PROJECT REPORT

ON

STUDY ON GLOBAL PASSENGER SURVEY ON AVIATION

BY

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Under the Guidance of

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For

MASTER OF BUSINESS ADMINISTRAION

IN

AVIATION MANAGEMENT

CENTRE FOR CONTINUING EDUCATION

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

DEHRADUN

UPES

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Dear Sir,

    Mr,Ajith Kumar Raja is registered for (MBA in Aviation Management), with the University of Petroleum & Energy Studies, Dehradun in January 2018 batch.

I hereby give my acceptance to guide the above student through the Dissertation work 'Global **Passenger Survey on Aviation**', which is a mandatory requirement for the award of EMBA degree.

Thanking You

Yours Sincerely

Declaration Form

Paul Manivar Singh Paul Pandian
Sent: Saturday, April 25, 2020 5:37 PM
To: Ajith Kumar Raja

<u>DECLARATION BY GUIDE</u>

This is to certify that the Mr. **Ajith Kumar Raja**, a student of (Program), SAP
ID <u>500065998</u> of University of Petroleum and Energy Studies (UPES) has successfully
completed this dissertation report on "**STUDY ON GLOBAL PASSENGER SURVEY ON
AVIATION**" under my supervision.
Further, I certify that the work is based on the investigation made, data collected and
analysed by him and it has not been submitted in any other University or Institution for award
of any degree. In my opinion it is fully adequate, in scope and utility, as a dissertation
towards partial fulfilment for the award of degree of "MBA in Aviation Management".

Date: 25-04-2020

Thank You
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INTRODUCTION

In the aviation Industry, customer satisfaction is the key factor for success and to run the business, as the airline industry is very competitive and customer satisfaction changes with small changes in the services. Therefore companies and service providers need to understand the customers and need to deliver and maintain high experience to retain customers

Using the customer satisfaction data that we obtained from various sources, we here attempt to understand the reasons for satisfied and unsatisfied customer experience. Based on that improvements will be made to provide better service by the airline companies to the customers/passengers. Also as a part of the analysis we will be able to understand several factors which improve customer satisfaction level

In this generation of social networking the customers uses google review, twitter, Facebook or YouTube blogs to review or share their airline travel experience. Any miserable experience of a customer, which is shared becomes viral on the internet, seriously affecting growth and business of the respective company.

To stop these unofficial viral reviews on the internet and to avoid heavy legal compensations or penalties, the companies in the service of this airline industry using a method to identify the customer satisfaction through a survey after delivering the service and compensating the dissatisfied customer upon the fault of company service. This survey program effectively reduced the complaints raised by the customers.

In our scenario, the biggest association of the airline industry, namely International Air Transport Association IATA wants to identify the passenger/customer satisfaction level based on the rating on various aspects of airline experience.

IATA (International Air Transport Association) is a trade association of world's airlines which represents and leads airline industry. Its major responsibility is to serve and support aviation with global standards for airlines safety, security, efficiency and sustainability

So, every year IATA conducts survey for the passengers who travels in the airlines that is associated with it. And it is known as IATA Global Passenger Survey. It is designed to give an independent, in depth and objective snapshot of

the views of air travellers from around the world into what they want, how they behave, why they make choices and on what they spend their money

The Survey covers the preferences of air travellers from the point of travel browsing and ticket purchase, on to the start of their journey at a departure airport till the point they collect their bags at their destination.

In the effort to provide a seamless passenger journey and satisfaction to the travellers, the industry must continuously adapt to market changes and new technology.

IATA gives a wealth of insight into passenger behaviour and attitudes. In terms of airlines, the survey helps in refining their ideas for improving customer service, satisfaction and ultimately the profitability.

We also secondarily clarified and identified many passenger survey test that has been taken in past both globally and nationally to classify the customer satisfaction level. So precisely we will classify customers being satisfied or not and accordingly try to find out the factors related to high satisfaction.

The Primary data we provided with this study is taken by IATA globally in their website for public view hence it is safe and secured which can also be used for education purposes. The data was collected each and every year from 2012 to 2018. This comparative and combined data we provided can be used to improve the upcoming global surveys. Secondarily for a precise data we also focused in a particular market (US Market) to gather information on the usage of air transport by their passengers in previous years.

The Information provided here was taken by IATA from previously travelling passengers which is privacy protected hence we can't find the particular person details who gave the survey. But we came to know that they collected information using several techniques including an online survey after reaching their destination through their contact and account details they provided.

The International Air Transport Association (IATA) has made an effort to implement electronic ticketing, common use self-service kiosks, bar coded boarding passes, radio frequency identification and paperless cargo. "These five innovations are expected to reduce the operating costs and enrich its passengers' travel experience," Self-service technologies and the emergence of the mobile device as a multipurpose tool have been said by some academics to change the Airport environment drastically for the better. However, with the addition of

technology such as self-service check-in, self-service security and increased mobile phone application, the Airport experience may have led to some amount of de-personalization.

So IATA inaugurated a Global Passenger survey in 2012 and it has been carried out each and every year since 2012. It has been designed to provide objective and in-depth insights into the preferences and behaviours of air travellers all around the world.

In 2012 nearly 3000 respondent's from over 110 countries who travelled in the 12 months prior participated in survey which was conducted in June Month.

In recent survey (2018) there was more than 10,000 respondents across 153 countries shared their travel preferences. Majority of airline passengers willing to trade personal data for better travel experience.

These Surveys are supported by various organizations namely PricewaterhouseCoopers also known as pwc, AirS@T, NCR Corporation.

Airs@t, IATA's online airline customer satisfaction benchmark survey, has already established itself as IATA's fastest-growing service. In 2011, nearly 50,000 international passengers flying through 27 of the world's busiest airports participated in Airs@t. Airlines benefited from Airs@t by comparing their performance with that of their competitors across 65 customer touch points. By collecting competitive passenger feedback, Airs@t clients are able to analyze the complete passenger travel experience, from reservation and check-in to in-flight services, entertainment systems, and baggage delivery. Annually, more than 60,000 passengers of 30 airlines are surveyed by our fieldworkers in more than 40 airports worldwide

So, it is important to identify the needs of the passengers periodically by each and every year which allows the aviation industry to improve its quality, efficiently to attract more passengers. We need to research and likewise find a way to achieve it. Hence conducting survey is the only possible way to interact with the passengers effectively.

People usually hesitate to say their experience face to face because of some social self-impacts, but if it is through the internet or any kind of online survey, they will share their thoughts from bottom without any hesitation. Which is why I suggest this Survey as a best option, where we need to improve its method through research.

LITERATURE REVIEW

Broadly in recent times, operations of most modern Airport have been undergoing drastic changes. This has been further accentuated by the recent Global economic downturn coupled by volatility in fuel prices more pronounced in the Indian skies by varying tax laws where fuel alone constitutes a major portion of the overall airline running cost that has put immense pressure on the bottom lines of any airline and the airline industry (Chang and Yang, 2008).

Alternatively, on the demand side of the airline industry claims that "we are living in the midst of a self–service revolution," and consumers now expect self-service. As a result of this pressure, an increasing number of Airports have been looking at ways to tailor an Airport experience that empowers passengers even while cutting down operating costs. The adoption of technology allows an Airport to programme the Airport experience in a way which gives passengers the control they expect, while still processing passengers in a way which Airports have control over. Additionally, adoption of technology reduces man hours required to complete tasks, thereby saving an Airport and airline money. Advancements in technology have re-designed the overall passengers' experience, more so the retail environment, with firms using technology both internally and externally to improve operations, increase efficiencies and provide benefits to customers.

'Oxford Dictionary' defines depersonalisation as "the action of divesting someone or something of human characteristics or individuality. This implies, the removal of human elements and the subsequent addition of technological elements stand to depersonalise the Airport experience. If this is the case, further technologisation threatens to depersonalise the Airport experience even further. Rostworoski (2012) sees this depersonalisation as a positive ingredient, something which is consumer-induced. However, if the Dunedin Airport case is anything to go by, depersonalization can potentially be negative for both passengers and Airports alike. This point of difference is something which this research seeks to address, and can hopefully establish truly how Airport depersonalization is perceived amongst passengers.

Due to Airports' significance in being the first and last point of contact for a tourist on a flying holiday, Airport infrastructure can heavily affect perception of service quality. (Rendeiro Martín Cejas, 2006). For Airports to make profit and remain economically viable, they need to attract passengers.

A detailed review of relevant literature on the subject reveals that any Airport should endeavour in having a right mix of technology supported by human interaction to ensure Passenger's experience a personal human touch even while sensing a high sense of comfort and convenience injected through technology. This will help strike a right balance between personalizations and de-personalization both critical to drive efficiency and efficacy of Airport services. This is more relevant to cater to the specific needs across a cross-section of varied passenger profile.

An Overview of an Airport and Passengers information on United States Air Travel is listed below as a **Narrow Review** to show the usage inflation every year.

U.S Passengers Statistics:

In 2017 the United States had about 19,500 airports, ranging from rural grass landing strips to large paved multiple runway airports. About a quarter of the airports are public-use facilities, most of which are general aviation airports that serve a wide range of users. The remaining three-quarters are private airports, which are relatively small. The main elements of aviation system infrastructure include airport runways and terminals, aircraft, and air traffic control systems.

In a Transportation Statistics Annual Report 2018 By US Department of transportation it is stated that the number of U.S. airports with nonstop international service increased from 81 in 1993 to 351 in 2016 and 381 in 2017, offering more locations throughout the country with commercial air service to the world.

The number of air passengers traveling between the United States and foreign points reached a new high in 2017. Also Global air travel has increased over the past 16 years, with a record amount occurring at U.S. airports in 2015, 2016, and 2017

The top 50 airports accounted for 85.2 percent (about 726 million) of the U.S. passenger enplanements in 2017. U.S. airports handled about 9.8 million6 commercial airline flights in 2017. Total commercial flights have varied between 9.5 and 10.0 million since 2010, but remain below the pre-Great Recession (December 2007 to June 2009) levels that exceeded 11 million. At least some of this reduction is due to the trend for airlines to use larger aircraft and reduce the number of flights.

Year	2000	2010	2017
Total Airports	19,281	19,802	19,570
Public Use	5,317	5,175	5,119
Private Use	13,964	14,353	14,168
Military	-	274	283
Total Aircrafts	225,359	230,555	220,368
General Aviation	217,533	223,370	213,050
Commercial	7,826	7,185	7,318

Table 1.1 U.S Air Transportation System

Year	2010	2017
Total Passenger	723,490	865,712
Enplanements in Domestic Flight	644,761	754,534
Enplanements on international flights of U.S. carriers	44,008	53,496
Enplanements on international flights of foreign carriers, originated from the U.S.	34,721	57,682

Table 1.2 U.S Air Transportation System

A "major" airline is defined as an airline that has at least $1 billion in annual revenue. The current major airlines are Alaska, Allegiant, American, Delta, Frontier, Hawaiian, JetBlue, SkyWest, Southwest, Spirit, and United. In 2018 there was a merger between Alaska and Virgin America, reducing the number of major airlines from 12 to 11.

U.S. airlines and foreign airlines serving the United States carried a record high number of passengers in 2017— 965 million system wide (742 million domestic and 223 million international), 3.5 percent more than the previous record high of 933 million in 2016. U.S. airlines carried 3.0 percent more passengers on domestic flights and 3.5 percent more passengers on international flights in 2017 than in 2016, while 6.1 percent more passengers flew on foreign carrier flights to and from the United States.

While the total enplanements for both domestic and international flights to and from the United States grew between 2005 and 2017, the number of passengers enplaning on international flights increased faster than domestic enplanements. International enplaned passengers became a larger share of the whole, increasing from 144 million (18 percent of all air passenger enplanements) in 2005 to 223 million (23 percent) in 2017.

For the second consecutive year in 2017, more passengers travelled on foreign airlines flights to and from the United States than on U.S. carriers' international flights. Foreign airlines carried 115.7 million passengers between the United States and foreign points, up 6.1 percent from 2016, while 107.7 million passengers travelled on U.S. carriers, a 3.5 percent increase from 2016. U.S. airlines carried less than half (49.5 percent) of passengers traveling between the United States and international points in 2017.

Rank	Airports	Enplaned Passengers(Millions
1	Hartsfield-Jackson Atlanta International	50.3
2	Los Angeles International	41.2
3	Chicago O'Hare International	38.6
4	Dallas/Fort Worth International	31.8
5	Denver International	29.8
6	John F. Kennedy International	29.5
7	San Francisco International	26.9
8	Las Vegas McCarran International	23.2
9	Seattle/Tacoma International	22.6
10	Charlotte Douglas International	22.0

Table 1.3 Enplanements at the Top 10 U.S. Airports: 2017

Note: Includes passengers enplaned on U.S. carrier scheduled domestic and international service and foreign carrier scheduled international service from the United States

Source: U.S Department of Transportation, Bureau of Transportation Statistics, 2018.

RESEARCH DESIGN

GPS 2012

IATA inaugurated this survey in 2012 and utilized social media to reach target audience. Nearly 3,000 respondents from over 110 countries who travelled in the 12 months prior participated in survey which was conducted in June 2012. Respondents were: 17%-North America, 36%-Europe, 17%-Asia Pacific, 21%-South America, 9%-Middle East and Africa.

Booking & Travel Class

Booking via online travel agents still less than 50% of airline websites. 52% booked most of their flights themselves via an airline website; while 22% used an online travel agency.

■Airline website   ■Airline mobile app
■Online travel agency ■In person at travel agency
■Don't know
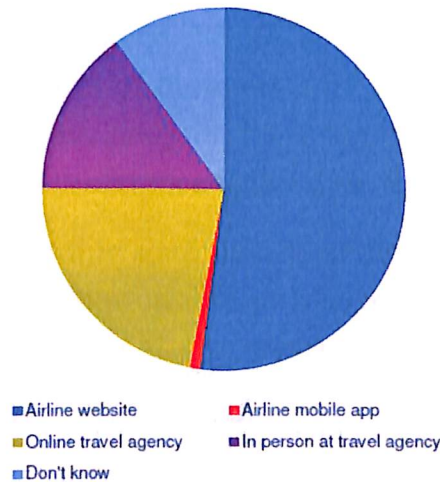
Figure 2.1 Breakdown Chart of Channels for Booking Flights

In terms of travel class, 24% travelled in business when traveling long-haul (flights of 5 hours or more) compared to 82% in economy when traveling short-haul (flights of less than 5 hours).

Social Interaction

In turn Passengers opted out for High preference on more social media services such as Facebook, Google+, LinkedIn, Twitter, Instagram and also asked for their timely travel info.

59% use social media on a daily basis, 60% want to interact with their airline using social media during their journey 84% interested in receiving travel

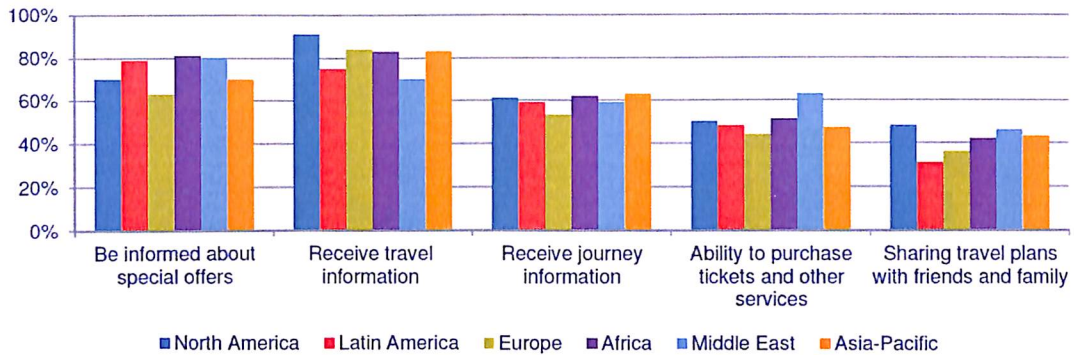information; while only 42% interested in sharing travel plans with family and friends.

Figure 2.2 Interest in various social media services provided by airlines

Check-In & Boarding Preference

Internet & automated check-in preferred equally as biometric boarding passes when travelling with hand baggage. While 37% prefer not to have a boarding pass and would use some form of biometrics as boarding token when traveling with hand baggage only. Travelers prefer to print web bag-tags when printing a web boarding pass. Highest preference came from South America.

71% prefer to use self-boarding gate device and self-scan their mobile phone when boarding while 77% comfortable to use biometrics if available; lowest comfort level in Europe. Hence majority prefer self-boarding & biometrics.
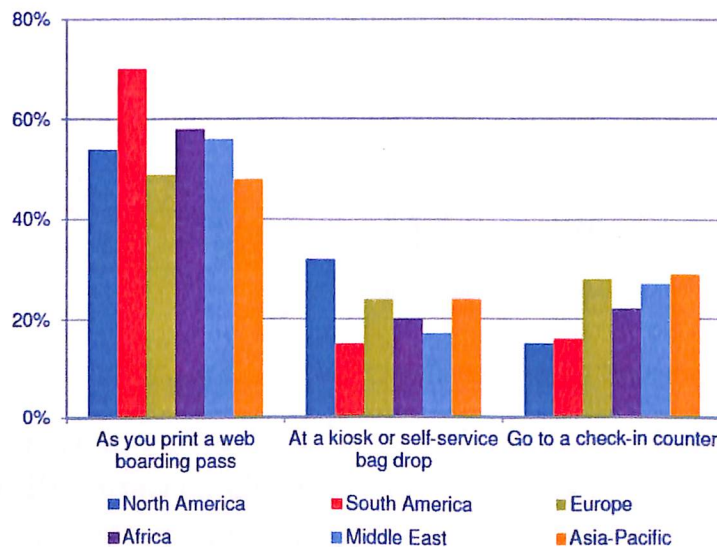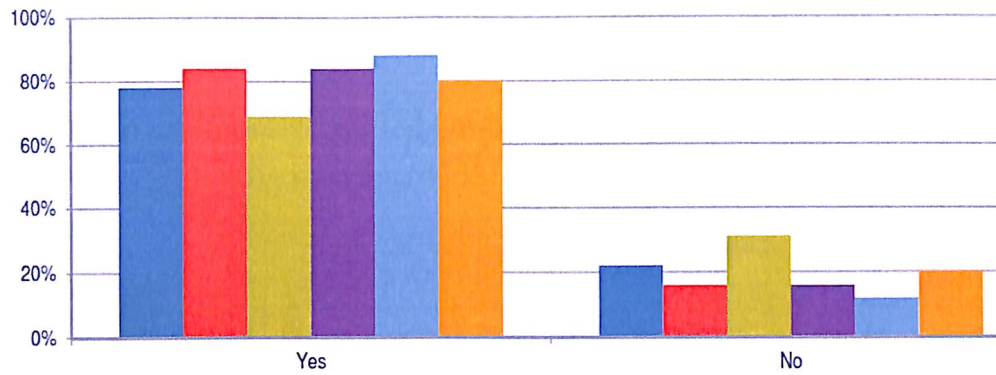

Fig 2.3 Highly Preferred Boarding Method

Fig 2.4 Comfortable Using Biometric

Tracking Luggage

67% satisfied with their checked baggage experience for most recent flight while 81% interested in tracking bags in real time. Most preferred option for registering a claim for mishandled or misplaced baggage is to see a reclaim agent at airport. Hence most travellers satisfied with checked bag experience and highly interested in real time bag tracking.

Screening Time

Reasonable queuing time is acceptable, but removal of personal effects is not. 51% consider 5-10 minutes an acceptable queuing time at security screening. While most frustrating of security screening is queuing time which is followed by removing shoes, belts and other personal effects.
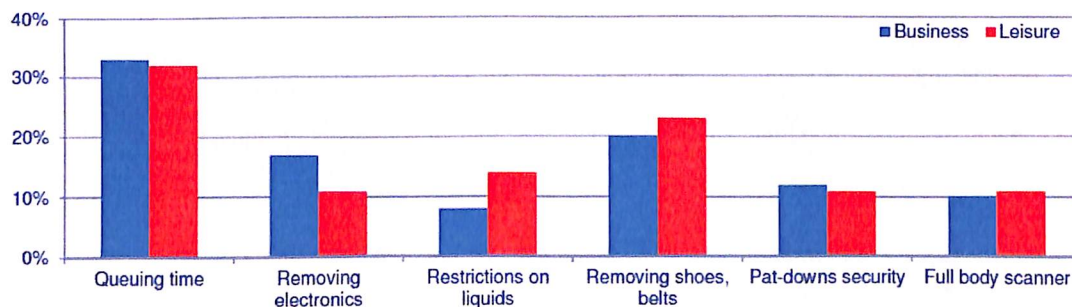

Fig 2.5 Frustrating Elements in Screening Process

IATA's Fast Travel initiative is helping airlines to meet these expectations through six specific projects: check-in, travel document scanning, bags ready-to-go with baggage self-tagging, self-boarding, flight rebooking when itineraries are interrupted, and self-service registration of mishandled bags.

Over 100 airline-airport pairs implemented Fast Travel projects in 2012. The Fast Travel program is moving toward the mass implementation of self-service.

The 2013 target is for 20% of passengers to have access to four of the six Fast Travel options.

Although there are more activities On-board today, top three favourite activities on a flight are: Watching movies (41%) Reading (21%) Sleeping (17%)
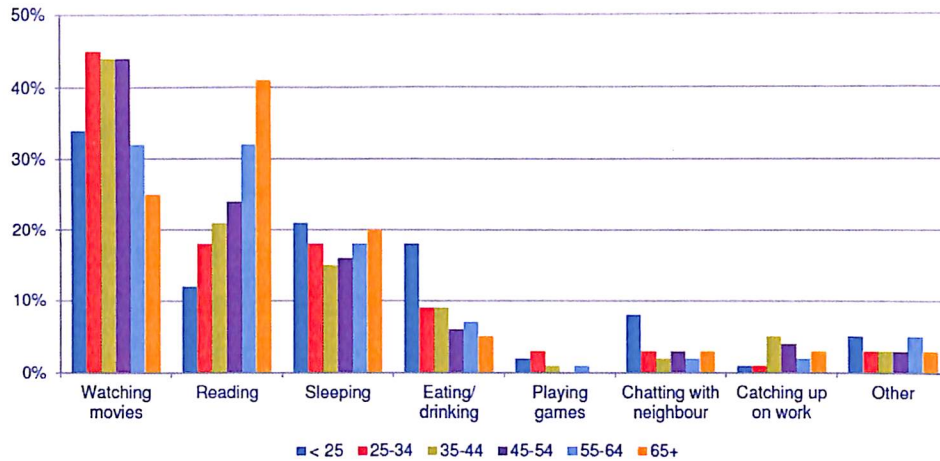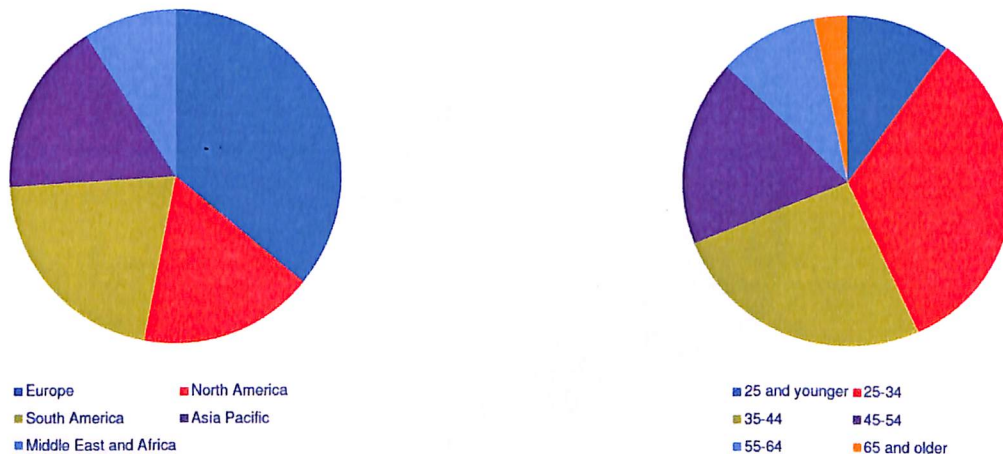

Fig 2.6 Favourite activities based on their Ages

Summary

Majority of travellers want greater interaction with their airlines for timely and accurate information. Travelers don't mind providing personal information in advance if it means a smoother travel experience subsequently. Diverse respondent profile reveals interesting variations by region, age and gender.

- ■ Europe
- ■ North America
- ■ South America
- ■ Asia Pacific
- ■ Middle East and Africa

- ■ 25 and younger ■ 25-34
- ■ 35-44   ■ 45-54
- ■ 55-64   ■ 65 and older

Fully 69% of air travellers say they buy ancillary products to personalize their journeys. As many as 68% of traveller's want updates directly from the carrier. Almost 1 in 3 devices of Passengers are NFC equipped so that in case of Loss of Boarding Pass, it's easier to get another one with the NFC Equipped Mobile/Electronic Devices.

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GPS 2014

IATA Conducted this Global Passenger Survey in July- September 2014. Third time this survey has been conducted. They targeted respondents through social media, email and word-of-mouth.

Nearly 5,500 respondents from over 140 countries participated in survey. Results reflect regional and global preferences in travel. People mostly expected the airline to use social media to contact them.

Booking & Travel Class

While this year also airline websites remain pre-dominant on booking channel. More than 50% booked flights directly from an airline (website or mobile app) Airline websites and mobile app bookings have been growing steadily year on year. 25% used travel agencies (online and offline). While in-between website comparison increasing when booking travel. Most travellers (85%) compared multiple travel websites before purchasing tickets. Close to a third of travellers found it difficult to compare offers from various airline websites. 25% peoples just visit the websites to check the prices

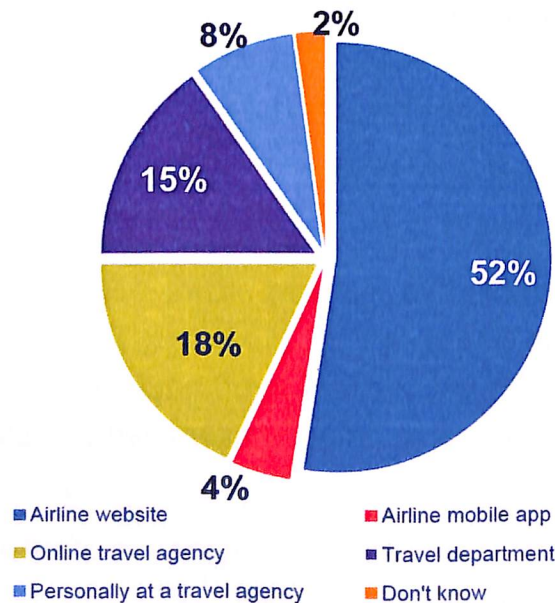Leisure segment mostly spends up to $3k annually on travel while business segment spends up to $12k
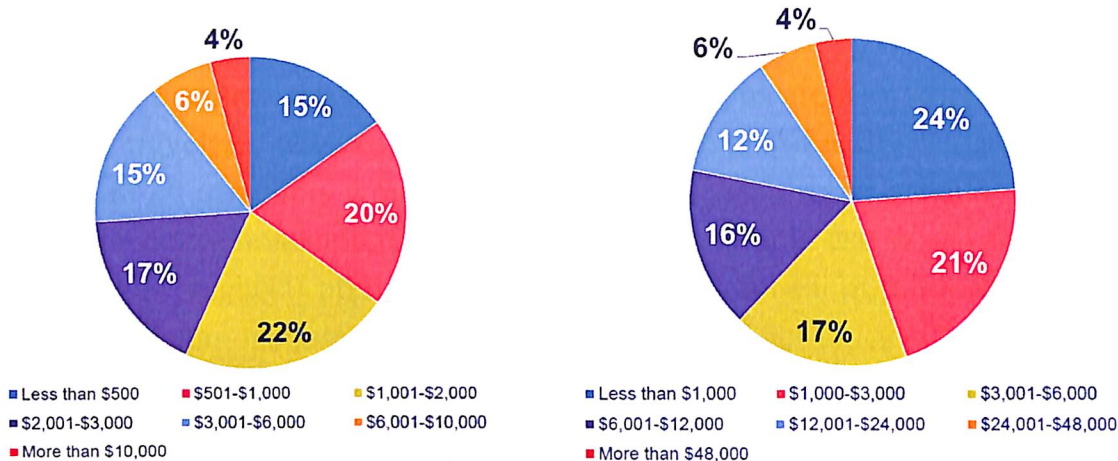

Fig 2.8 (a)-Breakdown of Channel Used for Booking

Legend (left pie): Less than $500 | $501-$1,000 | $1,001-$2,000 | $2,001-$3,000 | $3,001-$6,000 | $6,001-$10,000 | More than $10,000

Legend (right pie): Less than $1,000 | $1,000-$3,000 | $3,001-$6,000 | $6,001-$12,000 | $12,001-$24,000 | $24,001-$48,000 | More than $48,000

Fig 2.8 (b) Amount spent over 12 Months for Leisure & Business Respectively

Check In & Luggage Tracking

Automatic check-in were growing in preference while kiosks is least preferred. 38% prefer automatic check-in i.e. receive their boarding pass from airline directly by text message or e-mail. Preference of self-service check-in (Internet/ mobile) has dropped significantly but remains popular. Airports kiosks are least preferred.

Electronic bag tags and real-time bag tracking high on travellers' wishlist. 75% would use self-tag bags with a printed or electronic bag tag. 80% interested in tracking bags throughout journey.

Extra fees for bags are becoming less of a reason of dissatisfaction for travellers (20% to 12%). Bags delayed on arrival significant reason for dissatisfaction reflected by 25% of travellers. Satisfaction level for handling of bags remains consistently high at 90%
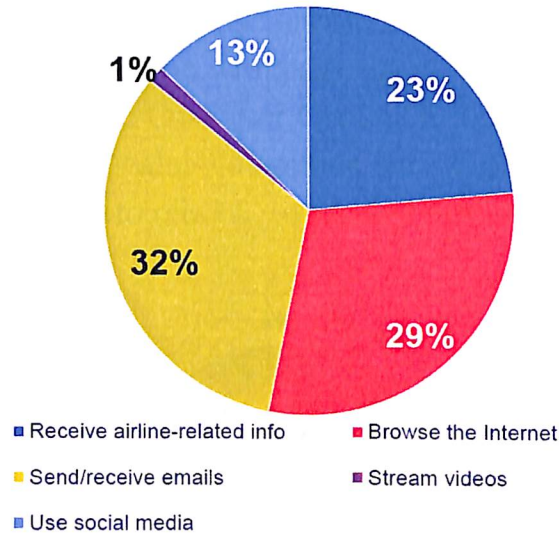
Screening Time

Travelers are more impatient while queuing. 50% consider a queue time of between 5 and 10 minutes acceptable. 1 in 5 travellers are still not sufficiently informed about security screening procedures by the relevant entities. Only 1% of passengers wouldn't mind queuing more than 20 minutes in an airport security line.

In 2014, 21% of traveller's had access to a Fast Travel experience. For year-end 2015, the industry is targeting Fast Travel access for 35% of passengers, which will require a significant acceleration in Fast Travel implementation from the pace in previous years.

Airline Services

Proactive notifications in event of flight disruptions are unanimously preferred. 75% of travellers want to be informed in the event of a flight disruption. Less than 1 in 10 travellers would consult the airline or airport website. 16% would turn to a smartphone app. One-third of travellers would use Wi-Fi at airports for emails i.e. highest preference shown to use Wi-Fi at airport for emails. Preference demonstrated for essential travel related activities.

- ■ Receive airline-related info
- ■ Browse the Internet
- ■ Send/receive emails
- ■ Stream videos
- ■ Use social media

Watching movies & TV are the traveller's favourite inflight activity i.e. close to 40% of travellers like watching movies and TV, more than double second favourite activity of sleeping. 1 in 8 Travellers love starring out of the window.

High percentage of travellers not likely to purchase IFE services if charged. Most likely service to be purchased would be internet access.
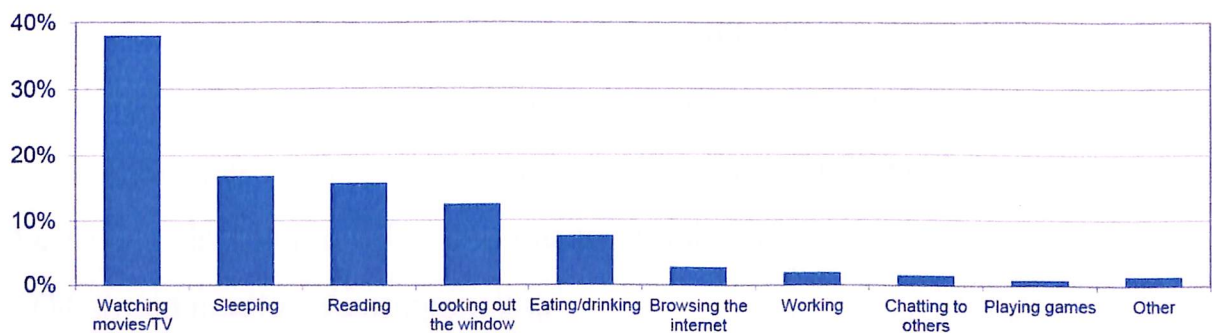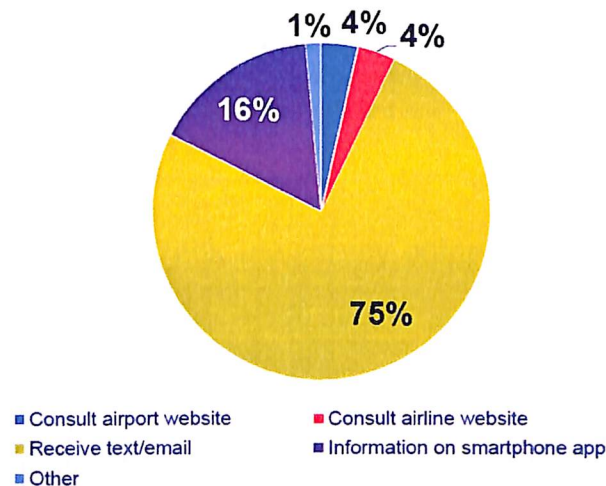

Fig 2.9 Favourite Activity during Flight

Real-time interaction

Travelers want to interact with their travel providers anytime and anywhere. This is especially so when they experience a disruption to their journey. But this degree of interaction is not possible because passenger contact information is not always accessible to service providers.

In 2014, however, standards and recommended practices for notifying passengers of cancellations, delays, and other operational information were adopted by the industry. The resulting Customer Contact Information initiative is expected to facilitate interaction with passengers. The growing availability of airport Wi-Fi is a boon for the Customer Contact Information initiative. It will give passengers a number of valuable options. Passengers will be able to receive real-time flight information, to rebook, to receive push notifications, and to access airline websites.


- Consult airport website
- Consult airline website
- Receive text/email
- Information on smartphone app
- Other

Preference for receiving notifications

Proactive notifications in event of flight disruptions are unanimously preferred

-75% of traveller's want to be informed in the event of a flight disruption

-Less than 1 in 10 of traveller's would consult the airline or airport website

-16% would turn to a smartphone app

Summary

2014 IATA Global Passenger Survey highlights choice, service, speed and connectivity. Travelers want technology to improve their travel experience and receive timely and accurate information. Travelers prefer to compare and will only pay for services deemed valuable and pertinent to their travel experience.
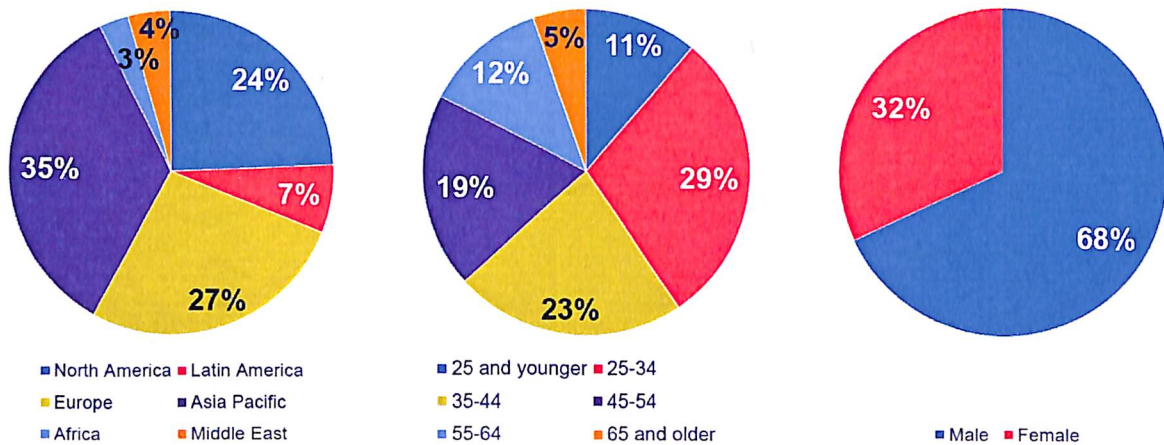
Most business travellers that took the survey completed 1 to 4 trips in the past 12 months.
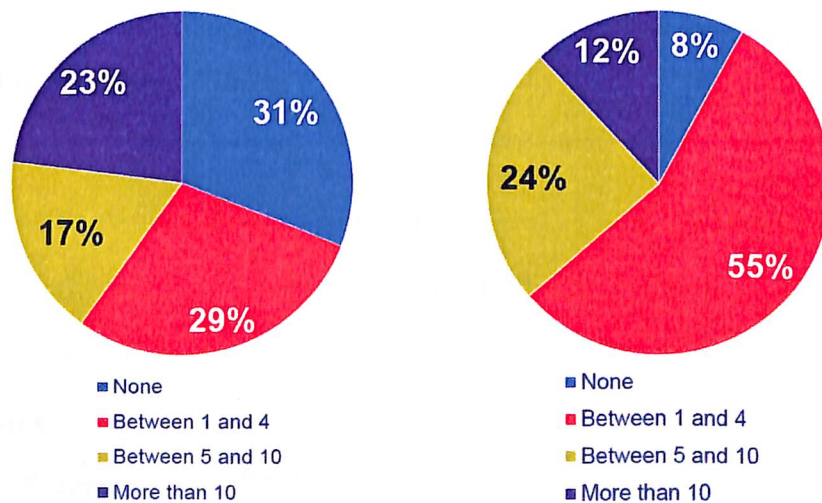

Fig 2.9 Number of Flights/Trips by Business & Leisure Class

GPS 2016

The International Air Transport Association has conducted its Global Passenger Survey on 2016, and it's completely organized by **Airs@t.** It is a comprehensive passenger satisfaction benchmarking survey designed for the airline industry. It helps airlines to understand passenger preferences on around 80 attributes, including pre-flight, in-flight, and post flight experiences. Using this survey Airlines are able to compare the customer satisfaction ratings of their passengers with the satisfaction ratings of their competitors' customers.
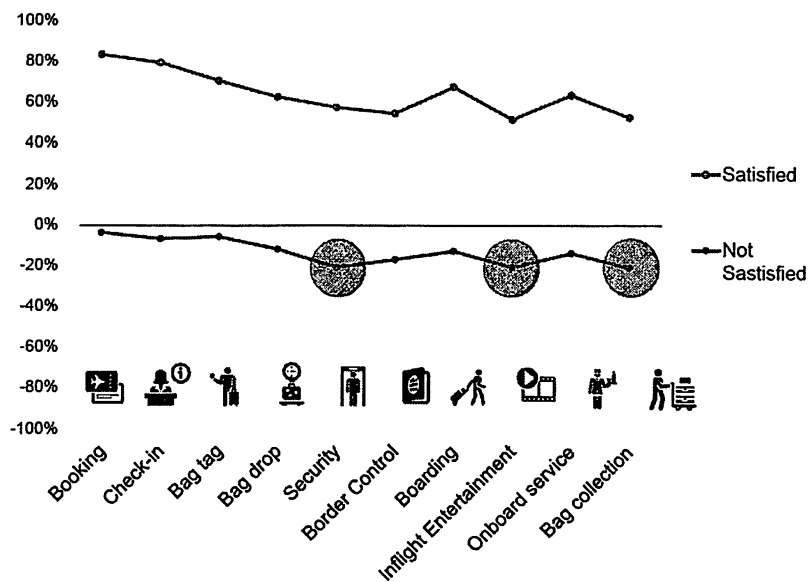

Fig 2.10 Passenger Satisfaction @ Different Points

So Nearly 6,920 respondents from over 145 countries around the world participated in this 2016 Survey.

In Which

-25% from North America,   -27% from Europe,   -21% from Asia Pacific,

-15% from North Asia,   -5% from Middle East,   -5% from Latin America,

-3% from Africa.

Age Category

-6% are 18-24 years,   -22% are 25-34 years,   -24% are 35-44 years,

-22% are 45-54 years,   -15% are 55-64 years,   -10% are 65 & Older.

In this 38% Passengers are Female while 62% are Male.

Peoples under 24 years of Age needed "Inflight Wi-Fi" to improve their Travel Experience. While under 25-44 aged people expected to receive the timely e-notifications. And over 45 years of aged ones asked for more attentive Cabin Crew.

Knowing the passenger preferences and expectations help us to drive significant transformative change in the end-to-end travel journey.

Luggage Preferences

Around 39% of Passengers would like to have an electronic bag tag which they wanted to be tagged by their agent. 26% would like to have their bag picked up from home and delivered to the airport. 24% would drop off bags in other locations other than the airport. 61% would like to track their bag throughout the journey.

Baggage processes must be more efficient and less problematic for passengers, airports, and airlines. To that end, IATA has developed the InBag program to achieve three key goals: the reduction of the worldwide mishandling of bags, from 1% to 0.5%; innovation enablement; and improved efficiency in the five key processes of check-in, security, manual handling, arrivals, and transfers. The InBag program has made progress in all respects. IATA is committed to continuing to work with the industry to enhance passenger convenience and to reduce costs and improve efficiency for all stakeholders.

Boarding

Usage of mobile boarding pass is currently at 71% and increasing steadily. In the Middle East, 80% have already used it. That is 70% of travellers want boarding gates and security processing to be automated.

Boarding doesn't have to be a burden for the Passengers. And their top most frustrating concerns when boarding are

- (34%) Queueing process for business and economy passengers

- (24%) Address issues around carry-on luggage

- (23%) Boarding gate facilities (use automated gates or none) (23%)

- (18%) Communication from airlines

Real-time interaction

Flight cancellations, delays, and gate changes occur daily in airports worldwide, and travellers want to be kept informed. The latest IATA Global Passenger Survey shows that 93% of passengers want to be directly notified on flight and baggage status, visa and customs requirements, and security or border control wait times. The real-time capability of today's technology offers the possibility for this to be achieved, but implementation is no easy task.

93% of passengers want direct notification of up-to-date information.

53% would like to be notified by SMS, 22% would like to be notified via mobile phone app, and 21% would like to be notified via e-mail.

Top 3 areas passengers would like to be notified on:

- (85%) Flight status and any changes

- (60%) Baggage status and waiting time for delivery

- (58%) Waiting times at security/border control

IATA's Customer Contact Information project, however, aims to enable airlines to communicate with customers anytime, anywhere. The project seeks to provide airlines with the ability to obtain passenger contact details from the passenger name record (PNR) by developing standards and recommended practices for contact information.

Screening Process

In Previous Years, the screening time while security process where seems to be the most constant dilemma the every passengers had while travelling.

In 2016 the Top 3 elements of security that most passengers wanted/needed to be improved are

- (59%) Removal of shoes, belts and jackets

- (51%) Removal of laptops and other large electrical equipment's.

- (47%) Variation in screening process at various airports.

Inflight Experience

51% of passengers would use their own device when streaming IFE content on-board

Top 3 inflight activities includes:

While Long haul

-Watching movies (77%)

-Sleeping (69%)

-Eating/Drinking (40%)

While Short haul

-Reading (53%)

-Watching movies (42%)

-Sleeping (38%)

If Wi-Fi were available on-board, passengers would use them to send and receive e-mails (30%), instant message (23%), browse the internet (22%).
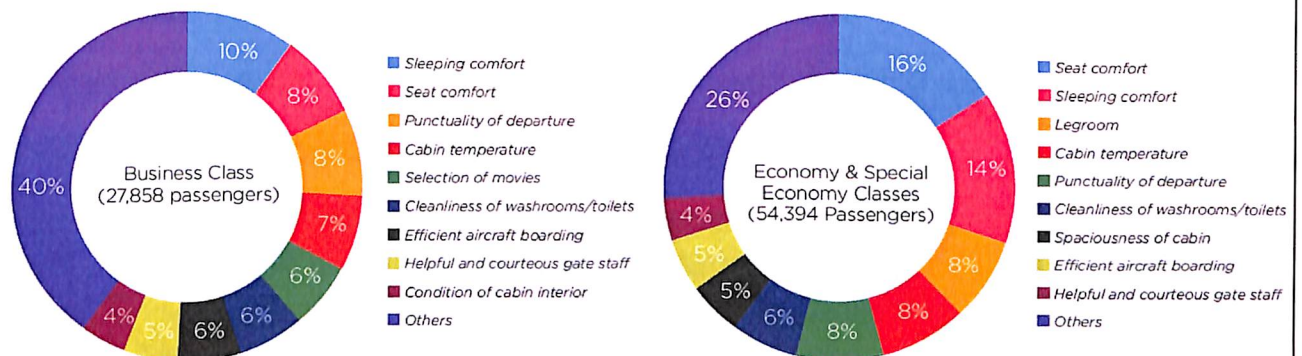
Summary

Fig 2.11 Aspects of Flights that needed Improvement

85% would be happy to provide additional information to speed up process checks required by governments.

Top 3 areas of improvements for those who experienced flight disruptions

Information shared with passengers (47%)

Flight re-booking (22%)

Alternative mode of transportation (11%)

GPS 2018

The International Air Transport Association (IATA) has conducted the 2018 Global Passenger Survey (GPS), which shows that passengers are looking for new technology to give them more control, information and improve efficiency when they travel. This year's survey covered four subjects: Interactive Data, Transforming the Airport, Seamless Journey, and Aircraft Experience.

Based on 10,408 responses from 145 countries, the survey provides insight into what passengers would like from their air travel experience

In Which

-22% from North America,   -27% from Europe,   -21% from Asia Pacific,

-15% from North Asia,   -5% from Middle East, -7% from Latin America,

-3% from Africa.

Age Category

-6% are 18-24 years   -22% are 25-34 years,   -24% are 35-44 years,

-23% are 45-54 years,   -16% are 55-64 years,   -8% are 65 & Older.

-37% Passengers are Female while 63% are Male

Most Passengers Priorities include more control over their journey using smartphones, wanted to utilize biometric identification to speed up processes and track the baggage. Overall their looking for more technologies to improve their travel experiences.
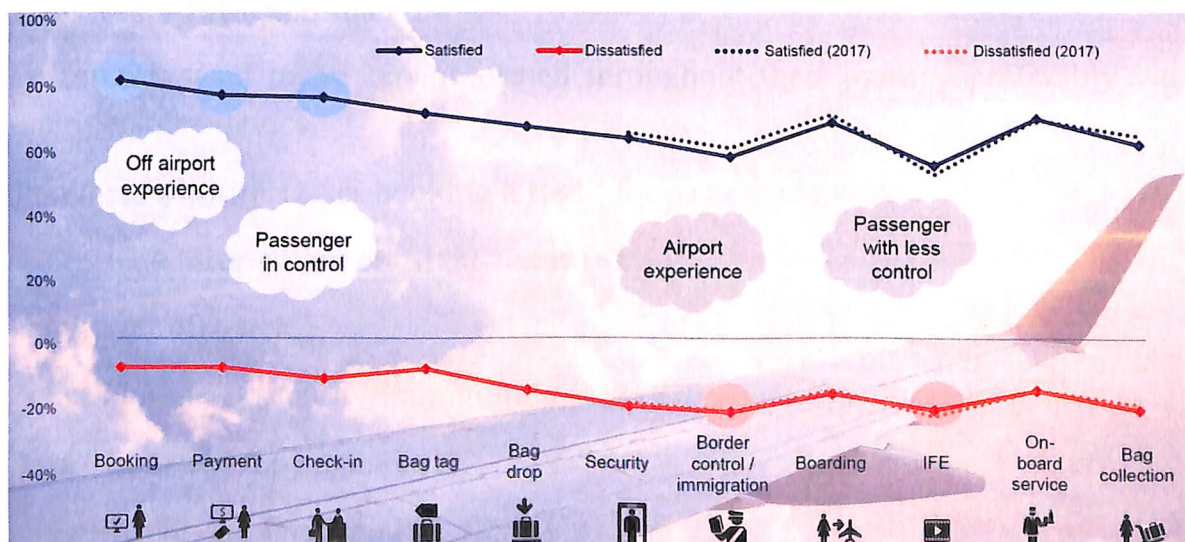
Passenger Satisfaction

Baggage

More than four billion bags are carried by airlines annually. Fully 99.57% of those bags arrive with their owners.

In 2018, around 56% of passengers considered bag tracking is must. And they wanted to track their bag throughout the journey.

By mid-2018, airlines have committed to being able to track a bag through key touchpoints: when it is accepted at the airport, loaded onto the aircraft, and unloaded from the aircraft and placed into the arrival system or put into the transfer system for carriage by another airline. Airlines must also be able to share this tracking information with interline carriers as needed.

The global deployment of radio frequency identification (RFID) technology, which can accurately track passengers' baggage in real time across key points in a journey, holds the potential to save the air transport industry more than $3 billion over the next seven years. RFID tracking is therefore an IATA priority for 2018.

IATA has drafted a recommended practice for RFID that it will present for approval to airlines in 2018. IATA is also developing implementation guidance for RFID, including reusable RFID.

51% would prefer to have their bag delivered directly to their final destination as long as they are able to track it. 68% of air travellers prefer self-service bag drop options. Most people preferred electronic bag tag option for check in purposes. While people over 65+ aged wanted airline agent to do for them.

Real Time Interaction

Passengers want to be kept informed throughout their journey preferably via their personal device.

Top three priorities after booking a flight for passengers were

-Receiving information on flight status (82%),

-Baggage (49%),

-Waiting time at security/immigration (46%).

Apart from that they also needs

-Regulations and requirements (45%)

-Information regarding time/distance to gate (43%)

-Wait time at arrival customs (39%)

-Enhanced airport services (38%)

-Destination related information (25%)

-Airline products and services to purchase during the trip (19%)

Real-time baggage tracking throughout the journey was seen as a must for 56% of passengers. Passengers' preferred option for receiving information on their baggage and other travel elements was via their mobile device. Receiving information via SMS or smartphone app was preferred by 73% of passengers. Since 2016 there has been a 10% increase in passengers preferring to receive travel information via a smartphone app.

Boarding & Screening

45% of air travellers choose biometric identification as a replacement of their passport. Availability of overhead space for carry-on bags would definitely improve the boarding experience (42%). Most people still interested in Electronic boarding pass. And others when boarding wanted to scan the boarding token themselves.

Survey respondents were also very vocal about the things they don't want: 57 percent don't want to go through security screening, 53 percent don't want the hassle of the lines at immigration, and 56 percent don't want to stand around to reclaim their bags as the luggage wheel goes round and round and round

Online check-in via smartphone is the most preferred way to check in (47%). 45% Choose Biometric ID to replace their passport.

25-54 year olds prefer electronic boarding pass while +55 year olds prefer printed pass and Hand the boarding token to an agent when boarding.

Inflight Experience & Technology

The survey covered other In-Flight elements, with respondents showing an increased preference compared to last year for seat-back screens over bring your-own-device entertainment options. This may be a reaction to airlines now pulling screens from planes. Large share of air passengers would rather watch digital content on a seatback device (54%) rather than on their own device (36%). They simply don't want to use their devices.

At the same time, in-flight Wi-Fi is a must for many. A good number of passengers would like to make last-minute travel arrangements on their way to the destination.

Emerging trends for on-board Wi-Fi usage preferences:

-Searching connecting flight related information (e.g. gate number) 39%

-Planning your onward journey (e.g. accommodation, transportation) 37%

-Filling in customs e-declarations or other e-forms 33%

Passengers are more willing to share their information this time if it provide hassle free travel experience. That is 65% of passengers are willing to share personal data for expedited security and 45% are willing to replace their passports with biometric identification. However, they concerns over data protection must be addressed.

As we move more and more towards digital processes, passengers need to be confident that their personal data is safe. IATA is working to establish a trust framework that ensures secure data sharing, legal compliance and privacy," said Nick Careen, IATA's Senior Vice President for Airport, Passenger, Cargo and Security.

Summary

2018 Global Passenger survey identified that airport security/border control and boarding processes are two of their biggest pain points when travelling.

57% of people find that the top frustrations with security were the intrusiveness of having to remove personal items, while 48% of people felt that the removal of laptops/large electronic devices from cabin bags and 41% of them said that the lack of consistency in screening procedures at different airports.

To improve the boarding experience, the top three desires of passengers are

-More efficient queuing at boarding gates (64%),

-The availability of overhead space on the aircraft (42%),

-And not having to queue on the air bridge (33%)

COMPARATIVE ANALYSIS

Comparative research, simply put, is the act of comparing two or more things with a view to discovering something about one or all of the things being compared.

The major objective of comparative analysis is to gain insights about the performance of the service through comparison. For example, 1.How much more does the company earn compared to last year? 2. Is the company improving or deteriorating over the past few years?

Here we are going to compare different point of passenger service in Aviation Industry every year.

Breakdown of Respondent's

According to ICAO's preliminary compilation of annual global statistics, the total number of passengers carried on scheduled services rose to 4.3 billion in 2018, which is 6.4% higher than the previous year, while the number of departures reached 37.8 million in 2018, a 3.5% increase.

But in that passengers very few were interested to share their opinion on Air Travel Experience. Which actually depends on various factors such as how much they believe in this Passenger survey could change their travel experience to time hesitant problems. The numbers even various according to the country gender and age. So the complete breakdown of respondent's per year from 2012-2019 is given below,

1. **Total Number of Respondent's**
   The total number of respondent's every year was constantly increased from around 3000 to 11000 but it's not sufficient enough when compare to the total number of air passengers travel across the world every year.

Total	2012	2013	2014	2015	2017	2018	2019
Number Of Respondent's	3000	8000	5500	7300	10675	10408	10877

Table 3.1 Total Number of Respondents

The Above table depicts that Number of Respondents Increased every year.
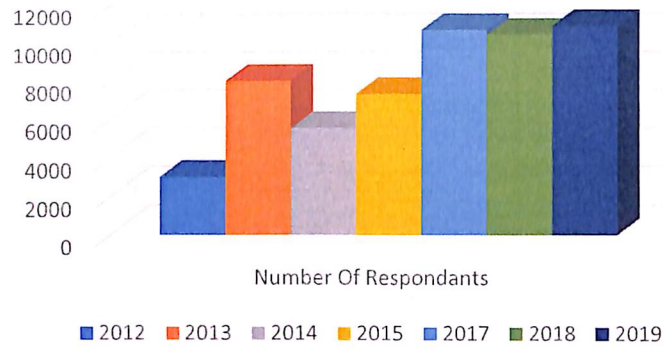
TOTAL NUMBER OF RESPONDANTS

Fig 3.1 Number of Respondent's

2. Regional Breakdown

Country	2012	2013	2014	2015	2016	2017	2018	2019
North America	20%	26%	24%	25%	25%	22%	22%	24%
Latin America	21%	8%	7%	6%	5%	7%	7%	8%
Europe	5%	28%	27%	27%	27%	27%	27%	28%
Asia Pacific	19%	30%	35%	35%	36%	36%	36%	34%
Africa	4%	4%	3%	3%	3%	3%	3%	3%
Middle East	5%	5%	4%	4%	5%	5%	5%	3%

Table 3.2 Regional Breakdown of Respondent's
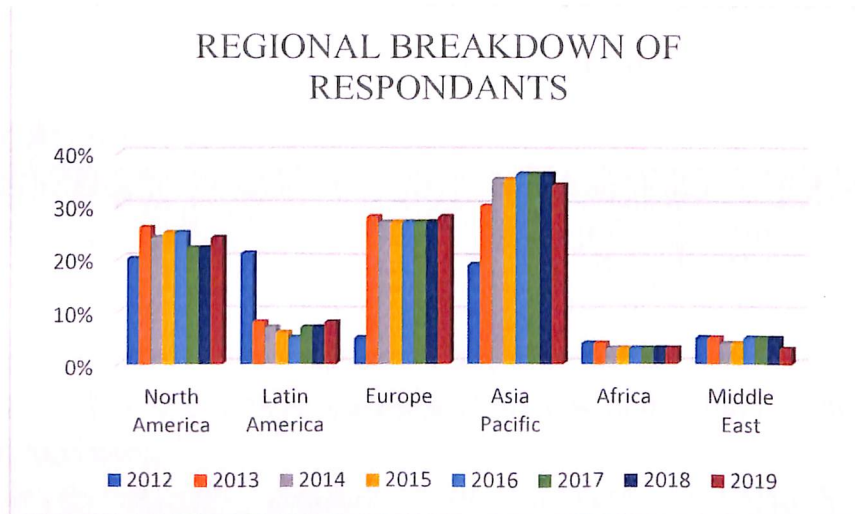
Fig 3.2 Regional Breakdown of Respondent's

Asia Pacific Respondents are higher every year while Europe & North America remains constant throughout the year. Among others The Middle East and Africa passengers are the lowest one to respond to the Survey.

3. Age Breakdown

Age	2012	2013	2014	2015	2016	2017	2018	2019
25 And Younger	10%	10%	11%	7%	6%	6%	6%	6%
25-34	31%	31%	29%	25%	22%	22%	22%	21%
35-44	23%	23%	23%	24%	24%	25%	24%	26%
45-54	20%	18%	19%	22%	22%	22%	23%	23%
55-64	12%	11%	12%	16%	15%	16%	16%	17%
65 And Older	4%	7%	5%	6%	10%	8%	8%	8%

Table 3.3 Age Breakdown of Respondent's
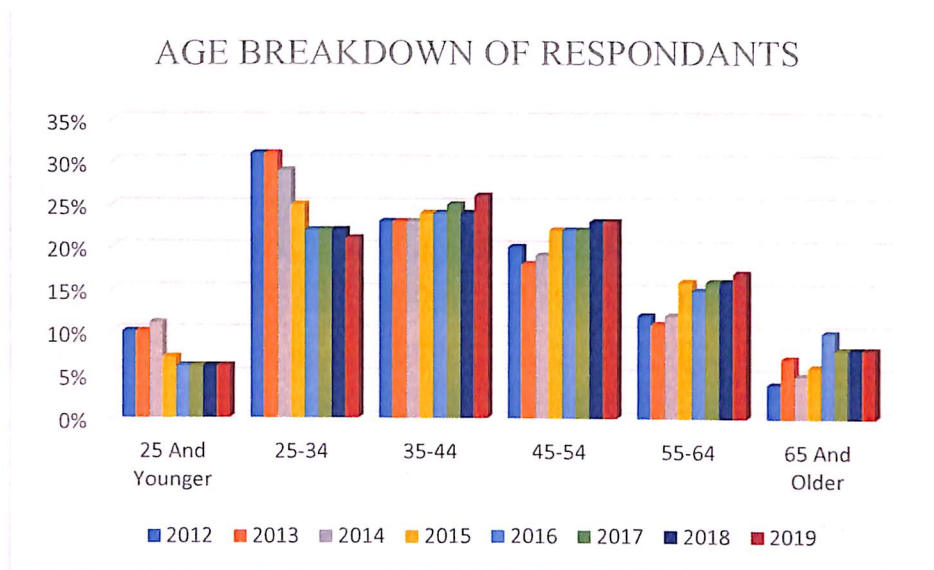
Fig 3.3 Age Breakdown of Respondent's

4. Gender Breakdown

Gender	2012	2013	2014	2015	2016	2017	2018	2019
Male	56%	59%	68%	66%	62%	65%	63%	60%
Female	44%	41%	32%	34%	38%	35%	37%	38%

Seemingly here male passengers are more prone to share their air travel experience than the female passengers and which remains same every year yet increases.

Maybe it's because they depends on various factors and also their needs, ideas differs as it is like many other cases. Furthermore the most common reason that female passengers felt was sharing their personal information is not safety enough as it might get mishandled somewhere.

Fig 3.4 Gender Breakdown of Respondent's

Board In Point

Queuing Time:- Between 2012-2013 travellers are getting more patient over their queuing time while they also preferred dedicated lanes separately. Half of travellers around 49% consider a queue time of between 5 and 10 minutes acceptable.

In North and Latin America, on third i.e. 30% of peoples consider a queue time of between 10 and 20 minutes acceptable, while in Europe only 16%.

92% feel that dedicated security lanes for different segments of travellers are a good idea.
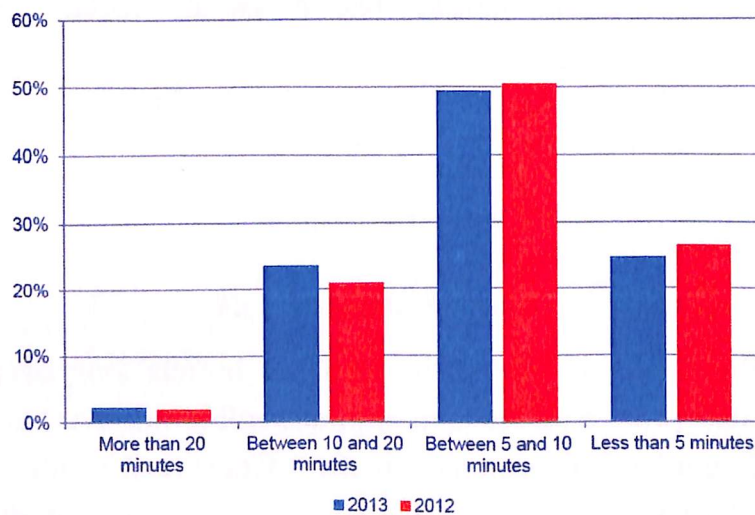
Fig 3.6 Preferred Method in boarding an aircraft

Entertainment

Inflight Activates are the most important things to be considered when a passenger thinks how they are gono spend their time inside the flight during travel. Although there are more activities on-board today, top three favourite activities on a flight during travel are Watching Movies, Reading and Sleeping.

Activities	2012	2013	2014
Watching Movies	41%	38%	39%
Reading	21%	24%	17%
Sleeping	17%	19%	18%
Eating/Drinking	9.50%	9%	8%
Playing Games	1%	2%	1%
Chatting with Neighbours	3.50%	3%	2%

Table 3.5 Inflight Activities
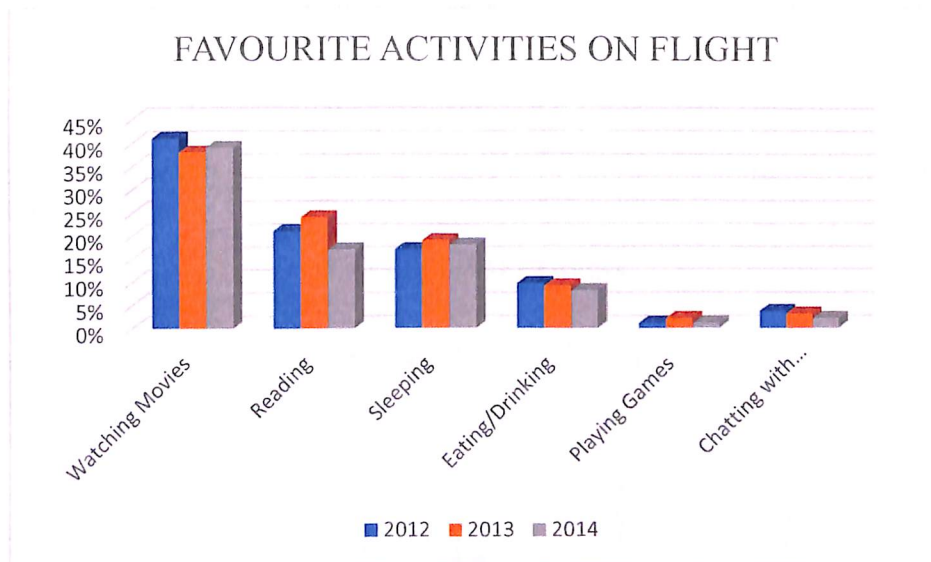
Fig 3.7 Inflight Activities

Soon after passengers started to show difference on their inflight activities according to the travel time. For example in short travel they can't able to sleep enough due to the circumstances when compare to the long flight. In some Airlines, they won't provide a food when the travel time is less than an hour.

Long Haul Activities	2015	2016
Watching Movies	72%	77%
Sleeping	70%	69%
Eating/Drinking	42%	40%

Short Haul Activities	2015	2016
Watching Movies	44%	42%
Reading	51%	53%
Eating/Drinking/Sleeping	36%	38%

Table 3.5 Inflight Activities in Long & Short Haul

WIFI

After Providing WIFI services in Airport travellers used it to gain more information's. In beginning they used WIFI at airports to Receive airline related information more i.e. Two out of five (40%) would use to get this info.

Afterwards in Upcoming year One-third of travellers started using WIFI at airports for emails. Highest preference shown to use Wi-Fi at airport for emails. Preference demonstrated for essential travel related activities. Use of Wi-Fi for social media dropped from 18% (2013) to 13% (2014). If Wi-Fi were available in Airport and on-board, passengers would use them to following activities

WIFI Usages	2013	2014	2016	2017	2018
Receive Airline Related Info	40%	23%	-	-	39%
Browse the Internet	43%	29%	22%	73%	37%
Use Social Media/Chatting	18%	13%	23%	62%	-
Send/Receive Emails	-	32%	30%	62%	33%

- means unknown

Table 3.6 WIFI Usages

WIFI USAGE IN AIRPORT & ONBOARD
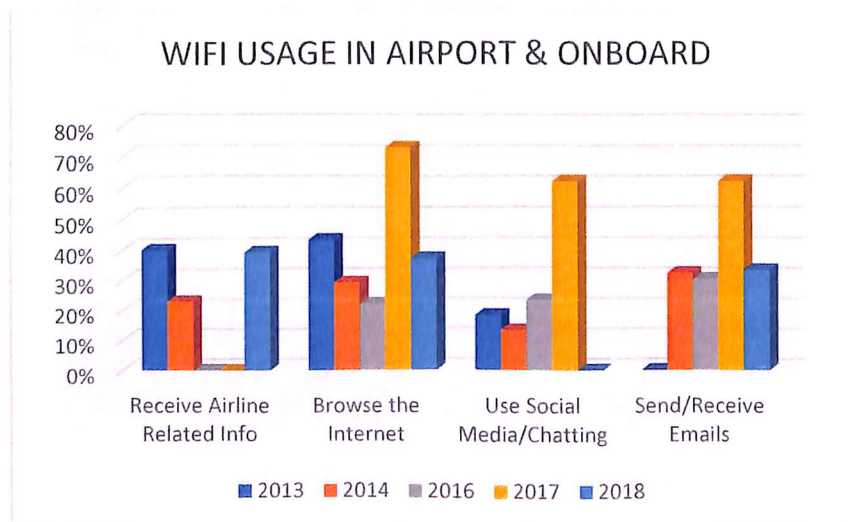
Initially in 2015 almost as many passengers want to watch digital content on their own devices as on seatback devices. But soon after from large share of air passengers would rather watch digital content on a seatback device (54%) than on their own device (36%).

Device	2015	2016	2017	2018
Seatback device	50%	39%	45%	54%
Own Device	39%	51%	42%	36%

Table 3.7 Device Used every year
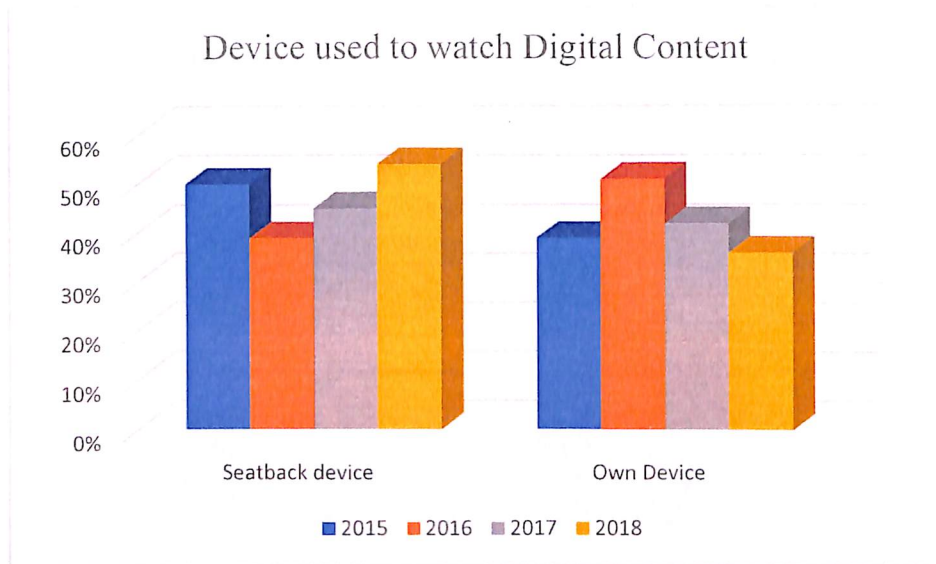
Fig 3.9 Device Used every year
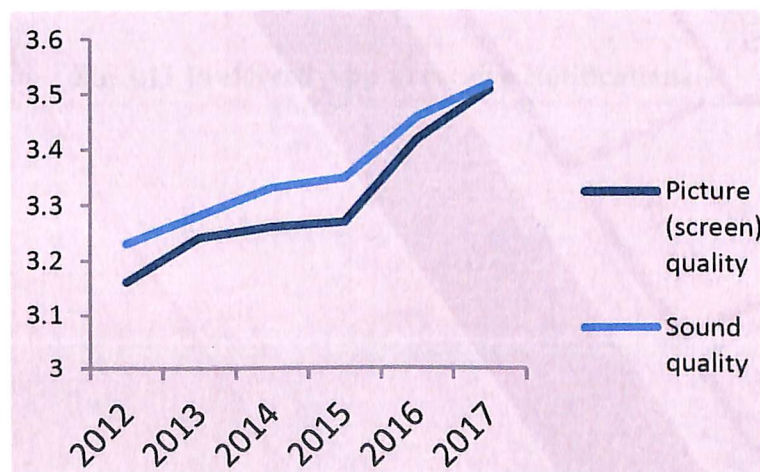
Fig 3.10 Preferred Content Quality

Notifications:

Usage of Airline owned personal app keeps rising for as it was preferred by many passengers to gain information on travel, airport, destination, estimated time, baggage tracking etc... When compared to the personal SMS to their own number. As we know after on-board and during travel most of the network servers won't be available to receive messages or calls except for some Business Class decks in some Airlines.

App	2016	2017	2018	2019
Smartphone App	22%	29%	31%	33%
SMS	54%	43%	41%	40%

Table 3.8 Preferred App to receive Notifications
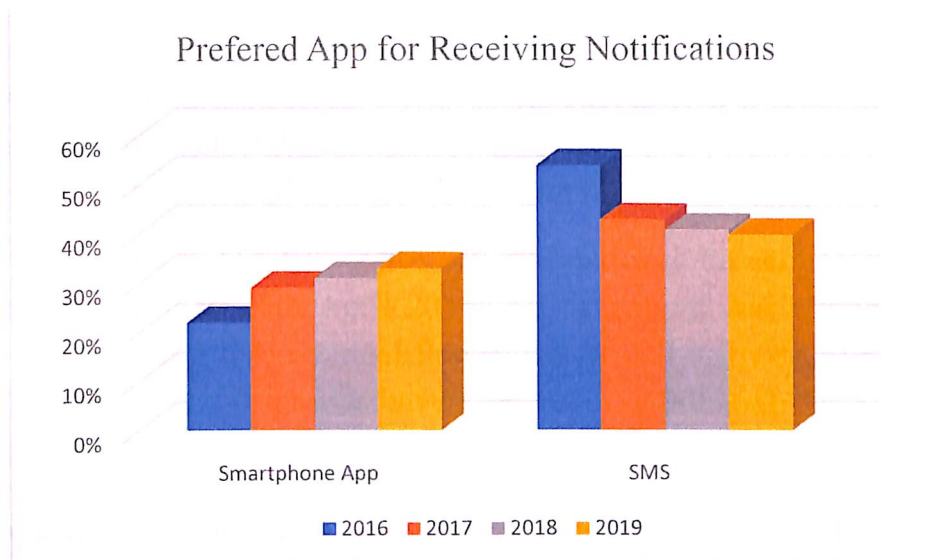
Fig 3.11 Preferred App to receive Notifications

EXPERIMENTAL DOMESTIC MODEL

"Passenger Satisfaction Survey"
Of Mumbai Airport Customs
At C.S.I Airport, Mumbai

Summary

Chatrapati Shivaji International Airport, Mumbai is one of the largest Airports in our country and is handling the largest number of incoming and outgoing international flights and passengers. A new passenger Terminal (T 2) was inaugurated on February 12, 2014. It handles more than 110 – 115 international flights and 15000 to 17000 passengers per day.

NACEN-Mumbai & Mumbai Airport Customs, the key stakeholders of this Study commissioned WeSchool to survey the satisfaction levels of International Passengers, who land at Mumbai CSI Airport, with respect to the Customs Clearance Process, for academic purposes with no other intention.

The survey captures the perception of International Passengers who arrived between 20th April to 26th April 2016. All data input was obtained from the respondents (arriving International Passengers at CSI Airport, Mumbai) whose individual identity and responses have been kept confidential.

Scope

The scope of this study was to assess Passenger satisfaction levels with the Customs Clearance Process, focusing on three aspects, i.e. Information, Behaviour and Process. A Research Team comprising of Faculty members and Research Associates was constituted to undertake the survey which included collection of data and information. The key stakeholders of the study had assigned a core team, which provided all necessary support for the smooth conduct of the study.

The study covered 731 passengers who landed in CSI AIRPORT (Terminal 2) during the above time period.

Data and information collected during the 7 day period was put through analysis, including appropriate statistical tools to generate the output. This was then converted into outputs, i.e. Data Analysis, Findings, Inferences and

Recommendations. Each of the three aspects of the study (Information, Behaviour and Process) was comprehensively addressed.

The Research team has aggregated, coded & analyzed the data to meet pre-determined study objectives.

About NACEN

NACEN is the World Customs Organisation (WCO) Regional Training Centre (RTC) for Asia Pacific. United Nations Environment Program (UNEP) has designated NACEN as a collaboration centre for capacity building in the field of environment protection. National Academy of Customs, Excise and Narcotics, (NACEN) is mandated to provide the requisite Training / related learning initiatives that encompass hard and soft skills of Customs officials.

NACEN, Mumbai is committed to facilitate / support Mumbai Airport Customs to realise the latter's Mission and Commitments.

Duration & Period of Survey:

20th April to 26th April 2016 (7 days)

Method of Data Collection:

The study used the Questionnaire method, intercept interviews and Observation. Researchers also successfully adopted the **"Walk-the–Survey"** with Passenger, method to seek respondent support. This proved helpful, in instances where the respondent was willing to participate in the survey, but was also in a rush to catch a flight and/or meet a waiting family member.

Observation Method was also a method adopted by the researchers for qualitative data collection. The primary methodology began with a Pilot study.

Pilot study was planned and undertaken to ensure fine tuning the dimensions of the final study plan. It was undertaken on 14th April through 15th April. Researcher adopted most suitable methods of combination of Probability and Non Probability methods to pick and choose the desired mix of demographic profiles, (including nationality, gender, and purpose of visit, occupation and age) during their Pilot study.

Data Analysis:
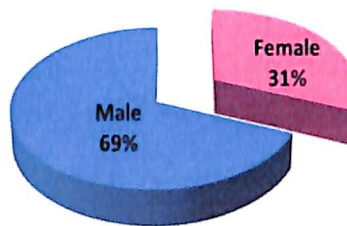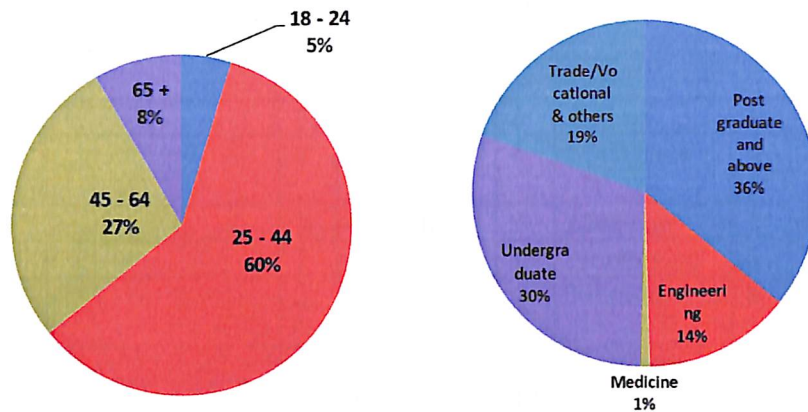
Depicts the 69% of the Male International and 31% of female Passengers Participated in the survey.

Around 87 % of passengers fall under the age group ranging from 25-64 years, thus capturing a good cross section of Age Profile

36% of Passengers are Post Graduates and 30% are Undergraduates.

19% had pursued trade/vocational courses/others, 14% Engineers and 1% were Doctors.
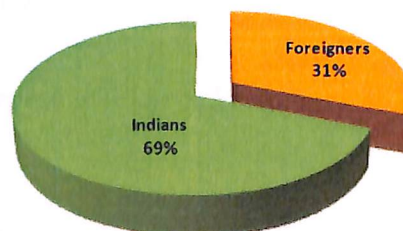
Analysis of Chart 4 depicts 69% Indians across types of travellers even while capturing 31% foreigner's spread over 44 Nationalities

American	21	Dutch	2	Korean	1	Spaniard	2
Arab	5	Ethiopian	6	Malaysian	7	Sri Lankan	1
Asian	1	French	3	Mexican	1	Swedish	1
Australian	7	German	19	Norwegian	6	Swiss	3
Austrian	3	Hong Kong	1	Filipino	6	Syrian	1
Bahraini	1	Indonesian	1	Portuguese	3	Taiwanese	1
Belgium	2	Iranian	12	Russian	4	Tanzanian	2
British	59	Israeli	4	Singaporean	12	Turkish	2
Canadian	7	Japanese	6	Somali	1	Zambian	1
Chinese	3	Kenyan	1	South African	2	Indian	506
Djiboutian	1	Kiwi	1	South Korean	2	**Grand total**	731

Purpose of Visit & Frequency of Travel

65% of International passengers travel for their Personal reasons, followed by 21% for official purposes while 80% of passengers were non-first International travellers to Mumbai. The data reveals majority of travellers are frequent and it is rather more important to satisfy them to ensure ease of business with regards to ease of Customs.
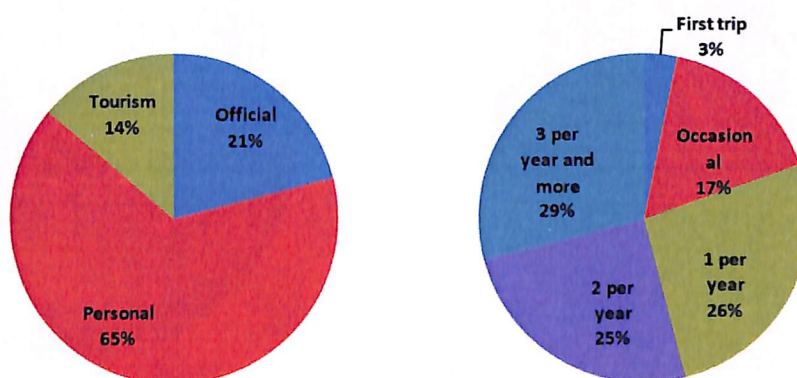

Purpose of Visit & Frequency of Travel

Channel-wise Breakdown

Prior to the survey Researchers decided the channel-wise break-up of Green & Red Channel in the ratio of 60:40 and pursuant to conducting the survey the

actual break-up was 63% of Green channel Passengers and 37% of Red channel Passengers. Red Channel- Those who reject participating in the survey. Green Channel- Those who participated in survey.
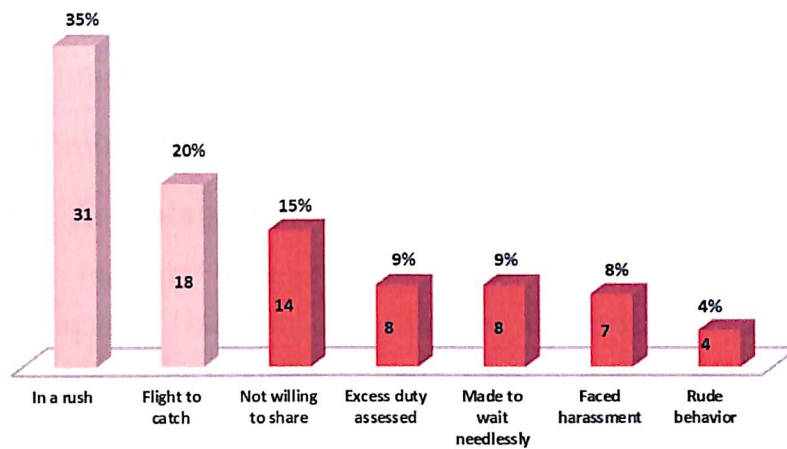
It is evident from the graph that red channel passengers had several reasons to reject participating in the survey. 55% Red Channel passengers rejected primarily as they were in a rush and had a flight to catch. However, the remaining 45% indicates need for improvement in the customs clearance process.
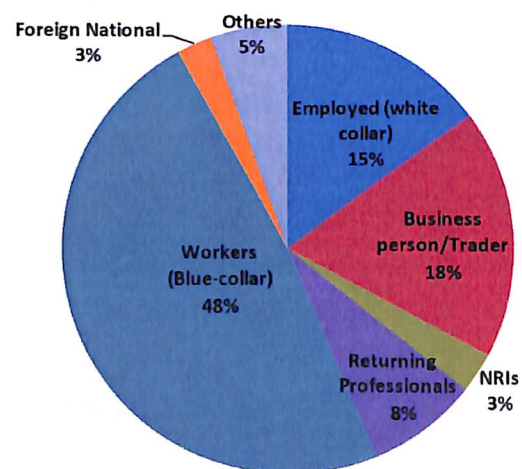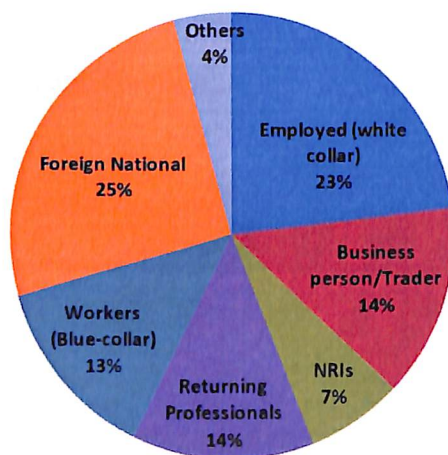
Green Channel & Red Channel Passenger Profile Respectively

Overview of Sample Respondents profile

- 31% Foreign Nationals
- 31% Women
- 60% : 25-44 age band

- 65% on a personal trip

- 36% Post Graduates

- 29% > 3 trips a year

- 85% non-first timers into Mumbai
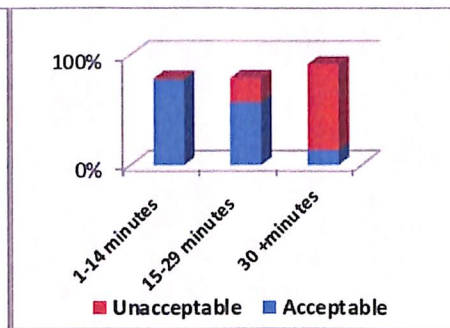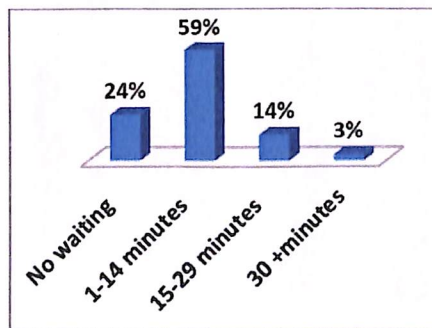
- 37% cleared through Red Channel

Time Taken & Acceptability levels

Below graphs indicate process time and their acceptability levels at Immigration, Baggage Handling and Customs Clearance with threshold levels seen in the red area of the bars depicting their unacceptability.
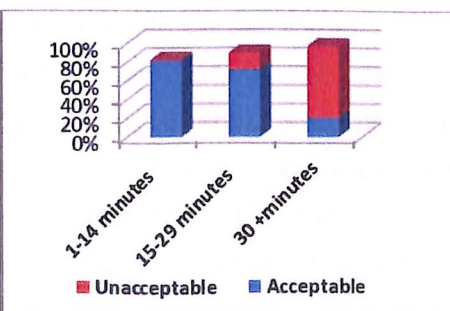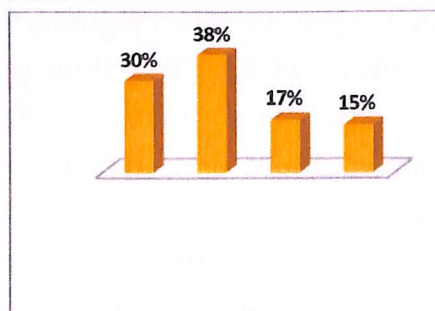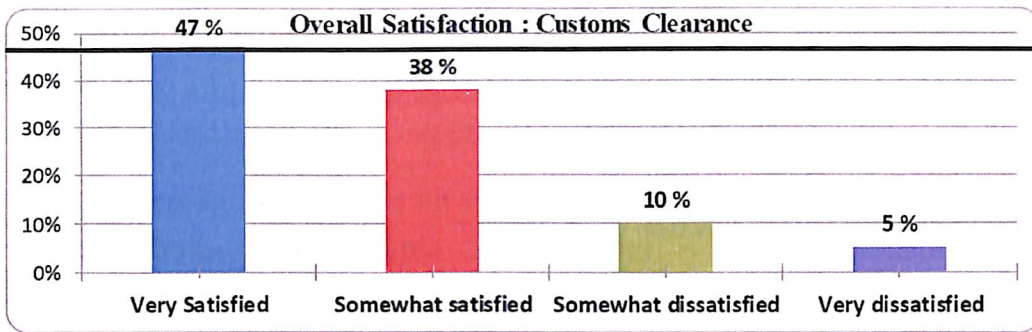
Immigration:
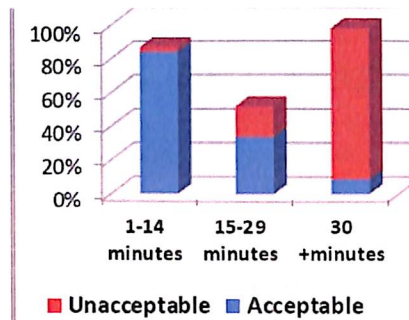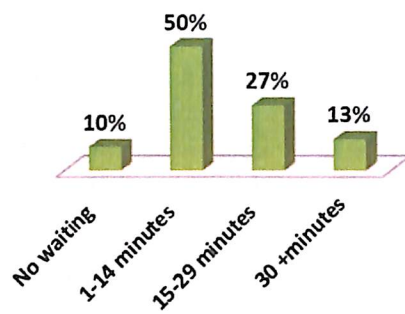
**Baggage Handling:**

Customs Clearance:

Overall Satisfaction : Customs Clearance

Overall 47% of the Passengers were 'very satisfied' with the Customs Clearance process while 53% passengers indicates their satisfaction levels as 'somewhat satisfied' to 'dissatisfied' indicating scope of improvement for Customs Clearance process.

Passenger's Overall Experience at Mumbai Airport (CSI AIRPORT) :
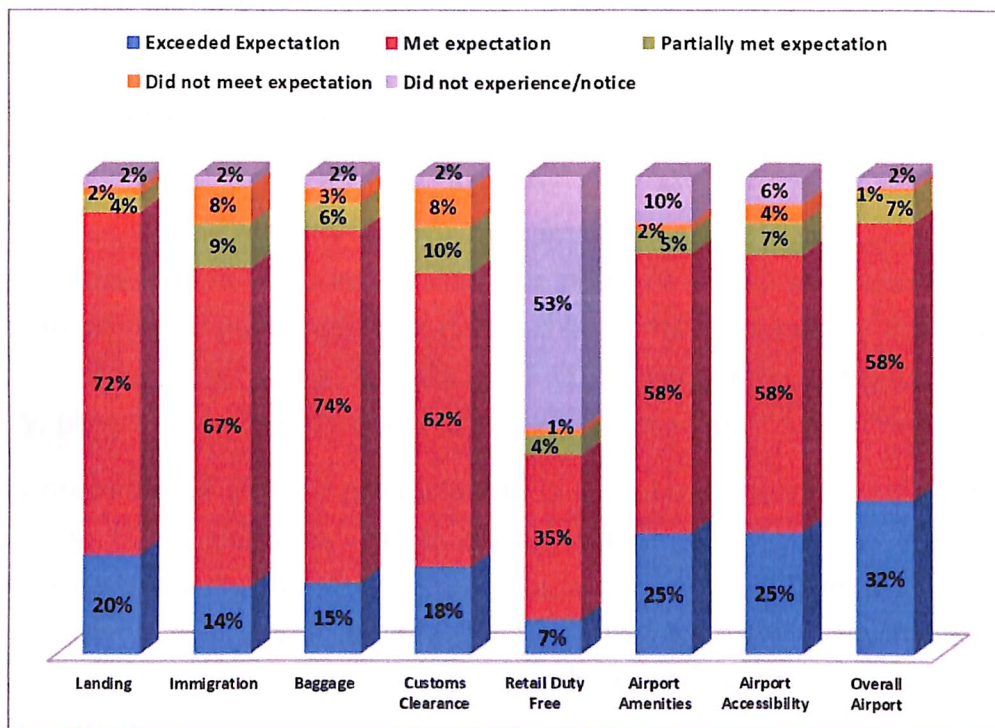
32% of Passengers overall Airport experience exceeded expectation levels in contrast to under 20% of the different processes. On an average 68% of the Passengers indicated 'Met Expectation' for the different processes. 62% Passenger perception of 'Met Expectation' for Customs Clearance appears to be affected by dissatisfaction in Landing, Immigration & Baggage Handling. 'Not so good experience' in upstream process appears to influence Satisfaction levels including Customs Clearance.

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SUMMARY

It has emerged, fairly strongly, that Passenger satisfaction of the Airport (on an overall basis) is influenced by his / her individual experience with each process (at the Airport) and cumulative experiences with the overall.

It is strongly recommended that an integrated approach, involving participation and collaboration, with multiple Stakeholders is vital to enhance overall Passenger Experience.

It is recommended that all Departments at the Airport should measure, track and improve Passenger Satisfaction levels of the process/s they influence /control.

Identify areas of Improvement supported with relevant Learning, Training & Development programmes

Introduce an Appreciation & Recognition driven eco system that reinforces positive behaviours of Airport based employees in their interaction with International passengers

Identify appropriate Benchmarks including Voice of the Passenger and integrate with Performance improvement initiatives.

Share success stories of Individuals and teams across all stakeholders connected with the Airport. And also as a Passenger point of view, we should share the improvement of the passenger experience that we have gained by this survey to the other fellow travelling friends. Which is very important to show the industry, people and other that how effective and essential this survey is acting.

While improving Quality of products and/or services, it is extremely important to focus on those elements/aspects/attributes that the Passenger considers as important/of value to him/her. The results are not as effective when the seller/service provider decides to focus on improving all elements/aspects/attributes and/or focus only on what the former opines as being important.

So to improve their belief and experience of the survey the customer support through in person or respective device notifications, we should facilitate passengers towards the right direction for checking into connecting domestic flights or international flights, ground transportation to the respective terminals, Foreign Exchange, Pharmacy, Doctor-on Call, Train tickets, taxis for travel

intra city, shopping utilities, through describing every available product in the airport and also providing improved access to the Amenities.

Being everything available in hand through any device app is a future transforming solution for the passenger's in-experience in airports. If it is taken care by every own airlines separately, then it will be more useful to use it in any handy situation.

Also we should introduce Passenger Satisfaction level improvement, Process Time reduction as Key Performance Indicators for Customs Officer.

A 'not so good experience' in the Upstream processes (Landing, Immigration &/or Baggage Handling) is likely to adversely influence the satisfaction level of a 'downstream process', like Customs Clearance.

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