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**ASSESSMENT OF SERVICE QUALITY PERCEIVED BY
PASSENGERS AT BANDARANAIKE INTERNATIONAL
AIRPORT, KATUNAYAKE.**

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PASSENGERS AT BANDARANAIKE INTERNATIONAL
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Wendakoon Mudiyansele Isuru Sampath Wendakoon
(138328E)

Thesis submitted in partial fulfillment of the requirements for the
Degree of Master of Science in Transportation

Department of Civil Engineering

University of Moratuwa
Sri Lanka

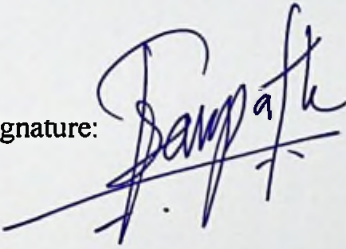
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Signature of the supervisor:

UOM Verified Signature

Date: 6.6.2018.

DEDICATION

*This thesis is dedicated to my parents,
whose power, generosity, and humanity have
moved me countless times.*

*Thank You for your
unconditional support with my studies. I'm
honored to have you as my parents.*

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Isuru S. Wendakoon,

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November, 2017.

ABSTRACT

Service quality at airports as perceived by air passengers is a comparison between their expectations and airport's actual performance which is measured by the performance of service delivery of the airport. Delivering high quality service to passengers by airports is vital for their market competitiveness and ultimately for promoting the image of the country. Since, service quality is an important factor in customer satisfaction, the study aims to assess the current service quality level which is being perceived by air passengers and their satisfaction levels for Airport Facilities at Bandaranaike International Airport (BIA), Katunayake comparing other Airports in other geographical regions (Indian Subcontinent, East Asia & Asia Pacific, Middle East and Europe).

The main objective of the study was to understand importance of customer expectations and level of satisfaction perceived by passengers concerning the facilities, services and service quality of BIA, Katunayake. For data collection, an online questionnaire (created based on Google® forms) was provided and the population of the study was comprised of those who have experienced the services offered by BIA, specifically frequent air travelers of national origin. The questionnaire was developed using the SKYTRAX questionnaire as a benchmark.

The questionnaire was distributed online to the target population who have travelled using BIA during last three years of time. The Likert survey was the selected questionnaire type as this enabled the respondents to answer the survey easily based on their evaluation levels. A total of 147 completed questionnaires were selected out of 163 due to incompleteness of some answers.

Results shows that, responders (almost 50%) who have travelled within last three years through more than 05 airports in more geographical areas have less satisfaction level for most of questions than other responders who have visited five or less than five airports. Further responders (almost 20%) who have travelled through many airports (more than 10 airports within last three years) in more than two geographical areas have neutral or dissatisfied responses for most of questions than other responders who have visited ten or less than ten airports those were in one or two geographical areas. This indicates that service quality at BIA for some areas does not match the satisfaction level of passengers who have experienced many airports in several geographical areas.

Moreover the study also concludes that the satisfaction level of passengers on service quality was significantly different based on number of airports which passengers have visited and geographical areas where those airports are located, especially passengers who have travelled only in Indian subcontinent had more satisfied responses on BIA comparing others.

There were no significant difference in observations on satisfaction levels based on passenger's gender, age group and reasons for travel, since 90% of passengers had travelled on business / employment purposes. In conclusion, the study suggests that policy makers as well as airport management need to comprehensive survey on passenger's satisfaction level on their services offered and take workable measures to improve upon airport service quality.

Key Words: Airport Operations, Service Quality, Passenger Satisfaction, Bandaranaike International Airport (BIA)

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LIST OF ABBREVIATIONS

AASL	Airport & Aviation Services (Sri Lanka) Limited
ACI	Airport Council International
BIA	Bandaranaike International Airport
CAASL	Civil Aviation Authority of Sri Lanka
GDP	Gross Domestic Product
IATA	International Air Transport Association
LKR	Sri Lankan Rupee
MT	Metric Tones
QDA	Qualitative Data Analysis
RETs	Rapid Exit Taxiways
SAARC	South Asian Association for Regional Cooperation
UAE	United Arab Emirates
UK	United Kingdom
USD	United States Dollar
VIP	Very Important Person

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CHAPTER 01 – INTRODUCTION

In modern marketing concepts service quality has been renowned as a key element of success for any service offering organizations to build their competitiveness over others. Therefore, it has great value to become a major area of attention that strongly influences organizations performance towards customer satisfaction. In this context the air travel industry has been changing at an exceptional rate. Rapid improvements in travel comfort and technology have elevated passengers' expectations in regards to the airport experience. Today's air travelers are exposed to multiple service attributes that help them distinguish the performance of chosen transportation providers. (Bogicevic, Yang, Bilgihan, & Bujisic, 2013).

Since, service quality is an important factor in customer satisfaction, the study aims to assess the current service quality level which is being perceived by air passengers and their satisfaction levels for Airport Facilities at Bandaranaike International Airport (BIA), Katunayake comparing their satisfaction levels at other airports in other geographical regions Indian Subcontinent (India, Pakistan, Bangladesh, Maldives etc.), East Asia & Asia Pacific (Japan, China, Thailand, Singapore, Australia etc.), Middle East (UAE, Saudi Arabia, Qatar etc.), Europe (EU, UK, Russia etc.).

1.1. Overview of the Thesis

With beginning of the 21st Century, the aviation industry has become even more challenging, legacy carriers with many new startups including budget carriers and traditional airports with state of art facilities including modern new airports have turned to focus on service quality to increase customer satisfaction of their service offerings. Service quality conditions influences a firm's competitive advantage by retaining customer patronage, and with this comes market share. Delivering high-quality service to passengers is essential for survival, so airports and airlines need to understand what passengers expect from their services.

Service quality can be defined as a consumer's overall impression of the relative efficiency of the organization and its services (R.ARCHANA & DR.M.V.SUBHA, 2012). Understanding exactly what customers expect is the most crucial step in defining



and delivering high-quality service. Service quality is one of the best models for evaluating customers' expectations and perceptions (R.ARCHANA & DR.M.V.SUBHA, 2012).

In this theses mainly focus on how passengers have perceived service offerings at BIA comparing their previous experiences at foreign airports located different geographical locations. Their assessment on facilities and services at BIA is analyzed according to the number of different airport visits and their locations mainly airports in Indian Subcontinent, East Asia & Asia Pacific, Middle East and Europe. The reason for selection only these regions is almost all direct air links to BIA are connected from these regions and the coverage of Sri Lankan Airlines is mostly connected with these geographical areas as per the table 1 - 1.

Table 1 - 1 : Geographical Coverage of SriLankan Airlines

Europe	Far East	Middle East	INDIAN Sub – continent	Operated By MJ
London	Tokyo	Abu Dhabi	Mumbai	Gaya
Frankfurt	Bangkok	Dubai	Kochi	Kolkata
Paris	Kuala Lumpur	Doha	Bangalore	Madurai
Rome	Singapore	Dammam	Chennai	Varanasi
	Hong Kong	Riyadh	New Delhi	Dhaka
	Beijing	Jeddah	Tiruchirapalli	Bahrain
	Shanghai	Kuwait	Trivandrum	Malé
	Guangzhou		Karachi	Jakarta
	Kunming		Malé	Muscat
			Colombo	

Source: www.srilankan.com

Then passenger satisfaction levels are assessed according to 25 service quality criteria under six main criteria as table 1 - 2.

Table 1 - 2 : Service Quality Criteria

1	Common	1) Direction signage within the airport (including the terminal)
		2) Walking distances within the airport
		3) Availability & Service assistance from Airport staff
		4) Flight Information Screens around terminal areas
		5) Public transportation options

2	Arrival & Departure	6) Waiting times at check-in counters
		7) Waiting times / service efficiency at immigration
		8) Waiting times / service efficiency at security screening
		9) Waiting times for baggage delivery
		10) Immigration staff attitude / courtesy
		11) Security staff attitude / courtesy
3	Terminal Comfort	12) Cleanliness of Terminal areas
		13) Quantity and Quality of seating areas within the terminal
		14) Washrooms cleanliness and location
		15) Quiet / Rest areas, Day rooms
		16) Smoking policy / smoking room
		17) Facilities for infants, children, disabled people etc.
4	Duty Free	18) Layout of duty free shopping
		19) Prices in duty free shops
		20) Staff Service in Shops
5	Foods	21) Selection and prices of restaurants and cafes
		22) Staff service in restaurants and cafes
6	Other	23) WiFi and Internet facilities
		24) Entertainment and Leisure facilities
		25) Cash machines (ATM)

1.2. Background Information

Passenger development at BIA since 1983

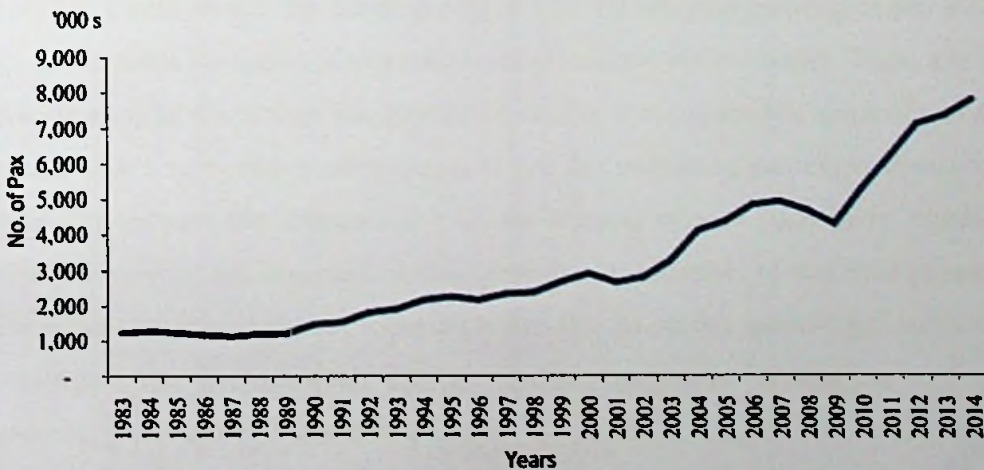


Figure 1 - 1 : Progression of passenger movements at BIA

BIA is the main international gateway to Sri Lanka and is the one of transport hub for Indian subcontinent. With conclusion of 30 years of war situation in 2009 Aviation

industry is being gained rapid progression in terms of passenger movement and aircraft movement in BIA as per the figure 1 - 1 and figure 1 - 2.

One of main contributing factor for this progression of aviation in Sri Lanka is increasing of tourist arrivals from Europe, East Asia and South Asia countries with establishment peace environment within the country.

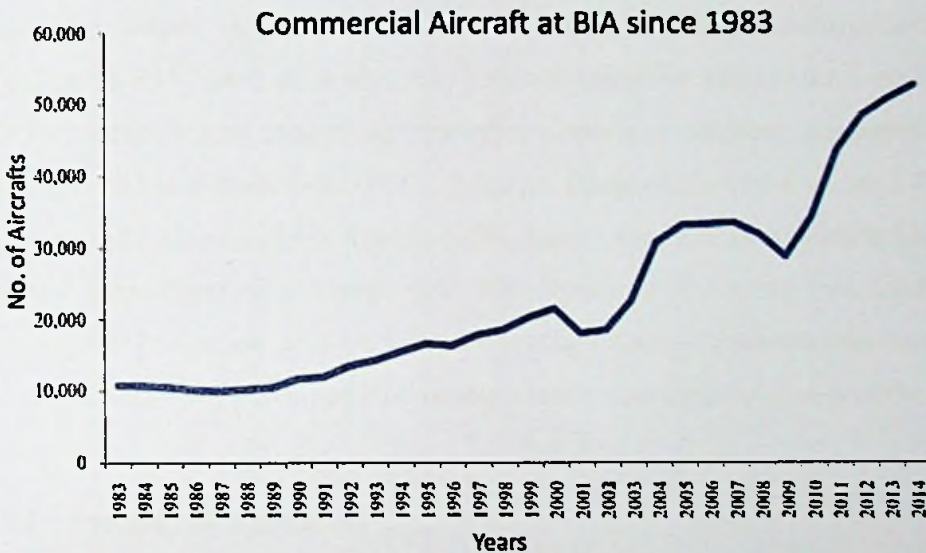


Figure 1 - 2 : Progression of aircraft movements at BIA

This has contributed to the development of BIA by bringing passengers and boosting tourism and the formation of tourism as a core industry in the country. Thus, it is worth investigating how to utilize this opportunity and how to expand the scope of services to ensure BIA's competitive advantages. Given the increasing passenger demand, it is critical to prepare the terminals at BIA for meeting various passengers' needs. The airport, however, has experienced little growth in the number of domestic passengers. Therefore, the airport should focus on enhancing its service quality and services that passengers are not satisfied with to increase passenger satisfaction and attract passengers and more flights from airlines.

Earlier studies of airport service levels focused on operational standards defined by queuing time, service lead time, space, physical facilities, and so on. However, there is a move towards a more passenger-orientated mindset, which is a welcome change for

today's highly competitive air transport market (Chao, Lin, & Chen, 2013). Stronger consumer awareness means that passengers pay more attention to the details of services. They tend to have a negative view of an airport if it fails to perform well or makes a mistake. The fact that they do not hesitate to complain to the media is harmful to the airport's reputation. Therefore, airport operators must constantly evaluate their facilities and service processes to better meet passenger needs (Chao, Lin, & Chen, 2013).

This study makes suggestions for effective improvements in facilities and service offerings at BIA based on analyses to enhance customer satisfaction based on their perceived experiences comparing with other airports in neighbor geographical areas which are Indian Subcontinent (India, Pakistan, Bangladesh, Maldives etc.), East Asia & Asia Pacific (Japan, China, Thailand, Singapore, Australia etc.), Middle East (UAE, Saudi Arabia, Qatar etc.), Europe (EU, UK, Russia etc.). Survey was conducted on international passengers who are Sri Lankan origin through questionnaires concerning their satisfaction and perceived level of importance regarding the quality of the airport's services.

1.2.1. Problem Identification

Excellent passenger satisfaction is one of the greatest assets for aviation business in today's competitive environment. There are many factors that can help an airport to build its customer base, and passenger service and satisfaction can be a determining factor in the success of an entire operation (R.ARCHANA & DR.M.V.SUBHA, 2012). Lack of capacity has existed with the boom of tourist arrivals after the war situation in Sri Lanka since 2009.

Due to available opportunities, many airlines came to BIA and due to that there is not enough capacity for expansion and no improvement of quality of services with high volumes of passengers, so that nowadays, the better improvement is needed to fix this problem.

To summarize the current situation of service quality theory in the airport industry there are compelling reasons to manage service quality; as a matter of fact service attributes are commonly measured by airports. However, there is a limited amount of conceptual

and empirical work on passengers' perceptions of airport service quality and even less studies on passengers' expectations but most importantly no widely accepted and integrated model of the multi-dimensional passenger expectation (Farahani & Törmä, 2010).

A basic problem is defined that there is an indication of low, or poor, service quality which offers imbalance with the passenger's willingness to pay. People believe that they should be given more worthy service since they pay the charges that also increases every year, it means that organizations still could not understand how to satisfy the customers and how to deal with the customers through the services (oliver Wyman, 2012).

Other problem which still dominating poor organization's transparency and accountability are people's behavior in Sri Lanka in which most of them ignored their rights to complain, because most of them think that is useless for complaining and the authority will not respond seriously about it and another opinion tells that they don't want to questioned about a little things such as toilet, or cleanness of the airport even they know there is something wrong about that.

So that, many people believed the indication of main problems are defined that the airport authority ignored the passenger services, late respond to make better services, and pretend to making money in their business. For this case, the performance of airport is really important and innovations is still needed to anticipate that problems.

Discussing about performance that affected to passengers/customers satisfaction means how customers view an organization's products or services in light of their experiences with that organization (or product), as well as by comparison with what they have heard or seen about other companies or organizations (CHANG, Chien-Hang, & Wang, 2003).

Since, service quality is an important factor in customer satisfaction, the study aims to assess the current service quality level which is being perceived by air passengers and their satisfaction levels for Airport Facilities at BIA, Katunayake comparing their visits

to other airports in other geographical regions (Indian Subcontinent, East Asia & Asia Pacific, Middle East and Europe).

1.3. Objectives

The main objective of the study was to understand importance of customer expectations and level of satisfaction perceived by passengers who are national origin concerning the facilities, services and service quality of BIA, Katunayake with comparing the other connecting airports.

The objective of this study mainly to conceptualize the variables that relate to passenger ratings and comparisons with expectations and desires congruency regarding airport services and their satisfaction with airport services and their overall experiences in other connecting airports.

Then to assess the differences between their expectations and desires and perceived experiences and to examine the levels of air travelers' satisfaction with airport services and their overall experiences in other connecting airports.

1.3.1. Significance of the Study

In Sri Lanka, SriLankan Airlines have almost 50% of market share for passenger movements and aircraft movements at BIA. Therefore, this study will determine the level of passenger satisfaction under these circumstances as well. It is the intention of this study to determine how passengers really feel about the services offered by the BIA. This study may help the BIA airport management to recognize its performance deficiencies and to find constructive ways of improving its service quality to enhance customer satisfaction and increase marketing advantages over the other connecting airports.

Further this study will enable the airport management to take a close look at areas of service deficiencies and hopefully find permanent solutions to improve the level of customer satisfaction. Accordingly, the results of this study would improve the understanding of airport management and other practitioners to comprehend the overall picture of their service delivery and also of passenger satisfaction levels. More

importantly, the outcome of this study may contribute to the improvement of strategy formulation and resource allocation which could enhance the service quality of air transport within BIA.

1.4. Theoretical Framework

Based on the objective of this thesis above, this describes clearly the foundation by asking “How is your valuable evaluation based on your satisfaction level in regard to the service delivery and product parameters of Bandaranaike International Airport, Katunayake comparing with other Airports where you have visited all over the world through your international travel during last three years.”, so that passengers can assess their satisfaction level as Totally Dissatisfied or Dissatisfied or Natural or Satisfied or Totally Satisfied.

Hence the literature review was based on evaluating airport relationships as a means of determining who the airport’s customer is. The services scape and physical evidence of airports are clarified. Airport service quality, customer satisfaction and loyalty are defined and the link between them is explained. The importance/performance model is explained to show the link between it and measuring satisfaction (Bæringsdóttir, 2009).

It is important to discuss about the customer as an important and critical person that can or should be involved in the business process. Beside this, Understanding the services as a logic part for develop the business, so that the company know how to create the service standardize based on the service dimensions is also very important (Kamarudin, 2015). By creating framework based on passenger oriented, services and their involvement in the innovation and solution process give a possibility to create a deep understanding about and paradigm in services logic: how should services must be delivered to customers in order to satisfy their requirements successfully.

1.5. Thesis Rationale

Providing services for passengers in different countries with different cultures is difficult to manage the airport (serve customer’s need) because there are a lot of complicated infrastructures, systems, workers and regulation which are affected directly or indirectly with these requirements. Furthermore, airport management need

to take serious consideration on strategic and holistic approach to customer service and airport branding.

Positive experiences and responses of airport passenger was significantly improved airport image and this thesis also focus on SriLankan passengers to get clear and honest assessment / evaluations on BIA services and facilities over other connecting airports. It is can be tracked from direct relationship between passenger satisfaction and services they are offered. The approach key uses synergy which is how best their offering met with customer's need an expectation from dissatisfied level to satisfied level.

1.5.1. Thesis Outline

This thesis is arranged into main five chapters. Chapter one is an introductory chapter that covers the Overview of the Thesis, Background of the study, Thesis Objectives, Thesis Rationale and Framework.

Chapter two is a review of relevant literature covering areas of Air Transportation, Aviation Industry in Sri Lanka, Service Quality, Customer Satisfaction, Bandaranaike International Airport, Katunayake including concepts and theoretical framework: customers, customer satisfaction, significance of customer satisfaction, service and service quality and significance of service quality.

Chapter three outlines the methodology and the process of development of the thesis. It identifies and explains in detail the main constructs and concepts as well as their indicators and measurement in this study consisting Thesis Approach, Thesis Design, Data Collection, Target Population & Sample etc. Further it describes the demographic information by distributing the samples according to specific demographic information such as; gender, age, travelling purposes, and employment status.

Chapter four is a presentation of data and the analysis of results and findings for airport service quality assessments including the discussion of the results and findings. Finally chapter five comprises the Conclusions and Recommendations including Observations, Overview of the Results, Limitations of the Study and recommendations for further study.

CHAPTER 02 - LITERATURE REVIEW

2.1. Aviation Industry

Aviation industry can be introduced as a vibrant global industry due to its fast and efficient progression and technical advancements which make it one of the most contributory factor for modern global connectivity. Since 1 January 1914, when Abram C. Pheil, former mayor of St. Petersburg, Florida became the world's first fare-paying airline passenger, little would he know that 100 years and some 65 billion passengers later, air transport would play a leading role in shaping the lives of people all over the planet (Gill, 2014). Then the future development of International Civil Aviation With the endorsement of the Chicago Convention in 1944, was ensured.

The aviation industry supports tourism and international business by providing the world's only rapid worldwide transportation network. Airlines transported 3.6 billion passengers and 51.2 million metric tons of air cargo in 2015, connecting the world's cities with nearly 40,000 routes. By providing these services, the aviation industry plays an important role in enabling economic growth and providing various economic and social benefits (PEROVIC, 2013). It emphasizes the view that the aviation industry can greatly contribute to the creating relationships and understanding among nations and people globally.

Travelling by Air is now no longer regarded as a luxury goods but rather a contributor to social enhancements and economic developments. Air transport has given people in all over the world, the opportunity to linking their activities by enhancing their capability for economic progression which in turn contributes to the creation of substantial social & cultural benefits. Hence air transport can be interpreted as a contributor to sustainable development.

2.1.1. Role of Aviation

Air transportation plays a vital role in lives of people, in 2017, more than 4 billion passengers will board an aircraft somewhere on earth. Some will be heading off on holiday, some will be travelling for business and others will be flying to see friends and relatives. Further, air transportation has made the shipping and delivering of

goods/products easier and faster over long distances enabling consumers to receive their supplies within a short period of time.

By facilitating movement of passengers and goods, it generates economic growth, provides jobs, improves living standards, alleviates poverty and increases revenues from taxes. Increasing cross-border travel is a reflection of the closer relationships developing between countries, both from an individual perspective and at a country level. In the same way, eased restrictions on the movement of goods and people across borders facilitates the development of social and economic networks that will have long-lasting effects. This improved flow of people and goods benefits both the host and the originating countries, encouraging increased social and economic integration (Gill, 2014).

Then air transport offers a vital lifeline to communities that lack adequate road or rail networks. In many remote communities and small islands, access to the rest of the world and to essential services such as health care is often only possible by air. Aviation's speed and reliability are perhaps most immediately apparent in the delivery of urgently needed assistance during emergencies caused by natural disaster, famine and war. Air services are particularly important in situations where physical access is problematic (Gill, 2014).

Hence improvements in connectivity contribute to the economic performance of the wider economy by enhancing its overall level of productivity. Higher productivity in firms outside the aviation sector is achieved in two ways. First, productivity is enhanced for domestic firms by their increased access to foreign markets as well as increased foreign competition in the home market. Second, productivity improvements also result from the freer movement of investment capital and workers between countries (PEROVIC, 2013).

2.1.2. Airports

An airport can be recognized as an important infrastructure of air transportation due to it is one of attractive & fastest gateway to a country or which can be a city or a remote island. Then airports play a significant role in globalization, connecting cities and

countries. Airports are a major part of a country's infrastructure and foster economic activities by encouraging international commerce and tourism and generating employment (EconomyWatch, 2010).

Role of airports can be further describe as an eminent part in the economic development of a region, as well as a whole country with facilitating the fast movement of man and materials, thereby fostering trade and commerce. Nevertheless airports create employment to local residents and contribute to the growth of business opportunities for entities engaged in aviation oriented activities such as maintenance and repair of aircraft, fuel sales, flight training, flight catering and storage facilities etc.

Actually with increase of accessibility due to Airports, then it in turn fuels the tourism sector. With an increase in the number of visitors and airport users, more money flows into the local economy. With increased economic activity and employment, consumer behavior changes, raising the standard of living of the people in the region. Thus, the availability of airports provides a thrust to the GDP of the local region, having a positively impact on the national economy (EconomyWatch, 2010).

2.2. Aviation Industry in Sri Lanka

The natural strategic location of Sri Lanka as an island, is ideal for government's goal in becoming an aviation hub within next five years of time period for all areas of aviation related activity in the region not only as a passenger hub, but also for aircraft maintenance, manufacture of components, aviation training, cargo transshipment and as a sea-air hub at Hambantota.

Sri Lanka's civil aviation industry was born in the 1930's with the construction of an aerodrome in Ratmalana and it served a largely administrative function. The slow growth experienced by the industry in the early years is a reflection of the historical and social conditions the country faced at that time. Since then, the industry has come a long way to be what is today (AASL, Historyof Aviation , 2010).

The aviation industry is of national strategic importance to Sri Lanka as the country depends on air transport to link people and valued cargo with the rest of the world. More importantly, aviation is a critical enabling industry for a broader economy. A safe,

secure, efficient, regular and environmentally responsive aviation industry reinforces a range of trade, commerce, tourism and investment activities that contribute significantly to our economic prosperity. With the right policy initiatives, aviation can be the wheel that spins out economic opportunities by expanding the existing markets, opening new markets, driving productivity and improving competitiveness. (Lanka, 2016).

In Sri Lanka one and only Airport Operator (Statutory Service Provider) is the AASL Airport & Aviation Services (Sri Lanka) Limited, managing three international airports in Sri Lanka, namely, Bandaranaike International Airport, Mattala Rajapakse International Airport and Ratmalana Airport (AASL, Annual Report, 2014 / 2015).

Some of the world's leading full service airlines in the likes of Emirates, Singapore Airlines, Thai Airways, Etihad Airways, Qatar Airways, Turkish Airlines, KLM, Korean Air etc. and popular seasonal charter airlines along with SriLankan Airlines contributed to the growth of passenger operations in Sri Lanka during recent years. Then Air Asia X, Air Arabia, fly Dubai and Spice Jet along with Mihin Lanka continued their operations as budget operators serving Sri Lanka, providing more passenger movements to the Aviation industry in Sri Lanka (CAASL, 2014).

Further most of the leading international online operators significantly increased their codeshare operations to Sri Lanka with same party and third party airlines in terms of their air services agreements during recent years which was a boost to the breath of destinations available to/from Sri Lanka to the traveler. This was also vital to provide visibility and connectivity to lesser known cities of the world (CAASL, 2014).

2.2.1. Economic Contribution to the Country

Aviation's contribution to the Sri Lankan economy is undisputed, it contributes a total of 297,500 jobs and USD 3 billion to Sri Lanka's GDP in 2015. Based on a recent IATA commissioned study that entails the Value of Aviation for Sri Lanka, this can potentially grow to 673,100 jobs and USD 7 billion to Sri Lanka's GDP in year 2035. Sri Lanka's Aviation Sector has shown an average growth in passenger movements, cargo handling and aircrafts handling by 5.5 percent, 8.0 percent and 7.7 percent

respectively during 2012-15. In 2015, nearly 8.5 million passengers and 215,032 metric tonnes (MT) of cargo were transported by air (Lanka, 2016).

Further, the travel and tourism sector, substantially aided by the aviation sector, is a significant contributor to the Sri Lankan economy. In 2015, the sector contributed LKR 1,107.1 billion to Sri Lankan GDP (10.6% of total GDP), which is forecast to rise by approximately 6.3% per year, on average, to LKR 2,128.4 billion in 2026. The broader travel and tourism sector also supported approximately 793,000 total jobs (direct and indirect jobs) in Sri Lanka in 2015 (9.7% of total employment), which is forecast to increase by roughly 1.7% per year, on average, to 949,000 jobs in 2026 (11.2% of total employment) (Lanka, 2016).

2.3. Service Quality

The meaning of Service can be defined as “an intangible economic business process which is consumed at the point of sale. Services are one of the two key components of businesses and other thing is goods which had tangible characteristics. Examples of services include the transport of passengers or goods, consulting a doctor, communication etc. Service is very complex and about economic activities which is giving benefits to both customer and the company. It is defined as the action for delivering and benefiting the different parties by exchanging the value for their welfare. Service is also described as the performances of the service providers (Sarmin Sultana, 2010).

According to (Kotler & Keller, 2006), a service possesses four major characteristics which could not be found in products;

- Intangibility - with this characteristic, a service cannot be seen, tasted, felt or heard before they are bought
- Inseparability – the service is regarded as inseparable due to the fact that they are produced and consumed instantaneously
- Variability – with a variable characteristic, services are said to be very changeable depending on the provider, as well as when and where they are provided

- Perishability – this characteristic refers to a circumstance where services cannot be stored

When defining service quality, it is not an easy perception, as it may refer to many attributes arising with service offerings, such as the received service experience, service feelings, comparisons of services, other's experiences, expensiveness, brand/image so on. Hence the great extent of quality importance was determined by a number of economic factors including notes by increasing competition, continued increasing of customers and society demands, increasing complexity of products (Amalia Venera TODORUȚ, 2009).

In numerous studies / models have been conducted / developed to show different dimensions of service quality and whether these dimensions are generalizable for any type of service. The Nordic Model presented by Grönroos state that a service has two dimensions; the technical dimension (what is delivered) and the functional dimension (how it is delivered). SERVQUAL, developed by Parasuraman, Zeithaml, and Berry, see service quality as five dimensions; reliability and assurance (referring to the service itself), responsiveness and empathy (related to interaction), and tangibles (related to physical evidence). Rust and Oliver presented their model, named the three component model, for the first time pointing out the service as a three dimensional construct including the service itself, the delivery process, and the environment in which it is delivered (Farahani & Törmä, 2010).

But to establish clear understanding of dimensions of services, this can be concluded with quality serves as the bridge between the producer of goods/services and its customer (Kotler & Keller, 2006). Then customer satisfaction also is playing a big role in quality of a service and service quality can be defined as the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received. Further service quality theory (Bitner & Hubbert, 1994) predicts that clients will judge that quality is low if performance does not meet their expectations and quality increases as performance exceeds expectations. Hence, customers' expectations serve as the basement on which service quality will be assessed by customers.

Most researchers have pointed out that superior quality of services guarantees higher levels of customer satisfaction and is one of the most important approaches for gaining competitive advantage over other service providers. Through perceived service quality, customer expectations are fundamental in the customer satisfaction field. To ensure service quality, a service provider should identify and try to meet or preferably exceed these expectations (Farahani & Törmä, 2010).

2.3.1. Importance of assessing Service Quality

It is important to study the service quality concept when measuring customer satisfaction towards the service quality. Researchers further emphasized that service quality is linked to a consumer's overall satisfaction of services that they have experienced and perceived. Moreover, the level of customer satisfaction has a direct relationship to the quality of service; in such a way better customer satisfaction can be obtained with good quality of service whereas poor customer satisfaction can be obtained with bad quality of service.

Product or service, no matter both come across challenges in delivering these to customers and marketing in a global competitive environment. While attracting customers is essential to business success, retaining customers is paramount (Amalia Venera TODORUȚ, 2009). As customers vary in many attributes such as age, degree, mobility patterns, income, educational levels, etc., it is the urging requirement of business entities to assess the market with service quality and customers' expectations and satisfaction levels in order to develop products that can cater customers' needs and requirements.

Most researchers have emphasized the importance of assessing the service quality as service delivering is different from product delivering because of inherent differences in services as compared to products such that services are "intangible, inseparable, variable and perishable". The ability to assess quality of services is key to successful delivering of services what customers expect. Hence, the challenge is to assess and establishment of clear understanding of customer expectations from services in order to make sure that the service never delivers less than customer expectations.

2.3.2. Assessment of Service Quality Perceived by Passengers at Airports

Airport in a country is the place where passengers in other countries get the first impression on the destination country. Facilities and services that passengers use will adopt their feelings not only of the airport but also of the country where it is located. When the passengers go through an airport, they use several services such as check-in, passport and security controls prior to departure, baggage claim service, and passport control upon arrival. If the airport service does not meet the passenger's expectation, then the airport service quality would be rated low and the passenger's satisfaction would be rated negative (Bartolata, et al., 2015).

On the other hand, if the services of the airport address all the needs of the passengers, airport service quality would be rated high and passenger's satisfaction would be positive. Airline passengers' satisfaction is a key performance indicator for the performance of an international airport. Nevertheless, the evaluation of passengers' satisfaction with airport services must be done continuously to provide and maintain a high quality of service at an international airport (Bartolata, et al., 2015).

Researchers suggest that even sign & symbols influence service quality perceptions of airports and they also can play with the colour, temperature, music, and scents, so that the passenger will feel comfortable whenever they being in the airport. Airport customers are remarkably varied and include passengers, airlines, employees, concessionaires, tenants and others. A clear and enough sign and symbol are needed in services industry especially in airport which can be understood by everybody especially for international recipients where the people come from all over the world with different culture and languages. Hence, through the above efforts the management can reduce the number of complaint from the passenger (Mansor & Redhwan, Internationalization of Service Quality: A Case of Kuala Lumpur International Airport, Malaysia, 2012).

With growing demand for aviation in Asian Countries, Middle East and Latin America broader possibilities of choice have opened up for airlines in respect of the airports which can be used as a base and as connecting ones on their flight map. Most airlines seek to expand their network at efficiently operating airports in order to reduce their

operating costs and increase the customer base. In carrying out their activities, airports aim at maximizing the movement of aircraft, thus increasing the efficiency of operations in the competitive environment in which they function (Pabedinskaite` & Akstinaite`, 2014).

In examining the quality of airport services provided to the passengers, Liou, Tang, Yeh & Tsai (2011) applied a new method instead of the traditional statistical analysis study – dominance-based rough set approach (DRSA). In the study conducted by the authors, passengers evaluated the level of airport services by ranking various sets of quality criteria. The proposed approach provides practical information, which is useful for the development of strategies of service quality improvement. The proposed model is presented in the form decision-making rules. This method also provides airport managers with information on how to improve individual decision-making (decision (Pabedinskaite` & Akstinaite`, 2014)

Passengers' perception of airport service quality is only one of several variables (e.g. routes, scheduling, location and prices) that contribute to overall airport attractiveness. It is nevertheless an important variable because of the increasing importance of customer orientation to competitive advantage in the airline industry (Bartolata, et al., 2015). These kind of developments in the industry has increased the demand for airport services worldwide and the need for more efficient processes of serving aircraft and passengers.

2.3.3. SKYTRAX - World Airport Survey

This study is mainly consisted of a survey regarding satisfaction with airport services at BIA and the structured questionnaire was developed using the SKYTRAX questionnaire as benchmark. In this study different service quality criteria are assessed and these criteria are extracted from the SKYTRAX study, which were used worldwide in assessing the satisfaction level of air travelers in regard to their past experiences of airports.

Skytrax is the international air transport rating organization, established in 1989 and based in London, UK. They carry out qualitative and quantitative audits & surveys on



airline / airport services and customer expectations across the globe. Skytrax provide a unique depth of experience and knowledge of this specialist market. Skytrax surveys office are responsible for commissioning and managing the two major annual Passenger Surveys, for the world airline and world airport industry. These are the World Airline Survey and World Airport Survey, which have become established during the last 16 years as leading, independent, global surveys of airline and airport front-line quality performance (Skytrax, 2016).

Skytrax is the one of leading specialist Research Advisors to the air transport industry at present. Unique knowledge, expertise and innovative thinking are their key strengths for improving the Customer Experience on airlines and airports across the world. Skytrax advise airlines and airports across the globe on improving Quality standards and Quality competitiveness on a continuous basis. Their staff are professionals who deliver unrivalled experience and knowledge of these specialist markets, advising clients on many different types of Customer Experience, Service Design and Experience Engineering projects (Skytrax, 2016).

Skytrax introduced the Airport Quality Audit and Star Rating concept 15 years ago to help Airport operators focus more carefully on improving the Customer Experience. This enables airport operators to benefit from Skytrax expertise on "what, where and how" to implement change to achieve higher standards. Our team of professional airport audit experts conduct the most thorough investigation across the front-line product and service standards, before determining all potential improvements and advising airport operators on the best methods of change.

2.3.4. Airport Service Quality – Current Practices

Most major international airports conducts many surveys and studies on assessing the passenger service quality which they offered towards passenger's expectations. As an example the Airport Council International, or ACI, identified 217 subjective service attributes and 52 objective ones. Examples of subjective attributes are Overall Customer Satisfaction, Walking Distance/Time, Terminal Comfort, Punctuality, Staff Appearance, etc. Objective attributes include Response Time to Phone Call, Ticketing Waiting Time, Check-in Waiting Time, Seat Congestion, Car Park Congestion, etc.

They suggested subjective attributes be measured by surveying passenger, collecting comment cards and/or recording complaints and objective attributes be measured by video recording and/or directly observing. Because of the thoroughness in service attributes, the reference was helpful in designing a hierarchy of service attributes described later on this paper (Lee & Kim, 2003).

International Air Transport Association's, or IATA, Global Airport Monitor series might be the most popular reference on the airport service. Many national and international media cite the ranks of major international airports upon publishing new series. IATA evaluates 57 international airports every year based on 24 criteria. More than 60,000 international air passengers participate in the IATA survey. Examples of evaluation criteria are 'Overall Convenience,' 'Sign Posting,' 'Ground Transportation,' 'Speed of Check-in' and 'Behavior of Staff,' etc (Lee & Kim, 2003).

These criteria of current studies clearly depicted that passengers recognize the airport as a versatile service setting where adequate design contributes to functionality, comfort and attractiveness of the building. Moreover, passengers perceive the airport lounges as the luxurious relaxation areas that are designed to annihilate the existence of time and place. Nevertheless, there is a need for establishing a comprehensive instrument in order to measure the effect of service environment on customer emotional responses and customer behavior (Bartolata, et al., 2015). Following the growth of the air transport industry and recognizing the gap in previous studies, this study emphasizes common and most utilized service level criteria in an airport service setting.

2.4. Customer Satisfaction

The term 'customer' is used to describe the person who consume a product or a service at the end. Likely, customer is a common term referring to a consumer who purchases a product or service from the person who offer. In this study customers of concern or primary customers are those who have experience in the services offered by the BIA, basically passengers who have used BIA for their travelling purposes. Customers, consumers or end users of products and services are the key components of an organization since they are considered the important asset on which the existence of

the organization is decided or source upon which the endurance or the success of an organization depends.

Hence ensuring customer satisfaction and loyalty are the key issues of marketing theorists and practitioners. The intensive interest in the problems of long-term retention of customers in contemporary business conditions is related to the merciless battle between companies for the customer affection and loyalty in order to provide a stable source of profit (Suzana Đukić, 2012). Then fulfilling customers' requirements as they wish and their long term retention is one of the most significant tasks of a service oriented organization. The maximum customer satisfaction is the key for creating a loyal customer base, stable income rates, growth and progression of the organization.

Airports as the most vital infrastructure in the aviation industry, providing exceptional passenger satisfaction is one of the important aspect in their service delivery. Identification and proper assessment of passenger requirements will affect the capability of the airport for providing good services to passengers and finally it will be the success of the entire operation. Passenger satisfaction service arises when a company can provide passengers with benefits that exceed passengers' expectation and this is considered value-added. Passenger gratification is an essential goal for each airport providing passenger services (R.ARCHANA & DR.M.V.SUBHA, 2012).

2.4.1. Importance of Customer Satisfaction

(Tolpa, 2012) Positioning the significance of customer satisfaction in corporate strategic planning is vital for any organization in any industry to grow and be sustainable. Hence managing customer satisfaction through delivering quality service is essential, and requires greater attention from each levels of the organization in today's competitive global environment. The key to fulfill customer requirements is to know customer expectations and respond accordingly.

Nowadays many organizations have focused on customer satisfaction oriented marketing strategies for improved customer relations with improved quality of service. Customer satisfaction is dominant in any type of business organizations whether it involves goods or services industry. The measurement of customer satisfaction is also

playing a major role in their businesses to get competitive advantage over other products. Importantly, customer satisfaction needs to be quantified and converted into figures which helps businesses to do better in their offerings with better understand its customers and be in a competitive position over others.

Further, fulfilling customer requirements is a reflection of customer loyalty which how well customers respond their products or services or meeting customer expectations. Quantifying of customer satisfaction is a solid analyst of customer loyalty for understanding their overall desire to consume those product or service over and again without shifting to another choices. This is so crucial to survive in present market while most competitors trying get the competitive advantage while providing better customer service in order to have solid customer base.

2.4.2. Airport Services and Passengers

Airport infrastructures and airport services have evolved dramatically over the last two decades due to modern technology, airport & airline business models and passenger expectation. In recent years, the passengers' expectations and their requirements have grown considerably especially in regards to quality of service. Privatization of airports, Increasing of budget airlines, technology based passenger requirements (using of smart devices and related services) has transformed airports to deliver more passenger oriented services which raised standards of customer service, and into meeting growing demand.

The transformation of airport customer service began in the late 1990s, where passengers have raised the bar of their expectations on airports services and facilities, courtesy of airport staff, security clearance, availability of baggage carts, cleanliness of washrooms, clear signposting and comfortable waiting areas (Kamarudin, 2015). With beginning of no-frills concepts in the aviation industry, the less cost air travel demand increased surprisingly with emergence so many low-cost carriers worldwide. As a result services offering by airlines and airports revolutionized with much more expectations of passengers who require customized services in order to fulfill their needs and wants as per their budget.

Generally, passengers expected the same standard of service at the airport regardless of how much they paid for their tickets. Today, a new type of passengers category has been created; the air travelers that have been empowered by end-to-end passengers' self-service solutions. They want to self-process and expect easy access to all the information they want, exactly when they need it. This emerging new breed of airport that attract new segments of commercial customers and may even develop a unique brand identity as it offers smart services for various areas (Kamarudin, 2015).

2.4.3. Airport Performance Measurements

In 2014 as per ACI, they continues to come out with common airport performance indicators that will be applied for quantifying airport service offerings among various airport activities and performances. With measuring of these indicators, the services offering by airports of all types and sizes around the world will be able to design their own business models which can respond to various type of customized requirements of passengers. Hence for managing the passenger expectations and supplementing their necessities, assessment of airport service quality towards passengers' prospects is vital because in other wards ultimately the airport will be assessed by passengers and they will communicate it to whole world.

When align of airports strategic objectives with customer expectations, performance measurements can be designed for services offerings in order to focus on responding and resolving issues related to airports facilities and services within the agreed timeline. can help airport management in tracking the actual performance of their customers' feedback system. The common indicators can be used to measure the service quality levels are customer satisfaction, delay statistics, and security, passport, check in and baggage clearing times (Kamarudin, 2015).

Nowadays, airports all over the world are competing in a complex business environment to get their market share while offering customized service packages for airlines and passengers as well. Hence a variety of service performance measures must be recognized and implemented, as the airport management will need some key indicators to help them in developing the overall framework of strategic customer management system. Good customer relationship has been recognized as an intangible

asset that will enable airports to retain the loyalty of existing customers and enable new customer segments and market areas to be served effectively and efficiently (Kamarudin, 2015).

2.4.4. Passenger Expectations and Satisfaction at Airports

With dramatic changes of service quality standards in service industry within last two decades, aviation industry too significantly changed aligning with those standards. These changes was higher quality standards, various pricing strategies and technological advancements. As per the ACI, the total air traffic passengers is being increased year by year, with significant air traffic progress in regions of Asia-Pacific, Middle East, and South America. As a result, most of airports in the world are operating with a limited capacity hoping to expand their capacities, but present situation probably follow-on in more than predicted air traffic disturbing the satisfaction levels of passengers.

The aviation industry as one of significantly service oriented industry in the world, has emphasized the importance of identifying passenger satisfaction and identifying signs for enhancing airport experience. In 2013 ACI introduced the Airport Service Quality (ASQ) initiative with objectives of aim to measure passenger experience in different airport segments, obtained from questionnaire responses. Even though surveying is an important examining method, airport quality questionnaires should be susceptible to further enhancements with new topics that emerge from air travel passengers' responses (Bogicevic, Yang, Bilgihan, & Bujisic, 2013).

Fundamentally airports are known as multidimensional service settings where passenger satisfaction is influenced by various dimensions of service packages because of passenger to passenger expectations are vary with their country of origin, race, nationality etc. Hence the concept of service quality is still a significant research topic in the airport industry. Then airport management should identify service limitations that carry intimidations to the airport's overall performance, through various studies, surveys in order to gain the competitive advantage of delivering right service to right customer at right time in right place.

Hence the ultimate feeling of satisfaction or dissatisfaction depends on the relative importance of particular characteristics of services for the customer, but also on the perception of their relationship (eg. price level - quality, or closeness of employed – level of adjusted value). If the assessment of the total value arrives to unique, positive customer response, it indicates his pleasure (Suzana Đukić, 2012).

2.5. Bandaranaike International Airport (BIA), Katunayake

The growth of tourist arrivals after the 30 years of critical war situation in the country and modern economic develop in Asian region has played a crucial role in establishing Sri Lanka both as a favorite vacation destination and emerging place for business opportunity. In order to secure a title of a window to South Asia, BIA has strived to become an aviation hub for the South Asian region.

Boosted by Sri Lanka's geographical advantage, The Airport is located in Katunayake area where suburb of Negombo, 22 miles (35 km) north of the capital Colombo. It is connected with a modern highway and it is located close to the heavily industrial Western Seaboard where the Katunayake, Biyagama, Dankotuwa industrial and free trade zones are located and where most of the export oriented manufacturing takes place.

2.5.1. Historic Background and Development of BIA

During the Second World War and last years of British era in Ceylon (Sri Lanka), the airport began as a Royal Air Force airfield in 1944. The 4th Prime minister of Ceylon S. W. R. D. Bandaranaike decided in 1957 to remove all the British Military airfields in the country and then the airfield was handed over to the Royal Ceylon Air Force. In 1963 development program of Katunayake Airport Commences and the RAF Runway is extended from 1,840 to 3,350 meters with assistance from the Government of Canada and a Terminal Building was constructed to hold 150,000 passengers per year. After that in 1968 the development work was completed and the airport was opened for international air transport (AASL, History of Aviation , 2010).

Further extensions to the apron and a second taxiway were added in 1971, and additional sections to the terminal building with a larger departure lounge area and a

VIP lounge were completed in 1976. Further development work was undertaken in 1978, and air navigational facilities were also upgraded. On March 24th in 1983, the Airport and Aviation Services (Sri Lanka) Limited (AASL) took over the airport as an appointed agent of the government of the Democratic Socialist Republic of Sri Lanka for the purposes of developing, and maintaining of the airport and in its vicinity, and, subsequently the passenger and cargo handling capacities including runway expansion were completed in 1987 after the old runway was made into a taxiway for departing and arriving aircraft (Somasundaraswaran, 2008).

After that the development program was completed and the runway and passenger terminal building commissioned with an annual handling capacity of 3.5 Mn Passengers. Then in 2005 a completely new outlook was commissioned for the Airport in November with the construction of a finger pier with eight Aero Bridges, Expanded terminal, lounges and other facilities. Being well placed between Dubai and Singapore, BIA is well suited to being developed as a future South Asian hub airport, therefore, the continued development and modernization of the facilities remains as top priorities (Somasundaraswaran, 2008).

2.5.2. Current Performance

A continuous growth of passenger traffic at BIA can be observed during last years after the war situation in the country. In 2015 it was the highest recorded 8,503,066 passengers using BIA and it was an inspiring 9% growth over the last year. With the tourist arrival to the country has grown up by incredible rate and the new routes that BIA's network has gained as an emerging market has contributed tremendously for this improvement. This was the first time in the history that the total passenger count surpassed 8Mn ever and tourist count reached close to 2Mn levels.

Destinations in India and China P.R. (inclusive of Hong Kong) recorded the highest increase in tourist count while strong growth was recorded on the routes to Asia (East & West) and Western Europe. When the total passenger and total aircraft throughput was analyzed, it was evident that, BIA is moving towards consolidating its position as a hub in the South Asian Continent. 30% of Passengers to/from BIA flew to/from

SAARC Countries while 40% of aircraft movements also were connected with SAARC destinations during the 2015 (AASL, Annual Report, 2014 / 2015).

For year 2015, 29 scheduled Airlines have used BIA, flying to and from 43 Cities around the world. In all, there were 1,062 flights per week. BIA offers flights to 32 westbound destinations and 15 eastbound destinations until end of 2015 and a total of 29 scheduled airlines were represented at BIA. Sri Lankan Airlines, the national carrier, is the largest customer with 51 % of the total passenger volume (2014 – 53 %) followed by Emirates with 10 % of the passengers (AASL, Annual Report, 2014 / 2015).

In addition to that the Air Travel Ratings and Review of 2014, SKYTRAX ranked BIA as 4th among the best airports in Central Asia. BIA has also notched itself as one of the fastest growing airports in the region by recording a 52% growth during the period from 2008 to 2012 (Derana, 2014).

2.5.3. Future Developments

Runway advancement of BIA is being a longstanding requirement, as there were no major upgrading work carried out since it was commissioned for operations of flights. Hence the runway upgrading project will be done within the year of 2017 to meet next 20 years requirement which includes strengthening of existing pavement and widening of the runway and introduce several Rapid Exit Taxiways (RETs) and by pass taxiways to improve the efficiency of the runway and taxiway systems with the purpose of increase the number of aircraft handling per hour while enhancing the operational efficiency of the airport (AASL, Annual Report, 2014 / 2015).

Then construction of BIA terminal two project will be commenced within the year of 2017 and it will consist with eco- friendly features, improved architectural and interior finishes, exciting retail and dining outlets in order to enhance the refreshing travel and retail experience of passengers. With increasing the circulation space in the transit area by 6,000 sqm will upsurge the handling capacity of transit passengers and handling of total passenger capacity of BIA up to 15m per year. On completion of the terminal two project which is scheduled by early 2020, will feature facilities for “barrier free” access to all passengers.

Further to the multi-level main Terminal Building, two pier buildings with 16 numbers boarding gates each and 10 numbers bus gates would be constructed under the project. The vertically separated Arrivals and Departures of the Terminal Building, will provide a rapid exit to the Colombo Katunayake Expressway directly from the airport. Until commissioning of terminal two of BIA, expansion and rearranging of existing passenger terminal will be done from 2017 to 2018 to manage the congestion in the existing terminal with all possible interim means.

Remodeling of existing Arrival Terminal by shifting of duty-free shops which are currently existing in the first floor to the second floor and rearrangement of Immigration area will release a space of 25,000 sqft required for passenger movements. Further, refurbishment of existing Arrival and Departure walkways along with additional shop spaces will be carried out to provide enhanced circulation space to passengers and visitors. Departure Emigration area also relocated to first floor of the Departure Terminal (AASL, Annual Report, 2014 / 2015).

2.5.4. Challenges and Implications

One of the biggest challenges of BIA management would be how to provide and uphold passenger satisfaction for an acceptable level. Even though BIA has the monopoly in the country, the fundamentals of delivering airport service have become more critically significant. Airport management do more and more surveys and studies to focus on service perspectives of passengers and finding would highlights the importance of having better understanding of airport service quality and passenger satisfaction.

BIA has a great opportunity to build its image, the highest international standard, and to generate additional substantial revenue from financial and commercial services including retail and entertainment businesses in the South Asia region using its strategic location as a hub airport following other reputed international airports such Singapore Changi Airport, Dubai Airport, Kuala pure International Airport, Suvarnabhumi International Airport etc. Thus BIA has a great impact to Sri Lanka's economy and image directly.

Passengers come to the BIA from different countries and cultures around the world experiencing different airports, it is challenging for the airport management to distinguish what kind of service that passengers supposed to perceive from airport service provider and what is their insight of their service encounter. To better attend many kinds of passengers, it is significant to have a clear understanding of what they want in each service sector and how they perceive the actual service quality. This paper will observe which characteristics of airport service quality effect to passengers' satisfaction at BIA.

CHAPTER 03 – THESIS METHODOLOGY

3.1. Overview

This chapter aims to provide a descriptive idea of the methodological approaches and the design framework selected for this thesis which Assessment of Service Quality Perceived by Passengers at Bandaranaike International Airport, Katunayake. As well as this chapter discusses the relevance of the methodology chosen for this thesis as information collecting methods which is getting passenger responses, details of the methods and how the methods are being designed to gather information.

This study can be categorized as descriptive, since the study is based on describing something about a precise target sample. This study was used to describe and compare the satisfaction level assessments among Sri Lankan origin air travelers for the current service quality level which is being perceived by them on Airport Facilities at Bandaranaike International Airport (BIA), Katunayake comparing other Airports in other geographical regions Indian Subcontinent (India, Pakistan, Bangladesh, Maldives etc.), East Asia & Asia Pacific (Japan, China, Thailand, Singapore, Australia etc.), Middle East (UAE, Saudi Arabia, Qatar etc.), Europe (EU, UK, Russia etc.)

3.1.1. Thesis Approach

Based on the objective of the study which is to understand importance of customer expectations and level of satisfaction perceived by passengers concerning the facilities, services and service quality of BIA, Katunayake, this study aims to find out “what really happen” with customers satisfaction while using the airport services, the approach used both qualitative and quantitative although they have diverse determinations. While the qualitative research using practices to get the different viewpoints and ideas from customers and the quantitative research using a figures to make it more emphasized.

Then the findings and results could be an evidences to improve the airport performance while emphasizing importance of assessing service level to relevant parties more practically. Hence the foundation of this thesis could be based on both qualitative and quantitative data. Then qualitative observations could be used to develop quantitative measures in order to explain qualitative observations more practically. Hence the

structured questionnaire was used with predetermined questions as a method for extensive service reviews. The set questions enabled comparisons to be made from one passenger to another and from one response to another.

3.1.2. Population & Sample

The population of the survey in this study was comprised of those who have actually experienced the services offered by the BIA, specifically Sri Lankan origin passengers since it is the people in Sri Lanka who are the major group using the BIA services.

A total sample of 150 passengers were targeted based on the researcher's judgement due to time constraints. Using a larger sample size in this study was not practicable as it would require a long time period which was not available. Though using larger sample would give more strength to findings of this study, time constraints within which the thesis was to be completed would not permit the use of a larger sample size.

3.2. Questionnaire Development

The SKYTRAX questionnaire was used as the basis to develop the questionnaire for this thesis and there were adjustments made to fit the context of BIA. The questionnaire was divided into two main sections: the first part was the respondent's demographic profile as general information since consumer needs, preferences and characteristics are often associated with demographic factors (Kotler & Keller, 2006).

These general information contains socio-demographic details of the respondents such as Gender, Age Group, the number of airports respondent has visited through his/her international travel during last three years, in which geographical areas of Airports the respondent has visited during last three years and Reasons for travel. These socio-demographic characteristics will allow the researcher to gain pertinent information that could assist the company in developing its strategies for improving customer satisfaction.

The second part of the questionnaire comprised with questions about passenger satisfaction with the service quality offered by BIA. The questions were used to determine the level of passenger satisfaction on airport service delivery and product

criteria, similar to the SKYTRAX study, but only questions relevant to BIA context were included. .

The existing SKYTRAX questionnaire was altered slightly in this study to outfit the condition with BIA after consideration of several models on service quality, the SKYTRAX model was chosen and considered most relevant to the objectives of this study. The 25 criteria used in the questionnaire under main attributes of service delivery at BIA such as Common, Arrival & Departure, Terminal Comfort, Duty Free, Foods and Other, will enable the study to extract an overall impression of passengers on the service quality of BIA.

BIA service delivery criteria were structured using the Likert format and five selections or five levels of passenger satisfaction were provided for every criteria. These five selections represented the degree of satisfaction which each passenger had on the given criteria. The scale as per the table 3 - 1, was used to interpret the total responses of all the respondents for every service delivery criteria at BIA.

Table 3 - 2 : Interpretation of satisfaction level in relation to the rating scale

Rating Scale	Level of Satisfaction	Analytical Description	Analytical scales
5	Totally satisfied	Very Good	4.51 - 5.00
4	Satisfied	Good	3.51 - 4.50
3	Neutral	Neutral	2.51 - 3.50
2	Dissatisfied	Poor	1.51 - 2.50
1	Totally dissatisfied	Very poor	0.00 - 1.50

The Likert survey was the selected questionnaire type as this enabled the respondents to answer the survey easily based on their evaluation levels and the Likert survey method allows the researcher to perform both qualitative and quantitative approach effectively. For data collection, the questionnaire were developed based on Google® forms with the purpose of online distribution for those who have experienced the services offered by BIA, specifically frequent air travelers (within last three years) of Sri Lankan origin.

3.3. Data Collection

It is important that for research studies to have a clear understanding of the type and nature of the required data and then select those collection methods which are best suited to the collection of the identified data types. For this thesis main type of data would be qualitative data about passenger satisfaction levels on service delivery criteria of BIA. As mentioned previous the primary method for collecting the necessary data for this study was an online survey through online questionnaire.

An online survey was selected as it was more appropriate for passengers to answer at a time when convenient. Actually locations like airports where passengers tend to hurry and security is a sensitive issue collection data would be problematic and difficult task for researchers. Therefore, online survey system were selected for data collection using Google Forms considering its convenience of distribution and data handling due to automatic way of data arranging.

3.3.1. Online Survey

Time duration for the data collection via this online survey was predetermined as one week and the questionnaire was sent freely via emails to contacts of researcher and requested from recipients once the questionnaire was completed to redistribute the survey for their contacts. Further the questionnaire was published on social media to get more respondents for the survey. After a week the online questionnaire was locked and then after acceptance of responses was stopped. A total of 150 completed questionnaires were selected out of 171 respondents due to incompleteness of some responses for some parts of the questionnaire.

3.4. Method of Data Analysis

After several studies on data analysis methods and based on the advantages and characteristics of those methods for this thesis, it is decided to have mixed data analysis consisting of qualitative and quantitative techniques. Qualitative and quantitative methods were chosen for this thesis because it has different strength and requirements that best suited for this study. Qualitative analysis based on the support of Qualitative

Data Analysis (QDA) process (figure 3) and the core of this process is Noticing, Collecting, and Thinking about things (Seidel, 1998).

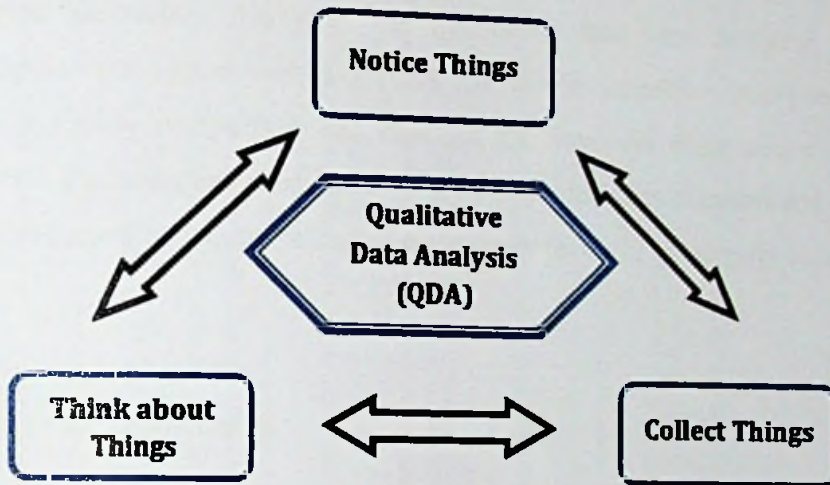


Figure 3 - 1: Qualitative Data Analysis (QDA) process

Main reason for qualitative techniques used for this thesis is observations on satisfaction level of passenger based on their travel frequency within last three years as number of airports the passenger has visited and in which geographical areas those airports were located. In addition to that another reason for using qualitative data analysis is lack of standardized terminology of data when comparing satisfaction levels based on geographical areas where passengers have travelled.

Basic quantitative techniques are used to measure the mean of satisfaction levels of passengers for service delivery criteria of the airport in order to examine service quality. As such, it is largely qualitative and descriptive in nature, with little statistical analysis and the graphical representation of data. Both of the qualitative and quantitative analyses of data are based on Microsoft Excel® software and those data were automatically streamed from the online questionnaire of Google® form.

CHAPTER 04 - DATA ANALYSIS & DISCUSSION

Both qualitative and quantitative data were analyzed with different purposes based on the subject discussion. However, the qualitative data were analyzed including demographic data, airport service delivery criteria with responses from passengers to make a summary comparison and then get the ideas on observations. Then the quantitative data were analyzed based on descriptive statistics of means and frequency to make structuralized observations on satisfactory levels of passengers on services at BIA.

4.1 Demographic Data

4.1.1 Gender Distribution

Figure 4 represents the gender distribution for the whole sample and the data indicates the total number of males and females; as can be seen, there are more males (102) than females (48), nevertheless as a percentage male representation in the sample is slightly more 2/3.

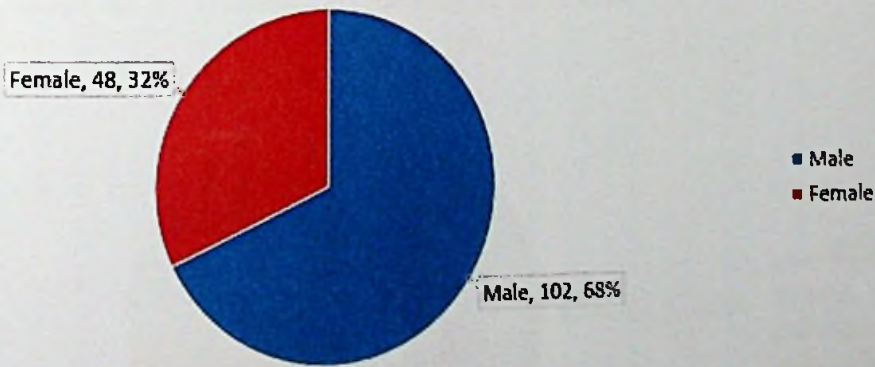


Figure 4 - 1: The Gender Distribution

4.1.2 Age Group Distribution

Figure 5 represents the age group distribution for the whole sample and its appeared to concentrate on the age group of 25 to 40, with a total number of 105 which is slightly more 2/3 of sample representation. This could interpret 25 to 40 age group is more dynamic than others and ease of access to these age groups also would cause the results to be more applicable towards these age group.

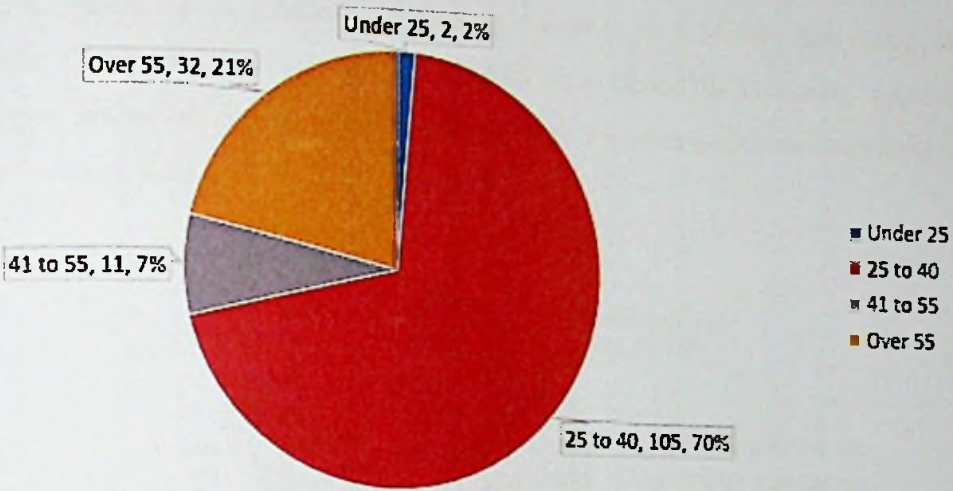


Figure 4 - 2: Age Group Distribution

4.1.3 Number of Visited Airports

Figure 6 represents the number of visited airports by passenger sample and highlights the group of less than five airports visited with close to 50% of the sample within last three years of time. Then more than five airports visited group including 5 to 10, 11 to 20 and more than 20 represent the other sample as follows.

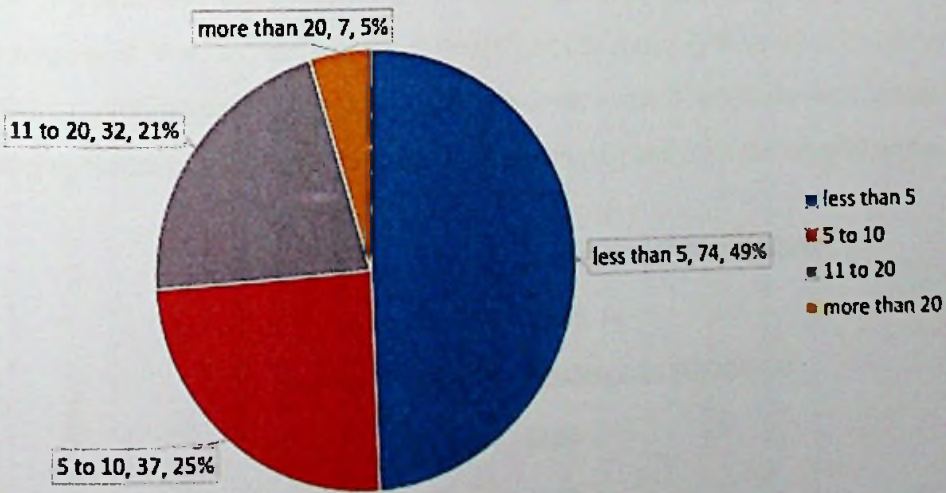


Figure 4 - 3: Number of Visited Airports

4.1.4 Number of visited Geographical Areas

Figure 7 represents the number of visited geographical areas by the passengers ranging Indian Subcontinent (India, Pakistan, Bangladesh, Maldives etc.), East Asia & Asia

Pacific (Japan, China, Thailand, Singapore, Australia etc.), Middle East (UAE, Saudi Arabia, Qatar etc.), Europe (EU, UK, Russia etc.). Hence the following chart would interpret any combinations of geographical areas where respondents have visited last three years of time.

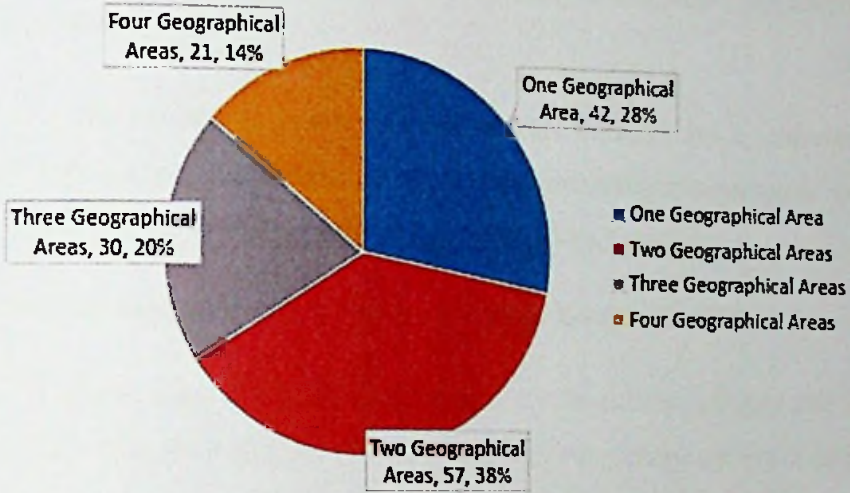


Figure 4 - 4: Number of Visited Geographical Areas

4.1.5 Travel Reasons of Respondents

In the questionnaire there were four selections as travel reasons for respondents and their responses were as per figure 8 and only Leisure and only Business / Employment purposes travelling passengers were dominant in the chart. Though medical reason was in the questionnaire no one has travel with medical purpose from the sample responses.

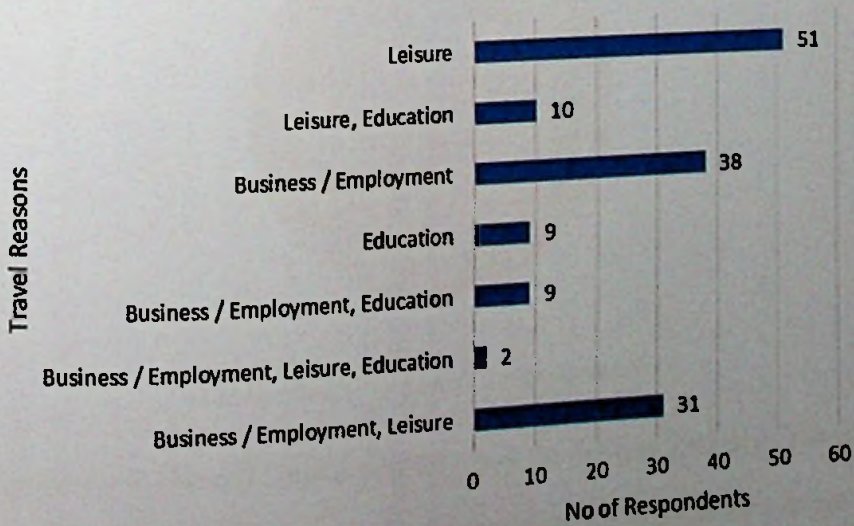


Figure 4 - 5: Travel reasons of respondents



4.2 Descriptive Data

These descriptive data for satisfaction levels on BIA service delivery criteria are presented in order to determine and compare the satisfaction levels based on passenger's number of visited airports within number of geographical areas within last three years of time.

The statistics are presented as a whole sample and according to above parameters where the study was conducted. This data is constructed according to passengers' evaluation on the service quality dimensions of BIA through online responses.

4.2.1 Overall Satisfaction Levels for all Service Quality Criteria

Table 4 - 1 shows the overall satisfaction level on the service delivery criteria on the whole sample. It is obvious from the result that only two service quality criteria at BIA has fulfilled passenger's satisfaction level or shows good performance. Except only two other criteria has shown neutral performance.

It should be noted that this is the overall responses of passengers and there would be difference responses while analyzing these responses based on number of visited airports and at which geographical areas those airports are located.

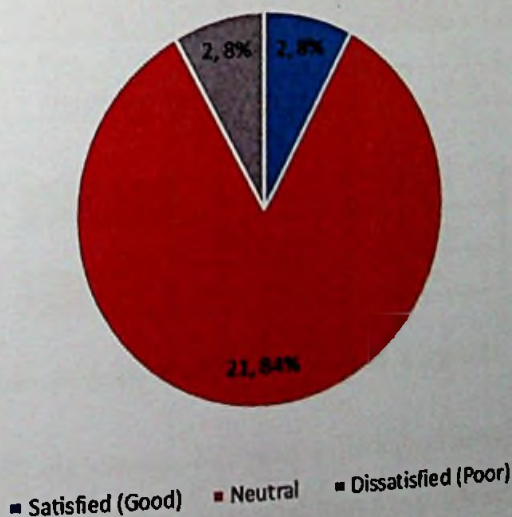


Figure 4 - 6: Overall Satisfaction Level on the Service Delivery Criteria

Further in nutshell, satisfactory status of passengers for number of service quality criteria can be shown as percentages in figure 9 (for all 25 criteria).

Table 4 - 2 : Overall Satisfaction Level on the Service Delivery Criteria

#	Main Criteria	Service Quality Criteria	MEAN	level of Satisfaction	Analytical Description
1	Common	1) Direction signs on the way to the airport	3.57	Satisfied	Good
		2) Waiting distances within the airport	3.74	Satisfied	Good
		3) Availability & Service assistance from Airport staff	3.14	Neutral	Neutral
		4) Flight Information Screens around terminal areas	3.46	Neutral	Neutral
2	Arrival & Departure	5) Waiting times at check-in counters	2.38	Dissatisfied	Poor
		6) Waiting times at check-in counters	3.14	Neutral	Neutral
		7) Waiting times / service efficiency at immigration	3.12	Neutral	Neutral
		8) Waiting times / service efficiency at security screening	3.16	Neutral	Neutral
		9) Waiting times for baggage delivery	3.23	Neutral	Neutral
		10) Immigration staff attitude / courtesy	3.01	Neutral	Neutral
3	Terminal Comfort	11) Security staff attitude / courtesy	2.95	Neutral	Neutral
		12) Cleanliness of Terminal areas	3.22	Neutral	Neutral
		13) Quantity and Quality of seating areas within the terminal	3.10	Neutral	Neutral
		14) Washrooms cleanliness and location	2.83	Neutral	Neutral
		15) Quiet / Rest areas, Dayrooms	3.08	Neutral	Neutral
		16) Smoking policy / smoking room	3.27	Neutral	Neutral
4	Duty Free	17) Facilities for infants, children, disabled people etc.	2.79	Neutral	Neutral
		18) Layout of duty free shopping	2.94	Neutral	Neutral
		19) Prices in duty free shops	3.15	Neutral	Neutral
5	Foods	20) Staff Service in Shops	3.27	Neutral	Neutral
		21) Selection and prices of restaurants and cafes	2.63	Neutral	Neutral
		22) Staffs service in restaurants and cafes	3.14	Neutral	Neutral
6	Other	23) WiFi and Internet facilities	2.61	Neutral	Neutral
		24) Security and Safety	2.31	Dissatisfied	Poor
		25) Cash machines (ATM)	2.99	Neutral	Neutral
Overall Assessment			3.05	Neutral	Neutral

	Satisfied	Good
White	Neutral	Neutral
Red	Dissatisfied	Poor

4.2.2 Satisfaction Levels with Number of Visited Airports

As per the Figure 10, the change of mean satisfaction level of respondents were observed according to the number of visited airport of passengers within last three years. But getting a clear idea of how the satisfaction level is changed is very difficult due to the change is vary by criteria to criteria. (The relevant data table is attached as appendix A)

Change of Satisfaction Levels with No of Visited

Airports

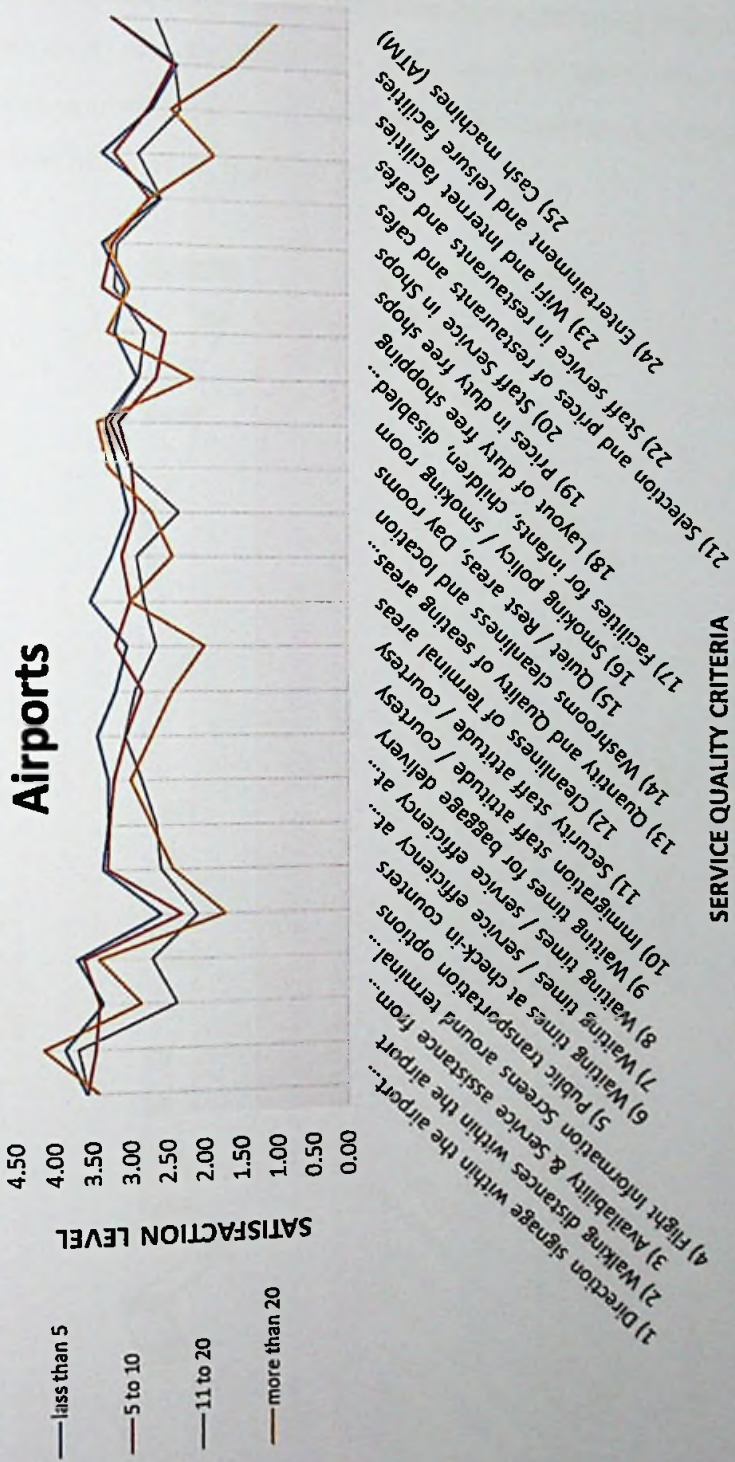


Figure 4 - 7: Change of Mean Satisfaction Levels with Number of Visited Airports (1)

Now "number of visited airport" parameters are changed to two parameters; 0 to 10 and more than 10 to get a clear observation of change of level satisfaction of passengers at BIA. Hence as per the Figure 11, except four service quality criteria which are walking

distances within the airport, Quiet / Rest areas, Day rooms, Smoking policy / smoking room, Layout of duty free shopping (the white up/down bar), others have less satisfaction responses from passengers those who visited more than 10 airports. (The relevant data table is attached as appendix B)

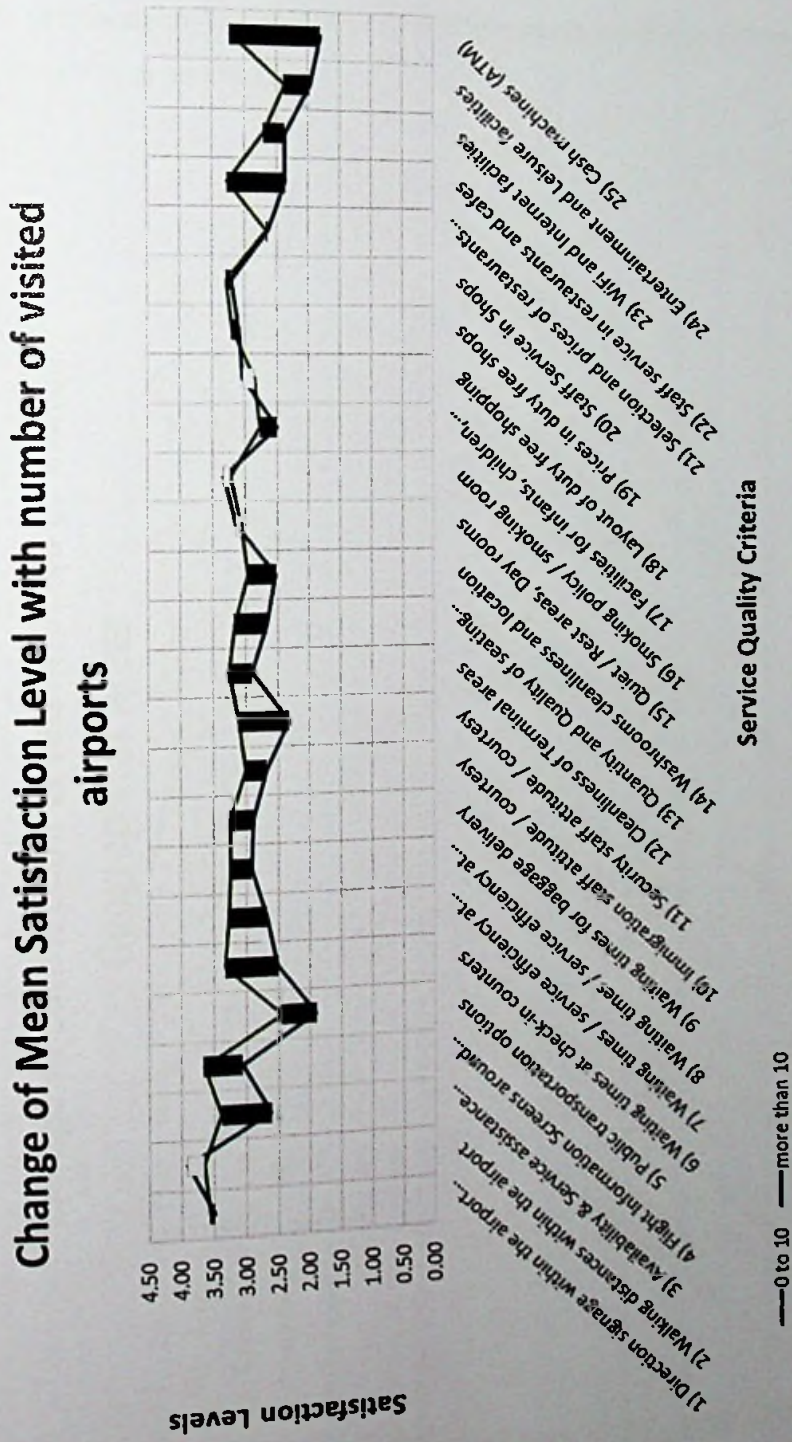


Figure 4 - 8: Change of Mean Satisfaction Levels with Number of Visited Airports (II)

4.2.3 Satisfaction Levels with Number of Visited Geographical Areas

As per the Figure 12, the change of mean satisfaction level of respondents were observed according to the number of visited geographical areas of passengers within last three years. But getting a clear idea of how the satisfaction level is changed, is very difficult as previous due to the change is vary by criteria to criteria. (The relevant data table is attached as appendix C)

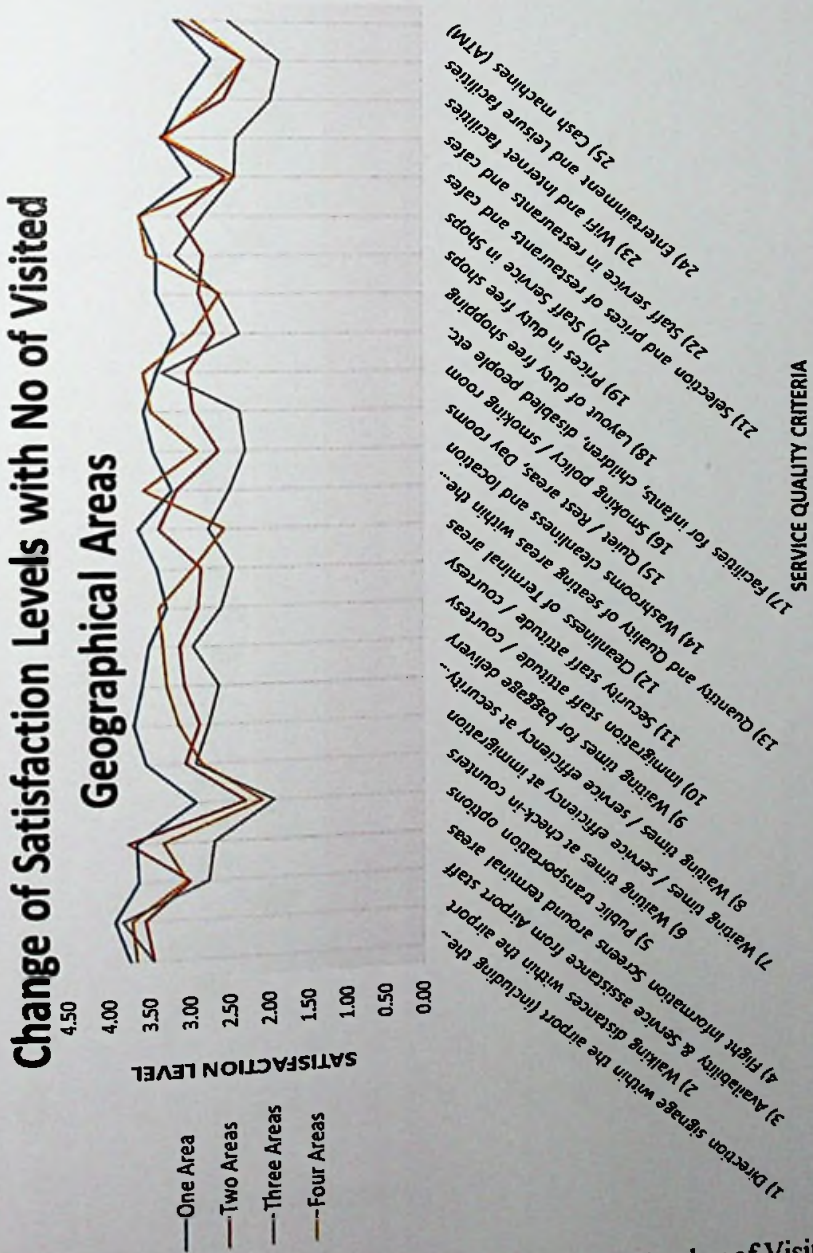


Figure 4 - 9: Change of Mean Satisfaction Levels with Number of Visited Geographical Areas (I)

Now “number of visited geographical areas” parameters are changed to two parameters; one to two geographical areas and more than two geographical areas to get a clear observation of change of level satisfaction of passengers at BIA. Hence as per the Figure 13, except three service quality criteria which are walking distances within the airport, Smoking policy / smoking room, and 19) and Prices in duty free shops (the white up/down bar), others have less satisfaction responses from passengers those who visited more than two geographical areas. (The relevant data table is attached as appendix D)

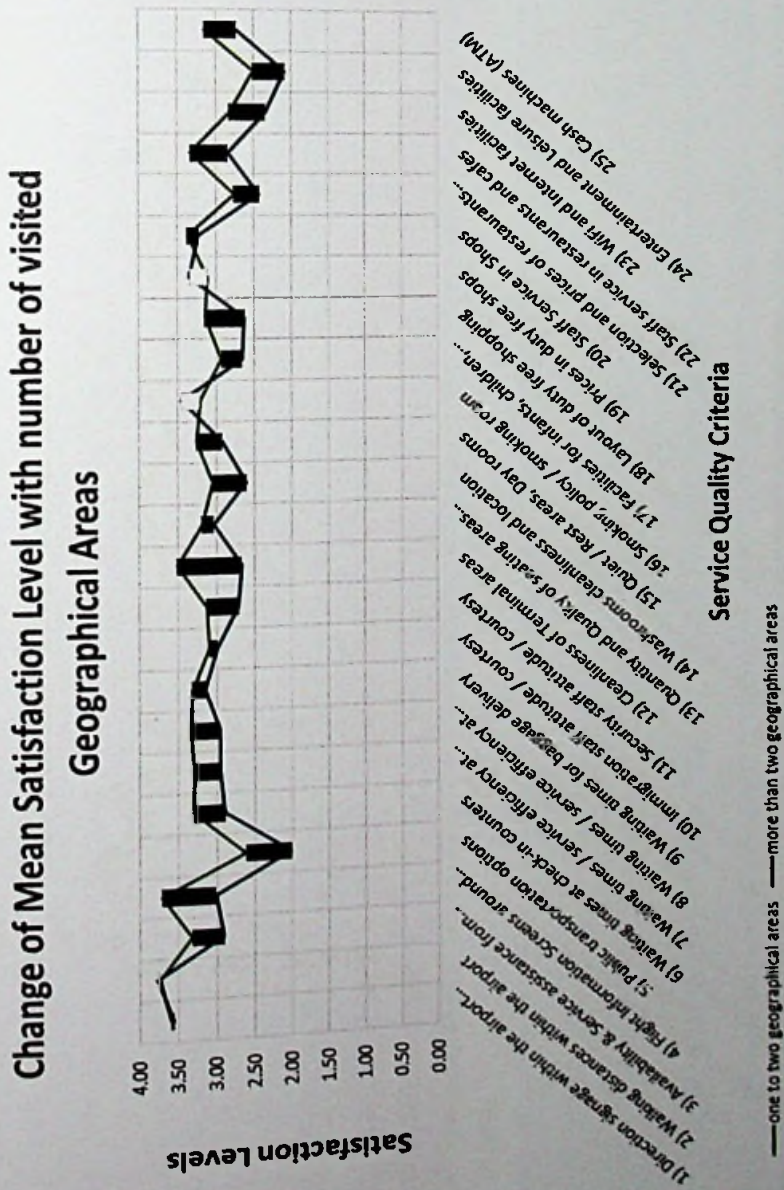


Figure 4 - 10: Change of Mean Satisfaction Levels with Number of Visited Geographical Areas (II)

4.2.4 Satisfaction Levels with both Number of visited Airports & Number of visited Geographical Areas

Figure 14 presents the satisfaction level on the service quality of BIA with both Number of visited Airports & Number of visited Geographical Areas. Especially this is a comparison of service quality criteria's mean satisfaction levels of BIA passengers who have visited 0 to 10 airports and one to two geographical areas with mean satisfaction levels of passengers who have visited more than 10 airports and more than two geographical areas within last three years of time.

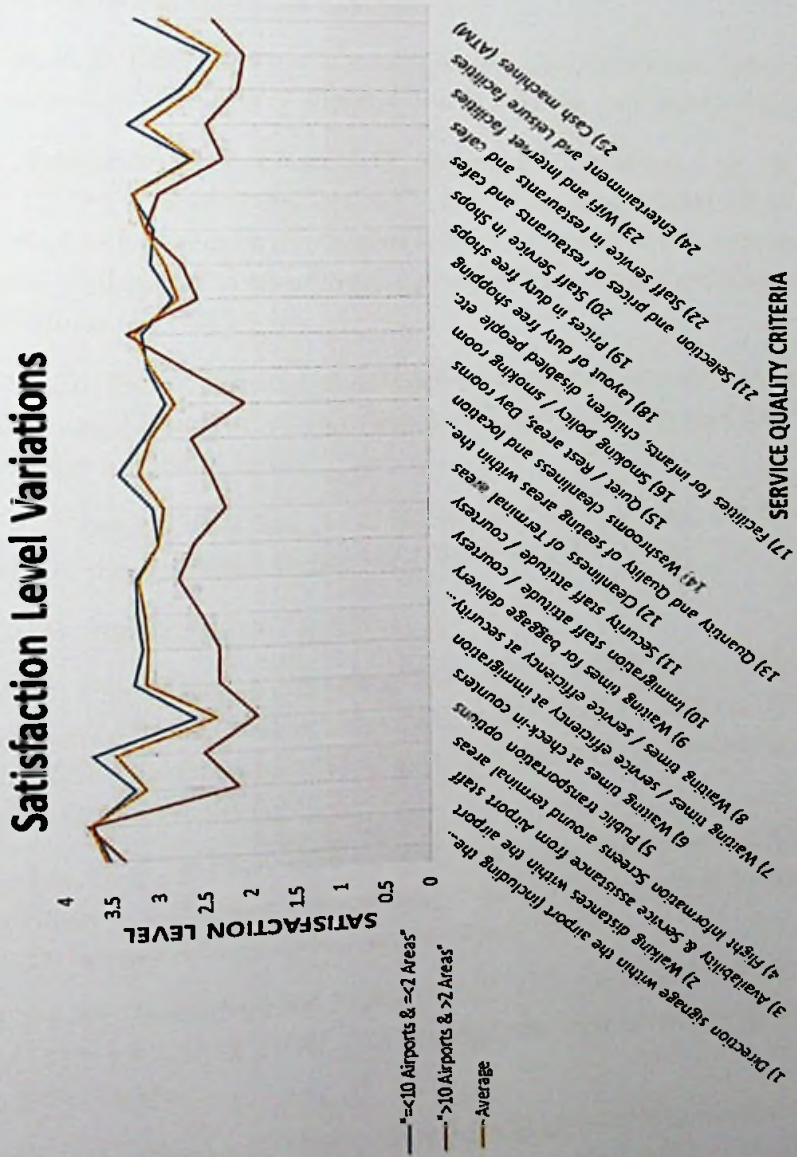


Figure 4 - 11: Change of Mean Satisfaction Levels with both Number of visited Airports & Number of visited Geographical Areas

REFERENCE LIST

- (ATAG), A. T. (2016). *Fact Sheet Economic & Social Benefits of Air Transport*. IATA.
- AASL. (2010). *History of Aviation*. Retrieved from www.airport.lk:
http://www.airport.lk/aasl/company_overview/aviation_history.php
- AASL. (2014 / 2015). *Annual Report*. AASL.
- Amalia Venera TODORUȚ, I. V. (2009). *The quality – competitiveness factor of the organizations based on knowledge*. The Ninth International Conference “Investments and Economic Recovery”.
- Bæringsdóttir, H. B. (2009). *Airport Service Quality, Satisfaction and Loyalty Membership - -The case of Keflavik and Landvetter Airports*. Gothenburg.
- Bartolata, I., Basmayor, L. M., Guia, M. G., Hwang, J. Y., Imatong, F. A., & Loyola, J. C. (2015). Assessing the Service Quality of An International Airport Terminal as Perceived by Tourist travelers: The Case of NAIA Terminal-3 in Manila, Philippines. *International Journal of Management and Commerce Innovations*, 761-782.
- Bogicevic, V. (2014). *The Effect of Airport Servicescape Features on Traveler Anxiety and Enjoyment*. Florida: Graduate Theses and Dissertations, University of South Florida.
- Bogicevic, V., Yang, W., Bilgihan, A., & Bujisic, M. (2013). Airport service quality drivers of passenger satisfaction. *TOURISM REVIEW*, 3-18.
- CAASL. (2014). *Annual Report*. CAASL.
- CHANG, Y.-H., Chien-Hang, C., & Wang, T.-C. (2003). PERFORMANCE EVALUATION OF INTERNATIONAL AIRPORTS IN THE REGION OF EAST ASIA. *Proceedings of the Eastern Asia Society for Transportation Studies*, (pp. 213-230).
- Chao, C.-C., Lin, H.-C., & Chen, C.-Y. (2013). Enhancing Airport Service Quality: A Case Study of Kaohsiung International Airport. *Proceedings of the Eastern Asia Society for Transportation Studies, Vol.9, 2013*.
- CHING, M. (2014). PASSENGERS' PERCEPTION ON AIRPORT SERVICE AND QUALITY SATISFACTION. *10th International Academic Conference*, (pp. 198-207). Vienna.
- Correia, A. R., & Wirasinghe, S. (2006). Development of level of service standards for airport facilities: Application to Sao Paulo International Airport. *Journal of Air Transport Management*, 1-7.

- Derana, A. (2014, August 01). *BIA ranked in top 5 in Asia Pacific*. Retrieved from adaderana.lk: <http://www.adaderana.lk/news/bia-ranked-in-top-5-in-asia-pacific>
- EconomyWatch. (2010, June 29). *Airports, World Airports, Economic Impact of Airports*. Retrieved from www.economywatch.com: <http://www.economywatch.com/world-country/airports.html>
- Farahani, A. F., & Törmä, E. (2010). *Assessment of customers' service - Testing the 'Hierarchical Structure for Airport Service Quality Expectations' in a Swedish context*. Umeå.
- Gill, M. (2014). *AVIATION BENEFITS BEYOND BORDERS*. Geneva: The Air Transport Action Group.
- Gupta, A., Arif, M., & Williams, A. (2013). *Customer Service in Aviation Industry – An Exploratory Analysis of UAE Airports*. Department of Management Science - Worldwide, Embry-Riddle Aeronautical University.
- Jagoda, K., & Balasuriya, V. (n.d.). *PASSENGERS' PERCEPTIONS OF AIRPORT SERVICE QUALITY: AN EXPLORATORY STUDY*.
- Kamarudin, R. F. (2015). *Managing Customer Expectation for Passenger Service at Airport*. Malaysia Airports Holdings Berhad .
- Kotler, P., & Keller, K. L. (2006). *Marketing Management*. Pearson Prentice Hall.
- Kramer, L. S., Bothner, A., & Spiro, M. (2013). *How Airports Measure Customer Service Performance - A Synthesis of Airport Practice*. WASHINGTON, D.C.: TRANSPORTATION RESEARCH BOARD.
- Lanka, M. o. (2016). *Draft National Civil Aviation Policy*. Colombo: Ministry of Transport & Civil Aviation in Sri Lanka.
- Lee, S. C., & Kim, B. J. (2003). Development of Passenger Service Quality Index for Incheon International Airport (IIA). *TRB 2003 Annual Meeting*, (pp. 1-11).
- Lubbe, B., Douglas, A., & Zambellis, J. (2010). An application of the airport service quality model in South Africa. *Journal of Air Transport Management*.
- Mansor, N., & Redhwan, S. A. (2012). Internationalization of Service Quality: A Case of Kuala Lumpur International Airport, Malaysia. *International Journal of Business and Behavioral Sciences*, 11-25.
- Mansor, N., Redhwan, S. A., & Jusoh, Z. (2012). Sustaining Internationalization of Airport Service Quality in Malaysia. *African Journal of Basic & Applied Sciences*, 230-241.
- Oflac, B. S., & Yumurtaci, I. O. (2014). *IMPROVING PASSENGER SATISFACTION AT AIRPORTS: AN ANALYSIS FOR SHORTENING*

BAGGAGE ACCESS TIME. *Journal of Management, Marketing and Logistics*, 339-347.

oliver Wyman, i. (2012). *Guide to Airport Performance Measures*. Montreal: Airports Council international.

Pabedinskaite, A., & Akstinaite, V. (2014). Evaluation of the airport service quality . *Procedia - Social and Behavioral Sciences* .

PEROVIC, J. (2013). *The Travel & Tourism Competitiveness Report 2013*. International Air Transport Association (IATA).

R.ARCHANA, & DR.M.V.SUBHA. (2012). A STUDY ON SERVICE QUALITY AND PASSENGER SATISFACTION ON INDIAN AIRLINES. *International Journal of Multidisciplinary Research*, 50-63.

Sarmin Sultana, S. R. (2010). *Service Quality (Service Gap Analysis) A case study - "Komvux"*. Gotland University.

Seidel, J. V. (1998). Qualitative Data Analysis. *The Ethnograph v4*.

Se-Yeon, J., & Jin-Woo, P. (2011, July). Transfer Passengers' Perceptions of Airport Service Quality: A Case Study of Incheon International Airport . *International Business Research*, pp. 75-82.

Skytrax. (2016). *ABOUT SKYTRAX*. Retrieved from Skytrax Research: www.skytraxresearch.com

Somasundaraswaran, K. (2008). Bandaranaike International Airport. *AIRPORTS OF THE WORLD e-zine edition, Issue 39*.

Srđan BOGETIĆ, M. V. (2014). *QUALITY SERVICES AS A KEY FACTOR OF COMPETITIVENESS OF TRANSPORT COMPANIES*. Zrenjanin: JOURNAL OF ENGINEERING MANAGEMENT AND COMPETITIVENESS (JEMC).

Suzana Đukić, V. K. (2012). SERVICE QUALITY AS DETERMINANT OF CUSTOMER SATISFACTION. *Economics and Organization Volume 9*, pp. 311 - 325 .

Tolpa, E. (2012). *Measuring Customer Expectations of Service Quality: case Airline Industry*. AALTO UNIVERSITY SCHOOL OF ECONOMICS.

Widarsyah, R. (2009). *THE IMPACT OF AIRPORT SERVICE QUALITY DIMENSIONS ON OVERALL AIRPORT EXPERIENCE AND IMPRESSION*. Las Vegas: UNLV Theses, Dissertations, Professional Papers, and Capstones, University of Nevada.

WIREDJA, D., POPOVIC, V., & BLACKLER, A. (2015). Questionnaire Design for Airport Passenger Experience Survey. *ASDR2015 Interplay*. Brisbane.

APPENDICES

Appendix A Change of Mean Satisfaction Levels with Number of Visited Airports (I)

#	Service Quality Criteria	Mean			
		less than 5	5 to 10	11 to 20	more than 20
1	1) Direction signage within the airport (including the terminal)	3.58	3.57	3.56	3.43
	2) Walking distances within the airport	3.86	3.46	3.69	4.14
	3) Availability & Service assistance from Airport staff	3.36	3.41	2.38	2.86
	4) Flight Information Screens around terminal areas	3.70	3.62	2.71	3.43
	5) Public transportation options	2.59	2.31	2.09	1.71
2	6) Waiting times at check-in counters	3.36	3.30	2.59	2.43
	7) Waiting times / service efficiency at immigration	3.28	3.27	2.66	2.71
	8) Waiting times / service efficiency at security screening	3.28	3.22	2.84	3.00
	9) Waiting times for baggage delivery	3.44	3.05	3.06	2.71
	10) Immigration staff attitude / courtesy	3.19	2.84	2.94	2.43
	11) Security staff attitude / courtesy	3.04	3.19	2.66	2.00
3	12) Cleanliness of Terminal areas	3.53	3.00	2.81	3.00
	13) Quantity and Quality of seating areas within the terminal	3.24	3.11	2.91	2.43
	14) Washrooms cleanliness and location	3.01	2.92	2.34	2.71
	15) Quiet / Rest areas, Day rooms	3.15	2.97	3.00	3.29
	16) Smoking policy / smoking room	3.32	3.14	3.25	3.43
	17) Facilities for infants, children, disabled people etc.	2.89	2.64	2.88	2.14
4	18) Layout of duty free shopping	3.19	2.51	2.78	3.29
	19) Prices in duty free shops	3.05	3.35	3.19	3.00
	20) Staff Service in Shops	3.35	3.22	3.16	3.29
5	21) Selection and prices of restaurants and cafes	2.59	2.73	2.56	2.71
	22) Staff service in restaurants and cafes	3.35	3.19	2.88	1.86
6	23) WiFi and Internet facilities	2.69	2.73	2.31	2.43
	24) Entertainment and Leisure facilities	2.35	2.40	2.38	1.57
	25) Cash machines (ATM)	3.22	3.22	2.63	1.00

Appendix B Change of Mean Satisfaction Levels with Number of Visited Airports (II)

Service Quality Criteria	Mean	
	0 to 10	more than 10
1) Direction signage within the airport (including the terminal)	3.57	3.50
2) Walking distances within the airport	3.66	3.92
3) Availability & Service assistance from Airport staff	3.39	2.62
4) Flight Information Screens around terminal areas	3.66	3.07
5) Public transportation options	2.45	1.90
6) Waiting times at check-in counters	3.33	2.51
7) Waiting times / service efficiency at immigration	3.28	2.69
8) Waiting times / service efficiency at security screening	3.25	2.92
9) Waiting times for baggage delivery	3.25	2.89
10) Immigration staff attitude / courtesy	3.01	2.68
11) Security staff attitude / courtesy	3.11	2.33
12) Cleanliness of Terminal areas	3.26	2.91
13) Quantity and Quality of seating areas within the terminal	3.18	2.67
14) Washrooms cleanliness and location	2.97	2.53
15) Quiet / Rest areas, Dayrooms	3.06	3.14
16) Smoking policy / smoking room	3.23	3.34
17) Facilities for infants, children, disabled people etc.	2.77	2.51
18) Layout of duty free shopping	2.85	3.03
19) Prices in duty free shops	3.20	3.09
20) Staff Service in Shops	3.28	3.22
21) Selection and prices of restaurants and cafes	2.66	2.64
22) Staff service in restaurants and cafes	3.27	2.37
23) WiFi and Internet facilities	2.71	2.37
24) Entertainment and Leisure facilities	2.38	1.97
25) Cash machines (ATM)	3.22	1.81

Appendix C Change of Mean Satisfaction Levels with Number of Visited Geographical Areas (I)

Service Quality Criteria	Mean			
	One Geographical Area	Two Geographical Areas	Three Geographical Areas	Four Geographical Areas
1) Direction signage within the airport (including the terminal)	3.74	3.46	3.47	3.67
2) Walking distances within the airport	3.93	3.56	3.83	3.71
3) Availability & Service assistance from Airport staff	3.64	3.00	2.77	3.05
4) Flight Information Screens around terminal areas	3.67	3.77	2.70	3.33
5) Public transportation options	2.93	2.30	1.93	2.10
6) Waiting times at check-in counters	3.55	3.05	2.93	2.86
7) Waiting times /service efficiency at immigration	3.69	2.88	2.77	3.14
8) Waiting times /service efficiency at security screening	3.60	3.07	2.63	3.29
9) Waiting times for baggage delivery	3.51	3.12	2.97	3.33
10) Immigration staff attitude /courtesy	3.29	2.89	2.60	3.38
11) Security staff attitude /courtesy	3.40	2.86	2.47	2.95
12) Cleanliness of Terminal areas	3.64	3.39	2.77	2.57
13) Quantity and Quality of seating areas within the terminal	3.21	3.16	2.50	3.57
14) Washrooms cleanliness and location	3.45	2.63	2.30	2.90
15) Quiet / Rest areas, Day rooms	3.57	2.95	2.37	3.48
16) Smoking policy / smoking room	3.40	3.02	3.33	3.57
17) Facilities for infants, children, disabled people etc.	3.17	2.68	2.37	2.95
18) Layout of duty free shopping	3.40	2.88	2.63	2.62
19) Prices in duty free shops	3.40	2.82	3.17	3.52
20) Staff Service in Shops	3.62	3.12	2.83	3.62
21) Selection and prices of restaurants and cafes	2.98	2.54	2.43	2.43
22) Staff service in restaurants and cafes	3.31	3.35	2.40	3.29
23) WiFi and Internet facilities	3.07	2.56	1.97	2.71
24) Entertainment and Leisure facilities	2.71	2.30	1.86	2.30
25) Cash machines (ATM)	3.17	3.12	2.50	2.95

Appendix D Change of Mean Satisfaction Levels with Number of Visited Geographical Areas (II)

Service Quality Criteria	one to two geographical areas	more than two geographical areas
1) Direction signage within the airport (including the terminal)	3.60	3.57
2) Walking distances within the airport	3.74	3.77
3) Availability & Service assistance from Airport staff	3.32	2.91
4) Flight Information Screens around terminal areas	3.72	3.02
5) Public transportation options	2.62	2.01
6) Waiting times at check-in counters	3.30	2.90
7) Waiting times / service efficiency at immigration	3.28	2.95
8) Waiting times / service efficiency at security screening	3.33	2.96
9) Waiting times for baggage delivery	3.32	3.15
10) Immigration staff attitude / courtesy	3.09	2.99
11) Security staff attitude / courtesy	3.13	2.71
12) Cleanliness of Terminal areas	3.51	2.67
13) Quantity and Quality of seating areas within the terminal	3.19	3.04
14) Washrooms cleanliness and location	3.04	2.60
15) Quiet / Rest areas, Day rooms	3.26	2.92
16) Smoking policy / smoking room	3.21	3.45
17) Facilities for infants, children, disabled people etc.	2.93	2.66
18) Layout of duty free shopping	3.14	2.63
19) Prices in duty free shops	3.11	3.35
20) Staff Service in Shops	3.37	3.23
21) Selection and prices of restaurants and cafes	2.76	2.43
22) Staff service in restaurants and cafes	3.33	2.84
23) WiFi and Internet facilities	2.82	2.34
24) Entertainment and Leisure facilities	2.51	2.08
25) Cash machines (ATM)	3.14	2.73

Appendix E Change of Mean Satisfaction Levels with both Number of visited Airports & Number of visited Geographical Areas

Service Quality Criteria	visited more than 10 airports and more than two geographical areas	visited 0 to 10 airports and one to two geographical areas	Overall
1) Direction signage within the airport (including the terminal)	3.38	3.53	3.57
2) Walking distances within the airport	3.76	3.71	3.74
3) Availability & Service assistance from Airport staff	2.14	3.26	3.14
4) Flight Information Screens around terminal areas	2.52	3.71	3.46
5) Public transportation options	1.93	2.60	2.38
6) Waiting times at check-in counters	2.34	3.27	3.14
7) Waiting times / service efficiency at immigration	2.34	3.18	3.12
8) Waiting times / service efficiency at security screening	2.55	3.24	3.16
9) Waiting times for baggage delivery	2.79	3.25	3.23
10) Immigration staff attitude / courtesy	2.62	3.01	3.01
11) Security staff attitude / courtesy	2.28	3.07	2.95
12) Cleanliness of Terminal areas	2.45	3.44	3.22
13) Quantity and Quality of seating areas within the terminal	2.66	3.17	3.10
14) Washrooms cleanliness and location	2.07	2.93	2.83
15) Quiet / Rest areas, Day rooms	2.72	3.12	3.08
16) Smoking policy / smoking room	3.34	3.19	3.27
17) Facilities for infants, children, disabled people etc.	2.59	2.85	2.79
18) Layout of duty free shopping	2.76	3.09	2.94
19) Prices in duty free shops	3.14	3.06	3.15
20) Staff Service In Shops	3.00	3.29	3.27
21) Selection and prices of restaurants and cafes	2.31	2.65	2.63
22) Staff service in restaurants and cafes	2.48	3.34	3.14
23) WiFi and Internet facilities	2.14	2.76	2.61
24) Entertainment and Leisure facilities	2.07	2.45	2.33
25) Cash machines (ATM)	2.41	3.26	2.99

Appendix F Special Satisfaction Levels based on visited Geographical Areas

Service Quality Criteria	visited more than 10 airports and more than two geographical areas with Europe	visited Indian Subcontinent Only	Overall
1) Direction signage within the airport (including the terminal)	3.33	4.2	3.57
2) Walking distances within the airport	3.78	4.0	3.74
3) Availability & Service assistance from Airport staff	2.44	3.9	3.14
4) Flight Information Screens around terminal areas	2.22	4.1	3.46
5) Public transportation options	2.11	3.1	2.38
6) Waiting times at check-in counters	2.56	3.7	3.14
7) Waiting times / service efficiency at Immigration	3.00	4.1	3.12
8) Waiting times / service efficiency at security screening	2.22	3.9	3.16
9) Waiting times for baggage delivery	2.44	3.9	3.23
10) Immigration staff attitude / courtesy	3.00	4.0	3.01
11) Security staff attitude / courtesy	2.67	3.9	2.95
12) Cleanliness of Terminal areas	2.56	4.0	3.22
13) Quantity and Quality of seating areas within the terminal	2.44	3.4	3.10
14) Washrooms cleanliness and location	2.33	3.4	2.83
15) Quiet / Rest areas, Day rooms	2.67	3.8	3.08
16) Smoking policy / smoking room	2.44	3.7	3.27
17) Facilities for infants, children, disabled people etc.	2.78	3.8	2.79
18) Layout of duty free shopping	3.11	3.6	2.94
19) Prices In duty free shops	2.78	4.1	3.15
20) Staff Service in Shops	2.78	4.0	3.27
21) Selection and prices of restaurants and cafes	2.44	3.0	2.63
22) Staff service in restaurants and cafes	2.22	4.1	3.14
23) WiFi and Internet facilities	2.00	3.5	2.61
24) Entertainment and Leisure facilities	2.22	3.4	2.33
25) Cash machines (ATM)	2.44	3.9	2.99

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