions. These focal questions are capable to decide the results of the major technology trend. Applying the methods of research surveys got conducted. It was a sample size of 380 among the tourists that visits Pakistan often. All the data gathered from the surveys then analyzed by the members to give it a tabular chart form. This increases the level of understanding among the readers. All the data gathered was inserted into software that helps in analysis of the data of which the results could be derived. We use four questions as our focal questions.

Referring to Figure 12 (Question 4 analysis);

By analysis of data gathered by the survey, we can say that almost 45% of the people use online website method by booking their tickets by themselves, 30% of the majority chose direct airline office and remaining 25% go with the agents to buy the air tickets.

Referring to Figure 13 (Question 5 analysis);

After analyzing the data, we came to a result that 62.5% of the majority prefers to use E-tourism and rest 37.5% of the population go with the traditional methods. Now the main difference between the E-tourism and traditional tourism is e-tourism that prefers online bookings, payments, transactions and technological usages. On the other hand, the traditional tourism is the simplest form of tourism being used by ages.

Referring to Figure 16 (Question 8 analysis);

Almost 70% of the population says yes, they found online apps for booking and traveling purposes. 20% stays neutral with no reply and 10% of the people say there are no such apps in Pakistan.

Referring to Figure 18 (Question 10 analysis);

As Pakistan is not much advance in technology yet, most of the people carry cash here as a payment method. Few amounts of travelers carry debit or credit cards because of the lack of facility available at northern areas. QR payments are very rare in Pakistan yet, according to the data gathered.

It is also shown in the cross tabulation table that the age group between 20-40 prefers the modern tourism methods and E-Tourism, while the age groups above the 40 mostly prefers traditional tourism due to the barrier in technological advancements and their age. In the focal questions being filled by the survey gives the results that **majority trend of the tourism is now the E-Tourism.** In nearby future this technological revolution will create more waves and awareness among the people to be technology friendly. One can say the pace of technological advancements is slow in Pakistan comparatively. Slowly but surely things are changing.

Chapter – 10: Limitations & Future Directions

10.1 Limitations

The world of academic community is suffering from pandemic attack. We are suffering from dis-connectivity. The formats are working remotely and they are up for reconfiguring. The dissertation was delayed till reconfiguring of formats. The timelines were updated same like methodology but what we lack was in person collaboration, faltering data collection, digital meetings, productivity within schedules, research limitations, Social isolations, Poor connectivity within telecommunication, Lack of access to technology within institutions vicinity, limited movement and social distancing causes limitations for field work.

The dissertation unveils the advancement within tourist choices and the limitations they faced while their visit. The technological advancements, updated online formats and new measure of framework are under-developed.

The tourists are shifting their trends for occupying their reservations by online formats such as websites or applications. They feel comfort and ease to reserve their tickets by their own. This limited the forum for agent and somehow pays less affect at airline offices. The tourists face the limitations for online bookings for tour but the website forum covers it all. Soon the applications will be developed for proper ease.

The Pakistan is known for the 2nd beautiful destinations for tourism which pays a heavy effect on Pakistan tourism as people tend to choose Pakistan for their vacations. Which evolve industry within E-tourism development in a fluent way. The majority of tourist follows e-tourism for their every possible use. The traditional method is suffering now with minority choice as tourist feel comfortable with e-tourism which is time efficient for them. But Pakistan tourism industry suffers with multiple online formats for reservations and transactions. Which limited and forced tourists to use cash at plenty of spots. These limitations have notorious effect on tourism. The trends of new applications for reservations and online formats for transactions are unease. They still need to be developed and should be updated across the nation.

10.2 Future directions

The industry is looking for technological advancements within the tourism frameworks. The directions are more concerned for multiple Online formats, Promotions, Discovering new Tourist spots, Stability of Fare market, Telecom connectivity ease, Aids facilities, Land developments, Highway approaches, Block chain mechanism, Rental business, Transportation ease and Packages for tourists. These new directions will be the master stroke for the tourism hike. It would provide new era for tourism growth.

10.3 Recommendations:

There are some recommendations which help in our tourism industry.

- Implementation of new technology which help in tourism industry.
- Make QR payments in all over the Pakistan and make more apps for the tourists which are very helpful for them.
- Learn from traditional and Electronic tourism through which help to find what tourist wants.

Comparing our traditional tourism and E-tourism shows that day by day we are improving in our tourism industry and implementing new technology which is very helpful for our tourism. A lot of people are attracting toward tourism due to the E-tourism this is from our side to share our knowledge and research.

10.4 Conclusion:

The main focus of this study (thesis) is to discuss “The Emergence of technology in Pakistan Tourism Industry”. The AIM was to study the use of technology in Pakistan tourism industry and the Objectives where to determine the elements which are affecting the growth of the industry or to develop and discuss the technology trail in tourism. In this study we researched about the technology that how technology helps to improve Pakistan’s tourism industry. This research also discusses upcoming new technologies, the current status of the tourism, and the future of tourism with technology and implementation of new technology. Also focused on the difference of how old tourism works and how new tourism affect the industry.

The survey consists of twelve major questions and their results with four focal questions. These focal questions are capable to decide the results of the major technology trend. Our research question shows and conclude that most of the people are using E-tourism, E-tourism “means” buy tickets online through websites which is very easy now a day for the person to buy their tickets online. Most of the people show their interest and prefer that the E-tourism is more reliable. There are many online apps in Pakistan which are helpful in our tourism industry.

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