

T.C.  
MARMARA ÜNİVERSİTESİ  
SOSYAL BİLİMLER ENSTİTÜSÜ  
İŞLETME ANABİLİM DALI  
ÜRETİM YÖNETİMİ VE PAZARLAMA (İNG) BİLİM DALI

**MEASURING CUSTOMER SATISFACTION OF AIRLINE THROUGH  
SERVICE QUALITY AND PRICE FAIRNESS: CASE OF AIR ASTANA**

Yüksek Lisans Tezi

MOLDIR MENZHANOVA

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Danışman: PROF.DR. EMİNE ÇOBANOĞLU

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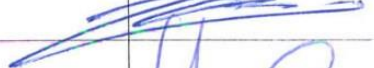

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İŞLETME (İNGİLİZCE) Anabilim Dalı ÜRETİM YÖNETİMİ VE PAZARLAMA (İNGİLİZCE) Bilim Dalı TEZLİ YÜKSEK LİSANS öğrencisi MOLDIR MENZHANOVA'nın MEASURING CUSTOMER SATISFACTION OF AIRLINE THROUGH SERVICE QUALITY AND PRICE FAIRNESS: CASE OF AIR ASTANA adlı tez çalışması, Enstitümüz Yönetim Kurulunun 12.05.2015 tarih ve 2015-17/13 sayılı kararıyla oluşturulan jüri tarafından oy birliği / oy çokluğu ile Yüksek Lisans Tezi olarak kabul edilmiştir.

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## **ABSTRACT**

### **MEASURING CUSTOMER SATISFACTION OF AIRLINE THROUGH SERVICE QUALITY AND PRICE FAIRNESS: CASE OF AIR ASTANA**

The primary objective of this study is to examine the relationship between airline service quality, price fairness and customer satisfaction and to propose the model predicting customer satisfaction in airline industry. The study also identifies the main dimensions of airline service quality.

Customer satisfaction results in a long term profitability, customer loyalty, and customer retention. Satisfied customers are more likely to continue the relationship with service provider, to spread positive word of mouth and thus help to attract new customers. Hence, delivering excellent service quality to customers at reasonable price is vital. Price is generally associated with quality level as customers tend to evaluate service by price paid. Therefore, price and its fairness are essential factors determining customer behavior. Moreover, employing yield management techniques in service sectors, especially in airlines, has raised the issue of price fairness. Therefore, these variables were chosen, their effects and relationships were examined in current study. The study is based on empirical investigation of collected data from 282 passengers of Air Astana, Kazakhstan flag carrier, between December 2014 and January 2015. Data was analyzed by Statistical Package for Social Sciences (SPSS) 21.0 with statistical methods like reliability analysis, factor analysis, correlation analysis and multiple regression analysis.

The findings suggested that the most significant factor influencing customer satisfaction was “employee behavior to customers” followed by “price fairness” and “service accuracy”. It was also found that “physical evidence” dimension had insignificant impact on customer satisfaction. Moreover, dimensionality of price fairness was not confirmed in this study.

**Keywords:** *Kazakhstan; Air Astana; customer satisfaction; price fairness; service quality; airline.*

## ÖZET

### HİZMET KALİTESİ VE FİYAT ADALETİ İLE HAVAYOLLARINDA MÜŞTERİ MEMNUNİYETİNİ ÖLÇMEK: AIR ASTANA VAKASI

Bu araştırmanın temel amacı havayolu hizmet kalitesi, fiyat adaleti ve müşteri memnuniyeti arasındaki ilişkiyi incelemek, ve hizmet kalitesi ve fiyat adaleti sayesinde havayolu endüstrisinde müşteri memnuniyeti tahmini modelini önermektedir. Araştırma ayrıca havayolu hizmet kalitesinin temel boyutlarını tespit etmektedir.

Müşteri memnuniyeti uzun vadeli kârlılık, müşteri sadakati ve müşteriyi elde tutma ile sonuçlanır. Memnun müşterilerin servis sağlayıcı ile ilişkiyi devam etme ve servis hakkında olumlu tecrübelerini çevrelere aktarma olasılığı daha yüksektir, ve böylece yeni müşteriler çekmek için yardımcı olabilmektedir. Dolayısıyla, müşterilere makul bir fiyata mükemmel hizmet kalitesini sunmak büyük bir önem taşımaktadır. Fiyat genel olarak kalite düzeyi ile ilişkilidir, çünkü müşteriler aldığı hizmeti ödenen fiyatla göre değerlendiriyorlar. Bu nedenle, fiyat ve fiyat adaleti müşteri davranışlarını belirtebilen temel faktörlerdir. Ayrıca, servis sektöründe gelir yönetim tekniklerinin kullanılması, özellikle havayolları sektöründe, fiyat adaleti konusunu gündeme getirdi. Bu nedenle, bu değişkenler seçilmiş ve onların etkileri ve ilişkileri bu çalışmada incelenmiştir. Çalışma ampirik sorgulamaya, Air Astana, Kazakistanbayrak taşıyıcısı, 282 yolcusunun, Aralık 2014 ve Ocak 2015 tarihleri arasındaki, verilerinin incelenmesine dayanmaktadır. Toplanan veri güvenilirlik analizi, faktör analizi, korelasyon analizi ve çoklu regresyon analizi gibi istatistiksel yöntemler ile Sosyal Bilimler için İstatistik Paketi (SPSS) 21.0 ile analiz edilmiştir.

Bulgulara göre müşteri memnuniyetini en çok etkileyen faktör "çalışanların müşterilere davranışı" olduğunu, bunu takiben "fiyat adaleti" ve "hizmet doğruluğu" olduğunu tespit edilmiştir. Aynı zamanda "fiziksel kanıt" boyutunun müşteri memnuniyetine önemsiz etkide olduğu saptanmıştır. Ayrıca, fiyat adaletinin boyutluluğu bu çalışmada doğrulanmamıştır.

**Anahtar Kelimeler :** *Kazakistan; Air Astana; müşteri memnuniyeti; fiyat adaleti; hizmet kalitesi; havayolu.*

## **DEDICATION**

I dedicate this work to my family and to my grandmother who cannot share this moment with  
us.

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I would like to thank my dear family and my friends for their support, strength they gave and believing in me. Special thanks goes to my mother for her endless love and daily encouragement.

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Moldir MENZHANOVA

Istanbul, 2015

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## **ABBREVIATIONS**

**DE** Dual Entitlement

**EU** European Union

**FSC** Full-service carrier

**GDP** Gross Domestic Product

**GDS** Global Distribution Systems

**IATA** International Air Transport Association

**ICAO** International Civil Aviation Organization

**IOSA** IATA Operational Safety Audit

**KMO** Kaiser-Meyer-Olkin

**USSR** Union of Soviet Socialist Republics

## 1. INTRODUCTION

This study made attempt to suggest model for predicting customer satisfaction and determine potential areas of service need to be improved. It integrates the service quality, price fairness and satisfaction into model for airline industry and examines relationship between these variables. It also reviews related studies on service quality, price fairness and customer satisfaction. The significance of this research is that it demonstrates and tests empirically the existence of relationships between the three concepts: service quality, passenger satisfaction and loyalty. Measuring customer satisfaction through service quality and price fairness is expected to help to understand current satisfaction level as there are limited studies done for Kazakhstan airline industry, particularly about Air Astana. According to the best knowledge of author of this thesis work, no empirical study have been conducted to investigate the effect of service quality, price fairness on customer satisfaction in Kazakhstan airline industry. Level of service quality, particularly superior service quality, helps to differentiate airline from competing airlines, retain current customers and attract new from other airline, hence increase market share. It is difficult to evaluate service quality due to distinctive service characteristics as heterogeneity, intangibility and inseparability, especially in airline industry. Service quality helps to differentiate firm from competitors, retain current customers and attract new ones, and create long term profitable relationship. Service quality is tend to be evaluated by its price as customers associate price level with quality level. Evaluating service can be challenging due to distinctive characteristics of services, hence making judgments about price fairness can be challenging as well. Therefore, price fairness is important for perception of service quality as well. Service quality was taken as variable that may predict customer satisfaction mutually with price fairness as service quality is considered to be an antecedent of customer satisfaction. Studying price fairness in service sector is important as feeling of price unfairness perception may lead to undesirable outcomes. Current research focuses on customer attitude towards unchanged current price, they were asked to evaluate the price of their last flight, if they consider price as fair for service delivered by airline. Customer judgments define price fairness, thus it is purely subjective concept. Airline should pay much attention to service quality and customer satisfaction while setting prices that can perceived as fair. To be competitive airline must have satisfied passengers. If customer is satisfied, he/she is less likely to change flight carrier. They do not consider any other

alternatives if they receive good service quality at reasonable price. Satisfied customers tend to spread positive word-of-mouth helping company attract new clients. Customer satisfaction results in a long term profitability, customer loyalty, and customer retention. Hence, delivering excellent service quality to customers at reasonable price is essential.

In this study price fairness was measured by two dimensions, namely distributive price fairness and procedural price fairness. Service quality was measured by SERVQUAL instrument suggesting five dimensions. While customer satisfaction was taken one dimensional concept and items were adapted from previous studies.

The study focuses on airline industry, which by nature is service sector, particularly on Kazakhstan airline industry. Service sector of Kazakhstan took 54,2% of GDP as for 2014 (Press Service of the Ministry of National Economy, 2014). Transport sector of Kazakhstan comprises 15-16% of GDP (Official Web Site of Prime Minister of Kazakhstan, 2015). Government plans to increase share of service sector up to 60% by 2020, in other words Kazakhstan economy is going to shift gradually from production to service. To reach this goal major improvements are needed. The results of the comparative analysis of the various sectors according to the criteria of "quality", "accessibility" and "price" revealed that following sectors, including airline industry, require improvement on the quality, availability and price: financial services, transportation and logistics, trade, tourism, real estate, professional services and health care (Press Service of the Ministry of National Economy, 2014).

International Air Transport Association (IATA) projected Kazakhstan to be the world's fastest growing passenger market from 2012 to 2016 (IATA, 2012). In addition, IATA forecasted 20.3% annual growth for Kazakhstan's international market and 22.5% growth for domestic market. By the end of 2013 IATA released Forecast 2013-2017 and reported Kazakhstan as the second fastest growing market in the world with 9% compound annual growth rate (IATA, 2013). However, current conditions of airports hinder Kazakhstan's international airline market growth. The quality of airport infrastructure causes congestions and delays at airports. Only 11 out of 25 airports are compliant with of ICAO standards. Civil Aviation Committee announced that it would reconstruct 5 airport runways between 2014 and 2017. Reconstruction of terminals of seven airports would be completed until 2020. The capacity of two major airports, Almaty and Astana will be increased by 2017 due to upcoming

international exposition EXPO 2017. About 2-3million people are expected to visit Kazakhstan during the EXPO 2017 (Civil Aviation Committee, 2014). Kazakhstan citizens as well as guests of the country use planes to travel from one city to another due to a huge territory, as it is world's ninth largest country<sup>1</sup>. The country territory is 2, 724, 900 square kilometers, population of 17,2 million people with population density of 6,3 people per square kilometer (Kazakhstan Committee of statistics, 2014). Such unique characteristics of country require thorough planning for future. These upcoming positive changes will influence airline industry a lot, making service quality and customer satisfaction alongside with price fairness a major concern for airlines. Therefore, the study gives a snapshot of current situation of civil aviation of Kazakhstan through the investigation of various literature sources.

This study focuses on Kazakhstan flag carrier Air Astana which holds a dominant position by competing against Kazakhstani and international carriers serving Kazakhstan air market (Kazakhstan Civil Aviation Committee, 2014). Air Astana plays a great role in the development of foreign economic relations of Kazakhstan and its integration into the global economic system. Air Astana helps to enhance transit potential of country, making the national carrier strategically important for economy and country's status on international arena. This research is of special significance to Air Astana. It is anticipated that the results of this study will be especially beneficial to Air Astana as they are going to face increased competition and launch more flights over the world.

The main purpose of this study is to examine relationship between price fairness, service quality and customer satisfaction in the airline industry context. This study aims to determine the model that better predicts customer satisfaction by the means of price fairness and service quality dimensions. This study is expected to contribute to understanding how airline passengers form their satisfaction judgments. The current study is different from previous works in following aspects:

- Identifies significant service quality dimensions for Kazakhstani airline
- Adds price fairness as important factor for predicting customer satisfaction
- Examines influence of price fairness and service quality dimensions on customer satisfaction

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<sup>1</sup> The territory of Kazakhstan is almost 3.5 times larger than territory of Turkey

- Empirically tests a suggested conceptual model of customer satisfaction model with independent variable as price fairness and service quality

The following part of the study gives details about the history, development, current situation and issues of Kazakhstan airline industry. The general information about focus of study, Air Astana, is given in this section as well. The second part explains service quality, price fairness and customer satisfaction. Literature review is followed by methodology part containing information about research methods, proposed model and measurement scales. Then, the results of various statistical analysis implemented to collected data (N = 282), model testing are presented. The discussion part includes the explanations and literature comparison with findings. Conclusion part emphasizes main research findings, states limitations, contributions and suggests implications and directions for future research.

## 2. BACKGROUND OF STUDY

### 2.1 Transport in Kazakhstan

Kazakhstan has all types of transport: rail, automobile roads, pipeline (oil and gas pipelines), waterways and air. Each mode of transport in Kazakhstan has its own sphere of profitable application depending on the nature and distance of transportation.

Kazakhstan within its huge territory has steppes, mountains, rivers, lakes, and no ocean. The largest lakes in the country are Caspian Sea, Alakol and Balkhash. The Caspian Sea is considered to be the world's largest lake and likewise other lakes in Kazakhstan, it is not used for public transportation. It is actively used for crude oil extraction and gas, salt, limestone mining works (Visit Kazakhstan, 2014). Rivers are too narrow to launch ferries, in Astana, capital of Kazakhstan, passenger ships are launched for sightseeing purposes. Therefore, maritime transportation is not used as a public transport.

On the other hand, wide steppes and diverse landscape allows building railways and automobile routes. As Kazakhstan was the part of USSR, railways were inherited from that period, and some railway routes are not optimal anymore. For example, rail route Uralsk - Aktobe lies through territory of Russia, how both cities are located in western-north of Kazakhstan. Railway is considered as the slowest type of transportation. The route Almaty – Mangyshlak takes 70 hours and 13 minutes to get to the final destination, which is almost 3 days, and its length is 3269 km (Academic, 2014). For sure, a lot of reconstruction and improvement were done since the collapse of Soviet Union. Now there is fast moving trains also known as electric locomotives for both freight and passenger services, which keep to serve passengers concurrently with normal speed trains. Newly arrived trains significantly reduce travel time. For example, ordinary most popular rail route Almaty – Astana<sup>2</sup> takes 21 hours 2 minutes, while it takes fast train to get there 12 hours 44 minutes (Vsepoezda.com, 2015). Both train work on daily basis, customer now has choice. However, price of fast train ticket is 2.5 times expensive than normal speed train (Vsepoezda.com, 2015).

Road transportation is on third place after railways and pipelines by economic significance to country's economy. Advantage of road transport over railways is its density which 6 times

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<sup>2</sup> Rail route from ex-capital Almaty to current capital Astana

higher than railways (Mozharova, 2011). In 2010, 90% of passenger transportation belonged to road transport including buses and privately owned automobiles. Buses go to the most of the cities and villages in country. Buses are the most popular and affordable mode of transportation but still not safest way to get from one city to another. During 2003-210 number of buses increased by 1.5 times and almost 60% of buses belonged to private companies (Mozharova, 2011). Taxi is another comfortable alternative, yet not always affordable, used for short haul routes, which takes at most 8 hours.

## **2.2 Civil Aviation in Kazakhstan**

Geopolitical location of Kazakhstan in the world and significant remoteness cities and towns due to the vastness of the territory of the country cause in a particular demand for transport services in both the international and national level. Air transportation of passengers and cargo take a significant place in the economy of Kazakhstan. Effective use of the transit potential of the country is aimed at obtaining additional income for civil aviation industry and maintaining high dynamics of its development.

During Soviet Union time there was airline “Aeroflot”. Aeroflot was the only airline in USSR, and passengers had no choice except Aeroflot. Airline operated mainly domestic flights, however it had huge network allowing to reach 5 continents namely Europe, Asia, Africa, North and South America with long haul international flights (Skorobutov, 2013). It was the largest airline in the world until 1991 then Aeroflot broke into hundreds of small airlines. Current Aeroflot is rebranded version of Russian airline left from that period. Collapse of Soviet Union caused the breakdown of civil aviation in former USSR countries as well as emergence of new airline and development of new aviation industry in those countries. Newly independent countries organized their own airlines as did Kazakhstan.

Civil aviation of Kazakhstan has considerably changed since its independence, number of airline has increased following by increased number of flights, reconstruction of airport was done improving the ground infrastructure. Certainly, airline service quality in turn customer satisfaction should be improved considering price as well. Kazakhstan got its independence on 16th of December in 1991, after being a part of USSR for more than seventy years. Since then growth of the civil aviation of independent Kazakhstan had started. History of Kazakhstan’s airline industry starts with establishment of first national airline called

“Kazakhstan Airlines”, founded in 1992, and declared bankrupt by government in 1996. New airline “Air Kazakhstan” was founded in 1996, which also eventually bankrupted in 2004 (Air Kazakhstan, 2004). Financial instability of Air Kazakhstan played great role to the emergence of new airline called “Air Astana” in 2001, performing its first flight in 2002.

According to the results of the International Civil Aviation Organizations (ICAO) Universal Safety Oversight Audit Program (USOAP) in 2009, two significant drawbacks related to flight safety were revealed. One of them was the certification of aircraft operators and the second was issuance of the Certificate of Airworthiness (MID of the Republic of Kazakhstan, 2013). Flight safety Committee of the European Commission has included all airlines, registered in Kazakhstan, in the "black list". “Black list” is a list of world’s commercial airlines banned to fly to the European Union (EU) countries. Air Astana got restrictions on flights frequencies and routes to Europe. However, in 2014, all restrictions for Air Astana were removed as company could prove compliance of its aircrafts to European safety requirements while other airlines are still in “black list”. This fact undermines the credibility and prestige of Civil Aviation of Kazakhstan in the international air market.

Between 2000 and 2012, flights of Kazakhstani airlines increased more than 2.7 times, the number of passengers increased by 6 times. In 2000, twenty three thousand flights were operated with total of eight hundred thousand carried passengers (MID of the Republic of Kazakhstan, 2013). In 2012, number of flights reached to sixty-three thousand with 4.6 million passengers. Key figures for the civil aviation industry are presented in following Table 1 (Kazakhstan Civil Aviation Committee, 2014).

**Table 1: Key Figures for the Civil Aviation Industry of Kazakhstan**

	2011	2012	2013	2014
Passengers carried (mln people)	4,1	4,6	5,0	5,5
Freight turnover (thousand tons)	29,4	19,6	24,0	19,6
Passengers served (mln people)	8,1	9,0	9,7	10,7
Air transit (mln.a.km)	155,7	164,4	171,3	179,8

**Source:** Main indicators of civil aviation industry. Kazakhstan Civil Aviation Committee, 2014

In 2011, total of 4,1 million passengers were carried by Kazakhstani airlines, 4.6 million in 2012, 5 million in 2013. It is forecasted increase by 10% and reach 5,5 million by the end of 2014 (Kazakhstan Civil Aviation Committee, 2014). As it is seen from Table 2 freight turnover had unstable dynamics caused by world economic downturn and ban to fly to EU countries. While other figures showed constant increase in a given period. Due to increasing demand for air transportation services, on national and international level, infrastructure of civil aviation sector should be improved to meet high international standards.

### **2.3 Kazakhstani Airlines**

Currently, there are 56 registered airlines and only 5 of them, namely Air Astana, SCAT, Bek Air, Zhetisu and Zhezkazgan Air, operate scheduled flights. While 20 airlines operate non-scheduled flights, 3 airlines perform cargo transportation and 28 operators perform aerial work (Civil Aviation Committee, 2014). The biggest players in commercial airline industry of Kazakhstan are Air Astana, SCAT and Bek Air. According to information of Civil Aviation Committee of Kazakhstan market share of Air Astana is 75% (detailed information about Air Astana will be given in section 2.5), SCAT 25%, other airlines have 5% in domestic market by the beginning of 2014 (Ministry of Transport and Communications, 2014). History of Kazakhstan's airline industry starts with establishment of first national airline called "Kazakhstan Airlines", which was founded in 1992 based on Kazakh division of Aeroflot, former Soviet Union airline. Kazakhstan Airlines had unstable financial position during 1995 - 1996 years, and was in deep economic crisis. The result of audit showed that existing tariffs for air travel did not cover current expenses, and there were loss from continuing the flights (Resolution of the Government of the Republic of Kazakhstan, 1996). In November 1996, Boeing 747 of Saudi Arabian Airline and Il-76 of Kazakhstan Airlines had mid-air collision killing 349 people on the board. Neither any passengers nor crew members survived. It has the highest death toll of mid-air collision (Aerospace Technology, 2014). In the same year, by the resolution of government of Republic of Kazakhstan new national airline "Air Kazakhstan" was founded, assets of Kazakhstan Airlines were transferred to new airline as it was declared bankrupt by government. However, "Air Kazakhstan" could not operate well, financial position was also unstable and eventually airline declared bankrupt by the decision of court in April 2004 (Air Kazakhstan, 2004).

“SCAT” airline was founded in 1997, headquartered in Shymkent, South Kazakhstan. It operates 44 domestic, 22 international flight and agricultural works for chemical processing of fields. “Bek Air” was founded in 1999 as operator of VIP flights. Nowadays it operates regular 12 domestic flights (Bek Air, 2015). “Zhetisu” airline operates only Taldykorgan – Astana – Taldykorgan route. “Caspiy” airline has charter flights from its main hub Aktau. “Avia Jaynar” airline has charter flights from its main hub Kostanay.

A new airline “Air Kazakhstan” was registered as legal entity in 2014. “Samruk-Kazyna” National Welfare Fund had held 49 percent of shares. Business plan for new airline was developed by Civil Aviation Committee. Currently, it is planned to sign a contract with Bombardier, Canadian multinational aerospace and transportation company, to buy aircrafts. First flight is scheduled to the second half of 2015 (Ministry of Transport and Communications, 2014). On 6<sup>th</sup> of February 2015, Chairman of the Civil Aviation Committee of the Ministry of Investment and Development of the Republic of Kazakhstan, Beken Seidakhmetov, announced that airline is renamed to “Kazakh Air” and National Welfare Fund “Samruk-Kazyna” gives 100% of funding (Seidakhmetov, 2015).

#### **2.4 Kazakhstan’s Civil Aviation Development Issues**

Development of Kazakhstan’s civil aviation is challenging and important as the transport system plays significant role in the economic development of the country. Air transport plays an important role in socio-economic development of the country. The air transport system provides the conditions for economic growth, increases the competitiveness of the national economy and quality of life. Transportation affects the efficiency of economic relations and the mobility of the population. It brings together regions of the country distant from each other, improves the quality of life and level of business activity. It strengthens the territorial unity of the country and creates more favorable conditions for the realization of the potential economic and social opportunities in each region.

President of the Republic of Kazakhstan signed a “Program of Development and Integration of Transport Infrastructure System of the Republic of Kazakhstan to 2020” in 2014 (Akorda Press, 2014), in order to meet the needs of the population and the economy through developing and maintaining quality and safety standards. The program contains the short and long term plans for the development of civil aviation. Beside the high capital investment to

establish and run airline there are other problems in civil aviation of Kazakhstan like infrastructure, lack of trained flight and ground staff and violation of safety rules.

#### **2.4.1 Infrastructure**

Currently, country has 20 functioning airports, 15 of them have international status, including 11 airports that obtained ICAO category after the reconstruction: 8 airports hold ICAO I category, one airport holds II category, and airports of Astana and Almaty ICAO take III category (MID of the Republic of Kazakhstan, 2013). Over the past ten years the reconstruction of runways, terminals and other infrastructure was performed in the half of total airports. The main problems of aviation sector are followings (MID of the Republic of Kazakhstan, 2013):

- Lack of technical equipment of a significant number of airports and deterioration of ground infrastructure
- Lack of production capacity of buildings to perform air transport operations
- Outdated specialized equipment park that cannot serve the aircrafts promptly and efficiently
- Worn out communications of all kinds of energy supply, lightening and sewerage.
- In addition, conditions of runways, lack of a modern special vehicles, light and radio navigation equipment at airports of local significance makes operation of jet aircrafts impossible.

#### **2.4.2 Human Resources Shortages**

To overcome shortage of flight and ground personnel airlines have started to launch training programs and open training centers. Air Astana has launched Initial Pilot Preparation Program Ab-Initio in order to cope with pilot shortage and decrease Air Astana's dependence on the world market for pilots. In 2012, Air Astana had about 100 foreign pilots and 200 local pilots (CAPA, 2012). Also airline SCAT established its own Aviation Training Center for training and retraining of pilots, technical staff and flight attendants in 2007 (SCAT, 2015).

There is Academy of Civil Aviation founded in Almaty, Kazakhstan. Foundation of Academy started in 1937, till 1995, it served as educational and counseling center of the Kiev Institute of Civil Aviation Engineers and only then it took status "Academy of Civil Aviation". Academy of Civil Aviation provides training of flight engineers, flight, technical and

maintenance staff. The Academy has flight simulators, two training aircraft Yak-40, educational laboratories to train, improve skills and retrain flight and technical staff (Academy of Civil Aviation, 2015). Also, there are Republican State Enterprise (RSE) "State aviation center" deals with the initial training of flight crews for civil aviation and for pre-conscription young people for Military Institute of Air Defense of the Armed Forces of the Republic of Kazakhstan and private institution "Ural flight training school".

### **2.4.3 Flight Safety Issues**

Flight safety should be the top priority of every airline. During the period between 2009 - 2014 years, 22 aviation accidents were registered in Kazakhstan. According to statistics, about 160 people died, and 67 people survived. Cause of the accident in 14 (64%) cases was the human factor (crew error, pilot error), including 8% of cases affected by the weather conditions. Information on the results of investigations of the remaining cases are not revealed and/ or closed. The highest cases of crashes are for 2013 with 8 crashes, 2 cases for 2014, 6 cases for 2010 and 4 cases for 2009. The safest year was 2011 with no crashes (Kazakhstan Public-Private Partnership Center, 2015). 2015 started with crash of An-2 aircraft crash with 6 fatalities (KazInform, 2015).

## **2.5 Background of Air Astana**

In this section, information about airline chosen for this study, Air Astana, is given. Section includes general information, passenger profile and information about fleet, hubs and codeshare agreements.

### **2.5.1 General Information**

Air Astana is a full-service carrier offering checked bag allowance, an allocated seat, entertainment and a meal with beverages on the board. Full service carrier is described by following elements (Cento, 2009):

- *Core business*: passenger, cargo and postal services
- *Hub-and-spoke network*: optimization of connectivity in the hub
- *Global player*: operating domestic, international routes. Air Astana do not operate intercontinental flights for now.

- *Alliances development*: being part of alliances which allows to enlarge network. Air Astana, currently is not member of any alliances, it uses only code-share and interline agreements.
- *Vertical product differentiation*: in-flight and ground service, electronic services
- *Customer relationship management*: loyalty programs, frequent flyers programs. Airline has its own frequent flyers program “Nomad Club”.
- *Yield management and pricing*: using yield management to maximize revenue
- *Multi-channel sales*: FSC cover following channels: selling tickets through intermediaries, official web site, airline call centers, ticket booking and selling offices in city or at airport.
- *Distribution system*: distribution system is technologically supported by external companies called Global Distribution Systems (GDSs). The wide spread ones are Galileo, Amadeus, WorldSpan etc. Air Astana uses Amadeus GDS.

Air Astana is a joint venture of the National Welfare Fund “Samruk-Kazyna” JSC and BAE Systems, holding 51 % and 49% of shares, respectively (Air Astana, 2014). It has IATA membership and IOSA certification. It is the first four-star airline in East Europe and the Commonwealth of Independent States (CIS) awarded by SkyTrax in its World Airline Awards 2013 (World Airline Awards, 2013).

Air Astana is the only one national airline of Kazakhstan since 2001. Being flag carrier is huge responsibility as it represents the whole nation, but fact of being national airline does not necessarily mean having superior service nor fair prices. Air Astana is strategically important for Kazakhstan status and economy as well as it holds dominant position in domestic market. Air Astana links together all parts of the country, which is a prerequisite of its territorial integrity and unity of its economic space. Moreover, airline links the country with the world community, promotes the development of foreign economic relations of Kazakhstan and its integration into the global economic system. The favorable geographical position allows Kazakhstan to receive significant revenues from the export of air transport services and enhance transit potential. Having national airline ensures the defense capability and national security of country. All of these factors make national carrier strategically important and make air transportation prioritized sector of the economy.

Air Astana should constantly improve service quality and customer satisfaction as competition becomes more intense. Establishment of new national airline “Kazakh Air” will affect current position of Air Astana in all aspects. In addition, Kazakhstan air market is currently served by 29 international carriers operating scheduled flights including 3 low cost airlines: Air Arabia, Pegasus, and Fly Dubai (Kazakhstan Civil Aviation Committee, 2014). Air Astana should stay competitive by satisfying its customers and justifying price to be perceived as fair.

Air Astana faces flight delays and cancellations. Due to flight delays some passengers miss their connecting flights, that leads to indignation and decrease in customer satisfaction (Harvey, 2012). The reasons for flight delay and cancellation can be various in type. The common reason is weather conditions, to mention here main hub of Air Astana is Almaty, which is located in foggy area, which usually causes numerous flight delays. Another reason is airplane maintenance problems and technical defect of plane. On-time performance is one of the indicators of operational efficiency. Flight is “on-time” if departure and arrival of aircraft does not exceed 15 minutes from scheduled time. For 2014, Air Astana’s on-time performance was 88,5% (Air Astana, 2015b). Mazzeo (2003) in his study found that flight delays were more common and longer in duration on flights where only one carrier provided direct service and if the flight passed through an airport where the airline represented a large share of the overall flights. Moreover, study showed that airlines had no incentive to improve this area of service quality since customers had little choice in carriers and this may be the case for Air Astana.

Nowadays, passengers are more likely to prefer to fly by Air Astana due to the recent airplane crash of competing local airline, SCAT<sup>3</sup>, regardless of higher prices. Hence, frequent use of Air Astana may not be directly related with the level of service provided. Airfare prices of Air Astana is higher than other domestic airlines. In Table 2, prices in Kazakhstan tenge (KZT)

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<sup>3</sup> SCAT’s CRJ- 200 crashed while trying to land in thick fog performing domestic flight from Kokshetau to Almaty airport on 29 January 2013. All 16 passengers and 5 crewmembers died (Aviation Safety Network, 2013)

and in US dollars (USD)<sup>4</sup> are given on domestic flights, in case of booking one month earlier prior to flight (Blizzard, 2015).

**Table 2: Price Comparison on Domestic Flights of Air Astana, SCAT, Bek Air**

	Airline	Air Astana		SCAT		Bek Air	
Destination	Currency	One way	Round Trip	One way	Round Trip	One way	Round Trip
Astana	KZT	26420	45695	13497	27412	10497	25412
	USD	142,77	246,93	72,94	148,13	56,73	137,33
Shymkent	KZT	17418	39615	13497	27054	-	-
	USD	94,13	214,08	72,94	146,20	-	-
Aktau	KZT	27546	52915	22497	46222	20497	42222
	USD	148,86	285,95	121,57	249,78	110,76	228,17

**Source:** Adapted from Blizzard.kz on <http://avia.blizzard.kz/?bids=369157>.

As it is seen Air Astana's prices are considerably higher than other two airlines. It should be mentioned, that Air Astana have more number of flights on any flight destination mentioned above with more convenient time of arrival and departure. Due to the low competition on domestic routes Air Astana keeps ticket price high, while on international flights it faces competition and has to lower the prices (Nursapayeva, 2014). Therefore, higher price rises the issues of price fairness. The prices and service quality are perceived by customers differently. Customer reviews about current performance of Air Astana, service quality and prices are available on internet, on online-forums, Facebook pages<sup>5</sup> which are full positive as well as negative reviews, articles and the most recent authentic stories.

### 2.5.2 Passenger Profile

Passengers flying on Air Astana are mostly business travelers and Kazakhstani citizens travelling on vacation on domestic as well as international flights (Asian Aviation, 2011). In

<sup>4</sup> Prices in US dollars was calculated based on Official Foreign Exchange Rates of National Bank of Kazakhstan. The exchange rate was 185.5 USD/KZT as for 19.02.15

<sup>5</sup> "Против произвола AirAstana" facebook page, created by passengers, has 2 387 member as for 18.02.2015 (Facebook, 2015). Passengers generally share negative experiences on this page.

2013, Air Astana carried 3.68 million passengers which is 13% more than previous year 3.24 million in 2012. International passengers grew 24 % to 1.56 million, while domestic passengers grew by 7 % in 2013. Positive changes in numbers are related to growing GDP and population of country. Passenger load factor is 65.4 %, it declined in 2013, down 2.2% point from 67.6 % in 2012, following the introduction of numerous new international routes (Air Astana Annual Report, 2014). New routes tend to show low load factor before its mass popularization which leads to decrease in overall load factor.

### **2.5.3 Fleet, Hubs and Code-shares**

Airline operates a modern fleet of 30 Western-made aircrafts and plans to expand fleet to more than 37 by 2020. Currently there are four basic aircraft types in its fleet: Boeing 757, Boeing 767, Airbus 320 family (319, 320, 321), and Embraer 190. Expansion is expected by arrival of Boeing 787 towards the end of the decade. The average age of fleet was 6.4 years in 2013, and it is expected to fall to 5.6 years by the end of 2014. This young fleet age is due to the significant fleet renewal, with 3 new aircraft in 2011, 6 in 2012, 7 in 2013, and 5 in 2014, for a total of 21 new aircraft in this period. For comparison, SCAT, Air Astana's main competitor in domestic market, has 18 aircrafts, its fleet consists of Boeings (767-300, 757-200, 737-700NG, 737-500, 737-300) and Bombardier CRJ 200. Bek Air, operator of domestic routes only, has fleet of only Fokker-100.

Air Astana operates international flights from three main hubs: Almaty, Astana and Atyrau. Almaty, main long-haul hub, is located on south east of country, while Astana is on north and Atyrau northwest of Kazakhstan. Air Astana is geographically well positioned which allows to operate connecting flights to Far East with Central Asia. Air Astana operates 20 domestic and 43 international flights. Air Astana has code-sharing agreements with Austrian Airlines, Asiana Airlines, Etihad Airways, KLM, GTK Rossiya Airlines and Turkish Airlines. Also company has interline partnership agreements with more than 100 other carriers, allowing passengers to choose over almost 400 destinations worldwide (Air Astana Annual Report, 2014). Currently Air Astana is not the member of any global alliances. Alliances SkyTeam, OneWorld and Star Alliance have offered Air Astana with offers to join them due to growing Central Asian market (Mathews, 2014).

### **3. LITERATURE REVIEW**

This section attempts to conduct a thorough literature review of the variables of conceptual model suggested in this study: service quality, price fairness and customer satisfaction. The following section explains service quality, conceptualizes and reviews price fairness, then discusses customer satisfaction.

#### **3.1 Service Quality**

This section includes notions of service, service characteristics, perceived quality and service quality. Model for measuring service quality is described as well.

##### **3.1.1 Service**

Countries with developed economies have shifted from manufacture of goods to production of services. Service industry creates the job and in some developed countries it comprises a greater proportion of GDP. At the same time, there is no pure service or tangible goods industry. To render service firm needs supporting goods, for example aircraft is needed to perform transportation service. In the meantime, goods require supporting services. To sell any product salesperson is needed to provide all related and detailed information about specific characteristics of the product. Service is defined as “any act or performance that one party can offer to another that is essentially intangible and does not result in ownership of anything. Its production may or may not be tied to a physical product” (Kotler, 1988). Services are difficult to define with one single definition as there various service types.

##### **3.1.2 Service Characteristics**

Services have a number of distinctive characteristics that differ it from tangible goods (Parasuraman, Zeithaml & Berry, 1985). First is intangibility of services, meaning that customer cannot taste, feel, smell, see and hear the service, before actual purchase and delivery. It can only be experienced as it is delivered. Passenger cannot try or know how flight will be performed before the experiencing it. Inseparability implies that service is created and consumed in the same period of time. As plane takes off, customer starts to consume the service. Heterogeneity of services means that service output is always somewhat different from previous output. Airline does not provide the same level of service quality because each flight is operated by different pilots, flight attendants, ground and office staff. Perishability and fluctuating demand suggests that services are perishable and cannot be stored. Fluctuating demand causes empty seats in aircraft during dead seasons. These unique

characteristics of services require good planning, pricing and promotion strategies for airlines to remain profitable.

### **3.1.3 Perceived Quality**

According to Zeithaml (1988) quality is defined as “superiority or excellence” and perceived quality as “the consumer’s judgment about a product’s overall excellence or superiority.” Aaker (1991) stated that perceived quality is “the customer’s perception of the overall quality or superiority of the product or service with respect to its intended purpose, relative to alternatives”. Perceived quality differs from objective quality as it relied on customers’ own perceptions and judgments while objective quality represent certain measurable characteristics of service or product. Therefore, perceived quality of product or service is subjective.

### **3.1.4 Service Quality**

Scholars have defined service quality in different ways. Service quality is “an attitude formed by a long-term, overall evaluation of firm’s performance” by Hoffman & Bateson (2008, p.319). “Extent to which the service, the service process and the service organization can satisfy the expectations of the user” by Kordupleski, Rust and Zahorik (1993, p. 85). Parasuraman, Berry and Zeithaml (1985, p.42) defined service quality as a “measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis.” Bhat (2010, p.640) stated that, “The very nature of service implies that it must respond to the needs of the customer the service must meet or exceed customer expectations.” Oliver (1997) argues that service quality can be described as the result from customer comparisons between service expectations and perceptions of actual service. If expectations are met by perception the service is considered as good, if expectations are greater than perceptions, the service is perceived as bad. If perceptions are greater than the expectations then service is considered to be excellent. This study employs the definition of service quality which is based on comparison and match of expectations and actual service perception (Oliver, 1997; Parasuraman, Zeithaml, & Berry, 1985).

Service quality is important for both sectors: service and product sectors as products cannot be sold without complementary service. In most cases, service quality becomes the only factor that differentiates service providers. Airlines have almost the same types of aircrafts, the same routes but service delivered is different. Moreover, it varies from one airline to another. Customer, in our case passenger, should define level of service quality, not airline.

However, some passengers are less likely to obey basic rules of safety during flight and get warnings from crew members and may possibly take it to heart. There are rules of airline as well as basic safety rules that passengers should comply with. In 2012, 351 cases of destructive behavior of Air Astana passengers were registered (Kapital.kz, 2013). According to statistics, in the first half of 2013, passengers of Air Astana were part of 141 cases of destructive and inappropriate behavior, 105 out of 141 cases took place during flight. Almost half of incidents were related to smoking in aircraft, other incidents were for verbal abuse of flight attendants and refusal to obey the safety instructions, some passengers tried to pass to cockpit (KazInform, 2013).

Service provider should meet customers' expectations, if it fail to meet them it can result in decrease in profitability and negative word of mouth. Positive relationship between service quality and profits, market share, return on investment, customer satisfaction, buying intention were proven. Therefore, service quality is vital for firm to be competitive and successful. For customers it is easier to evaluate goods' quality than service quality due to tangible cues. During evaluation outcome of service as well as the process of service delivery are considered (Parasuraman, Zeithaml & Berry, 1985).

Studies in airline industry showed that there were wide variety of service quality dimensions that affect service quality perception. Baker (2013) examined the data from US Air Travel Reports for period 2007 to 2011 and found that low cost carriers outperformed traditional legacy airlines by service quality. Dimensions as on-time arrival, denied boarding, mishandled baggage and customer complaints were considered. Overall US airline industry showed noticeable improvements for that period. Pakdil & Aydın (2007) measured service quality of Turkish Airlines by using weighted SERVQUAL method. Results indicated that "responsiveness" was the most important dimension and "availability" was the least important. Also study revealed that gap scores were significantly different for customers with different education level, flight frequency and purpose of travel. Park, Robertson, & Wu (2004) in their study on Korean travelers found that passenger expectations have a positive effect on perception and negative effect on passenger satisfaction.

### **3.1.5 Measurement of Service Quality**

There are variety of models used to measure service quality and its dimensions. Grönroos (1984) proposed that there are three dimension of service quality in total: technical, functional quality and corporate image.

- Technical Quality stands for *what* the consumer receives as a result of his interactions with a service firm
- Functional Quality is *how* customer gets the technical outcome
- Corporate Image is “the result of how the consumers perceive the firm” (Grönroos, 1984, p.38-39).

Rust and Oliver (1994) proposed a three dimensional model which consist of the service product (i.e. technical quality), the service delivery (i.e. functional quality), and the service environment. Haywood-Farmer (1988) suggested that three dimensions of service quality were professional judgment, physical processes and people’s behavior. All dimensions are based on only behavioral terms and thus this model may not properly serve to understand service quality. Cronin and Taylor (1992) stated that service quality should be measured by performance rather than the perception-expectation SERVQUAL model (see following section). Researches proposed SERVPREF which is performance-only measure research instrument meaning that service quality measures are based only on consumers’ perceptions of the performance. They conducted series of studies across four industries: banks, pest control, dry cleaning, and fast food. These studies proved that SEVRPREF outperform SERVQUAL. However, SERVQUAL scale is widely used by service firms and identified as the appropriate service quality measurement tool in marketing textbooks and journal articles (Brady, Cronin, & Brand, 2002). Thus researchers have not reached consensus relative to the superiority of performance-only measures of service quality. Brady and Cronin (2001) proposed a hierarchical model with three primary dimensions of service quality: outcome quality, interaction quality, physical environment quality. Each of these dimensions have three sub dimensions as following:

- Interaction quality consists of attitude, behavior and expertise
- Physical environment quality: ambient conditions, design, and social factors
- Outcome quality: waiting time, tangibles, and valence.

Some scholars propose to measure airline service quality through safety, timelines and price (Gourdin, 1998), while others by food and beverage, timely luggage transport, seat comfort, the check in process, and in-flight service dimensions (Elliott & Roach, 1993).

### **3.1.6 Service Quality Model**

For current study SERVQUAL instrument was used to measure service quality due to its good reliability and validity, simple structure and ease of use. Items of SERVQUAL scale were adapted to airline industry in order to fit in the current study. SERVQUAL was the first comprehensive model designed for evaluating service quality (Wirtz & Shamdasani, 1997).

Parasuraman, Zeithaml and Berry (1985) identified ten dimensions used to assess service quality. These dimensions were tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, access. These ten dimensions consisted of 97 items which were tested later in five different service industries. After refinement of this research instrument Parasuraman, Berry, & Zeithaml (1988) proposed new “SERVQUAL” model with 5 dimensions consisting 22 items to measure the service quality. The final five dimensions were three original and two combined dimensions. These dimensions are tangibles, reliability, responsiveness, assurance, and empathy. Assurance and empathy are combined versions of original seven dimensions. The SERVQUAL’s five dimensions’ definition are given below:

- Tangibles are the appearance of physical facilities, equipment, personnel, communication materials and all kinds of tools that are used for providing service.
- Reliability is ability to perform the promised service dependably and accurately.
- Responsiveness refers to willingness to help customers and provide prompt service.
- Assurance refers to the knowledge and courtesy of employees and their ability to instill trust and confidence to customers.
- Empathy stands for caring, individual attention given to customers.

SERVQUAL instrument is made up of two parts, first 22 items measure expectations and the second part has the same 22 measurement items for the actual perception of service. SERVQUAL has good reliability and validity (Parasuraman et al., 1988). However, Cronin & Taylor (1992) could not replicate SERVQUAL in number of sectors as bank, dry cleaning, pest control and fast food. Despite criticism, SERVQUAL remains the most commonly used model for evaluating service quality. SERVQUAL is used to measure service quality in airline industry as well (Gilbert & Wong, 2003; Park, Robertson, & Wu, 2004; Pakdil & Aydın, 2007; Aydın & Yıldırım, 2012).

## **3.2 Price Fairness**

This section explains what is price, pricing decisions, terminology of price fairness. It also gives explanation of price fairness concept and how price fairness can be measured.

### **3.2.1 Price**

Price is one of the 4 P's of marketing mix which is used to get potential customers' attention and induce to purchase company's products or services. Pricing is one of the most difficult decisions in marketing because of intense competition. Price can be perceived differently by consumers, high or low price may confuse customer, as usually price is directly associated with quality level. Price is defined as "the amount of money charged for a product or services or the sum of the values that consumers exchange for the benefits having or using the product or service" according to Kotler and Armstrong (1996, p.353). Price has been the major factor affecting buyer choice in recent decades. Pricing decision is important because customers have alternatives to choose from other firms. Price is used as a basis of comparisons between brands. If product is priced too high, customers may not buy, and if it is priced too low the firm may not achieve the profit levels necessary to continue run business.

### **3.2.2 Pricing**

Pricing is essential as it affects revenue and identifies customer behavior. Pricing decision include determination of price structure, price levels, short- and long-term price changes. Pricing decision is affected by external factors such as target market, competitors, suppliers and governmental regulations. Moreover, internal factors as marketing objectives, marketing mix strategies as all P's should be consistent, costs and organizational considerations affect the pricing decision. Hence, pricing is complex process that require thorough planning and market knowledge. Berman & Evans (2009) suggest that there are three basic pricing options: discount orientation for price-oriented customers, at-the-market orientation for middle class and upscale orientation for high income customers. Nowadays, marketer use various types pricing techniques to increase sales and maximize the revenue. Yield management also known revenue management is widely used in service industries like airline, hotel, rental services and in tourism industry (see section 3.2.6). Emergence of various pricing techniques have risen price fairness issue.

### **3.2.3 Terminology of Price Fairness**

Price fairness is named differently in various literature sources as price fairness, perceived price fairness and price unfairness. Term price unfairness is least used in literature (Bolton et al., 2003; Campbell, 1999). Term price fairness is used more frequently (Bolton & Alba, 2006; Hanif et al., 2010; Herrmann et al., 2007; Kukar-Kinney, Xia, & Monroe, 2007; Martin et al., 2009; Maxwell & Comer, 2010; Xia et al., 2004) than term perceived price fairness (Bolton, Warlop, & Alba, 2003; Dai, 2010; Kimes & Wirtz, 2003a; Ferguson & Ellen, 2013), however some scholars use these terms interchangeably through their works. The current study uses term price fairness as term price fairness already implies the perception which does not require word “perceived”.

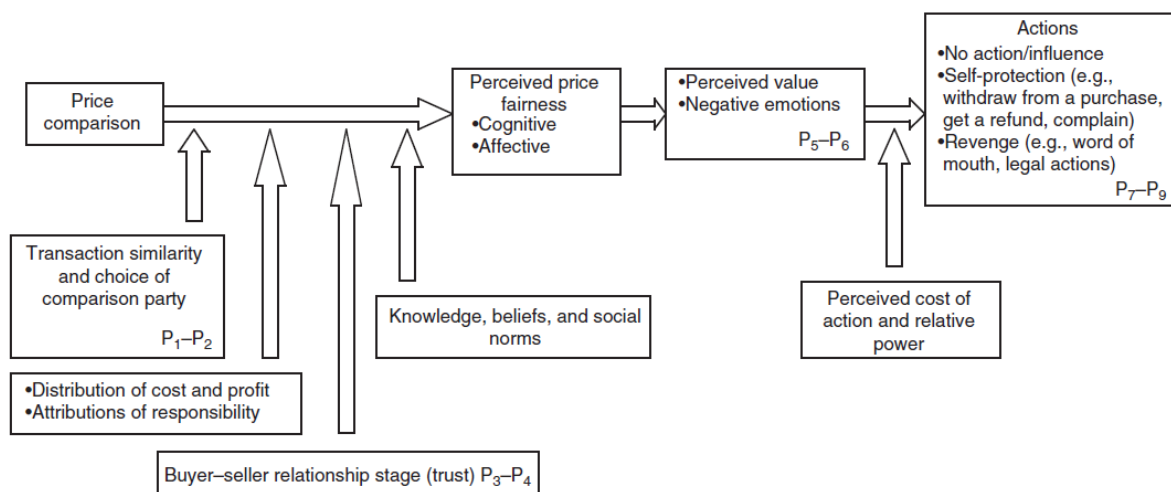
### **3.2.4 Price Fairness**

Studying price fairness in airline context is important as their various price strategies that may rise issue of price unfairness. Moreover, price transparency of service industries has effect on perception of price fairness (Homburg, Totzek, & Krämer, 2014; Ferguson & Ellen, 2013) Price fairness had been neglected in literature and relatively recently has got attention of researchers (Bolton et al., 2003; Xia, Monroe, & Cox, 2004; Vaidyanathan & Aggarwal, 2003). Few researchers have studied price fairness from the perspective of customer in tourism industry (Chung, 2010). Study of Martin-Ruiz (2008) indicated that possible existence of customer threshold of price, when price exceeds the threshold, then price unfairness becomes relevant. Price fairness is subjective as consumer characteristics and knowledge differ as previous experience, prices’ of competitors for the same service and trust in seller. Therefore, threshold is different for each customer and varies on basis of customer characteristics and market condition. (Martin-Ruiz, 2008). Another justification for studying price fairness is the finding that customer are tend to perceive price unfairness towards services rather than products and customers tend to believe that service price is higher than fair price (Bolton et al., 2003). Moreover, consequences of unfairness perception are more evident in service than in product (Martin-Ruiz, 2008). Particularly for airline sector studying price fairness might be helpful as air passengers tend to be sensitive to airfare ticket (Park, 2007).

Price fairness is defined as a “consumer’s assessment and associated emotions of whether the difference (or lack of difference) between a seller’s price and the price of a comparative other

party is reasonable, acceptable, or justifiable” (Xia, et al., 2004, p. 3). In later studies Monroe and Xia (2006) claims that price fairness occurs when no discrepancies or inequalities exist in price. It is very natural for customer to compare prices with reference prices. Reference prices are past prices, competitors’ price, expected price and sellers cost. Price comparisons can be explicit when price is compared to another or range of prices and implicit, based on price which is hoped to be found. Such comparisons lead to following judgments: if price is considered as favorable, then price is fair and unfavorable price is perceived as unfair. Maxwell, Lee, Anselstetter, Comer, & Maxwell (2009) in their study of cross-country analysis found out that fair price is the price that is below expected one. Monroe (2003) claims that price fairness is subjective and it is about whether price is acceptable or not. Each customer perceives fairness differently even if the price paid is the same due to different perceptions.

Xia, Monroe, & Cox (2004) reviewed price fairness literature for last two decades until 2004. That research paper is the most cited one and became basis source of literature of research related to fairness perception. They suggested that fairness and unfairness concepts might be two different constructs and people know what is unfair, however, it is difficult to say and define what is fair for them. Xia et al. (2004) developed conceptual framework (see Figure 1).



**Figure 1:** A Conceptual Framework of Price Fairness

**Source:** Xia, et al. (2004, p. 2).

Authors stated that all price evaluations are comparative and price comparisons may lead to the formation of fairness perception. However, price discrepancy is not enough for fairness or

unfairness perception to occur. Price fairness judgments are subjective and biased by customer self-interest. Moreover, Xia et al. (2004) proposed affect as important element of price fairness and that negative emotions from unfairness perception are directed to the seller rather than comparative other. Review identified four main group of factors that influence fairness perception:

- Transaction similarity and choice of comparative other parties. Transaction may take place at different period of time with different product, brand and location of purchase (physical, online stores). When degree of transaction similarity is low, price difference is perceived as fair or less unfair. If it is high then price discrepancy is perceived as fair. Buyer's price fairness judgment also depends to whom they compare himself. There are three types of such comparisons: self/self, self/other customer and other organizations. Self/other customer comparisons have more effect on fairness perception than self-comparison. Customers tend to believe that they deserve the same treatment (the same price, the same service) that they experienced before.
- The cost–profit distribution and attributions for the inequality. When price increases without actual increase in cost, customer perceive price as unfair and feel exploited by the seller. Cost based price increase is perceived as acceptable. Price fairness perception depend on locus of causality and controllability (Bolton et al., 2003; Vaidyanathan & Aggarwal, 2003)
- Buyer-seller relationship and trust. Price fairness perception varies with direction of inequality and nature of trust coming from the strength of buyer seller relationship. When customer is disadvantaged, trust in seller has U-shaped effect on price fairness. When customer is advantaged, trust has positive effect on fairness perception.
- Social norms and meta knowledge of the marketplace. Customer judgment about price fairness relies on how price is determined, if everyone can afford specific price based on social norms. Practice shows that perceived price unfairness may decline as time passes (Kachelmeier, Limberg, & Schadewald, 1991). If price was perceived as unfair at the very beginning, it may evolve in to new socially accepted and less unfair perceived price (Kahneman, Knetsch, & Thaler, 1986). Kimes (1994) argues that airline's dynamic pricing practices are accepted and perceived as fair by most customers.

Model suggests that price comparison and other factors have effect on unfairness perception, which is associated with negative emotions. Buyers tend to cope with negative emotions by no action, self-protection or revenge.

Unfairness perception may lead to change in consumer behavior. Customer may complain to other people and spread negative word of mouth or complain directly to the firm and ask for compensation, or do not act at all. Customer's actions depend on severity of perceived unfairness. If perceived unfairness is not significant customer may not act as there is cost of time and effort. But if it is significant customer may decide to leave relationship with the seller. Perceived unfairness perception may result in followings:

- Decrease in buying intention (Campbell, 1999; Martin et al., 1995)
- Complaints (Kalapurakal, Dickson, & Urbany, 1991; Xia et al., 2004)
- Stay in relationship with seller or change the seller (Kalapurakal et al., 1991)
- Punish seller by switching to competitor (Bolton et al., 2003)
- Boycotts, decrease in sales (Grover, 1994)

In case of price increase, perception of price fairness depends on extent of information and by whom price disclose was performed. Transparency in pricing decision is important. However, tourism sector is known as “one of the most price nontransparent industries” (Chung, 2010, p.1). If firm reveals price increase by itself and with reasonable explanation then this increase perceived as fair and helps to gain customer understanding. On other hand if firms provides customer with less reasonable explanation it may lead to negative customer responses (Mohammed, 2012). Ferguson and Ellen (2013) have examined relationship between transparency in pricing in case of price increase and price fairness by conducting two online experiments. Transparency stand for disclosure of a price increase and extent of explanation provided when a firm increases price. Result showed that price increase was perceived as more fair when price increase announced by firm and reason was included. The perceived price fairness is greater when firm provide a limited explanation for small price increases, and detailed aligned cost explanation for a larger price increase.

Chung (2010) identified four consequences of price fairness in tourism industry: loyal behavior, willingness to pay, complain and revenge. Price fairness perception leads to loyal

behavior, while unfairness perception to complain and revenge. Studies showed that price fairness is important antecedent of willingness to pay (Ajzen, Rosenthal, & Brown, 2000; Schroder & Mieg, 2008). Chung and Petrick (2012) examined the antecedents and consequence of price fairness of airline ancillary revenue for US. Domestic airline passenger. The found that price comparison and cognitive attribution were antecedents and emotional response and behavioral intentions were consequences of price fairness. Price comparison had negative effect and cognitive attribution had a negative impact on price fairness. If extra fees of airline were perceived as unfair, customers were more likely to complain and switch to competitor. However, if they find fees as fair, then passengers tend to spread positive word-of-mouth and recommend airline to others.

Martin et al. (2009) tried to examine how customer loyalty and price fairness perception affect each other in restaurant context. Generally it is assumed that loyal customer react better to price increase than non-loyal customers. The study showed that this principle of loyalty concerning price fairness is rejected under condition when price increase is high regardless of justifiable or non-justifiable reasons of increase. Moreover, Martin-Consuegra, Molina, and Esteban (2007) found that the more airfares were perceived as fair, the more passengers likely to become loyal to the airlines. Hermann et al. (2007) in their research conducted in automobile purchase context had empirically proved direct and indirect influence of price perception on customer satisfaction through perception of price fairness. Price fairness perception was measured by price offer fairness and pricing procedure fairness, both constructs are positively correlated. To measure price offer fairness they developed their own scales, lately successfully used by other researchers. In high involvement and complex purchases, it is important for customer to understand price setting procedure to evaluate price offer. Consumers' vulnerability negatively effects perceived price offer fairness. Therefore, seller should avoid exploiting their customers as it leads to unfairness perception. Transparency in pricing and price fairness positively influence satisfaction. Explaining customer how price is derived and that price increase is external to firm increases likelihood of accepting price and perceiving it as fair or less unfair (Vaidyanathan & Aggarwal, 2003; Xia et al., 2004).

Following theories of Equity and Attribution are used to explain how customers form their satisfaction judgment (see following section) and it helps to understand when, in which

situations customer feels satisfied or dissatisfied. Those two theories are both applicable to explain formation of price fairness perception as well.

#### *Equity theory*

Equity theory is frequently used to explore concept of fairness (Adams, 1965; Homans, 1961). Equity theory is based on notion that individuals compare their inputs to the outcomes of exchange. Unfairness perception occurs when perceived inputs are not consistent with perceived outcomes (Cheng, Nguyen & Klaus, 2013). When buyer perceive as equal ration of input to relatively to the output then price fairness perception occurs. When buying first class ticket as ticket price is high, customer expects better service, meals, more space between seats. If customer expectations are not met customer may perceive inconsistency between input, price paid for ticket, and output, better service level, leading to inequality, when inputs do not match with output. Hence, equality leads to fairness perception, inequality to unfairness perception (Chen et al., 2013).

#### *Attribution theory*

Attribution theory is not fairness theory, however it gives explanation how people interpret ambiguous situations (Weiner, 1985). The attribution theory states that people usually search for causal attributions for an event, which is surprising and/or negative at the same time. This theory is used to explain consumer behavior. Weiner (1992) categorized causal attributions based on following dimensions: locus of causality, controllability and temporal stability. Locus of causality stands for whether cause of action is external or internal to person/buyer/seller. For instance, cause of product break down may internal as well as external. It will internal if customer does not follow prescription and misuses the product. If product was defective from very beginning, then cause is external to customer as seller/manufacturer is responsible for breakdown. Controllability refers to if seller has control over action, in this case price increase. Uncontrollable price increase (for instance, increased cost of suppliers) most probably will be perceived as fair. If price increase is not related to uncontrollable situations, and other sellers still sell for old price, this action is evaluated as action within the control of seller and perceived as unfair or less fair. Temporal stability implies for whether cause of action remains stable over time or it is temporary.

### *Dual Entitlement*

The principal of Dual Entitlement has been widely used as main theoretical basis of how customer perceive price fairness (Kahneman et al., 1986; Campbell 1999). Kahneman et al. (1986) conducted series of experimental researches, respondents were given different about price increases, after reading each scenario participant evaluated if the case was fair, unfair or acceptable. The result of study led to the formation of principle of Dual Entitlement (DE). It suggests that consumers are entitled to have reference price and firms are entitled to have reference profit. At the same time firm should not benefit by causing loss to the buyer and the buyer should not benefit by causing loss to the seller. Moreover, it is concluded that customers perceive cost-justified price increases as fair. If firm keeps price at the same level even if cost of produce decreases, it is perceived as fair as it does not create a loss to buyer. If price increase is not related to cost increase, customers do not accept price increase. Principle of dual entitlement is widely used in literature as explanation of how buyers perceive price fairness.

Campbell's (1999) study expanded the DE and suggested "inferred motive" as an additional factor. She examined the influence of inferred motive for firm's price increase on price unfairness perception based on attribution theory. Attribution theory induces customer to look for explanation why certain firm increased prices. Inferred motive influences specific attributions made for the event i.e. perception of event. Inferred motive can be either positive or negative. In addition, Campbell identified reputation of firm as the factor that influence inferred motive, which in its turn affects perceived price fairness. Study revealed that customer who infer negative motive of perceive price increase as unfair and those who infer positive motive perceives price as fair. In case of price increase, consumer infer positive motive for companies' with good reputation and negative for those with poor reputation. The results showed that inferred motive is critical in perception of price fairness. In Campbell's study, notions of price fairness and unfairness were used interchangeably.

Study conducted by Vaidyanathan and Aggarwal (2003) was first to examine the contextual dependence of fairness judgments and test the robustness of DE. They used attribution theory to derive predictions about fairness perception and examined locus of causality and controllability. They questioned if cost-justified price increase is perceived as fair is true all the time. This comes from principle that firms are entitled to have reference profit. The result

showed that it does not hold true in case of absence of important requirements. The source of cost increase influence price fairness perception. If cost-justified price increase caused by factors internal to firm it will be perceived as less fair than those caused by factors external to the firm. Study demonstrated that price increase is perceived as fair when locus of causality is external and beyond the firm's control. If cause of price increase is internal and under control of firm then new price is perceived as less fair. Maxwell (2008) also concluded that consumers do not agree on that supplier's cost is uncontrollable, they consider that one of responsibilities of producer is cost control.

### **3.2.5 Measuring Price Fairness**

There is a little consensus about dimensionality of price fairness (Chung, 2010). Some studies employs that price fairness is uni-dimensional construct, while other researches argue about its multiple-dimensionality (Xia et al., 2004; Diller, 2008). Diller (2008) suggested that there were seven components of price fairness, namely distributive fairness, price honesty, price reliability, influence of co-determination, fair dealing, consistent behavior and personal respect and regard for partner. However, this model was not empirically tested. Price fairness is argued to encompass two dimension: distributive and procedural fairness (Herrmann, Xia, Monroe, & Huber, 2007; Martin et al., 2009). Herrmann et al. (2007) suggested price fairness are influenced by Procedural fairness as well as distributive fairness and both of them are positively correlated. If price is perceived to be fair, customers are more likely to perceive price setting procedure as fair. Current study propose and examine the two components of price fairness, namely distributive price fairness and procedural price fairness. Both notions of fairness are derived from social justice theories. In this study terms "justice" and "equity" used interchangeably.

Distributive fairness is defined as "an individual's perception of resource allocation or the outcome of an exchange" (Martin et al., 2009, p.589). According to Seiders and Berry (1998) equity, equality and need underlie the distributive fairness. Equity principle states that customer expects to receive level of benefits (outcome) that is proportional to effort or contribution (input) to get that benefit. The equality principle refers to treating same customers alike regardless the amount of input they give. All customers should be treated equally. On the other hand, need principle implies that outcome should be distributed according to need. Hence, customer who has greater need should receive greater assistance.

Procedural fairness is based on procedural justice. The concept of procedural justice is rooted in Thibaut and Walker's theory of procedure (Lind & Tyler, 1988). Procedural fairness relates to the processes, methods, and rules used to derive outcomes (Lind & Tyler, 1988). That processes, methods should be consistent, without self-interest and represent interests of all concerned parties (Brockner & Wiesenfeld, 1996). According to Seiders and Berry (1998) following principles underlie procedural fairness: consistency, the processes used to derive outcomes are unchanging, bias-suppression and representativeness, customers should be discriminated based on non-relevant attribute, accuracy, providing accurate and reliable information, correctability, minimization of customer's efforts to correct mistakes of seller, and ethicality, acting ethically in all situations. The fairness heuristic theory suggests that individuals interpret procedural fairness easier than distributive fairness. Moreover, when price comparison is not available, rely on procedural information to evaluate their outcomes (Van den Bos et al., 1997).

### **3.2.6 Yield Management and Price fairness**

Wide usage of yield management in service sector has risen price fairness issues. Alderighi, Nicolini, & Piga (2012, p.1) defined yield management as "a broad set of techniques that are profitably used by companies to implement a price discrimination policy when customers are heterogeneous, demand is uncertain and capacity is hardly modifiable". This definition fits the airline industry best as demand for flight is uncertain, passengers are heterogeneous and number of seats is fixed. According to Carroll and Coates (1999) there are three degrees of price discrimination. First degree discrimination is charging different prices for the same product, final price obtained through haggling. The second degree discrimination is charging different prices according to quantity purchased, for instance, buying in bulk is generally cheaper than purchasing single unit of a product. The third degree discrimination is when firms charges different prices to different customer segments. It is widely used in airline industry.

		Price	
		Fixed	Variable
Duration	Predictable	<u>Quadrant 1</u> Stadiums and arenas Convention centers Hotels' function space	<u>Quadrant 2</u> Hotel rooms Airline seats Rental cars Cruise lines
	Unpredictable	<u>Quadrant 3</u> Restaurants Golf courses	<u>Quadrant 4</u> Continuing care Hospitals

**Figure 2: Yield Management Matrix**

**Source:** Chung (2010), p.18 adapted from Kimes and Chase (1998)

Kimes and Chase (1998) developed yield management matrix for different tourism sectors. The matrix consists of four quadrants which are the combination of duration and price management techniques (see Fig.2). Airline is in quadrant 2 with variable pricing and having control over duration of use. Services from Quadrant 2 tend to successfully apply yield management techniques. Kimes and Wirtz (2003a) tested price fairness perception and six revenue management techniques in golf industry context. Study showed that customers perceive varying price level and time-of-booking pricing techniques as unfair. Moreover, Kimes and Wirtz (2003b) stated that price fairness is also affected by “rate fences”. Rate fence is defined as “rules that a company uses to determine who gets what price” (Kimes & Wirtz, 2003b, p. 128). Rate fences are seat location, size of room, seat class of flight and other. Logical and clear rate fences are tend to be perceived as fair.

### 3.3 Customer Satisfaction

Customer satisfaction is defined as “a person’s feelings of pleasure or disappointment resulting from comparing a product perceived performance (or outcome) in relation to his or her expectations” by Kotler & Keller (2006, p.144). Levesque & McDougall (1996, p.14) defined satisfaction as “overall customer attitude towards a service provider”. Oliver (1997, p. 13) states that it is “a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment,

included levels of under- or over fulfillment”. Zineldin (2000) argued that satisfaction is an emotional reaction to the difference between anticipated and actually received service. Zeithaml & Bitner (2001) proposes that satisfaction is defined by following factors: service quality, product quality, price, situation factors and personal factors. In this study, customer satisfaction with the airline services will be evaluated based on customers’ experience of service quality and price fairness.

Customer satisfaction results in a long term profitability, customer loyalty, and customer retention. Therefore, for company delivering the right service to the right people in reasonable time and showing good manner is important. Satisfied customers may spread positive word of mouth and create indirect advertisement for firm thus attract new customers. Satisfied customers are more likely to continue the relationship with service provider while dissatisfied customers are more likely to go elsewhere (Baker, 2013). Price and service quality are judged based on equity principle which in creates the feeling of satisfaction or dissatisfaction (Oliver, 1997). If price is perceived as fair, customers tend to deal with service provider. Customer associate high price with high quality, and low prices with low quality. Therefore, they do expect high level of service when they pay considerable amount for the flight. Airlines should handle their customer’s perceptions about price by providing them the reasonable, attractive prices with corresponding quality, thus increase the customer satisfaction. Customer satisfaction may vary from customer to customer and may even change on a daily basis. If one customer perceive service or product as satisfactory, another customer may not feel in the same way. Each customer defines quality based on his own requirements and judgments. For firm to be successful it should have satisfied customers (Shin & Elliott, 2001). Previous researches showed that satisfaction result in re-purchase intentions (Cronin & Taylor, 1992; Fornell, 1992) and serves as an exit barrier (Fornell, 1992). Results from other research indicated that satisfied customers are willing to pay more and are more likely to be tolerant of an increase in price (Baker, 2013).

Suki (2014) suggested that customer satisfaction with airline services can be predicted by airline tangibles, terminal tangibles and empathy. Result showed customer satisfaction has mostly influenced by empathy, while tangibles had insignificant effect on satisfaction. Park, Robertson, & Wu (2004) found that service expectations of korean air passegers had negative effect, on the contrary perception of service and service value had positive effect on

passenger satisfaction. Another study conducted for Korean domestic air market indicated that tangibles and responsiveness were important determinants of customer satisfaction that consequently lead to word-of-mouth, purchase intention, and complaining behavior (Kim & Lee, 2011).

### **3.3.1 Theories of Customer Satisfaction**

There are number of theories that explain how customers form satisfaction judgments, some of them are discussed below.

#### *The Expectancy Disconfirmation Paradigm*

Oliver (1977) developed the Expectancy-Disconfirmation Paradigm (EDP) for the assessment of customer satisfaction, which is widely accepted among researchers. According to EDP consumers have certain pre-purchase expectations about the product or service, and this level of expectation is a standard to which actual product or service is compared. If the outcome meets with expectation, confirmation occurs. When there is a difference between expectations and outcomes, it results in disconfirmation. When service outperforms expectations, there is a positive disconfirmation, thus, customer is delighted. When service rendered exactly as expected, then there is a confirmation. When service is not delivered as customer expected, there is a negative disconfirmation, which leads to dissatisfaction. Despite of popularity of EDP, it has its disadvantages as it based on expectation and this model cannot be applied when customer does not know what to expect as he is not familiar with service or product, or does not have clear firm expectation. When customers have little knowledge about product and lack of previous experience may result in uncertain expectations, and in the case of EDP such expectations are meaningless. In addition, Whipple & Thach (1988, p.16) found that "there is evidence that pre-purchase choice criteria and post-purchase choice criteria are not the same". If criteria used to form expectation and evaluate actual performance are different, then the initial expectation is no longer useful for measuring satisfaction. Also, meaning of expectations may vary from individual to individual, for someone it is minimum tolerance level and for some it is ideal performance. Timing of expectation measurement is also important, some researchers argue that expectations should be measured before the service experience (Carman, 1990), while other suggest to measure it after the service experience (Parasuraman et al., 1988).

### *The Comparison Level Theory*

The Comparison Level uses expectations following as the comparison standard comparing to EDP which uses the predictive expectation and situationally produced expectations (Yüksel & Yüksel, 2008):

- consumers' prior experiences with similar products
- situationally produced expectations
- experience of other consumers who serve as referent persons

LaTour & Peat (1979) found that expectations based on prior experience effect the most customer satisfaction and situationally produced expectations had little effect on it. situationally produced expectations are created by the means of advertisement and such information about service expectation provided by firm is less valuable if consumers have had previous experience and information about other consumer experiences.

### *The Value Percept Theory*

Westbrook and Reilly (1983) stated that what is expected may be different from what is desired or valued in a product, and what is valued may or may not correspond to what is expected. They suggest that value is a better comparative standard to explain customer satisfaction/dissatisfaction. Value percept theory implies that perceptions of service are compared to one's values, needs, wants or desires (Westbrook & Reilly, 1983). Similar to the EDP, difference between one's perceptions and one's values (value-perception) shows an increasing level of dissatisfaction. Authors compared the expectation-confirmation model with the value-percept disparity model and found that the disconfirmation of expectations had a stronger effect on satisfaction than the disconfirmation of values. However, they states that both models are not sufficient by their own, and there is a need for new integrated model which include both values and expectations as both of them affects satisfaction (Spreng, Mackenzie, & Olshavsky, 1996).

### *Attribution theory*

Attribution Theory is developed from the Weiner, Frieze, Kukla and Reed's (1971) work. Attribution theory states that customers seeks for explanation why certain situation have occurred, in this case it is dissatisfaction or satisfaction. When customer's expectations are unmet then customer attributes dissatisfaction and relies on three dimensions: locus of

causality, stability and controllability. Folkes (1984) conducted research in restaurant context and respondents were asked whether they would prefer a refund, exchange, or an apology for meal they do not like. He found that if problem was external, related to restaurant (locus of causality), customers prefer a refund, exchange, or an apology from personnel. If problem was stable over time, they were likely to prefer a refund rather than an exchange, while those who thought that the company could have prevented the problem demonstrated high levels of anger. Some researchers suggest the attribution theory is more useful in ascertaining customer dissatisfaction and complaining behavior.

### *Equity Theory*

Equity Theory suggests that satisfaction occurs when customer perceive the ratio of their outcomes to inputs as being fair (Oliver & DeSarbo, 1988). Equity theory, in tourism context, suggests that customers compare their input-output ratio in a social exchange. If customer output (benefits, gain) is less than his input (time, money, and other costs) it result in dissatisfaction (Reisinger & Turner, 1997). Fisk and Coney (1982) found that consumers feel less satisfied when they found out that other customers received a better price deal and better service than them. Therefore, satisfaction judgments are formed based on comparison to other parties and the outcomes of all parties sharing the same experience.

Theories discussed above explain the how satisfaction judgments are formed. There is no supremacy of one theory over another. There is no consensus about which theory is the most appropriate one, each theory has its advantages and disadvantages. Generally, most theories suggest that customer satisfaction is judged in relation to specific standard, standard may be previous experiences, expectation and value. This study of customer satisfaction in airline industry sticks with the theory of Expectancy-Disconfirmation Paradigm which implies that customer is satisfied when service is better than or equal to the expected. The EDP is widely used in tourism and hospitality industry to measure customer satisfaction (Yüksel & Yüksel, 2008).

### **3.4 The Relationship Between Service Quality, Customer Satisfaction and Price Fairness**

Most researchers suggest that a high level of service quality leads to a high level of customer satisfaction (Baker, 2013). Service quality is considered to be an antecedent of customer satisfaction (Cronin & Taylor, 1992; Anderson, Fornell, & Lehmann, 1994; Cronin, Brady, &

Hult, 2000). Cronin and Taylor (1992) and Brady and Cronin (2001) empirically proved that service quality was actually an antecedent of consumer satisfaction and that consumer satisfaction explains more variance in purchase intention than service quality. However, the causal relationship between service quality and customer satisfaction is debated by researchers (Baker, 2013). In addition, distinction between the two constructs becomes unclear, Parasuraman, Zeithaml, and Berry (1994) explained this phenomenon occurred due to practitioners and the popular press used the terms interchangeably, which in turn made theoretical distinctions difficult. Sureshchandar, Rajendran, and Anantharaman (2002) found that there is the strong correlation between service quality and customer satisfaction and that both constructs are independent, different constructs, at least from the customer's point of view. Suki (2014) examined influence of service quality dimensions such as airline and terminal tangibilities, empathy, on customer satisfaction and found that empathy significantly influenced customer satisfaction while airline tangibilities had insignificant impact on it.

Price is associated with quality level as customers tend to evaluate service according to price they paid. Price is seen as input, service delivered as outcome of relationship between airline and customer. According to equity theory, if input is not consistent with output then unfairness perception may occur. Therefore, price and its fairness are essential factor determining customer buying behavior. Moreover, employing yield management techniques in service sectors, especially in airlines, has raised the issue of price fairness.

Haghighi, Dorosti, Rahnama, and Hoseinpour (2012) found that price fairness perception is the fourth most important factor that affects satisfaction in restaurant context. Studies have shown (Herrmann et al., 2007; Martin-Consuegra et al., 2007; Oliver & Swan, 1989; Hanif, Hafeez, & Riaz, 2010; Hassan, Hassan, Nawaz, & Aksel, 2013) that perceptions of price fairness are significantly associated with customer satisfaction. However, study of Wu, Liao, Chen, & Hsu (2011) in medical insurance context that price fairness did not show any significant impact neither on customer satisfaction, nor on customer loyalty. Price fairness, service quality, customer satisfaction and other variables collectively have been studied in only few studies in telecommunication sector (Hanif et al., 2010; Hassan et al., 2013)

## **4. METHODOLOGY**

This section explains research method, and describes the research design for this study. The sample and data collection methods, questionnaire development process are discussed. Data analysis procedures are also introduced.

### **4.1 Choice of Research Methods**

The study conducted literature review of service quality, price fairness and customer satisfaction to gain the knowledge, identify gaps in literature and suggest conceptual model that best predicts customer satisfaction. Also, this study adopted a quantitative research method. Specifically, a self-administered questionnaire survey was used to measure variables and test hypotheses considering the advantages of using survey method and the nature of the study context. It is relatively quick and easy to conduct, code and interpret questionnaire results and it is one of the least costly research methods. Also surveys are a frequently used method of estimating price sensitivity (Monroe, 2003). Before main survey pilot study was conducted on a group volunteers.

### **4.2 Research Design**

The sampling design, data collection methods, measurement, and data analysis procedures are included in the research design. Hypothesized model and research limitations are also discussed in following sections.

#### **4.2.1 Population and Sample Size**

This study was conducted in an airline context in order to measure customer satisfaction through price fairness and service quality. The population, in this research, was Kazakhstan citizens who have flown with Air Astana on domestic and/or international flights in past 12 months. Passengers who were older than 18 took part in the survey.

For the adequate sample size for exploratory factor analysis Hair Jr., Black, Babin, & Anderson (2010) recommend the ratio of 5:1, in other words 5 observations for each variable. Nonetheless, higher ratios are generally better. Also following scale can be used to evaluate sample size adequacy: 50 is very poor, 100 is poor, 200 is fair, 300 is good, 500 is very good, 1000 or more is supposed to be excellent (Osborne & Costello, 2004). The appropriate sample size for this study was determined to be 280 (56 items\*5) after overall examination of multiple guidelines in literature and on the basis of budget and time constraints,

characteristics of a proposed model, and study objectives. Hair et al. (2010) stated that larger samples generally lead to more stable results, sample size should be determined based on a set of factors such as the model complexity and measurement model characteristics.

#### **4.2.2 Pilot Survey**

The questionnaire was originally written in English since the survey was conducted for Kazakhstani airline, it was translated into Russian, then translated back into English. According to statistics, 89% of citizens speak Russian, while Kazakh speaking citizens comprise 60% of Kazakhstan population as for 2010 (Kazakhstan Today, 2010). Due to cost and time limitations, a pilot survey was conducted based on convenience sampling from 3rd to 7th of December 2014. The questionnaire was tested via online pilot survey on a sample of 24 people to check its understandability and clarity. The final questionnaire in both languages is presented in the Appendix A and B part of the study.

#### **4.2.3 Data Collection**

Research was conducted between 12th of December 2014 and 19th of January 2015 for Kazakhstan residents as Air Astana serve more domestic passengers. The second reason is availability and easiness to reach Kazakhstan citizens. Respondent were mainly reached by means of e-mail and various social networks like Facebook.com, Vk.com and others. Empirical studies have revealed only minor differences between the results of online surveys face-to-face interview, also it was found that result from questionnaire tend to offer better quality (De Leeuw, 2005). In addition, online questionnaires have some advantages including: speed, costs, large sampling size and it can also prevent respondents from giving missing values. In order to reach needed sample size, about 100 questionnaires were printed out and distributed to respondents. Non-probabilistic convenience sampling technique was applied as it is the easiest, cheapest, and least time consuming technique. Printed version of survey was distributed and collected in Almaty, Kazakhstan, in the same period as online survey. Respondents of printed version were mainly reached at their work place, business people at markets and academic staff at university campus. Then answers were entered online to the same data base. A total of 282 useable questionnaires have been received.

This study made efforts to address coverage error issues, therefore only respondents who are qualified for this study (i.e. had experiences on domestic and/or international flights with Air

Astana flights in the past 12 months and older than 18) were invited to participate in the survey. Those who were not qualified were screened out via screening questions at the beginning of the survey.

#### **4.2.4 Measurements**

The hypothesized model had three variables – service quality, price fairness and customer satisfaction. The measurement items for each variable were adapted from previous researches, and were modified to best fit the study context. The variables with their dimensions, items, questions, and sources are listed in the Table 3.

The survey instrument was composed of the introduction page and 5 main sections. The first section contained two screening questions. The second section asked questions about expectations and perception of service quality, third section was for customer satisfaction and fourth for price fairness. The last section asks socio-demographic profiles including gender, age, education level, occupation, citizenship, purpose of travel and flight frequency.

The first page of the survey included consent requirements. In this section, statements that explained the purpose of the study, confidentiality and voluntary participation were included. To rule out ineligible respondents two screening questions were used. The first one was related with age of individual, as target audience for this study should be 18 year old or older. Then respondent was asked following screening question: “Have you taken any domestic and/or international flights with Air Astana in the past 12 months?”. If a respondent answered “no” for one of these questions, the response was screened out, and consequently, did not count.

Service quality and customer satisfaction were measured with multiple items which have been frequently used in related contexts. Service quality items were adopted from Parasuraman, Berry, & Zeithaml (1988) SERVQUAL Model due to its good reliability and validity, simple structure and ease of use. Customer Satisfaction was measured by 5 items adapted from Lee, Petrick, & Crompton (2007).

Two-dimensional concept of price fairness including distributive and procedural price fairness was adapted (Herrmann et al, 2007; Martin et al., 2009; Chung, 2010). Despite recent research which has proposed the multi-dimensionality of price fairness, there are only a few

empirical studies which have measured it with two dimensions. Distributive and procedural price fairness was measured with valid and reliable scales which have been used in marketing and tourism literatures (Martin, et al., 2009; Wirtz & Kimes, 2007, Herman, et al., 2007), with minor wording changes to fit the current study's context. All items were placed on a five-point Likert scale from 1 "strongly disagree" to 5 "strongly agree".

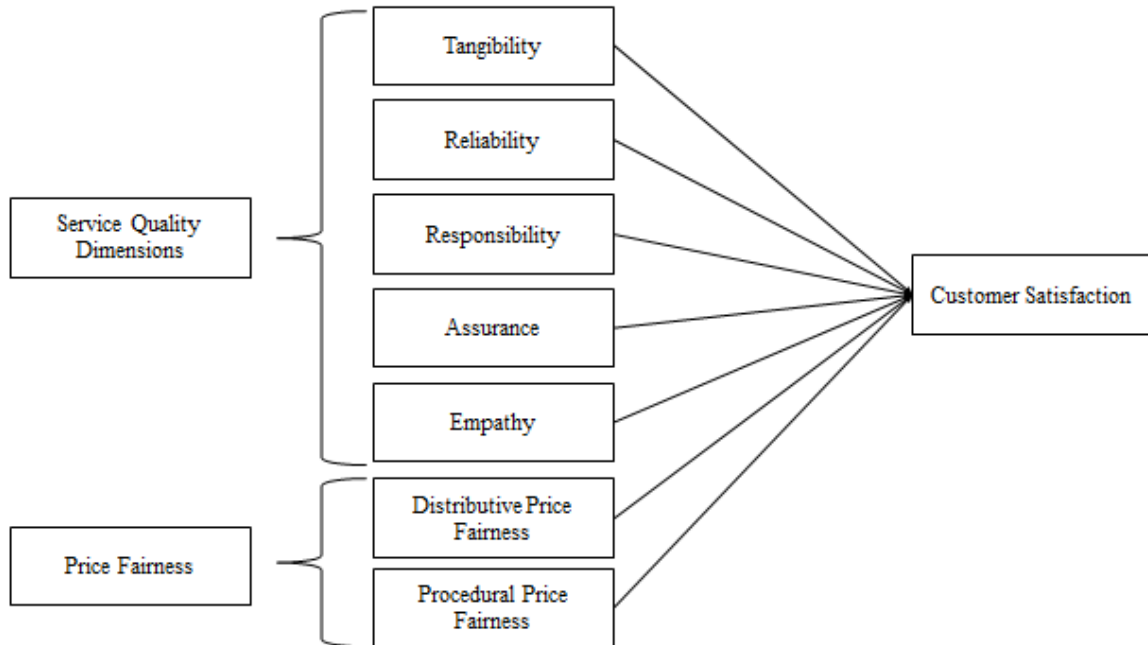
**Table 3: Measurement Scales**

Concepts/Dimensions		Measurement scales	Source
Screening questions		This questionnaire is for people who are 18 years old or older. Are you 18 years old or older?	Developed by the researcher
		Have you taken any domestic and/or international flights with Air Astana in the past 12 months	
Socio – Demographic profile		Gender	Developed by the researcher
		Age	
		Level of Education	
		Travel purpose	
		Occupation	
Flight frequency		How many times did you take a plane in the past 12 months?	Developed by the researcher
		How many times did you take a plane with Air Astana in the past 12 months?	
Service Quality	Tangibles	Airline should have modern aircrafts.	Parasuraman, Berry, & Zeithaml (1988)
		The physical facilities of airline, e.g. office, check-in counter, should be visually appealing.	
		Airline's employees should be well dressed and neat appearing.	
		Airline's informative materials associated with its service, e.g., pamphlets or statements, should be visually appealing.	
	Reliability	When airline promises to do something by a certain time, airline should do so.	
		When a customer has a problem, airline should show a sincere interest in solving it.	
		Airline should be dependable	
		Airline should provide their services at the time it promises to do so.	
		Airline should keep error-free records.	
	Responsibility	Employees of airline should tell customers exactly when services will be performed.	
		Employees of airline should give prompt service to customers.	
		Employees of airline should always be willing to help customers.	
		Employees of airline should never be too busy to respond to customer requests.	
	Assurance	The behavior of airline employees should instill confidence in customers.	
		Passengers of airline should feel safe during the flight.	
		Employees of airline should be polite with customers.	
Employees of airline should have the knowledge to answer customers' questions.			

	Empathy	Airline should give customers individual attention.	
		Airline should have employees who give customers personal attention in solving customer's problem.	
		Employees of airline should understand the needs of its customers	
		Airline should have the customer's best interests at heart.	
		Airline should have operating hours convenient to all their customers	
Satisfaction		My choice to use the airline was a wise one	Lee, Petrick, and Crompton (2007)
		I think that I did the right thing when I used the airline.	
		I was satisfied with my decision to use the airline.	
		My expectations were met.	
		Overall, I was satisfied with my most recent flight.	
Price fairness	Distributive Price fairness	The ticket price is fair	Martin, Ponder, & Lueg (2009)
		The ticket price is reasonable	
		The ticket price is acceptable	
		I think the price changes were based on cost	Hermann et al. (2007)
	Procedural Price fairness	The airline's pricing decision processes and procedures were fair	Martin, Ponder, & Lueg (2009)
		The airline's pricing decision processes and procedures were reasonable	
The airline's pricing decision processes and procedures were acceptable			

#### 4.2.5 Conceptual Model and Hypotheses

According to the literature review and study objectives, the hypothesized model is proposed (see Fig.3).



**Figure 3:** Model of the study

H1: Service quality dimensions have a significant effect on customer satisfaction.

H2: Price fairness has significant effect on customer satisfaction.

This research will help to find out followings:

- If service quality dimensions have impact on customer satisfaction
- If price fairness has impact on customer satisfaction
- To identify to what extent customers are satisfied with service provided
- To know to what aspects of service by identifying significant service quality dimensions need improvements
- To know if suggested conceptual model is significant and can be used as model prediction customer satisfaction

### **4.3 Limitations**

This study has the following limitations:

- Potential for sampling bias as study was limited to passengers who have taken flights with Air Astana in the past 12 months
- Using non-probabilistic convenience sampling technique
- Possible bias in respondent's answers: respondents may not be willing to answer such a long questionnaire with total of 63 questions including socio-demographic ones, do not give enough attention for questions, answer quickly and inappropriately. Moreover, all variables are measured by using 5 point Likert scale that may lead bias in answers
- Procedural price fairness scales were modified as "The airline's pricing decision processes and procedures were fair/ reasonable/acceptable" would be difficult to understand to respondent. It was replaced by "The airline's pricing policy is fair/ reasonable/acceptable"
- Data was collected by online and offline, however no tests were employed to the possible difference between two groups of respondents
- The study did not consider situational factors (e.g. travel distance, destinations). Duration of flight was not considered as well, which probably may give distinctive results for customer satisfaction. It is suggested that duration of flight may affect level of customer satisfaction.
- The study focused on only two independent variables, which may affect predictive power of model

### **4.4 Data Analysis**

The data collected were processed by the SPSS 21.0 (Statistical Package for the Social Sciences) program. Collected data were edited and coded appropriately. Since this study conducted an online survey, entering of data were not necessary except entering the data of printed version of questionnaire. Google Docs saved data in ".xlsx" format which allowed SPSS to import the data and convert to required data file. Data was analyzed by descriptive statistics, paired sample t-test, reliability analysis, exploratory factor analysis, correlation and multiple regression analysis.

## 5. RESEARCH FINDINGS

In this section, research findings are presented in following sequence. In the first part, demographic information of respondents are given. The second and third parts include reliability test, gap score and paired sample t-test results. The fourth part covers the result of the factor analysis, correlation and regression.

### 5.1. Demographics

Passengers were classified according to their gender, age, education, occupation, travel purpose and frequency for last 12 month and total number of flights with Air Astana for the last 12 months. Total of 282 passenger profiles were analyzed and given in Table 4.

**Table 4: Demographics of Passengers**

	<b>Characteristic details</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	133	47,2
	Female	149	52,8
Age	18-24	85	30,1
	25-34	85	30,1
	35-44	40	14,2
	45-54	26	9,2
	55-64	32	11,3
	Older than 65	14	5,0
Education	High school	16	5,7
	College	23	8,2
	Undergraduate	150	53,2
	Graduate	77	27,3
	Doctorate	16	5,7
Occupation	Government employee	36	12,8
	Employee of a company	77	27,3
	Self-employed	45	16,0
	Student	80	28,4
	Housewife	13	4,6
	Unemployed/looking for a job	3	1,1
	Retired	15	5,3
	Other	13	4,6
Travel Purpose	Business trip	68	24,1

	Vacation	57	20,2
	Education	77	27,3
	Visit to family/friends	71	25,2
	Medical checkup/treatment	3	1,1
	Transit flight	4	1,4
	Other	2	,7
Total flights			
	1-3	115	40,8
	4-6	87	30,9
	7-9	30	10,6
	10-12	24	8,5
	13-15	9	3,2
	more than 16	17	6,0
Flights with Air Astana			
	1-3	179	63,5
	4-6	75	26,6
	7-9	14	5,0
	10-12	8	2,8
	13-15	2	,7
	more than 16	4	1,4

As it is seen in Table 4, 52,8 % of respondents were female and 47,2% of them were male. The most of passengers were in 18-24 age group (30,1%) and 25-34 age group (30,1%) in equal percentage, totally comprising 60,2% of all respondents. Age group 35-44 comprised 14,2%, 45-55 were 9,2%, 55-64 got 11,3%, older than 65 were 5% of all passengers. More than half of passengers (53,2%) had bachelor degree and 27,3% of them hold master degree, college graduates were 8,2%, doctorate holders and high school graduates were 5,7% each. None of the respondents' education level was lower than high school degree. Student passengers comprised 28,4%, employees of company 27,3% and self-employed passengers 16% of total sample. Government employees were 12,8%, retired passengers were 5,3%, housewife and "other profession" holders were 4,6% each. Unemployed were only 1,1% of total respondents. Passengers had a trip for education at most (27,3%) then for visit to family and friends secondly (25,2%) and then for business trip with rate of 24,1%. Vacation took 20,2%, while transit flight and medical checkup hold 1.4% and 1.1% respectively. Most of them had a flight 1-3 times (40,8%) and 30,9% of them had a flight 3-6 times during the last 12 months. Passenger who have flown exclusively with Air Astana 63,5% of them had flight 1-3 times, 26,6,% had flight 4-6 times last 12 months.

## 5.2. Reliability Test

In this study, reliability of the scales was checked by using Cronbach's Alpha values. The alpha value should be greater than 0.70 to be reliable. All items showed very good reliability values above 0,90 (see Table 5).

**Table 5: Reliability Test Results**

	N	N of Items	Cronbach's Alpha
Expectations of passengers	282	22	0,932
Perceptions of passengers	282	22	0,959
Gap Score (P-E)	282	22	0,955
Satisfaction	282	5	0,929
Price Fairness	282	7	0,956
Overall Reliability	282	56	0,950
Overall Reliability with Gap score	282	78	0,963

## 5.3. Gap Score and Paired Sample t-Test Results

Expectations and perceptions items were both measured by using the 5-point Likert scale. The higher numbers indicate higher level of expectation or perception. As it is seen in Table 6 expectation exceeded the perception resulting in a negative gap score for all items. The gap scores are the difference between the perception and expectation scores with a range of values from -4 to +4.

The items with the highest expectation scores were dependability of airline (4,720), safety during the flight (4,660), possession of modern aircrafts (4,606) and airline promises to do something by a certain time, airline should do so (4,560). The items with the lowest expectation scores employees of airline should never be too busy to respond to customer requests (4,156), giving customers individual attention (4,078), visually appealing physical facilities of airline (4,071) and giving customers personal attention in solving customer's problem (4,071).

The items rated highest for actual service perceived were, well dressed and neat appearing employees (4,096), dependability of airline (3,897 safety during the flight (3,865) and possession of modern aircrafts (3,819). While items rated lowest for actual perceived service

were ability to understand the needs of customers (3,457), showing a sincere interest in solving customer problems (3,408), give customers individual attention (3,369) and giving customers personal attention in solving customer's problem (3,348). Three out of four lowest rated items belong to empathy dimension, which may indicate significant problems in understanding customers.

**Table 6: Gap Score and Paired Sample t-Test Results**

		Perceptions		Expectations		Gap Score	Sig. (2-tailed)
Dimensions	Items	Mean	SD	Mean	SD		
Tangibility	Q1	3,819	,8474	4,606	,5945	-0,787	,000
	Q2	3,713	,8762	4,071	,7320	-0,358	,000
	Q3	4,096	,6654	4,468	,6206	-0,372	,000
	Q4	3,628	,8518	4,177	,7478	-0,550	,000
Reliability	Q5	3,496	,9366	4,560	,6127	-1,064	,000
	Q6	3,408	,9658	4,457	,6313	-1,050	,000
	Q7	3,897	,8180	4,720	,5162	-0,823	,000
	Q8	3,603	,9116	4,528	,5605	-0,926	,000
	Q9	3,511	,8817	4,404	,6694	-0,894	,000
Responsibility	Q10	3,539	,8769	4,340	,6625	-0,801	,000
	Q11	3,628	,8602	4,348	,6023	-0,720	,000
	Q12	3,564	,9152	4,447	,5775	-0,883	,000
	Q13	3,461	,8687	4,156	,6779	-0,695	,000
Assurance	Q14	3,621	,8612	4,383	,6331	-0,762	,000
	Q15	3,865	,8328	4,660	,5313	-0,794	,000
	Q16	3,794	,8605	4,489	,5547	-0,695	,000
	Q17	3,621	,8529	4,358	,6503	-0,738	,000
Empathy	Q18	3,369	,9723	4,078	,7313	-0,709	,000
	Q19	3,348	,9581	4,071	,7272	-0,723	,000
	Q20	3,457	,9086	4,188	,6829	-0,730	,000
	Q21	3,496	,9366	4,170	,7682	-0,674	,000
	Q22	3,791	,9099	4,170	,8262	-0,379	,000

\*Items coding available in Appendix C part

The largest gaps scores were, airline promises to do something by a certain time, airline should do so -1,064, showing a sincere interest in solving customer problems (-1,050), providing their services at the time it promises to do so (-0,926) and keeping error-free records (-0,894). All four items belong to Reliability dimension. The smallest gaps scores were, materials associated with its service, e.g., pamphlets or statements, should be visually

appealing. (-0,550), convenient operating hours to all their customers (-0,379), well dressed and neat appearing employees (-0,372) and visually appealing physical facilities of airline (-0, -0,358). Three items out of four lowest gap score belong to tangibility dimension.

In order to test if difference between perception and expectation scores was significant, Paired-sample t test was done. Result showed that all differences are statistically significant at  $p < 0.5$ . Standard deviations values for perception are significantly higher than for expectations meaning that perception of service provided differs a lot. While passengers' expectations are almost at the same level, comparing to other customers. Standard deviations values for perception of Empathy dimension showed highest scores.

#### 5.4. Analysis of Response Frequency

Frequency of passengers' responses for price fairness questions was calculated in order to see customer perception of price fairness (see Table 7).

**Table 7: Frequency of Price Fairness Responses**

	Strongly Disagree		Disagree		Neutral		Agree		Strongly agree	
The ticket price was fair	28	10%	105	37%	75	27%	59	21%	15	5%
The ticket price was reasonable	26	9%	87	31%	89	32%	69	24%	11	4%
The ticket price was acceptable	27	10%	79	28%	83	29%	81	29%	12	4%
I think the prices are based on cost	27	10%	62	22%	114	40%	64	23%	15	5%
The airline's pricing policy is fair	33	12%	83	29%	102	36%	52	18%	12	4%
The airline's pricing policy is reasonable	32	11%	84	30%	84	30%	67	24%	10	4%
The airline's pricing policy is acceptable	34	12%	76	27%	79	28%	78	28%	15	5%

In addition, frequency of passengers' responses of customer satisfaction items was calculated in order to see the level of customer satisfaction (see Table 8).

**Table 8: Frequency of Customer Satisfaction Responses**

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
My choice to use the Air Astana was a wise one.	4	1%	10	4%	79	28%	145	51%	44	16%
I think that I did the right thing when I used the Air Astana.	3	1%	12	4%	62	22%	166	59%	39	14%
I am satisfied with my decision to use the Air Astana.	5	2%	10	4%	67	24%	155	55%	45	16%
My expectations from Air Astana were met.	4	1%	20	7%	61	22%	154	55%	43	15%
Overall, I was satisfied with my most recent flight with Air Astana	7	2%	17	6%	27	10%	175	62%	56	20%

### 5.5. Factor Analysis for Service Quality Dimensions and Price Fairness

Factor analysis is one of the commonly used multivariate statistical methods, which reduces a large of interrelated variables to less, meaningful, and independent factors. The difference scores for each item were factor analyzed using the Principal Component Method followed by varimax rotation. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett test of sphericity were used in order to examine the data set. The KMO measure of sampling adequacy should be over 0.5 and closer to 1 (Hair et al., 2010). If the value is closer to 1, then the data set is suitable for factor analysis. Bartlett test of sphericity should be significant.

Initially, the Kaiser-Meyer-Oklin value was 0.951 and the Barlett's test of sphericity was also significant (sig. 0.000), Anti-image Matrix was also checked. Anti-image matrix determines whether each question is suitable for analysis. All items on the diagonal of this matrix were greater than 0.5. Therefore factor analysis is appropriate for this data set. Items with communalities lower than 0.60 were eliminated from further analysis. After reanalysis, items with eigenvalues greater than one were retained. The rotated component matrix was checked to identify factor loadings, item that loaded on two factors was also eliminated. Factor loading cutoff point was set 0.60. Final factor analysis resulted in KMO 0,943 and significant Barlett's test of sphericity (sig. 0.000 <0.50). Factor analysis had identified four components. The four component solution explained a total of 72,478% of the variance, with factor 1 contributing 47,840%, factor 2 contributing 14,425%, factor 3 contributing 5,492% and factor

4 contributing 4,722%. From Table 9, it is seen that items from different dimensions are regrouped under the same factor. Four common factors' name were given, considering the aim of survey and expressions for each question as following: price fairness, employee behavior to customers, service accuracy and physical evidence. After factor extraction, the reliabilities for each factor were analyzed. Reliability test confirmed reliability of all factors (see Table 9).

**Table 9: Factor Analysis and Reliability Test Results for Service Quality Dimensions and Price Fairness**

Items	Factor Loadings	Communalities	Eigen Values	Variance Explained	Cronbach's Alpha
F1: Price Fairness			11,003	47,84	0,956
The ticket price was reasonable	0,893	0,856			
The airline's pricing policy is reasonable	0,889	0,858			
The airline's pricing policy is fair	0,869	0,833			
The ticket price was acceptable	0,856	0,779			
The airline's pricing policy is acceptable	0,854	0,808			
The ticket price was fair	0,842	0,786			
I think the prices are based on cost	0,766	0,655			
Factor2: Employee behavior to customers			3,318	14,425	0,934
Air Astana has employees who give customers personal attention in solving customer's problem.	0,792	0,752			
Employees of Air Astana are polite with customers.	0,768	0,67			
Employees of Air Astana are always willing to help customers.	0,756	0,707			

The employees of Air Astana understand the needs of its customers	0,754	0,68			
Employees of Air Astana have the knowledge to answer customers' questions	0,74	0,746			
Air Astana has the customer's best interests at heart.	0,736	0,696			
Air Astana gives customers individual attention	0,712	0,731			
Employees of Air Astana are never too busy to respond to customer requests.	0,674	0,613			
F3: Service accuracy			1,263	5,492	0,887
When Air Astana promises to do something by a certain time, it does so.	0,722	0,714			
Air Astana is dependable.	0,7	0,65			
Air Astana provides their services at the time it promises to do so.	0,686	0,718			
Air Astana keeps error-free records.	0,678	0,715			
Employees of Air Astana tells customers exactly when services will be performed.	0,632	0,66			
F4: Physical evidence			1,086	4,722	0,754
Air Astana's materials associated with its service, e.g., pamphlets or statements, are visually appealing.	0,787	0,697			
The physical facilities of Air Astana, e.g. office, check-in counter, are visually appealing.	0,771	0,692			
Air Astana's employees are well dressed and neat appearing.	0,704	0,653			

Factor analysis for independent variables resulted in seven items for price fairness, no original item was deleted. Service quality resulted in three distinctive dimensions: employee behavior towards customers, service accuracy and physical evidence. Physical evidence dimension

contains three items of original tangibility dimension, while other service quality dimensions comprised from different original dimensions.

### 5.6 Factor Analysis for Customer Satisfaction

Items of customer satisfaction showed high Cronbach's alpha value of 0.929. Data set for factor analysis was suitable with KMO value 0.873 and significant Barlett's test of sphericity (sig. 0.000). Exploratory factor analysis for customer satisfaction questions resulted in one dimension extracted with explanatory rate of 78.335%. None of items during factor analysis were deleted, all items showed high communalities as well as high factor loadings (see Table 10).

**Table 10: Factor Analysis and Reliability Test Results for Customer Satisfaction**

Items	Factor Loadings	Communalities	Eigen Values	Variance Explained	Cronbach's Alpha
Customer Satisfaction			3,917	78,335	0,929
My choice to use the Air Astana was a wise one	0,888	,788			
I think that I did the right thing when I used the Air Astana	0,919	,845			
I am satisfied with my decision to use the Air Astana	0,918	,843			
My expectations from Air Astana were met	0,859	,738			
Overall, I was satisfied with my most recent flight with Air Astana	0,839	,703			

### 5.7 Correlation Analysis

Correlation is a statistical method that analyzes linear relationship and the degree of relation and its direction without considering of dependent or independent variables. If there is a linear relationship between variables, the degree of relation is calculated in the form of Pearson correlation coefficient (r). Coefficient value may range between -1 and +1, "minus" sign stands for the direction of relationship showing whether relationship is positive or negative. Positive relationship implies the relationship where one increases in one variable leads to increase in other one, decrease in one leads to decrease in other one. While negative relationship implies to increase in variable results in decrease in other variable, and vice versa. If correlation coefficient take value of  $r=0$  then there is no relationship between variables.

**Table 11: Correlation Matrix of Variables**

		Satisfaction	Price fairness	Employee behavior	Service accuracy	Physical evidence
Satisfaction	Pearson Correlation	1				
	Sig. (2-tailed)					
Price fairness	Pearson Correlation	,489*	1			
	Sig. (2-tailed)	,000				
Employee behavior to customers	Pearson Correlation	,548*	,468*	1		
	Sig. (2-tailed)	,000	,000			
Service accuracy	Pearson Correlation	,534*	,538*	,746*	1	
	Sig. (2-tailed)	,000	,000	,000		
Physical evidence	Pearson Correlation	,357*	,256*	,557*	,506*	1
	Sig. (2-tailed)	,000	,000	,000	,000	

\*. Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis showed that there were positive relationships between variables. The relationship among independent variables is also positive. The relationships between the dependent variable (customer satisfaction) and independent variables (service quality dimensions and price fairness) were carefully examined (see Table 11). The most significant positive linear relationship ( $r= 0,548$ ) was between customer satisfaction and employee behavior to customers. There was a positive linear relationship ( $r= .534$ ) between customer satisfaction and service accuracy, and between customer satisfaction and price fairness( $r=0,489$ ). While the weakest correlation was for customer satisfaction and physical evidence with a positive linear relationship ( $r=0.357$ ).

### 5.8 Regression Analysis

Regression analysis is a statistical tool for the investigation of relationships between variables. The dimensions obtained through exploratory factor analysis were supposed to affect customer satisfaction. The regression analysis was implemented to see the effect of employee behavior to customers, service accuracy, physical evidence and price fairness on customer satisfaction. Initial regression analysis found that Physical Evidence was not statistically significant ( $p\text{-value} = 0,333$ ) and was removed from model (see Table 12).

**Table 12: The Results of Initial Regression Analysis**

Dependent Variable: Satisfaction			
Independent Variables:	Beta	t-value	p-value
Price fairness	,259	4,579	,000
Employee behavior to customers	,275	3,660	,000
Service accuracy	,161	2,124	,035
Physical Evidence	0,056	0.969	0,333
R=0,619 R2=0,383 F= 43,046 p=0.000			

Subsequent analysis was run with following statistically significant variables: price fairness, employee behavior and service accuracy (see Table 13). Each variable had tolerance value over 0,10, VIF value less than 10 and condition index less than 15. For this regression model F-value was significant (sig. = .00 <.05) meaning that the model was statistically significant (p= .00). Therefore, minimum one of the independent variables, namely, price fairness, employee behavior to customers and service accuracy, can explain customer satisfaction.

**Table 13: The Results of Final Regression Analysis**

Dependent Variable: Satisfaction			
Independent Variables:	Beta	t-value	p-value
Price fairness	,255	4,527	,000
Employee behavior to customers	,298	4,184	,000
Service accuracy	,174	2,332	,020
R=0,617 R2=0,381 F= 57,094 p=0.000			

The coefficient of determination was 0.381 which means that 38,1 % of the customer satisfaction can be explained by variables proposed in this regression model. Following equation for predicting customer satisfaction was obtained:

$$\text{Customer Satisfaction} = \beta_0 + 0,298 (\text{Employee Behavior to Customers}) + 0,255 (\text{Price Fairness}) + 0,174 (\text{Service Accuracy}) + \varepsilon$$

The best explanation of customer satisfaction was provided by employee behavior as 29,8%, then by price fairness 25,5% and by service accuracy 17,4%.

## 6. DISCUSSION

Analysis of passenger profile showed that more than half of respondents were females (52,8 %). The most of passengers were in young age group between 18-24 and 25-34 totally comprising 60,2% of all respondents. None of the 282 respondents' education level were lower than high school degree. As expected expectations were higher than their perception of service.

The result of mean value comparison of perception and expectation of service quality items showed consistency in the highest scores. Items “possession of modern aircrafts”, “dependability of airline” and “safety during the flight” obtained the highest expectation scores and respectively highest perception score. It can be concluded that passengers consider airline as dependable and safe during flight. High score on “possession of modern aircrafts” can be explained by the fact that airline has young average age of fleet and constantly renewing it, currently airline is waiting for new Boeings of Dreamliner series. In addition, “employees are well dressed and neat appearing” obtained highest score in perception section. In 2012, for the 10<sup>th</sup> Anniversary of airline, company presented new uniform for crewmembers with a piece of national Kazakh ornaments on it (Amanzholova, 2012). Overall, tangibility items scores showed high perception as well expectation scores and small gap scores.

Standard deviations, deviation from mean values, are higher for perception scores meaning that there was variation in customer responses, that customer experiences with airline were quiet different, that passengers did not get the same level of service or had different perception of service quality. Highest standard deviation score values were for “giving individual attention to customers”, “giving customers personal attention in solving customer’s problem” and “showing a sincere interest in solving customer problem”. Moreover, these items “giving individual attention to customers” and “giving customers personal attention in solving customer’s problem” had least perception score. The highest standard deviation scores were for original “empathy” dimension, while “tangibility” dimension items had lowest standard deviation scores. In general, standard deviation values of expectation scores were not that high as perception’s indicating that expectations of customers were almost at the same level. However, expectation may vary depending on what is perceived as “expectation”. For some customers it is minimum level of service and for others it may mean the most what is

expected. Generally, experienced customer tend to have more realistic expectations, while customers with little experience have uncertain expectations. Also, timing for measuring expectation is important. In this study, expectations were measured after the actual service experience. This method has probability of uncertain memories about service delivered. Some researchers suggest to measure expectations before service experience and measure perception after the service delivery. However, this method has limitation, as post-flight standards may be different from pre-flight standard according to which service quality is judged. If study measured expectations before and perception after service delivery most probably results of this study would be different.

The largest gaps scores were, “airline promises to do something by a certain time, airline should do so”, “showing a sincere interest in solving customer problems”, “providing their services at the time it promises to do so” and “keeping error-free records”. All four items belong to Parasuraman’s (1988) “Reliability” dimension indicating area of service that should be improved.

Exploratory Factor Analysis resulted in following dimensions with high reliability test results:

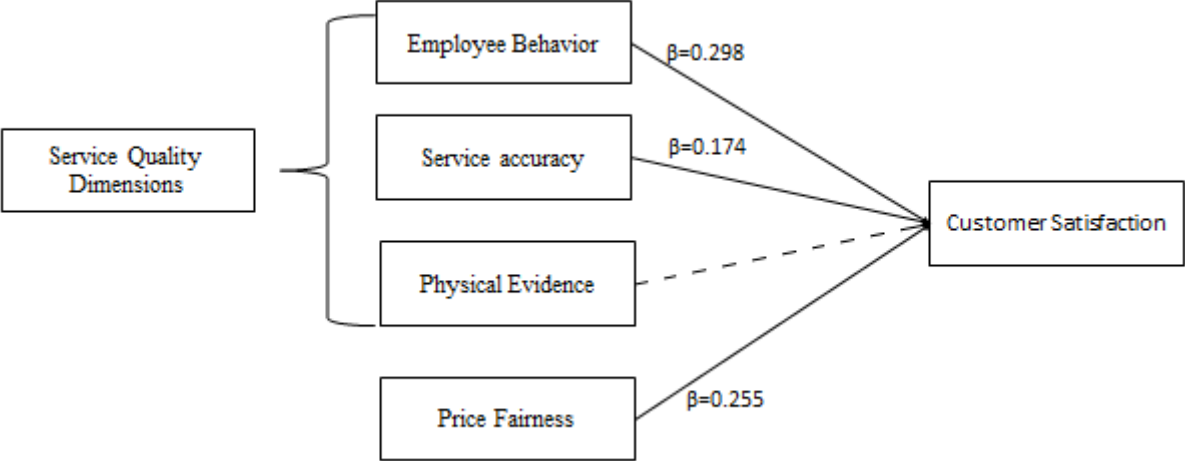
- customer satisfaction – 5 items, no item deleted
- price fairness – 7 items, no item deleted
- service quality dimensions: “employee behavior to customers” had 8 items (from original dimensions: 4 empathy, 2 assurance and 2 responsibility items), “service accuracy” had 5 items (from original dimensions: 4 reliability and 1 responsibility items) and “physical evidence” had 3 items (3 out 4 original “Tangibility” dimension)

As the result of factor analysis service quality items were regrouped under different factors. Thus SERVQUAL’s five dimensions were not confirmed. Items were allotted to three dimensions. All dimensions were named after careful investigation of items. Employee behavior to customers includes “giving customers personal attention in solving customer’s problem”, “being polite with customers”, “willing to help customers”, “understanding the needs of its customers”, “possession of the knowledge to answer customers' questions”, “having the customer's best interests at heart”, “giving customers individual attention” and “being never too busy to respond to customer requests”. Service accuracy includes employees “when airline promises to do something by a certain time, it does so”, “dependability of

airline”, “providing services at the time it promises to do so”, “keeping error-free records” and “employees tells customers exactly when services will be performed”. Physical evidence includes “materials associated with service are visually appealing”, “physical facilities of airline are visually appealing” and “employees are well dressed and neat appearing”. Similarities of obtained dimensions to service quality dimensions proposed by Brady and Cronin (2001) were identified. Brady and Cronin (2001) suggested that service quality is comprised of 3 dimensions, namely interaction quality, physical environment quality and outcome quality, which in turn comprise of 9 sub-dimensions. They took responsiveness, reliability and empathy not as direct determinants but as descriptors of service quality. Interaction quality refers to the employee-customer relationship, employee behavior, attitude and expertise. Which fully match the proposed “employee behavior to customers” dimension. Physical environment quality stands for ambient conditions, design and social factors as presence and influence of other customers of firm on service perception. This dimension only partially matches “physical evidence” dimension as “physical evidence” has items of firm’s physical facilities and appearances of employees and do not consider social factors. Outcome quality matches “service accuracy” in partial manner as well. Both dimensions consider timing of service delivery. However, outcome quality comprise of other two factors such as tangibles and valence which do not appear in “service accuracy” dimension. Tangibles stands for having certain equipment and customers’ attitude towards it, while items of “physical evidence” and “physical environment quality” are about overall evaluation fo ambience of office and employees appearance. Valence stands for perception of overall experience. Overall, only one dimension proposed by Brady and Cronin (2001), interaction quality, fully matched one of the current study’s dimensions.

Correlation analysis showed that there were positive linear relationships between all variables. Multiple regression analysis identified that “Physical evidence” had insignificant impact on customer satisfaction and was extracted from model. Despite of insignificance it should be noted that “physical evidence” is quiet important for airlines. The insignificant relationship between physical evidence and satisfaction in the study does not mean there is no relationship between these two constructs. Rather, it suggests that other factors in the model had enough strong effect on satisfaction to offset perceptions of physical evidence. Physical evidence items had the highest perception scores as well as high expectation scores, thus passengers

experiences what they expected. Customers tend to focus on what they do not have, hence effect of physical evidence on customer satisfaction became insignificant. The study of Sultan and Simpson (2000) showed that airline tangibles was rated as the least important. The rest dimensions “employee behavior to customers”, “service accuracy” and “price fairness” had significant impact on customer satisfaction. The final revised model of this study is shown in the figure 4.



**Figure 4:** Revised Model of The Study

This study aimed at determining the predictors of customer satisfaction in airline industry, particularly in Kazakhstan civil aviation industry in case of flag carrier Air Astana. Accordingly, hypotheses were developed and the results showed that the most important independent variable was employee behavior to customers while the other variables namely price fairness and service accuracy had less impact on customer satisfaction. Almost around thirty percent of the variance in customer satisfaction was explained by employee behavior variable (Beta= 0.298). Overall, 38,1 % of the customer satisfaction can be explained by employee behavior to customers, service accuracy and price fairness.

Frequency distribution of responses for price fairness showed dispersion at almost the same level between “disagree”, “neutral” and “agree” choices. Such distribution of answers can be explained by the fact, that price fairness judgments are subjective and that customers know when price is unfair, however, customers are not able to and/or have difficulty to say when price is fair (Xia et al., 2004). 37% of respondents did not agree that ticket price was fair, 27%

indicated that they were neither disagree nor agree and 21% agree with this statement. For the question if price was reasonable 31% respondent did not agree, 32% were neutral and 24% agreed. 28% of passengers did not find price acceptable, 29% were neutral and 29% considered price as acceptable. Customers for the statement whether price of ticket based on cost showed following results: 22% disagree, 40% neutral and 23% agree. Pricing policy of airline resulted in “pricing policy was fair”: 29% disagree, 36% neutral, 18% agree; “pricing policy was reasonable”: 30% disagree, 30% neutral, 24% agree; “pricing policy was acceptable”: 27% disagree, 28% neutral, 28% agree. From the responses investigated above for price fairness perception, it can be stated that customers split into three main groups with almost the same percentage. About one third of passenger perceived price as fair, other one third had uncertain perception and could not say if price was fair and the rest one third of customers found price as unfair. Interesting result was obtained for price fairness dimension, as study was measuring it with two sub-dimensions: procedural and distributive price fairness. However, factor analysis showed that price fairness is unidimensional, at least for this data set. As it was discussed in previous sections, there is little consensus about dimensionality of price fairness. The results of this study is not consistent with previous studies (Herrmann et al., 2007; Martin et l., 2009). However, another study done for tourism sector also showed that price fairness was one dimensional concept (Chung, 2010).

Frequency distribution of responses for customer satisfaction showed that 51% of respondents agreed on that their choice of Air Astana as wise, 59% that they did the right thing when they used the Air Astana, 55% satisfied with their decision to use the Air Astana. Coming to expectations, 55% of passengers agreed on that expectations were met and 62% of passengers agreed and 20% strongly agreed with statement “Overall, I was satisfied with my most recent flight with Air Astana”. In total 82% passenger were somehow satisfied with their last flight, however, study identified areas of service quality that should be improved. More than half of passengers are relatively satisfied with their last flight, however results of gap score analysis showed that their experience from last flight did not fulfill their expectation. Being satisfied with service even if service fell short of expectations can be explained by degree of customers’ tolerance. Customers may have minimum acceptable level as standard and when service provided is above this level but below the expectations it may not necessarily lead to dissatisfaction. If customer can tolerate and/or accept deviations from expected service then it

does not generate dissatisfaction. Hence, customers with unmet expectations may report satisfaction. Area between minimum acceptable level and expectation is also known as “zone of indifference” suggested by Woodruff, Ernest, & Jenkins (1983). When service is outside of zone of tolerance it may lead to emotional response (Yüksel & Yüksel, 2008). Moreover, customers may make tradeoffs by compensating weaker part of service by stronger one that may lead to overall satisfaction (Lewis & Chambers, 1989).

## 7. CONCLUSION

This study focuses on customer satisfaction in the airline industry. The purpose of this study was to measure airline passengers' satisfaction through price fairness and service quality and investigate the impact of two variables on passenger satisfaction. Service quality gives competitive advantage to any firm, it helps to keep current customers as well as attract new one, consequently increasing market share and profitability. For airlines, it is essential to deliver high service quality as it leads to survival in highly competitive industry and further growth. It is important to understand what passengers expect from airline and deliver expected service. Service quality leads to customer satisfaction. Customer satisfaction results in a long-term profitability, customer loyalty, and customer retention. Therefore, for company delivering the right service to the right time at reasonable price is important. Hence, companies need to gain a better understanding of the relationship between service quality, price fairness and satisfaction and to act accordingly.

The research was carried out in case of Kazakhstan flag carrier Air Astana. Total of 282 passengers travelled with airline during past 12 months participated in the survey. SERVQUAL instrument modified to fit airline context was used with subsequent application of factor analysis to identify the main service quality dimensions. Expectation and perceptions of service were measured after service consumption. In this study, perceptions of service quality were lower the expectations and difference between them, gap scores for all items, were statistically significant, indicating areas for further improvement.

Airline service quality dimensions, namely employee behavior to customers, service accuracy, and price fairness were found to have significant and positive influences on satisfaction. While "physical evidence" dimension had no significant influence on passenger satisfaction. The insignificant relationship between physical evidence and satisfaction in the study does not mean there is no relationship between these two constructs. Rather, it suggests that other factors in the model had enough strong effect on satisfaction to offset perceptions of physical evidence. Items of physical evidence got highest perception and least gap scores, thus passengers experienced what they expected. Airline has young average of fleet 6,14 year (Air Astana, 2015).

Employee behavior to customers had strongest effect on customer satisfaction. This dimension stands for how customers are treated by airline's employees, how helpful and

caring they can be towards passengers. Items of this dimension showed lowest perception scores. It indicates that airline has difficulty with understanding its customers' expectations, needs and in problem solving. Therefore, company should improve the employee-customer relationship.

“Service accuracy” dimension is an interaction of service timing, accuracy and dependability. Airline should prevent any delays in service delivery and deal with reasons causing them. Accuracy of service should be emphasized due to problems like issuing of tickets, keeping records of customers. If airline fails to deal with service accuracy it will negatively affect customer satisfaction.

In this study, price fairness was found as the second important factor effecting customer satisfaction. According to the distribution of answers for price fairness questions, one third of customers were uncertain about how do they perceive prices and pricing policy of airline. Another one third perceived price and pricing policies as fair, on the contrary the rest one third of respondents perceived it as unfair. Moreover, the dimensionality of price fairness was not confirmed in this research. This study supported the idea of one dimensional concept of price fairness.

Overall, this study showed that national airline of Kazakhstan had difficulty in understanding its customers and providing high quality service to its passengers. However, results showed that more than half of passengers are relatively satisfied with their last flight, even if service fell short of expectations. The results of this study is expected to help to airline to serve customers better and achieve high level of satisfaction.

### Contributions

This study contributes to the tourism marketing literature as it examined and empirically proved the relationships between service quality dimensions, price fairness and customer satisfaction in airline industry. The model was derived through extensive literature survey and empirically tested in airline context. According to the best knowledge of author of this thesis work, no empirical study have been conducted to investigate the effect of service quality, price fairness on customer satisfaction in Kazakhstan airline industry. Study integrates two antecedents of customer satisfaction into one conceptual model. It incorporates price fairness perception as important factor predicting customer satisfaction. Study have identified airline service quality dimensions. Also study gives a snapshot of current situation of civil aviation

of Kazakhstan as research of topic was done through screening different data sources on three languages.

### Theoretical Implications

Finding of this study provide evidence of positive relationship between service quality, price fairness and customer satisfaction. Airline service quality dimensions effecting customer satisfaction have been identified. It can be concluded that price fairness perception and service quality may lead to customer satisfaction. Suggested model can be used as theoretical base for predicting customer satisfaction. Also, study identified price fairness concept as one dimensional concept, current study did not confirm dimensionality of price fairness. In this study, price fairness was measured by two factors: distributive and procedural fairness. This finding contributes to the literature of price fairness as dimensionality of price fairness is still under debate among researchers.

### Managerial implications

The current study has indicated areas for improvement. It showed that customer expectations were higher than their perceptions, that employee behavior to customer and service accuracy were important than physical evidence of airline. While customers were uncertain if price of ticket and pricing policy were fair. Hence, airline is recommended to do followings:

1. Improve service quality and provide better customer service to minimize the difference between expectation and perception. Airline should hire more qualified and motivated staff or train and motivate current staff accordingly. It should train employees by emphasizing importance of customer and improving the employees' behavior to customers. Service accuracy and timing should be also improved. Airline may conduct survey on employees' and customers' service perception, compare the result and find out distinct differences in perception and work in that direction hence it will help to increase service quality.
2. Apply better communication strategies. Airline should increase focus on price structure, give clear price reasoning thus customer can make justification for higher prices perceiving them more reasonable, acceptable and fair. Airline should consider remedies on how to persuade passengers on price fairness and place trust in its communication. Airline should be giving right persuasive justification in timely

manner as customers tend to be unable to evaluate price properly and fails to take into account all associated costs (Bolton et al., 2003).

3. Develop marketing communication strategies focusing on customer benefits and on the value of service. Airline can make emphasize on safe flights and benefits passengers can obtain by using this particular airline.

The result of this study showed that airline should invest in its employees to enhance customer satisfaction and focus on service quality and perception of price as fair to be able to build long-term and profitable relationship with its customers.

#### Limitations

The study has its potential limitations. First, study employed non-probabilistic convenience sample technique, thus investigated sample may not be representative. The second, it is generalizability of results as the results based on examination of a single airline. The third is the possible bias in respondents' answers. There is a chance for not good understanding of questions, inability to evaluate a service in case of passenger's first flight, not giving sufficient thought and responding quickly and inappropriately and measuring all item with 5-point Likert scale may create bias in results. Moreover, situational factor like duration of flight was not considered which may affect level of customer satisfaction. Another major limitation is changing the procedural price fairness scale which may be the reason of not confirming the two dimensional concept of price fairness.

#### Future research

Future researches may be conducted to replicate current study in order enhance the value and generalizability of findings by employing multivariate technique like structural equation modeling. The study should be tested on different airlines, service contexts and countries to verify results. Also, the current model can be improved by adding different variables that affect customer satisfaction. It is recommended to investigate presence of moderating variables like cultural aspects, demographics etc. Moreover, future research for investigation of dimensionality of price fairness can be done.

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%D0%B0%D1%8D%D1%80%D0%BE%D1%84%D0%BB%D0%BE%D1%82%D0%  
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## APPENDICES

### Appendix A Questionnaire in English

*Dear respondent,*

*This survey is prepared to obtain data with specific purpose in order to use within the scope of master thesis “Measuring Customer Satisfaction in Airline Industry” in Marmara University, Social Sciences Institute, Department of Business Administration.*

*Your participation in this study is voluntary. Your answers will be used only for academic purposes. Data provided will be kept confidential. I hope you can help me to finish this questionnaire. Your answers are very important and I sincerely appreciate your support.*

*Thank you for your contributions to the study by responding to the questionnaire.*

*Sincerely yours,*

*Moldir Menzhanova*

This questionnaire is for people who are 18 years old or older. Are you 18 years old or older?

- Yes - Please continue with the survey
- No - Do not continue with the survey

If No – please, drop the survey

Have you taken domestic or international flight with Air Astana in the past 12 months?

- Yes - Please continue with the survey
- No - Do not continue with the survey

If No – please, drop the survey

**Please think of airline that would deliver excellent service quality. Please show the extent to which you think excellent airline should possess features described by each statement below. The following statements are measured on a five-point scale. Please, indicate your level of agreement or disagreement with each statement by indicating whether you: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree.**

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Airline should have modern aircrafts.					
The physical facilities of airline, e.g. office, check-in counter, should be visually appealing.					

Airline's employees should be well dressed and neat appearing.					
Airline's informative materials associated with its service, e.g., pamphlets or statements, should be visually appealing.					
When airline promises to do something by a certain time, airline should do so.					
When a customer has a problem, airline should show a sincere interest in solving it.					
Airline should be dependable					
Airline should provide their services at the time it promises to do so.					
Airline should keep error-free records.					
Employees of airline should tell customers exactly when services will be performed.					
Employees of airline should give prompt service to customers.					
Employees of airline should always be willing to help customers.					
Employees of airline should never be too busy to respond to customer requests.					
The behavior of airline employees should instill confidence in customers.					
Passengers of airline should feel safe during the flight.					
Employees of airline should be polite with customers.					
Employees of airline should have the knowledge to answer customers' questions.					
Airline should give customers individual attention.					
Airline should have employees who give customers personal attention in solving customer's problem.					

Employees of airline should understand the needs of its customers					
Airline should have the customer's best interests at heart.					
Airline should have operating hours convenient to all their customers.					

**Please think of the last flight that you had on Air Astana as you answer questions given below. Please, indicate your level of agreement or disagreement with each statement by indicating whether you: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree.**

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Air Astana has modern aircrafts.					
The physical facilities of Air Astana, e.g. office, check-in counter, are visually appealing.					
Air Astana's employees are well dressed and neat appearing.					
Air Astana's materials associated with its service, e.g., pamphlets or statements, are visually appealing.					
When Air Astana promises to do something by a certain time, it does so.					
When a customer has a problem, Air Astana shows a sincere interest in solving it.					
Air Astana is dependable.					
Air Astana provides their services at the time it promises to do so.					
Air Astana keeps error-free records.					
Employees of Air Astana tells customers exactly when services will be performed.					
Employees of Air Astana gives prompt service to customers.					
Employees of Air Astana are always willing to help customers.					
Employees of Air Astana are never too busy to respond to customer requests.					

The behavior of Air Astana's employees instills confidence in customers.					
Passengers of Air Astana feel safe during the flight.					
Employees of Air Astana are polite with customers.					
Employees of Air Astana have the knowledge to answer customers' questions.					
Air Astana gives customers individual attention.					
Air Astana has employees who give customers personal attention in solving customer's problem.					
The employees of Air Astana understand the needs of its customers					
Air Astana has the customer's best interests at heart.					
Air Astana has operating hours convenient to all their customers					

**Please, indicate extent to which you agree or disagree with following statements regarding the last flight that you had on Air Astana.**

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
My choice to use the Air Astana was a wise one.					
I think that I did the right thing when I used the Air Astana.					
I am satisfied with my decision to use the Air Astana.					
My expectations from Air Astana were met.					
Overall, I was satisfied with my most recent flight with Air Astana					

**Please, think of ticket pricing policy of Air Astana in case of the last flight you had on Air Astana and indicate extent to which you agree or disagree with following statements.**

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The ticket price was fair					
The ticket price was reasonable					
The ticket price was acceptable					

I think the prices are based on cost					
The airline's pricing policy is fair					
The airline's pricing policy is reasonable					
The airline's pricing policy is acceptable					

1. Please indicate your gender

- Male
- Female

2. Please indicate your age:\_\_\_\_\_

3. Please indicate your completed highest level of education

- Lower than high school
- High school
- College
- Undergraduate (Bachelor degree)
- Graduate (Master degree)
- Doctorate

4. Travel purpose

- Business
- Vacation
- Education
- Visit to family or friends
- Medical checkup/treatment
- Transit flight
- Other \_\_\_\_\_

5. Please indicate your occupation

- Government employee
- Employee of a company
- Self employed
- Student

- Housewife
- Unemployed/looking for a job
- Other \_\_\_\_\_

6. How many times did you take a plane in the past 12 months? \_\_\_\_\_

7. How many times did you take a plane with Air Astana in the past 12 months? \_\_\_\_\_

Thank you for your participation!

Appendix B  
Questionnaire in Russian

*Уважаемый респондент,*

*Данная анкета подготовлена для получения данных с целью дальнейшего использования в рамках магистерской диссертации «Оценка удовлетворенности клиентов в секторе пассажирских авиаперевозок» при Университете Мармара, Институт Социальных Наук, факультет Управления Бизнесом.*

*Ваше участие в этом исследовании является добровольным. Ваши ответы будут использованы только для академических целей. Представленные данные будут храниться в тайне.*

*Ваши ответы очень важны. Я надеюсь, что Вы поможете мне завершить данное исследование.*

*Я искренне ценю вашу поддержку! Спасибо!*

*Мөлдір Менжанова*

Данная анкета предназначена для лиц 18 лет и старше. Вы подтверждаете, что Вам уже исполнилось 18 лет?

- Да
- Нет

Если вы ответили Нет, то Вы не можете дальше участвовать в опросе.

Летали ли Вы на внутренних или международных направлениях с авиакомпанией Air Astana в течение последних 12 месяцев?

- Да
- Нет

Если вы ответили Нет, то Вы не можете дальше участвовать в опросе.

**Пожалуйста, подумайте об авиакомпании, которая бы предоставляла отличное качество обслуживания. Укажите в какой степени, по Вашему мнению, отличная авиакомпания, должна обладать характеристиками, описанными в каждом утверждении. Следующие утверждения измеряются по пятибалльной шкале. Укажите степень согласия или несогласия с каждым утверждением, указав что вы: (1) категорически не согласны, (2) не согласны, (3) нейтральны, (4) согласны, (5) полностью согласны.**

	Категорически не согласен (-а)	Не согласен (-а)	Нейтрален (-льна)	Согласен (-а)	Полностью согласен (-а)
У авиакомпании должны быть современные самолеты					
Физические объекты авиакомпании, к примеру, офис, стойка на регистрации на рейс, должны быть визуально привлекательными					
Сотрудники авиакомпании должны быть хорошо одеты и опрятно выглядеть					
Внешний вид информационных материалов авиакомпании, к примеру, брошюры, проспекты, должны быть визуально привлекательными					
Когда авиакомпания обещает сделать что-то в определенное время, авиакомпания должна выполнить это обещание					
Когда у клиента возникает проблема, авиакомпания должна показывать искреннюю заинтересованность в его решении					
Авиакомпания должна быть надежной					
Авиакомпания должна предоставлять свои услуги в обещанное время					
Авиакомпания должна вести безошибочные записи					
Сотрудники авиакомпании должны информировать клиентов, когда именно будут выполнены услуги					
Сотрудники авиакомпании должны быстро обслуживать клиентов					
Сотрудники авиакомпании должны всегда быть готовы помочь клиентам					
Сотрудники авиакомпании не должны быть слишком заняты, чтобы ответить на просьбы клиентов					
Поведение сотрудников авиакомпании должно внушать доверие клиентам.					
Пассажиры авиакомпании должны чувствовать себя в безопасности во время полета.					

Сотрудники авиакомпании должны быть вежливы с клиентами.					
Сотрудники авиакомпании должны быть достаточно осведомленными, чтобы ответить на вопросы клиентов.					
Авиакомпания должна проявлять к клиентам индивидуальный подход.					
Сотрудники авиакомпании должны принимать личное участие в решении проблем клиента.					
Сотрудники авиакомпании должны понимать потребности своих клиентов					
Авиакомпания должна быть ориентирована на решение проблем клиентов					
Рабочие часы авиакомпании должны быть удобны для всех своих клиентов					

**Пожалуйста, подумайте о Вашем последнем полете с авиакомпанией Air Astana и укажите в какой степени авиакомпания Air Astana обладает характеристиками, описанными в каждом утверждении. Укажите степень согласия или несогласия с каждым утверждением, указав что вы: (1) категорически не согласны, (2) не согласны, (3) нейтральны, (4) согласны, (5) полностью согласны.**

	Категорически не согласен (-а)	Не согласен (-а)	Нейтрален (-льна)	Согласен (-а)	Полностью согласен (-а)
У Air Astana имеются современные самолеты.					
Физические объекты Air Astana, к примеру, офис, стойка на регистрации на рейс, должны быть визуально привлекательны					
Сотрудники Air Astana хорошо одеты и опрятно выглядят					
Внешний вид информационных материалов Air Astana, к примеру, брошюры, проспекты, визуально привлекательны.					
Когда Air Astana обещает сделать что-то в определенное время, авиакомпания выполняет это обещание.					
Когда у клиента возникает проблема, Air Astana показывает искреннюю заинтересованность в					

его решении.					
Air Astana - надежная авиакомпания					
Air Astana предоставляет свои услуги в обещанное время					
Air Astana ведет безошибочные записи.					
Сотрудники Air Astana информируют клиентов, когда именно будут выполнены услуги.					
Сотрудники Air Astana быстро обслуживают клиентов.					
Сотрудники Air Astana всегда готовы помочь клиентам.					
Сотрудники Air Astana не слишком заняты, чтобы ответить на просьбы клиентов.					
Поведение сотрудников Air Astana внушает доверие клиентам.					
Пассажиры Air Astana чувствуют себя в безопасности во время полета.					
Сотрудники Air Astana вежливы с клиентами.					
Сотрудники Air Astana достаточно осведомлены, чтобы ответить на вопросы клиентов.					
Air Astana проявляет к клиентам индивидуальный подход.					
Сотрудники Air Astana принимают личное участие в решении проблем клиента.					
Сотрудники Air Astana понимают потребности своих клиентов					
Air Astana ориентирована на решение проблем клиентов					
Рабочие часы Air Astana удобны для всех своих клиентов.					

**Пожалуйста, укажите, в какой степени Вы согласны или не согласны со следующими утверждениями относительно Вашего последнего полета с авиакомпанией Air Astana.**

	Категорически не согласен (-а)	Не согласен (-а)	Нейтрален (-льна)	Согласен (-а)	Полностью согласен (-а)
Мой выбор воспользоваться услугами авиакомпании Air Astana был мудрым.					

Я думаю, я поступил (-а) правильно, что воспользовался (-ась) услугами авиакомпании Air Astana					
Я доволен (-льна) моим решением воспользоваться услугами авиакомпании Air Astana.					
Мои ожидания от авиакомпании Air Astana оправдались					
В целом, я доволен (-льна) моим последним рейсом с авиакомпанией Air Astana.					

**Пожалуйста, подумайте о ценовой политике авиабилетов Air Astana в случае Вашего последнего полета с авиакомпанией Air Astana и укажите, в какой степени вы согласны или не согласны со следующими утверждениями.**

	Категорически не согласен (-а)	Не согласен (-а)	Нейтрален (-льна)	Согласен (-а)	Полностью согласен (-а)
Цена билета была справедливой					
Цена билета была разумной					
Цена билета была приемлемой					
Я думаю, что цены на билет образованы на основе затрат авиакомпании					
Ценовая политика Air Astana является справедливой					
Ценовая политика Air Astana является разумной					
Ценовая политика Air Astana является приемлемой					

- Пожалуйста, укажите Ваш пол
  - Мужской
  - Женский
- Пожалуйста, укажите Ваш возраст: \_\_\_\_\_
- Пожалуйста, укажите Ваш наивысший уровень заверченного образования
  - Неполное школьное образование
  - Школьное образование
  - Колледж

- Бакалавриат
  - Магистратура
  - Докторантура
4. Пожалуйста, укажите цель Вашей поездки
- Бизнес
  - Отпуск
  - Учеба
  - Посещение семьи или друзей
  - Медицинское обследование / лечение
  - Транзитный рейс
  - Другое \_\_\_\_\_
5. Пожалуйста, укажите Вашу профессию
- Государственный служащий
  - Сотрудник компании
  - Самостоятельно занятый
  - Студент
  - Домохозяйка
  - Безработный (-ая) / в поисках работы
  - Другое \_\_\_\_\_
6. Сколько раз Вы летали на самолете (любой авиакомпанией) в течение последних 12 месяцев? \_\_\_\_\_
7. Сколько раз Вы летали на самолете с авиакомпанией Air Astana в течение последних 12 месяцев? \_\_\_\_\_

Спасибо за участие!

### Appendix C

Coding of questions for the difference scores (gap scores) of service quality dimensions used in section 5.3.

Q1	Airline has modern aircrafts.
Q2	The physical facilities of airline, e.g. office, check-in counter, are visually appealing.
Q3	Airline's employees are well dressed and neat appearing.
Q4	Airline's materials associated with its service, e.g., pamphlets or statements, are visually appealing.
Q5	When airline promises to do something by a certain time, it does so.
Q6	When a customer has a problem, airline shows a sincere interest in solving it.
Q7	Airline is dependable.
Q8	Airline provides their services at the time it promises to do so.
Q9	Airline keeps error-free records.
Q10	Employees of airline tells customers exactly when services will be performed.
Q11	Employees of airline gives prompt service to customers.
Q12	Employees of airline are always willing to help customers.
Q13	Employees of airline are never too busy to respond to customer requests.
Q14	The behavior of airline's employees instills confidence in customers.
Q15	Passengers of airline feel safe during the flight.
Q16	Employees of airline are polite with customers.
Q17	Employees of airline have the knowledge to answer customers' questions.
Q18	Airline gives customers individual attention.
Q19	Airline has employees who give customers personal attention in solving customer's problem.
Q20	The employees of airline understand the needs of its customers
Q21	Airline has the customer's best interests at heart.
Q22	Airline has operating hours convenient to all their customers