

# THESIS

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## Perception of Asian Consumers Towards the Service Quality of Norwegian Airline in Norway

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Bhawan Oli

Bodø, November 30, 2018

## **Declaration**

I hereby declare that the thesis, submitted in partial fulfillment of the requirements for the Master of Science in Business, entitled, “Perception of Asian Consumers Towards the Service Quality of Norwegian Airline in Norway” represents my own work and has not been submitted previously by any researcher for any master’s degree and other qualification.

Bodø, November 30, 2018

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## **Abstract**

**Purpose:** The purpose of this study is to assess service quality in the Norwegian airline from the perspectives of Asian consumers in Norway and explore how perceived quality affects customer satisfaction.

**Research Approach:** A quantitative research approach and the SERVQUAL model was used for identifying the gap between expected and perceived service of Asian consumers. A total of 158 Asian consumers who are the frequent travelers of Norwegian airline in Norway were selected via a non-probability convenience sampling method. A questionnaire was designed based on literature in order to examine all five service quality dimensions; tangibility, reliability, responsiveness, assurance, and empathy of service quality in the SERVQUAL model for the airline industry.

**Findings and Originality:** The findings stated that the SERVQUAL model was a better instrument for measuring service quality in the Norwegian airline in Norway. The reliability was tested to measure the stability or consistency of findings and validity as the truthfulness of findings. The main results conclude that: there is a significant difference between customer expectations and customer perceptions of service quality; service quality of five dimensions significantly affects perceived service quality; perceived service quality significantly affects customer satisfaction; service quality dimensions of only tangibility and assurance has a significant impact on customer satisfaction.

**Research Impact:** Consumer's satisfaction arises when an airline company can provide consumers with benefits that exceed expectations. This study delivers cognitive information that management of airline could use to design innovative marketing strategies to enhance customer satisfaction in Norwegian airline in Norway.

**Practical Impact:** Service quality is one of the most significant determinants that affect the world competitiveness of the airline industry. Through offering superior quality to Asian consumers, Norwegian airline in Norway could gain a competitive advantage.

**Keywords:** SERVQUAL, Service Quality, Norwegian Airline, Asian Consumers, Expectations, and Perceptions, Customers Satisfaction

# Chapter 1: Introduction

## 1.1 Background of the Research

Perception is the first impression that individual draw and based on it, they select and interpret the information to form a meaningful picture of the world (Munnukka, 2008). According to Gregory et al. (1996), perception is defined as a set of the process by which an individual becomes aware of and interpret the environment. Perception is referred as a mental process that involves an effort made by an individual to select, organize and interpret information input for creating a meaningful picture of the subject matters, event proposition and so on (Kotler & Armstrong, 2010).

Customer perception is one of the important tools for marketers to evaluate marketing activities. The marketers are always keen on checking the perception of consumer towards service, products quality, pricing, packaging, and sales promotion activities (Zemke & Woods, 1998).

During the last two decades, the quality of service has gained a significant impact due to its unique characteristics of services involving intangibility, inseparability, variability and perishability (Wisniewski, 2001; Schneider & White, 2004).

The airline service quality is gaining more attention from both academicians and practitioners. The airline industry not only plays a crucial role in the service industry but contributes to other industries by transporting customers to their desired locations all over the global world (Rhoades & Waguespack, 2008). Since the 1960s, the average growth of 12% per annum has seen on the airline industry (Chau & Kao, 2009). Hanlon (1999) suggested that there are three fundamental factors that affect the demand for the passenger in the airline industry as income, fares and service levels. Service quality is an evasive theoretical concept and its characteristics of intangible, inseparable and variable have a unique impact on services. During the last decades, service quality has become a major factor of attention to practitioners, researchers and managers owing to its strong impact on the performance of business (Leonard, 1982).

There is a descriptive issue of service quality in the current marketing world. The analysis of customer perception helps the airlines companies for providing excellent service to appease their needs (Wang & Pho, 2009). Usually, the service quality is regarded as the customer impressions of the relative inferiority or superiority of a service provider and its services (Bitner & Hubert, 1994). Due to the growing demand, the manufacture and service industry have adopted customer

focus as a long run for sustained competitive advantage (Porter & Kramer, 2011). The aviation sector in Norway contributes Kr 47.7 billion (2.0%) to the Norwegian GDP<sup>1</sup>.

In order to remain competitive and making the customer satisfied, the role of service quality must be addressed. Therefore, this research study is conducted to determine the perception of Asian consumers towards service quality of Norwegian airline and further identify those dimension that brings satisfaction.

## **1.2 Statement of Problem**

There were a lot of researches done by the researchers regarding the perception of the consumer towards service quality in airlines. Lovelock & Wirtz (2007) stated in their research, customers are becoming more aware of their requirements and demand for higher quality services.

Ghazal and Suchita (2014) conducted their research report in World Review of Business Research about assessing customer perception of service quality: a comparative study of airlines in UAE. The purpose of this study was to evaluate the customers' perception towards five dimensions of SERVQUAL that influence the customers' decision making with respect to Etihad and Air Arabia of UAE. The study survey was conducted among 125 customers based on reliability, assurance, responsiveness, empathy and various tangibles where questionnaires are designed on the five-point Likert scale. The perceptual mapping was done to analyze the perceptual difference between two airlines. Their findings indicate that the five dimensions, i.e. tangibility, reliability, responsiveness, assurance, and empathy have perceived high in Air Arabia than Etihad airline.

Muhammad, Maimoona, Alain, Norizan & Kartinah (2018) conducted their research in the Journal of Air Transport Management about the impact of service quality on customer satisfaction in Malaysian airlines. The variance-based structural equation modeling was used for testing the proposed structural modeling. The study survey was conducted among 460 respondents and questionnaires are designed based on five dimensions of AIRQUAL scale, i.e. airline tangibles, terminal tangibles, personal services, empathy, and image. Their study findings revealed that all five dimensions of AIRQUAL scale have a positive, direct and significant impact on customer satisfaction of Malaysian airlines. They further indicate that airlines should focus more on personal services and image for enhancing the satisfaction among customers. The perceptions and

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<sup>1</sup> <https://www.iata.org/policy/Documents/Benefits-of-Aviation-Norway-2011.pdf>

expectations of customers are increasing continuously where it becomes a critical situation for the service provider to measure and manage the services effectively. Therefore, the service provider should pay attention to the critical factor of service attributes or dimensions (Sachdev & Verman, 2004). The customers should always be put in its topmost priority by the service provider. The resources should be allocated in a proper way as per customer priorities for enhancing the effectiveness of services.

Muhammad, Naufou, and Davar (2011) conducted a report in International Journal of Business and Technopreneurship concerning a consumer perspective of service quality in the Airline industry. Their purpose of the study was to explore the generic service quality characteristics pertaining to the airline industry. Their findings suggest that there are five critical factors of the airline service quality in the eyes of the customers. They are caring and friendly behavior, luggage handling, in-flight meals, in-flight entertainment, and service expectation.

Martin (2015) conducted a research on service quality dimensions and customer satisfaction in the Kenyan airline industry. The research was conducted for determining the level of customer satisfaction and service quality in the industry and relationship among two factors. The survey was conducted among 100 customers and questionnaires are designed based on a five-point Likert scale. The research findings suggest that customers are satisfied generally with the performance of their airlines in terms of the technical standards of service quality and perceived service quality. Further, the study revealed that responsiveness, reliability, and empathy are important dimensions of customer satisfaction.

Ekinci (2003) explained that the satisfaction of customer comes from the evaluation of service quality. Past research studies related to consumers perception towards the service quality of airline industry covers limited variables concerning five dimensions model of SERVQUAL, AIRQUAL, and questionnaires designed are based on five-point Likert scales. A few types of research are done on service quality of Norwegian airline in Norway. But other studies such as airline brand loyalty (Basant, 2014), valuation of Norwegian air (Fredrik & Ole, 2013), strategic analysis of Norwegian airline (Long & Hubert, 2015) were conducted by various researchers in Norway.

The consumer perception of service quality has been proven as a difficult concept to measure. For this the Parasuraman, Zeithaml & Berry (1985) stated in their research to the concept as “elusive” and considered as still not solved, meaning, “far from collusive”. Another researcher, Czepeil

(1990) defined in his research about service quality as the perception of a customer and how well a service meets or exceeds the customers' expectations?

In the literature of service quality, the conceptualization and measurement of service quality is controversial and debated issue. There is still required to examine the concept of service quality dimensions (Parasuraman, Zeithaml & Berry, 1985).

There are different models of service quality developed for helping the researchers and academicians to identify and improve the efficiency and profitability of the services sector. The various concepts of service quality models are mentioned in the literature. Each model has their own importance in the field of service quality and the researcher follows based on their need in research.

Even though the American model or SERVQUAL model (a multi-dimensional research instrument designed to capture consumers expectations and perceptions of service along the five dimensions that are believed to represent service quality) dominates the literature of perceived service quality, there is no consensus being reached for which method is suitable and no effort has been done for seeing how the different conceptualizations are related (Brandy & Cronin, 2001).

The service quality gap model is another model that is mentioned in the literature on service quality. In comparison to traditional models, this model contains 5 more components and 8 additional gaps (Shahin & Abolhasani, 2008). This model deals with, if a service encounters or exceeds customer wants and expectations. The service quality gap model distinguishes the differences between customers' expectations and perception. Therefore, it is significant to understand the role of expectations (Philip & Hazlett, 1997). The author further stated that the expectations of consumers towards service quality are increasing and people are becoming more critical of the service they experience.

This research study seeks to investigate service quality as a factor taking SERVQUAL model (with seven-point Likert scales) for determining the perceived service quality by the Asian consumers in Norwegian airline and identify those dimension that brings satisfaction. Thus, the study answers the following research question. *What are the major variables that influence the perception of Asian consumers towards the service quality of Norwegian airline in Norway?*

### 1.3 Study Framework

Norway is dependent on air- transport where airport coverage is good, and aviation contributes to linking the country together. The aviation market of Norwegian is large as it is expanding, and travel is becoming increasingly longer. Air travel is the main method for longer trips both within Norway and abroad (Vågane et al, 2011). The industry of airline is a crucial factor for a modern society to be able to maintain a decentralized settlement (Lian et al, 2005). Although the growth rates of work-related travel to foreign destinations are lower, the market has nonetheless doubled since early 1990. But the travel destinations to Europe has experienced a rapid growth in the period between 2003 to 2009, following the increase in services of low-cost airlines. North America and the Asia Pacific are the largest sources of arrivals to Norway after Europe<sup>2</sup>. The airline industry has a significant footprint in Norway's Economy<sup>3</sup>.

The airline, airport operators, airport on-site enterprises, aircraft manufacturers and airport navigation service providers employed 46, 000 people in Norway in 2014. Additionally, the airline industry is estimated to have supported a dollar of 15.4 billion gross value-added contributions to GDP in Norway. The foreign tourists spent US dollar 15.5 million in Norway, supporting restaurants, hotels, transport providers and others who cater to tourists. The airline industry sector helps to connect the people around the world. The ability towards connecting Norway to emerging countries and fast-growing cities can help drive for economic growth. Norway has 98 airports that are certified or have been designed an International Civil Aviation Organization airport<sup>4</sup>. Norwegian airline is one of the world's fastest growing airline and introducing constantly new brand aircraft. This research study is also about the Norwegian airline regarding the service quality perceived by the Asian consumers in Norway.

There are few researchers who analyzed on service quality of Norwegian airline in Norway. Some of the researcher, i.e. research done by Anton (2012) for analyzing the factors impacting student's choice of either low-cost or full-fare airline in Norway and data were collected from both Norwegian and non-Norwegian students in Norway. As per the previous research and findings, I have chosen the Norwegian airline industry as a part of my research work in Norway. In this

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<sup>2</sup> <https://www.toi.no/getfile.php/1317810/Publikasjoner/T%C3%98I%20rapporter/2011/1158-2011/summary-2.pdf>

<sup>3</sup> <https://www.iata.org/policy/Documents/benefits-of-aviation-norway-2017.pdf>

<sup>4</sup> [https://en.wikipedia.org/wiki/International\\_Civil\\_Aviation\\_Organization](https://en.wikipedia.org/wiki/International_Civil_Aviation_Organization)

research, I have selected only the Asian consumers who are residing in Norway for collecting the data and analyzing their perceptions of Norwegian airline in terms of delivering service quality. The European consumers are not taken in this research as combined research was conducted previously by other researchers.

In recent years, the Norwegian airline is expanding with posing a threat to the dominance of Ryanair and EasyJet in the European low-cost market. The environment within which airlines operate is extremely competitive and dynamic. For achieving profitability, an airline needs to forecast future market conditions and allocate the resources to harmonize supply and demand.

### **1.3.1 Overview of Norwegian Airline**

Norwegian airline was established on 22<sup>nd</sup> January 1993 to take over the regional airline service produced by Busy Bee for Braathens in Western Norway. Busy Bee founded in the year 1966 was a subsidiary of Braathens which operated a fleet of Fokker 50 aircraft on charter services<sup>5</sup>. Until 2002, the main operations were domestic flights on the west coast of Norway in cooperation with Braaten's S.F.A.E. Further, this collaboration ended when Braaten S.F.A.E was acquired by SAS in 2002. After the termination of domestic routes in western Norway, the Norwegian air shuttle repositioned themselves as a low-cost carrier and challenged SAS monopoly in the Norwegian market. The Norwegian air strategy was to have the business model for reducing the costs in compared with traditional airlines. From 2002 to 2003, the Norwegian air has growth of 82% in passenger and expanded its operation to foreign destinations.

The Norwegian has been listed on Oslo Stock Exchange since 2003 with having a good response from investors<sup>6</sup>. The number of routes had increased in 2005 to 54 from 18 in 2003. Hence, Norwegian air was able to show the first time to their shareholders a positive result. Furthermore, Norwegian air remains one of the largest low-cost carriers in the Nordic region in 2007 and by 2008, it had international setup in Poland, Sweden, and Denmark<sup>7</sup>. In today, Norwegian air is the second largest airline in Scandinavia and third largest low-cost carrier in Europe. Norwegian airline has around 150 aircraft and boasts one of the world's youngest and greenest in the world

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<sup>5</sup> [https://en.wikipedia.org/wiki/Norwegian\\_Air\\_Shuttle](https://en.wikipedia.org/wiki/Norwegian_Air_Shuttle)

<sup>6</sup> <https://www.norwegian.no/om-oss/var-historie/>.

<sup>7</sup> <https://www.norwegian.no/om-oss/var-historie/>.

with an average age of only 3.7 years. Norwegian has about 200 aircraft in order and will deliver Boeing 787 Dreamliner, Boeing 737 MAX 8, Airbus A320neo and Airbus 321 Long Range in the next few years. Norwegian acknowledge its responsibilities as a significant market player and acts for reducing emissions per passengers and make aviation more environmentally friendly. The company is operating as one of the world's newest and most modern aircraft fleets. As a global low-cost airline, Norwegian employs around 6285 peoples in Europe, Asia, North and South America. Since the year 2002, Norwegian has carried safely about 185 million passengers. Norwegian is always committed to engaging actively in and supporting sustainable environmental policy and to continuing reduction of emissions from aviation<sup>8</sup>.

### **1.3.2 The Airline Industry**

Norway is a vast country with challenging topography. Norwegian businesses are outward-looking and depend on aviation. Avinor is a wholly state-owned limited liability company under the authority of the Norwegian Ministry of Transport and Communications and is responsible for the 45 state-owned airports and air navigation services for civilian and military aviation in Norway (Avinor & Norwegian Aviation, 2018). The aviation is important for habitation, tourism, healthcare, education, sport and culture and for the Norwegian Armed Forces. The importance of aviation to Norwegian tourism is substantial and rising (Avinor, 2013). The number of tourists visiting Norway by air has increased from 2.4 million to 4.4 million between 2011 and 2016. The flying is the dominant means of traveling between southern Norway and northern Norway as well as between Norway and overseas. According to the Statistics of Norway<sup>9</sup>, the current population of Norway is 5.36 million and expected to grow in 2040 by 6.3 million that will result in an increase in air travel. The Norwegian Centre for Transport Research has estimated that by 2040 air travel will grow to around 44 million passengers per year. There is a strong correlation between the economy and air travel. When the economy is good, air travel grows and if the economy is weak, air travel flattens or shrinks. The economic growth and globalization have increased demand for air travel. In 2017, the Norwegians flew more than 11 million return journeys, that equates to around one trip overseas and one trip in Norway per person<sup>10</sup>. Also, there were 82,358 overflights

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<sup>8</sup> [https://en.wikipedia.org/wiki/Norwegian\\_Air\\_Shuttle](https://en.wikipedia.org/wiki/Norwegian_Air_Shuttle)

<sup>9</sup><http://www.worldometers.info/world-population/norway-population/>

<sup>10</sup>[https://avinor.no/globalassets/\\_konsern/om-oss/rapporter/en/avinor-and-norwegian-aviation-2018\\_4.pdf](https://avinor.no/globalassets/_konsern/om-oss/rapporter/en/avinor-and-norwegian-aviation-2018_4.pdf)



using Norwegian airspace which is increased by 2.7% compared with 2016. According to the statistics report, International Air Transport Association (IATA), the airline industry is estimated to support US\$ 2.7 trillion of economic activity around the world, i.e. equivalent to 3.6% of Gross Domestic Product<sup>11</sup>.

#### **1.4 Research Objective**

The main objective of this research study is to develop an effective framework based on past empirical research to identify the dimensions that influence the perception of Asian consumers towards the service quality of Norwegian airline in Norway

#### **1.5 Significance of the Research**

The implication of empirical research is to fulfill the gap found during the study of past research. After analyzing various research studies, many research studies were conducted in various service industries, i.e. banking, restaurant, hospitals, telecommunication, etc. but less research has been conducted using the SERVQUAL model in the airline industry. Particularly, for Norwegian airline, there is no such research found for knowing the consumer's perception of service quality using the SERVQUAL model. This research is based on Asian consumers perceptions of Norwegian airline service quality in Norway. This research would be the basis for further research in the context of consumers perceptions in service quality of the airline industry in Norway. There is also a practical contribution of this research for the airline industry to identify the variables that influence the customer's perceptions of the service quality of airline in Norway.

#### **1.6 Delimitations**

Due to the less time frame and limited resources, the scope of this research work has been narrowed down. The growth of demand in the airline industry has been increasing rapidly. Thus, the scope of this research study is limited within the boundary of Norway and target respondents are only Asian consumers who are the frequent travelers of Norwegian airline in Norway.

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<sup>11</sup><https://www.iata.org/publications/economics/Reports/chart-of-the-week/chart-of-the-week-05-oct-2018.pdf>

## **Chapter 2: Literature Review**

### **2.1 Customer Perception of the Service Quality**

“Customer perception is a marketing concept that encompasses a customer’s impression, awareness and or consciousness about a company or its offerings” (The Business Dictionary, 2017). The perception of service is undergone with three perceptual processes: selective attention, distortion, and retention (Selective attention, distortion & retention, 2006). Selective attention is a perceptual process which implies the tendency for people to filter and remove most of the information to which they are exposed. Selective distortion is that perceptual process which implies the tendency for people to supporting current beliefs of them while interpreting absorbed information. Selective retention is that perceptual process that implies tendency for people to remember and concentrate more on the positive findings of the favored brand and eliminate the good points about their competing brands.

### **2.2 Service Quality Concept**

In the service literature, service quality is generally referred as the overall assessment of a service by the customers (Eshghi, 2008) or the extent to which a service meets the needs or expectations of the consumers (Asubonteng, 1996; Redman & Mory, 1923). The quality concept has been fitted from manufacturing to the service sector and it is known as primacy competitive strategy (Pariseau & McDaniel, 1997). As explained by Parasuraman & Berry (1985), the power of service has often been the crucial factor that distinguished between successful and unsuccessful organizations. The achievement of quality has become an essential factor of competitive advantage for the organization desire to focus on efficiency. Edvardsson (1998) stated that the concept of service should be approached from the customers’ perspective because it is the customers’ total perception of the outcome which is the service and outcome of service is created in the process meaning service is generated through that process. Parasuraman, Zeithaml & Berry (1985) defines service quality as the discrepancy between the perceptions and expectations of consumers in terms of different but relatively important dimensions of the service quality that can affect their future buying behavior.

According to Sureshchanda, Rajendran & Anantharaman (2013), the concept of service perception is closely related with the customer perception of service quality, while the quality of service

reflects on the satisfaction of the customer. Grönroos (1982) explained service quality as, “the procedure containing a succession of more or less intangible diversion usually but not necessarily always through the interaction between consumers and service providers personnel of resources focus to meet customers’ needs. Service quality has been studied in the management of the business for a long time (Caro & Garcia, 2007). Parasuraman & Berry (1988) define service quality as a function of difference among service expectations and customers’ perceptions of the actual service delivered. Researchers believe that the theory of service quality is based on the literature on customer satisfaction and product quality (Brady & Cronin, 2001). According to Chen (2008), to provide the customers with a high quality of service is the main competitive advantages of an airline’s for gaining profitability. Service quality has been increasingly viewed as the competitive strategy of marketing revolving around customer focus, innovation, creative service and striving towards excellence service in the airline industry (Gupta & Pooja, 2008). Parasuraman, Zeithaml & Berry (1985) suggests that service quality has the following features that also influence the understanding and measurement of service quality;

**Intangibility:** as service is an intangible performance where it is difficult to measure as the same as a product quality;

**Heterogeneity:** as services vary from time to time to time, consumer to consumer and from producer to producer, the consistency of service delivery is difficult to achieve

**Inseparability:** the production and consumption of a service cannot be separated. Therefore, the quality occurs while a service is delivered that reduces managerial control over it and makes a consumers’ input crucial for ensuring service quality.

In addition to Parasuraman, Zeithaml & Berry (1985), the author Teboul (1991) argues that a service cannot be stored and has to be consumed immediately, i.e. is perishable. Parasuraman, Zeithaml & Berry (1988) defines service quality as an assessment of customers from the overall excellence of service. They further stated that the perception of service quality indicates the opinion of consumers regarding the superior or global excellence of a product or service. The Service quality has various dimensions regarding the different service sectors (Pollack, 2009). However, the measurement of service quality enables managers for recognizing quality problems and enhance the efficiency and quality of services to exceed expectations of customers. Parasuraman (1985) has proposed a service model called SERVQUAL and purpose was to

measure the difference level among customer perceptions and expectations of an entity's level of service. Parasuraman, Zeithaml & Berry (1988) has identified the ten dimensions of service quality determinants that can be used for evaluating the service quality as shown in the below Table 1.

<b>Determinants</b>	<b>Description</b>
Tangibles	Facilities available to offer the service (tools & equipment's
Reliability	Uniformity of performance and dependability
Security	Risk-free, freedom from danger
Competence	Having proficiency required to do the service
Access	Ease of communication and approachability
Credibility	Trustworthiness, honesty
Responsiveness	The willingness of employees to deliver service
Communication	Listening and using understandable language among customers
Courtesy	Being polite, respect and friendliness with employees
Understanding the customers	Knowing the needs, learning specific requirements, providing individualized attention.

*Table 1: Ten Determinants of Service Quality (Parasuraman, Zeithaml & Berry, 1988)*

### **2.2.1 Service Quality in the Airline Industry**

For the airline industries, the delivering of high service quality has become a marketing requisite as competitive pressures increases (Doganis, 2006). Aksoy, Atilgan & Akinci (2003) stated that among the different competitive variable for an airline such as; fares, frequency, equipment, service quality, market access, advertising, equipment, service quality seems to be one of the most highly emphasized competitive variable. Further, the author Martin, Roman & Espino (2008) mentioned in their research that the service quality given to consumers differentiated an airline among its competitors. Therefore, for delivering better services to the consumers, the airline companies need to understand the needs and expectations of consumers (Aksoy, Atilgan & Akinci, 2003).

The SERVQUAL has been one of the most widely used and applied scales for the measurement of perceived quality in recent years (Bigne, Martinez, Miquel & Andreu, 2003). The author Grönroos (1993) further suggested that determining the consumer's experiences in airline service quality is a theoretically valid way of measuring perceived quality. Liou & Tzeng (2007) stated

that mainstream research has been based on the notion that quality of service is perceived and evaluated by consumers. Further, the author mentioned, the measuring of both expectations and perceptions separately also leads to a better understanding of the dynamics of consumers' assessment of service quality over time.

### **2.3 Relationship between customer expectation and perception**

The expectation and perception are the two terms that are important for the marketers to understand the customer needs and deliver the goods or services better than their competitors. Kotler (2003) described that the quality should begin from the needs of consumers expectations and ends at the consumer's perception. This states that better quality perception is not based on the service provider but based on the point of view or perception of consumers. Customer perception of service quality is a comprehensive assessment of service benefits. There are mainly two factors that affect the service quality as; expected and perceived service.

Ghobadian, Speller & Jones (1994) mentioned in their research that companies with perceived high service quality have usually a higher market share and higher profitability than companies with low perceived quality. Khiavi, Qolipour, Saadati, Dashtinejad & Mirr (2018), mentioned in their research concerning the effect of gap analysis between expectations and perceptions of service based on patient's viewpoint. The findings revealed that the smallest gap between perceptions and expectations was for the component of confidence and the biggest gap for immediate and timely attention.

Asefi, Delaram & Deris (2017) published in their research that there is a significant difference between students' expectations and perceptions. The quality of services delivered to students was less than what they expected from. The findings of the result show that the highest gap was related to tangibles.

Grönroos (1982); Parasuraman & Berry (1985) have projected that the perception of customers in service quality is based on the comparison between expectation and perception. The expectation is what customers feel towards service providers should offer. The author further stated that the expectations are the predictions done by customers about what is going to happen during a particular transaction, what the customer thinks the transaction is going to look like (Parasuraman & Berry, 1988).

Parasuraman & Berry (1988) in their research mentioned that the expectations are viewed differently in both service quality literature and satisfaction literature. In the literature on satisfaction, expectations are viewed as predictions and service quality literature as desired or needs of consumers. It is significant to understand and measure the expectations of consumers to identify any gaps in delivering services with quality that could ensure customer satisfaction (Negi, 2009). Consumer perceptions are solely based on what they perceive from the service encounter (Douglas & Connor, 2003). Satisfaction occurs when perception exceeds expectations and vice-versa (Fitzsimmons & Fitzsimmons, 2001). The study area is based on the difference between expected service and perceived service from the perspectives of consumers.

## **2.4 Customer Satisfaction**

Customer satisfaction is a key component of the concept of marketing (Kotler & Armstrong, 2004). Tse & Wilton (1998) define consumer satisfaction, “consumers’ response to the evaluation of the perceived discrepancy between prior expectation and the actual performance of the products as perceived after its consumption”. Jones & Suh (2000) mention, customer satisfaction as an accumulative concept based on the overall assessment of a service experience. According to Wicks & Roethlein (2009), “organizations that consistently satisfy their customers, enjoy higher return levels and greater profitability”. There are various theories that attempt to explain customer satisfaction: Expectation-Disconfirmation, Equity Theory, and Comparison -Level Theory (Skogland & Siguaaw, 2004).

The expectancy disconfirmation theory is debatable and most influential and has received the widest acceptance (Ekinci, Massey & Dawes, 2008). The theory of expectation-disconfirmation examines the formation of expectations and the disconfirmation of those expectations through performance comparisons (Ekinci, Massey & Dawes, 2008). The expectations reflect a pre-consumption perception associated with goods and services whereas performance is a basis of the customers’ perception of goods and services. Rust & Oliver (1994), stated that the problem exists with disconfirmation with respect to satisfaction.

Levesque & McDougall (1996) considered satisfaction as, “part of the overall attitude towards a service provider in a certain number of measures”. Thus, it is vital for an organization to evaluate the service quality that has low satisfaction level. Matzler & Sauerwein (2002) step forwards for classifying factors that affect customers’ satisfaction into three-factor structures;

**Basic factors (dissatisfiers):** These are the minimum requirements that cause dissatisfaction if not fulfilled but do not lead to customer satisfaction if fulfilled or exceeded. There is an asymmetric relationship between factor-level performance on these factors and overall satisfaction, i.e. as low performance has a higher impact on overall satisfaction than high performance.

**Excitement factors (satisfiers):** These are those factors that increase customer satisfaction if delivered but do not cause dissatisfaction if they are not delivered. The higher performance on these factors has a greater impact on overall satisfaction than low performance.

**Performance factors (hybrids):** These are those factors that lead to satisfaction if performance is high and vice-versa.

## **2.5 Relationship between service quality and customer satisfaction**

Customer satisfaction is seen often as a multidimensional theory along with the same dimensions that constitute towards service quality (Sureshchandar, Rajendran & Anantharaman, 2002). Cronin & Taylor (1992) found in their research about the empirical support for the idea that perceived quality led to satisfaction and argued that service quality is actually an antecedent of customer satisfaction (Cronin, Brady & Hult, 2000; Anderson, Fornell & Lehman, 1994). In the airline industry, Huang (2009) states that service quality affects the satisfaction of customers and that customer satisfaction affects the behavior of consumer such as; repurchase intention and word of mouth. Similarly, the author Yunus, Jamil & Rashid (2013) argue that the service quality delivery by airlines has a significant impact on customer satisfaction that in turns customers loyalty. According to Wilson et. al., (2008), service quality is a concentrated assessment reflecting the customer's perceptions in terms of reliability, empathy, assurance, and responsiveness while satisfactions is inclusive and influenced by the perception towards the quality of product, service, price and other personal and situational factors. In terms of the relationship between customer satisfaction and service quality, they have certain things in common, but service quality emphasizes particularly on dimensions of services whereas satisfaction is a broader concept. In evaluating the airline service quality in a Taiwanese airline, the author Chou, Liu, Hung, Yih and Han (2011) found that reliability and assurance are the first important dimensions, responsiveness is the second, empathy is third followed by tangibles and flight pattern. Other dimensions of airlines services include; customer complaints, safety, courtesy of crew, on-time departure and arrival, comfort and cleanliness of seats, flexibility, friendliness, and honesty (Hynes & Dredge,

1998). Wang, Shu, Lin & Tseng (2011) study nine evaluation criteria of service in the airline companies and found that the passengers are more concern with the internal decoration, services, and comfort of airlines. The quality of service is more abstract and is likely to be influenced by external factors, i.e. advertising and other forms of communication (Bitner, Hubbert, 1993). The author Jun & Cai (2001) derived 17 dimensions of service quality for airline industry that increase the customer satisfaction such as: competence, credibility, responsiveness, courtesy, reliability, improvement, continuous content, ease of use, communication, access, understanding the customer, collaboration, timeliness, divers' features, security and aesthetics. Customer satisfaction is a broad concept and service quality targets for identifying the dimensions of service (Zeithaml, Bitner & Gremler, 2006). From these all, we can state that the service quality is a vital component of customer satisfaction and both are related to each other.

## **2.6 Relationship of service quality with other concepts**

Cronin, Brady & Hult (2000) in their research work finds three dimensions of service quality, customer perceived value, and customer satisfaction. These dimensions were used as a complex system for the process of consumer decision-making in service sectors and also have a direct impact on the behavioral intention of the consumer. Further, the writer proposed that for the modeling of the consumer decision-making process, it requires to take into consideration both direct and indirect effects on behavioral intentions. Chen & Tsai (2006) further stated that the direct effect means the influence on actual decision-making process where indirect means after decision-making behaviors. Ahn & Lee (2011) and OMOLLO (2016) stated in their research that perceived service quality has significant effects on customer satisfaction.

Oh (1999) done the research previously on holistic perspective towards service quality, customer satisfaction and customer value that supports correlation among three dimensions discussed above and investigates their impact on perceived price on customer value and service quality. In the airline industry, the service quality, perceived value, and customer satisfaction are generally the essential components in measuring the overall customer perception of service (Oh, 1999). The customers perceive value in a product in terms of its reliability, durability, performance, price, the responsiveness of personnel, training and corporate image. The author Mukiri (2001) stated in his research that the company's' that are seen to be offering high perceived value will have many customers. Tsaur, Chang & Yen (2002) mentioned that the criteria for the customers towards



evaluating the service quality of an airline are: safety, comfort, and cleanliness of seat, courtesy, and responsiveness of respondents. However, there were some difficulties during the research work, since most of the attributes of the airline service are intangible.

The research done by Park, Robertson & Wu (2004) has proved that the vitality of service quality, perceived value, and satisfaction of customer has its direct impact on the consumer decision-making process in the airline industry. The study conclusion reveals that consumer satisfaction, service value and image of airlines directly impacts the behavioral intentions of the consumers. Rust & Oliver (1980), the relationship among perception of managers and expectation of customers are the crucial factor for enhancing the level of customer satisfaction and value perception. Chen (2008), investigates the relationships among service quality, perceived value, satisfaction and behavioral intention for airline consumers through a structural equation model. The findings suggest that the perceived value and customer satisfaction has a direct impact on behavioral intentions and perceived performance reveals the indirect effect on satisfaction moderated by perceived value. Finally, perceived value depicts a greater effect than overall satisfaction on behavioral intentions.

## **2.7 Service Quality Models**

During the last three decades, a lot of scientists are worked on the measurement of service quality and suggested many measurements but some of them were accepted and used by scientists. They are the Nordic Model, American Model or SERVQUAL Model, SERVPERF Model, Three-Component Model, Multilevel Model, and Horizontal Model

### **2.7.1 The Nordic Model**

The Nordic Model also European model was the first service quality model emerged in the 1980s from the Nordic (Grönroos, 1984) and American (Parasuraman, Zeithaml & Berry, 1985, 1988). The Nordic perspective suggested two service quality dimensions as functional quality and technical quality. Technical quality is what consumer receive as a result of interaction with a service organization and functional quality is concerned with how consumer receives services. The Corporate image is the antecedents of both technical and functional quality which is the third dimension of the model (Grönroos, 1988).

### **2.7.2 The American Model**

According to the American Model or SERVQUAL Model, service is the difference between the expected level of service and customer perceptions of the level perceived (Parasuraman, Zeithaml & Berry, 1985, 1988). The author proposed 10 components of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding or knowing the customer and tangibles. For developing the SERVQUAL measurement scale Parasuraman, Zeithaml & Berry, 1988) formulated questions for rating a service on specific attributes reflecting the 10 basic components. The consumers were asked for rating the service in terms of both expectations and performance. After analyzing and grouping of data, the revised scale was administered to a second sample and questions were tested with a result of a 22-question scale now measuring five basic dimensions of reliability, responsiveness, empathy, assurance and tangibles, both on expectations and performance. In total, 44 questions were used to rate both expectations and performance (22 questions each) (Parasuraman, Zeithaml & Berry, 1985, 1988). The three components of reliability, tangibility, and responsiveness remained distinct and seven components were absorbed into two dimensions of assurance and empathy. These five dimensions represent five conceptually distinct and interrelated facets of service quality (Asubonteng, McCleary & Swan, 1996).

### **2.7.3 SERVPERF Model**

Subsequently, a critique of the American model led to the emergence of the SERVPERF model (Cronin & Taylor, 1992). While the perspective of Nordic triggered the development of a three-component model (Rust & Oliver, 1994). Unlike the SERVQUAL, SERVPERF is a performance-only measure of service quality and excludes consumer expectations due to them being consistently high. Cronin & Taylor (1992) suggested that long-term service quality attitudes are better reflected by the performance-based measures only. These measures were tested in four industries and found more of the variance in an overall measure of service quality than the SERVQUAL model.

### **2.7.4 Three-component Model**

The work by Grönroos (1982) and Bitner (1992), became the basis for the three-component model developed by Rust & Oliver (1994). Their focus was the relationships that exist among service quality, service value and customer satisfaction. The three distinct components such as; service

product, service delivery, and service environment were proposed as essential elements of service quality. The service product element consists of what consumers get as a result of service and also the consumers' perception of the service. The service delivery element stands for consumption process with any relevant events that occur during the service act. The service environment element represents the internal and external atmosphere in which a service took place. Although there was support for analogous models in retail banking (McDougall & Levesque, 1995).

### **2.7.5 Multilevel Model**

The next two models developed and expanded the concept of service quality vertically (Dabholkar, 1996) and horizontally (Brady & Cronin, 2001). The vertical expansion is also referred to as a model of the Multilevel Model or retail service quality suitable for use in retail businesses. In this model, retail service quality is viewed as a higher order factor defined by two additional levels of attributes (the dimension and sub-dimension levels). According to Dabholkar (1996), retail service quality has a hierarchical structure comprising five basic dimensions namely: physical aspects, reliability, personal interaction, problem solving and policy. Similar to SERVPERF, Dabholkar (1996) used only performance-based measures and found that their scale possessed strong validity and reliability and adequately captured customers perception of retail service quality. The author also considered that service quality is defined by and not formed by several dimensions and this made their conceptualizations quite different from previous models.

### **2.7.6 Horizontal Model**

The continual horizontal expansion made by Brady & Cronin (2001) conceptualized the five dimensions of the Dabholkar (1996) model into three dimensions and proposed nine sub-dimensions. Brady & Cronin (2001), in their model, combined the three-component model by Rust & Oliver (1994) and the multilevel conceptualization of service quality by Dabholkar (1996). The quality of service is formed by three primary dimensions: interaction quality, physical environment and outcome quality. Each of these dimensions is formed with three corresponding sub-dimensions such as; attitude, behavior, and experience (interaction quality); ambient conditions, design and social factors (physical environment quality) and waiting for time, tangibles and variance (outcome quality). Martinez & Martinez (2010) note that Brady & Cronin (2001) propose that sub-dimensions influence quality dimensions, i.e. sub-dimensions contribute directly to quality

dimensions' perceptions. However, their model is operationalized in a separate way; dimensions are variables that influence sub-dimensions (Martinez & Martinez, 2010).

## 2.8 Choice of Model for Research Study

### 2.8.1 The SERVQUAL Model

From the above-mentioned different models, I preferred to use the SERVQUAL Model in this research for assessing the expectations and perception of services. As my research topic focused on service quality and implying the SERVQUAL model, in reality, are based on observations perceived through a sense of persons'. This model helps to measure the service quality through evaluating the gap between expected and perceived service. In the world of high competition and wide information, businesses are depended more on service quality for differentiating themselves from the competitors. The service quality has been examined in the article of Parasuraman, Zeithaml & Berry (1985). The service quality includes the process of delivery service and also the results offered services (Najafizadeh et al., 2013). According to (Parasuraman, Zeithaml & Berry, 1988) the SERVQUAL model is based on five dimensions of service quality which is given in below Table 2.

<b>Determinants</b>	<b>Description</b>
Tangibles	Physical surrounding represented by objects, i.e. interior design and subjects, i.e. the appearance of employees
Reliability	Service providers' ability to provide accurate and dependable services.
Responsiveness	A company's willingness to assist its customers by providing fast and efficient service performances
Assurance	The features that provide confidence to customers (such as the firm's specific service knowledge, polite, trustworthy behavior of employees).
Empathy	Service company's readiness and ability to provide each customer with personal service.

*Table 2: Five Determinants of Service Quality (Parasuraman, Zeithaml & Berry, 1988)*

Observing from multiple kinds of literature and past perspectives on service quality, Parasuraman, Zeithaml & Berry (1988) concluded that service quality would be measured as a perceived service quality. Further, the author has developed a conceptual model of service quality where they identified five gaps that could impact the consumer's evaluation

**Gap I: Passengers expectation -management perception gap:** The service firms do not know about what features a service should have to meet the needs of passenger and what performance levels on those features are required for delivering the high-quality service.

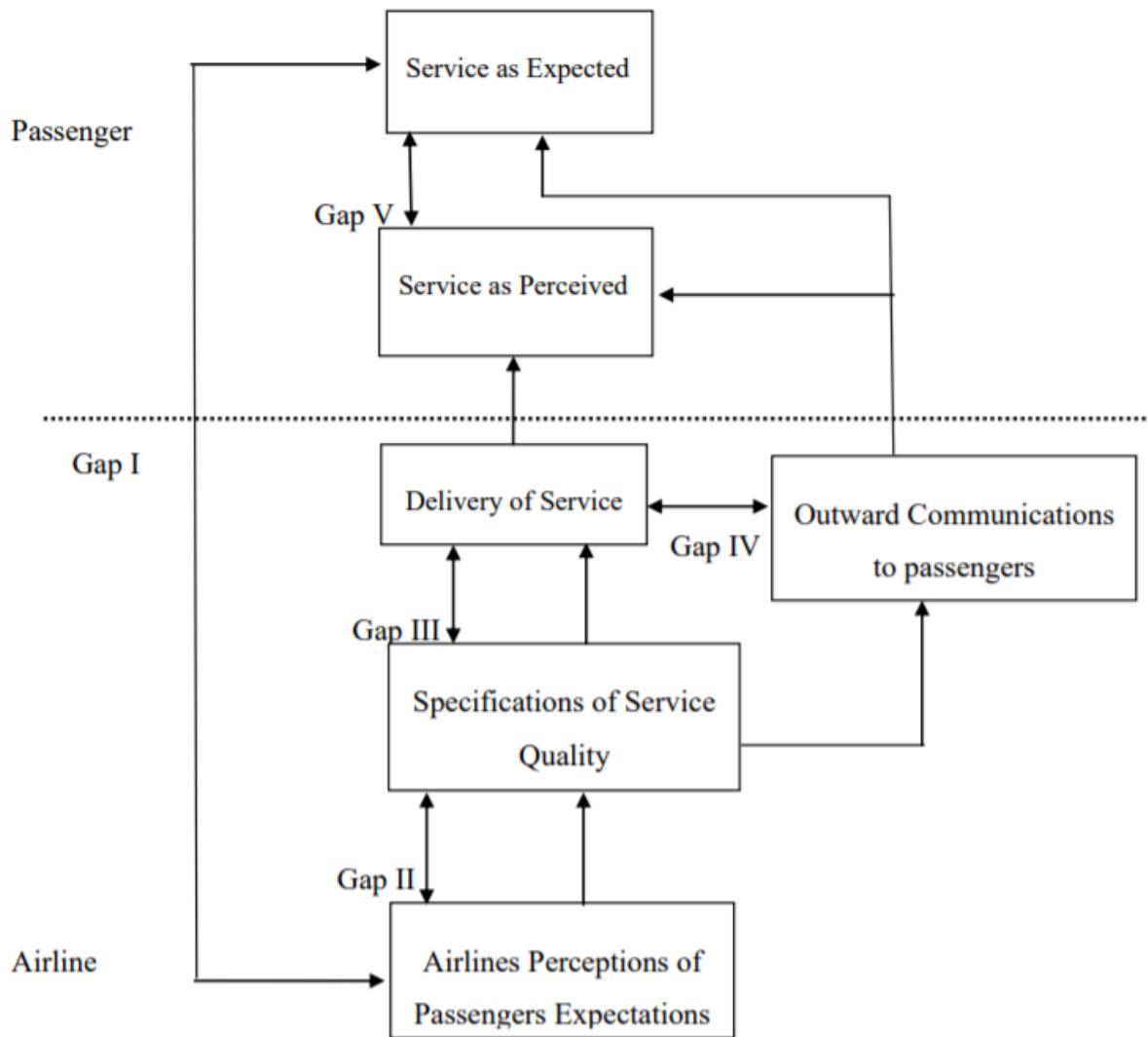
**Gap II: Management perception – service quality specification gap:** This gap arises when the company identifies the want of consumers but the means to deliver to expectations does not exist. There are some factors that affect this gap; conditions of the market, market constraints. These could affect the consumer perception towards service quality.

**Gap III: Service quality specifications – service delivery gap:** The companies could have strategies in performing the service well and treating consumers correctly. Employees play a significant role in assuring good service quality perception and their performance cannot be standardized. This affects the delivery of service that has an impact on the way consumers perceive service quality.

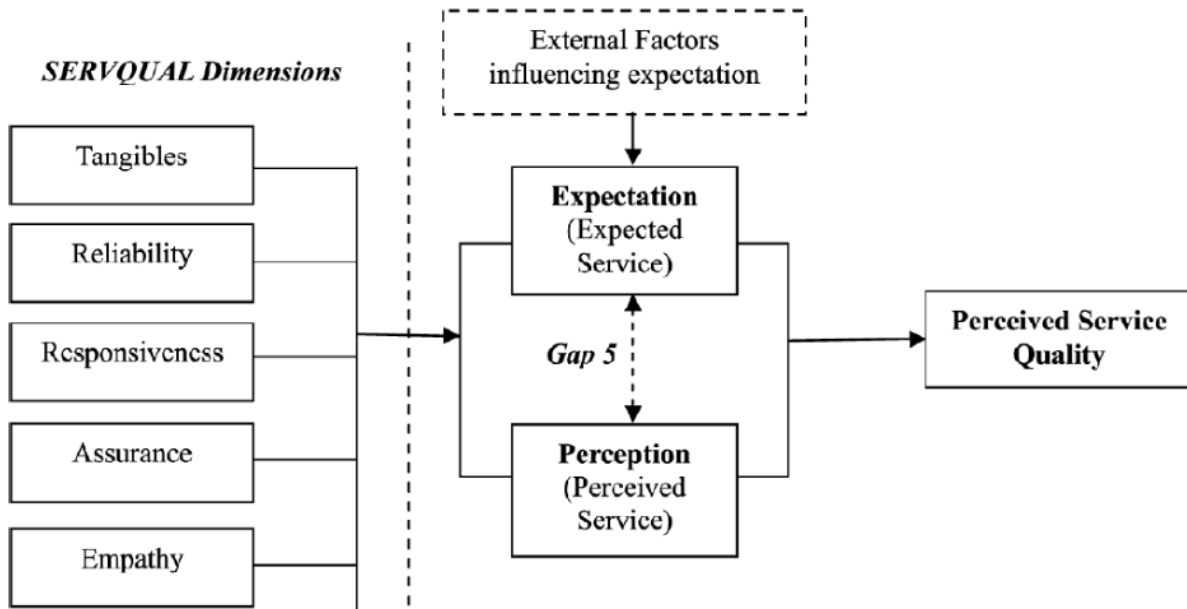
**Gap IV: Service delivery -external communication gap:** The external communication can affect not only consumer expectation of service but also consumer perceptions of the delivered service.

**Gap V: Expected service – perceived service gap:** This gap is created as a result of what the customers expect and perceive about airlines services. This is formed based on the SERVQUAL model which was developed by Parasuraman, Zeithaml & Berry (1991) that contains 22 items. Parasuraman, Zeithaml & Berry (1985) identified the ten dimensions of quality service were reduced to five determinants shown in above table 2. The major reason for its modification was to evaluate service quantitatively and simplify the process for further evaluation in future research. Generally, the model SERVQUAL was developed for the service and retail businesses and its main aims are to know how consumers of a business rate the services offered to them (Parasuraman, Zeithaml & Berry, 1985). In this research study, the SERVQUAL methodology is used in measuring Gap V in Norwegian Airline. The SERVQUAL model is important for the growth and profitability of business firms. Parasuraman, Zeithaml & Berry (1988) proposed that this model

can be used by organizations or business firms three to four times a year for measuring the quality of service over the different time period. The SERVQUAL model is important in grouping customers of a company into various quality ranks. The below Figure 1 shows the service quality gap model and Figure 2 conceptualizes how the dimensions of service quality affect the expected service from the consumer point of view and how they affect the perceived service quality. Therefore,  $\text{Gap} = \text{Perceptions (P)} - \text{Expectations (E)}$ . If customer perceptions are greater than customer expectations, then there is an increase in satisfaction as positive disconfirmation. Likewise, if customer perceptions are equal to customer expectations then there is a neutral as confirmation. Similarly, if customer perceptions are less than customer expectations then there is decreased satisfaction as negative disconfirmation (Fitzsimmons & Fitzsimmons, 2001).



*Figure 1: Service Quality Gap Model (Parasuraman, Zeithaml & Berry, 1988)*



**Figure 2: Perceived Quality Model (Parasuraman, Zeithaml & Berry, 1985)**

Considering the fierce competition, only the firms that can deliver better service quality to their consumers may stay competitive (Parasuraman, Zeithaml & Berry, 1985). The author Tsoukatos & Mastrojianni (2010) suggested that perceived service quality is the relative quality of a service that is perceived by consumers through making a comparison among actual service performance of the firm with their expectations that are shaped by experiences, word-of-mouth communications, and memories.

### **2.8.2 SERVQUAL in the Airline Industry**

The SERVQUAL methodology is applied in this research for many reasons, i.e. firstly it has an impact on Gap 5 (consumer expectations and perceptions of service), secondly it is most often used methods for measuring the service quality in the literature (Parasuraman, Zeithaml & Berry, 1990) and thirdly it measures the performance across the five dimensions (tangibility, reliability, responsiveness, assurance, and empathy) using a 7-point Likert scale measuring both expectations and perceptions of consumers.

Sultan & Simpson (2000) published their study report in the Journal of Services Marketing concerning International service variants: airline passenger expectations and perceptions of service quality. A total of 1,956 passengers were surveyed in The United States and 12 European countries. The SERVQUAL model was adopted for examining the consumer expectations and perceptions

in an international environment. The findings of result implicate that reliability is the dominant dimension in the service quality paradigm as applied to international airline travel. Furthermore, the relative importance of dimensions influencing customer's expectations and perceptions does not vary by the nationality of airline passengers.

Park et al., (2004) mentioned in their research in the *Journal of Air Transport Management* concerning the effect of airline service quality on passenger's behavioral intentions: a Korean case study. The SERVQUAL model was used and a total of 592 Korean international passengers were surveyed in Korea. The research findings suggest that service value, passenger satisfaction, and airline image are each found to have a direct effect on air passenger's decision-making process.

Pakdil & Aydin (2007) published their study report in the *Journal of Air Transport Management* concerning expectations and perceptions in airline service: an analysis using weighted SERVQUAL scores. The research study was conducted towards the service quality of Turkish airline using SERVQUAL scores weighted by loadings derived from factor analysis. Their findings depicted that, responsiveness dimension is the most important while availability is the least important.

Nadiri et al., (2008) published in their *TQM Journal* concerning an investigation of the factors influencing passenger's loyalty in the North Cyprus national airline. The data were collected from 583 passengers from North Cyprus airline in Cyprus. The AIRQUAL model based on eight distinct dimensions; airline tangibles, terminal tangibles, personnel empathy, image, customer satisfaction, repurchase intention, and word-of-mouth communications were used. The results revealed that among the quality dimensions, airline tangibles were found to be the most significant to affect both customer satisfaction and repurchase intention. Also, customer satisfaction is positively related to repurchase and word-of-mouth intentions.

Ariffin et al., (2010) mentioned in their *International Review of Business Research Papers* concerning service quality and satisfaction for low-cost carriers. A total of 100 passengers of low-cost carriers were surveyed at Kuala Lumpur International airport in Malaysia. The SERVQUAL model was used to determine the relationships between the dimensions of service quality and passengers' satisfaction on airline services. The results revealed that for low-cost carriers, tangibility and caring was the most important dimension of service quality, then second is reliability, third is responsiveness, fourth is affordability and fifth is visual attractiveness.



However, tangibility and caring of service quality dimensions significantly contribute towards predicting customer satisfaction on the low-cost carriers' services.

Ali et al., (2014) published in their research in the International Journal of Quality and Reliability Management concerning an assessment of service quality and resulting customer satisfaction in Pakistan international airlines: findings from foreigners and overseas Pakistani customers. The data were collected from 498 passengers from Pakistan international airline in Pakistan. The AIRQUAL model was used for assessing foreigners and overseas Pakistanis' evaluation of the quality of the services delivered by Pakistan international airlines and its effect on customer satisfaction. The findings of the study indicate that each of five service quality dimensions, airline tangibles, terminal tangibles, personnel, empathy, and the image has a positive effect on customer satisfaction.

Gures et al. (2014) mentioned in their research in the International Journal of Marketing Studies concerning customer expectation, satisfaction, and loyalty relationship in the Turkish airline industry. The data was collected from 821 passengers comprising of both domestic flight passengers and international flight passengers. The SERVQUAL model was used to find the relationship among customer expectation, satisfaction, and loyalty. The results showed that reliability and facilities have a significant positive effect on customer satisfaction. Furthermore, customer satisfaction was found to be a significant determinant of customer loyalty.

Korkmaz et al. (2015) published in their research in the Journal of Social Sciences Institute concerning the effects of perceived service quality on airline domestic customer satisfaction and repetition behavior. A survey of 311 passengers was surveyed in Izmir Adnan Menderes airport in Turkey. The SERVQUAL model was used to find the dimensions of passengers' perceived service quality in domestic routes and to put forth the airlines perceived service quality to customer satisfaction and repeat purchasing behavior of passengers. The results revealed that five dimension of perceived service quality, tangibles, reliability, responsiveness, assurance, and empathy has a significant effect on customer satisfaction, and repeat purchasing behavior of customers.

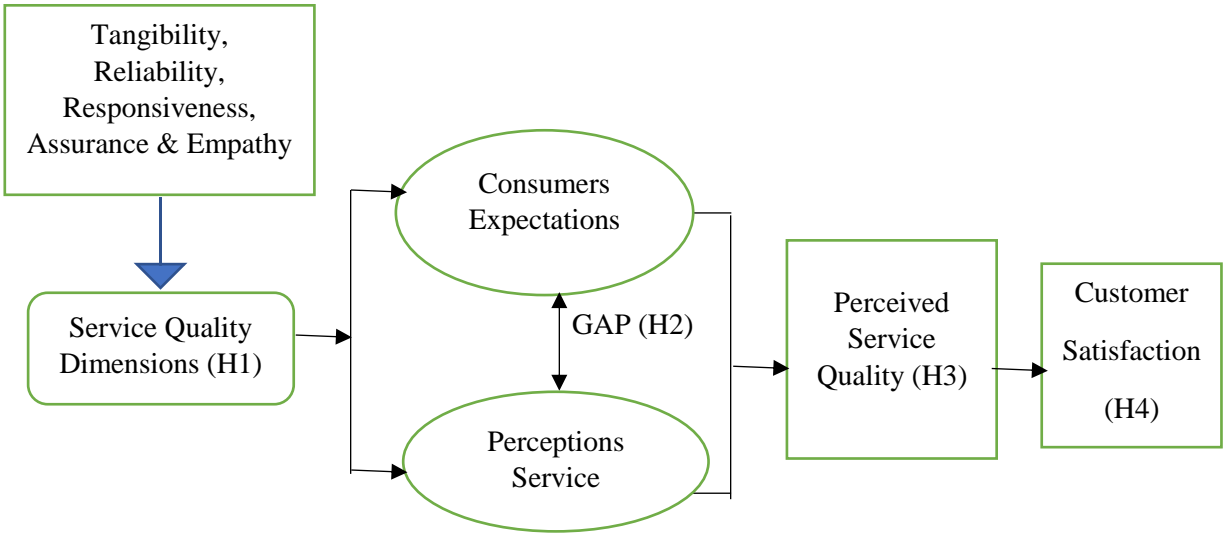
## **2.9 Conceptual Framework and Research Hypotheses**

Over a decade, the researchers have assessed and evaluated the alternative service quality models and instruments for measuring the service quality. SERVQUAL model is one of these which is the most dominant and widely used (Parasuraman & Berry, 1985). This model is based on the comparison of performance with expectations. The author further identified the five determinants of service quality and provided the basis for the measurement of customer satisfaction (Parasuraman & Berry, 1985). The literature reviewed towards the determinants of service quality, perceived service quality and the contribution that customer expectation has on the association between perceived service quality and customer satisfaction.

The studies done by (Correia, 2008; Chen & Chang, 2005; De Barros, 2007; Fodness & Murray, 2007) have mentioned that passengers in airlines feel satisfied when security, check-in procedures, flight timeliness, information convenience, appropriate signage and orientation, and amenities at the terminal are done properly. Here, we noted that only limited factors related to customer satisfaction been identified in the airline industry that has created a gap to be fulfilled on the overall satisfaction of passengers. The handling of passengers' complaints is a part of value creation that closes the gaps between expected service and perceived service which ensures that performance exceeds expectations resulting higher customer satisfaction. The complaints of passengers in airline industry help to strengthen the firm's responsiveness and willingness for satisfying the customers that lead to developing better relations and enhanced the level of customer satisfaction. It is equally important to point out that different consumers have different tastes and preferences.

The author Mazursky & LaBarbera (1983) in their research mentioned that the firms should fulfill the consumer's needs and wants for maintaining the long-term relationships. There might be other various issues related to expectations that service providers required to understand from the perspective of consumers for evaluating their performance level. The author Chen & Chang (2005), in their research, stated that the misunderstanding of expectations will affect badly towards the financial stability and market share of the business firms.

With the information gathered from the literature, a conceptual model for the research is depicted in below figure 3. This model shows the hypothesized relationship between the constructs of perceived service quality and customer satisfaction. The following figure illustrates the conceptual framework of the SERVQUAL model of Service quality with their proposed hypotheses.



**Figure 3: Proposed Research Model**

H1: Service quality dimensions provided significantly affect the perceived service quality.

H2: There is a significant difference between customers' expectations and perceptions of service quality.

H3: Perceived service quality significantly affect customer satisfaction

H4: Service quality dimensions significantly affect customer satisfaction.

## **Chapter 3: Research Methodology**

Redman and Mory (1923) defined the research as “systematized effort to gain new knowledge” Research methodology is a systematic way of solving a problem. It is a science of studying how a research is to be carried out (Rajasekar, Philominathan & Chinnathambi, 2013). Research is concerned closely with the behavior of human. According to the British, Medical Dictionary defines research as, “Establishment of facts and their significance by experiment, scientific and analysis of data” (Sengupta, 1988). According to Best (1986), “research is a more systematic activity directed toward the discovery and development of an organized body of knowledge. It is based on critical analysis of hypothetical propositions for establishing a cause-effect relationship which must be tested against objective reality”. According to Ghauri & Gronhaug (2005), research methodology can be referring to the data collection and their analysis.

### **3.1 Research Philosophy**

Research philosophy can be referring as the development of knowledge which is used by the researchers in their research. A research philosophy is a belief about the way in which data about a phenomenon should be gathered, analyzed and used (Lehane & Vinten, 1994). According to Saunders (2009), there are three approaches to research philosophy, i.e. Epistemology, Ontology, and Axiology. Epistemology refers to accepting the knowledge in the field of study, Ontology refers to the reality of nature and Axiology refers to the value of researcher’s in all stages of the research process. The authors state that there are three positions of Epistemology, i.e. positivism, interpretivism, and realism. In this research work, Positivism is the view where we can only get knowledge regarding the reality with following a scientific method of testing hypothesis. Kim (2003) mention that, positivism has several strengths. In this philosophical foundation, for developing the hypothesis, the existing theory of research is used where hypothesis will be tested and confirmed or rejected. The author, (Kim, 2003) argues that usually, a grouping of positivism and interpretivism are generally used in the management of business research. Thus, the philosophical foundation differs based on the research questions. This research is based on the perception of Asian consumers of service quality in Norwegian airline using the model of SERVQUAL based on past researchers where it needs more knowledge. This topic is related to service quality and perception of Asian consumers that lead to satisfying the consumers. The required information will be developed by measuring the dimensions of service quality that was

proposed by famous author Parasuraman & Berry (1988). For this thesis work, I have followed the positivist approach to view this research as physical and natural science. For using the concept of a positivist approach for this research work, it will help to meet the objectives discussed above.

### **3.2 Research approach**

According to Saunders (2009), there are basically two approaches where researchers used while conducting their research, inductive and deductive. According to Bryman & Bell (2007), the relationship between theory and data in research approaches involves inductive and deductive. Inductive research is characterized through down to top approach where the direction of research is moving from specific case or observation to general law. It is often conducted without any theoretical starting point and no needed to have prior knowledge about a general framework or literature (Johannessen, 2005). The author further defines, a deductive approach is characterized by top to down approach. It refers to using current theory, i.e. literature review to derive a logical conclusion, building a hypothesis, and testing empirically and scrutinizing these theories by accepting or rejecting them (Johannessen, 2005). A deductive approach is going to be carried out for my thesis work because the problem of my research comes from existing theories. The SERVQUAL model of the theory is used in this research work for identifying the gap among expected and perceived service and the main problem of the finding are whether this model is applicable in measuring the service quality of Norwegian airline. With the help of this model, we can able to collect the data from the respondents between their expectations and perceptions which will give outcome based on drawn research questions, i.e. how Asian consumers perceived service quality of Norwegian airline and what dimensions Asian consumers are satisfied with. Then, the collected information from the respondents will help to solve the problems and draw necessary improvements, if needed.

### **3.3 Research Strategy**

There are two methods of research strategy where researcher follows in their research work, qualitative and quantitative. The research based on qualitative is applied in studies where in-depth information is collected through interviewing focus groups. Qualitative research provides an opportunity for studying the matters in their natural environment by observing people and their interactions, i.e. focuses more on thinking and feeling of peoples'. In my research work, I followed the quantitative strategy as it is suitable for answering my research questions. Quantitative research

relies more on numbers and data and referred as hypothesis testing research. Generally, the study starts with a theory where the hypothesis is generated. The data can be collected and analyzed with the help of statistical tests according to the hypothesis. This strategy will guide for measuring the variables obtained from the SERVQUAL model by finding the differences among consumers perceptions of service quality in Norwegian airline. Moreover, this strategy gives the findings of research more reliable and valid.

### **3.4 Research Design**

Research design can be referred to as a detailed plan of outline that used by the researcher for conducting their research work (Kothari, 2012). According to Johannessen (2005) suggestion, the researcher needs to ask the question about what and who is the subject of research and how it should be conducted? The types of research design that researcher should pursue depends on the aims or objectives of research work (Johannessen, 2005). According to Malhotra (2010), there are three types of research designs such as descriptive, exploratory and casual research. The descriptive research design is used by the researchers for describing the market characteristics of the functions and making the comparison of variables and do predictions. The exploratory research design is used to give the researcher an initial understanding of the problem and provide visions before an approach can be developed. Finally, the casual research design is used by the researcher when they want to identify which of his or her studied variables (independent variables) is and which are the effect (dependent variables) of studies phenomenon and tries to obtain evidence related to cause and effect relationship (Malhotra, 2010). From the above discussed different research design developed by Malhotra (2010), this research followed descriptive as it needs to look at some market characteristics of Norwegian airline service.

### **3.5 Data Collection Sources**

There are two types of methods where researcher followed for collection of data, i.e. primary and secondary data (Yin, 1994).

#### **3.5.1 Primary Data**

Primary data are based often on present study and collected by the researchers through methods (Baggio & Klobas (2011). The author, Malhotra and Brik's (2006) suggests that primary data is collected using the method of surveying a questionnaire in the thesis. The primary data seems to be more reliable and can be taken as the main source in terms of getting feedback and gain the

necessary steps for improvement. In addition, primary data are challenging, consumes time and cost. In order to know the perception of Asian consumers towards the service quality of Norwegian airline, self-administered questionnaires were used for this study.

### **3.5.2 Secondary Data**

Baggio & Klobas (2011) suggests that secondary data are the data collected previously by somebody. In addition, secondary data is gained with using relevant articles that help to discuss the same constructs and similar relationships in the research model. Therefore, the secondary data were gathered from past researchers, books, Journals, databases of Nord University library for gaining reliable literature and findings to have better knowledge of measuring the SERVQUAL model.

### **3.6 Sample Collection**

Malhotra and Briks (2007) described in his research study that, a sample is referred as a subgroup of the element of the population selected for participation in the study where sampling frame includes a set of directions for finding target population. The descriptive statistics of the sample characteristics will be taken as a part of analyzing the data. Sekaran (2005) explained that the size and design of the sample are the crucial factors where the researchers would consider in their research work. For selecting the correct sample size, a reliable and valid sample size can help the researcher for generalizing the findings from the sample of the population under investigation (Cavana, Delahaye and Sekaran, 2000). This study is based on the airline industry of Norwegian in order to find how Asian consumers perceived the service quality in Norway. The target population of this research work is Asian consumers who are residing in Norway and a frequent traveler of Norwegian airline. A total of 170 questionnaires were distributed to the Asian consumers for the survey but only 158 of them filled and response the form. For selecting the sample from the target population, non-probability convenience sampling has been used for data collection. A convenience sampling is where the sample is taken from a group of people easy to access or to contact (Bryman & Bell, 2007).

### **3.7 Questionnaire Design**

The questionnaire consisted of three parts: part 1 is the general information of respondents that consists of age, gender, level of education, marital status, nationality, employment and monthly income of the respondents. Part 2 is the consumer's preferences of choosing an airline that best

satisfies their opinion. Part 3 is the consumer's expectations and perceptions of chosen airline service. In part 3, it consisted of 15 questions each aimed at finding the respondents opinions pertaining to the expectations and feelings relating to the perception of service quality in chosen airline service. The expectations deal with consumer opinions of chosen airline service and perception deals with consumer feelings about chosen airline service. Thus, it includes five dimensions of SERVQUAL model, i.e. tangibility, reliability, responsiveness, accuracy, and empathy, with each dimension have three questions. Moreover, the perceived service quality and customer satisfaction are also included in the questionnaire. The questionnaire statement was developed previously by the author (Parasuraman, Zeithaml & Berry, 1988). Therefore, I have not changed the original SERVQUAL instrument questionnaire but rephrased as per my relevant context in the airline's industry for maintaining validity. Statement 1 to 3 measured the tangibility aspect of the chosen airline in Norway. The reliability and responsiveness dimensions are measured in statement 4 to 6 and 7 to 9 respectively. The assurance and empathy dimensions are measured in statement 10 to 12 and 13 to 15 respectively.

### **3.7.1 Measurement**

The SERVQUAL model is used in assessing the expectations and perceptions of Asian consumers towards the service quality of Norwegian airline in Norway. A 7-point Likert Scale ranging from (7) for “Strongly Agree” to (1) for “Strongly Disagree” is used in the research for measuring both expectations and perception for rating their level of agreement or disagreement. Thus, the higher number indicates the higher level of expectations or perceptions. The perceptions are based on the actual service that consumers receive in Norwegian airline while expectations are based on past experiences and information received about service in Norwegian airline. Parasuraman, Zeithaml & Berry (1985) suggests that service quality scores are measures with the differences among perception and expectations with a possible range of values from - 6 (very dissatisfied) to + 6 (very satisfied). Therefore, the more positive to P – E scores, the higher level of service quality will lead to higher consumers satisfaction. Thus, when expectations and perceptions are equal then service quality is said to be satisfactory. This research study is based on the theories of discrepancy, disconfirmation of paradigm (Rust & Oliver, 1977). This theory suggests that consumers judge satisfaction as a result for both expectations and perceptions. So, the positive disconfirmation shows increased satisfaction whereas negative disconfirmation shows decreased satisfaction. This



theory has been used for developing the questionnaire. The following Table 3 presents the coding of SERVQUAL dimensions or items used for analysis (Parasuraman, Zeithaml & Berry, 1988).

<b>Dimensions</b>	<b>Coding</b>	<b>Measurement Items</b>
Tangibility (TA)	TA1	The airline has comfortable in-flights seats.
	TA2	The airline employees appear neat and tidy.
	TA3	The airline interiors and in-flight facilities are clean.
Reliability (RL)	RL1	The airline has on-time departure and arrival.
	RL2	The airline does the service right the first time.
	RL3	The airline provided good/in-flight services consistently.
Responsiveness (RE)	RE1	The airline employees are always willing to help consumers.
	RE2	The airline employees give prompt service to their consumers.
	RE3	The airline provides efficient check-in and baggage handling services
Assurance (AS)	AS1	The airline makes consumers feel safe.
	AS2	The airline employees have the knowledge to answer the questions of consumers.
	AS3	The airline employees are polite.
Empathy (EM)	EM1	The airline employees understand the specific needs of consumers.
	EM2	The airline has appropriate flight schedules and enough frequencies.
	EM3	The airline employees give consumers individual attention.

*Table 3: Coding of SERVQUAL Dimensions of Service Quality*

The below Table 4 shows the calculation of the average items of each SERVQUAL dimensions of service quality. This average item is done for easy computation among each dimension.

<b>SERVQUAL Dimensions</b>	<b>Items</b>
Tangibility (TA)	Average Tangibility Items $= \frac{\text{Sum of Tangibility Items (TA1, TA2 \& TA3)}}{\text{Number of Tangibility Items (3)}}$
Reliability (RL)	Average Reliability Items $= \frac{\text{Sum of Reliability Items (RL1, RL2 \& RL3)}}{\text{Number of Reliability Items (3)}}$
Responsiveness (RE)	Average Responsiveness Items $= \frac{\text{Sum of Responsiveness Items (RE1, RE2 \& RE3)}}{\text{Number of Responsiveness Items (3)}}$
Assurance (AS)	Average Assurance Items $= \frac{\text{Sum of Assurance Items (AS1, AS2 \& AS3)}}{\text{Number of Assurance Items (3)}}$
Empathy (EM)	Average Empathy Items $= \frac{\text{Sum of Empathy Items (EM1, EM2 \& EM3)}}{\text{Number of Empathy Items (3)}}$

**Table 4: Average Items of SERVQUAL Dimensions of Service Quality**

### **3.7.2 Testing of Questionnaire**

The questionnaire is tested for identifying whether it helps to capture the required data as expected by the researchers. In the initial phase, the questionnaire was discussed with my supervisor. The test was conducted in order to find out whether my questionnaire is easily understandable among the respondents as well as any unclear or confusing questions. Therefore, I have selected five Asian people for answering my research questionnaire. The respondents reported that they found no difficulty in answering any questions. Based on their information provided, the questionnaire was sent through Google forms link to Asian consumers who are residing in Norway.

### **3.8 Data Analysis**

Data analysis is used for analyzing data for gaining valuable information for supporting the research. The collected data from respondents by questionnaire were analyzed with the help of statistical tools, i.e. IBM SPSS Statistics Version 20. This statistical program helps to provide an opportunity for analyzing and interpreting the results in a form of numerical way. The data formed by numerical can be refined with the methods of statistics and modeled into a format that supports into making a suitable conclusion. The descriptive statistics were used to establish the arithmetic means, frequencies and to determine the weights and distributions of different attributes that entail service quality and customer satisfaction. The following given tools support this research work.

#### **3.8.1 Reliability:**

According to Saunders (2009), reliability refers as “ the extent to which your data collection techniques or analysis procedures will yield consistent findings”. Johannessen (2005) argues that reliability and testing of reliability is a crucial factor in quantitative studies whereas less appropriate in qualitative studies. Johannessen (2005) point out that the researcher could strengthen reliability by giving the reader a detailed and extensive description of the research process. For making the research study reliable, respondents were given detailed information about the topic and survey questionnaire. The items that were used in the questionnaire are easy to comprehend and could be answered at any point in time. There are two types of reliability, i.e. internal and external. Internal reliability measures the consistency of results across items within a test whereas external reliability refers to the degree to which a measure varies from one purpose to another. In order to check the reliability of the SERVQUAL model, the Cronbach’s alpha of internal consistency is computed for each of five dimensions, such as; tangibility, reliability,

responsiveness, assurance, and empathy. <sup>12</sup>The Cronbach's alpha is a convenient test used for measuring of internal consistency, i.e. how closely related a set of items are as a group. The Cronbach's alpha ranges between 0 and 1, i.e. 0 denotes no internal reliability and 1 denotes perfect internal reliability. In a general rule, Cronbach's alpha above 0.60 (60%) are often considered to be acceptable. The more value of Cronbach's alpha, the more reliability (or consistency) among questionnaire questions, i.e. 0.70 and above is good, 0.90 and above is excellent <sup>13</sup>.

### **3.8.2 Validity:**

According to Saunders (2009), validity refers as ‘‘ the extent to which research findings are really about they profess to be about’’. In simple words, validity is concerned with the accuracy of the study, whether a researcher measures the things that he or she was supposed to measure. Validity can be seen from internal and external perspectives (Yin, 2003). Internal validity refers to the congruence of the observations and the theoretical ideas whereas external validity explains the degree of generalization of the results (Bryman & Bell, 2007). The author LeCompte & Goetz (1982) in their research mentioned that in quantitative research internal validity is seen as a strong point because the concept and observation match together.

The convergent and discriminant validity are tested for this research work. Convergent validity takes two measures that are supposed to be measuring the same construct and shows they are related. On the other, discriminant validity shows that that two measures that are not supposed to be related are in fact, unrelated. The items that are used in my questionnaire have already been tested in practice by other researchers. So, I believed that my research work is valid and relevant. The validity of the SERVQUAL dimensions for Asian consumers expectations and perceptions are checked with both convergent and discriminant validity were used.

In order to fulfill the conditions of convergent validity, the average loading factor should be greater or equal to 0.7. Similarly, for the establishment of discriminant validity, average variance extracted should be greater than correlation square.

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<sup>12</sup> <https://stats.idre.ucla.edu/spss/faq/what-does-cronbachs-alpha-mean/> Retrieved 18<sup>th</sup> October 2018

<sup>13</sup> <http://www.statisticssolutions.com/cronbachs-alpha/> Retrieved 18<sup>th</sup> October 2018

### **3.8.3 Pearson Correlation**

The Pearson regression and correlation analysis are performed for determining the consumer perception of service quality and for examining the relationship among service quality and consumer satisfaction. The correlation is a bivariate analysis which helps to measure the strength of association among two variables and the direction of the relationship<sup>14</sup>. The value of the correlation coefficient varies between (-1 and + 1), i.e. - 1 indicates a perfect negative linear relationship; + 1 indicates a perfect positive linear relationship and 0 indicates no linear relationship. Similarly, a value between (0.1 to 0.30) is weakly positive and between (- 0.1 to - 0.3) is a weak negative linear relationship. Likewise, a value between 0.3 to 0.5 is moderate positive and between (- 0.3 to - 0.5) is a moderate negative linear relationship. Finally, a value between (0.5 to 1.0) is strongly positive and (- 0.5 to - 1.0) is a strong negative linear relationship.

### **3.8.4 Regression:**

In this research study, both regression analysis and Multicollinearity in regression analysis are analyzed. Regression is used for finding the relationships between the dependent variable and independent variables. The dependent variable is the main factors that we are trying to understand or predict whereas independent variables are those factors that we hypothesize have an impact on our dependent variable.

### **3.8.5 Multicollinearity:**

Multicollinearity is a state of very high intercorrelations or inter-associations among the independent's variables. Multicollinearity can be detected with the help of tolerance and its reciprocal, called a variance inflation factors (VIF). If the tolerance value is lower than 0.2 or 0.1, and variance inflation factors are greater than or equal to 10 then the multicollinearity is problematic and vice-versa<sup>15</sup>.

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<sup>14</sup> <https://www.statisticssolutions.com/correlation-pearson-kendall-spearman/> Retrieved 3<sup>rd</sup> November 2018

<sup>15</sup> <https://www.statisticssolutions.com/multicollinearity/> Retrieved 3<sup>rd</sup> November 2018

## Chapter 4: Discussion and Analysis

This chapter includes discussion and analysis of data. It is the core part of any research. On the basis of analysis made in this part, findings and conclusion are drawn. This chapter presents the results of the study and analyzes the primary data collected through questionnaire from respondents.

### 4.1 Demographics Characteristics of Respondents

The following Table 5 illustrates the demographic characteristics of Asian consumers collected for a survey in Norway.

Characteristics	Variables	Frequency, N = 158	Percentage, 100
Gender (G)	Male	118	74.7
	Female	40	25.3
Age (A)	18-25	13	8.2
	26-29	67	42.4
	30-39	76	48.1
	40 and above	2	1.3
Level of Education (L)	High school	5	3.2
	Bachelors	23	14.6
	Masters	128	81
	Others	2	1.3
Marital status (M)	Single	69	43.7
	Married	81	51.3
	In a Relationship	8	5.1
Nationality (N)	Nepalese	109	69.0
	Indian	12	7.6
	Pakistani	30	19.0
	Others	7	4.4
Employment Status (E)	Student	65	41.1
	Full-time Job	63	39.9
	Part-time Job	22	13.9

	Self-employed	4	2.5
	Unemployed	4	2.5
Monthly Income Level (M)	Below 10000 NOK	44	27.8
	10000 – 20000 NOK	66	41.8
	Above 20000 NOK	39	24.7
	Not Applicable	9	5.7

**Table 5: Demographic characteristics of respondents**

The basic demographic characteristics of respondents that are found in this study survey include gender, age, level of education, marital status, nationality, employment status, and monthly income level. During the survey, I have distributed 170 survey questionnaires to the Asian consumers who are residing in Norway but only 158 respondents gave their response as per given questionnaire. The demographic characteristics of the respondents are described as follows: males were 74.70% while females were 25.3%. It further shows that 8.2% of the respondents fall within the age range of 18-25 years, 42.4% range of 26-29 years, 48.1% within the range of 30-39 years and 1.3% fall under 40 years and above. A majority of respondents were master's forming 81%, followed by Bachelors, 14.6%, followed by High school, 3.2% and other levels, i.e. Ph.D. formed 1.3%. Similarly, 53.7% of respondents are married, 43.7% are single and 5.1% are in a relationship.

There are altogether six nationalities belonging to an Asian country has responded to the survey questionnaire, i.e. 69% from Nepalese, 7.6% from Indian, 19.0% from Pakistani, and 4.4% from Bangladesh, Iran, and Afghanistan. The survey questionnaire was distributed more to Nepalese consumers in Norway where its shows more percentage than other nationality. This research is for identifying the perception of service quality among Asian consumers, either they belong to Nepalese, Pakistani, Indian and others.

Out of total respondents, 41.1% belongs to the student, 39.9% working full-time jobs, 13.9% part-time jobs and 2.5% are self-employed and unemployed respectively. The monthly income level of respondents reports that 44 respondents (27.8%) have income below 10000 NOK, 66 respondents (41.8%), has 10000-20000 NOK, 39 respondents (24.7%), above 20000 NOK and 9 respondents (5.7%) has mentioned as not applicable. The above results (stated in Appendix 2) in respect to demographic characteristics clearly demonstrated in diversity across respondents.

## 4.2 Respondents Response

The following Table 6 shows the percentage in varied factors collected from respondents' responses. The detailed computation is shown in Appendix 3

<b>Characteristics</b>	<b>Variables</b>	<b>Frequency, N = 158</b>	<b>Percentage, 100</b>
Flights	Norwegian	158	100
The Frequency of Travel	Less than one year	23	14.6
	More than one to three years	99	62.7
	More than three to five years	31	19.6
	More than five years	3	1.9
	Not Applicable	2	1.3
Purpose of Travel	Business	5	3.2
	Visiting relatives or friends	48	30.4
	Tourist	102	64.6
	Other	3	1.9
Travel Often	Annually	24	15.2
	Quarterly	65	41.1
	Monthly	45	28.5
	Weekly	1	0.6
	Rarely	23	14.6
Preferable Time to Travel	Morning	27	17.1
	Afternoon	58	36.7
	Evening	43	27.2
	Night	9	5.7
	No Choice	21	13.3
Service Rating	Excellent	7	4.4
	Very Good	55	34.8
	Good	88	55.7
	Fair	7	4.4
	Bad	1	0.6



Safety and Security Rating	Excellent	17	10.8
	Very Good	49	31.0
	Good	92	58.2
Fare Cost Rating	Excellent	14	8.9
	Very Good	29	18.4
	Good	102	64.6
	Fair	13	8.2

**Table 6: Respondents Responses**

### **1. Flight in Norway with Norwegian Airline**

The research study is about the perception of Asian consumers towards the service quality of Norwegian airline in Norway. The research was conducted among the Asian consumers who are residing in Norway. As this research study is about Norwegian airline where I select only those consumers who are the frequent traveler of this airline. In my questionnaire survey, I have included other airline such as; SAS and Widerøe due to the reasons that in exceptional cases respondents might prefer to select those airlines. From the results, 158 respondents were collected as a frequent traveler of Norwegian airline in Norway.

### **2. The Frequency of Travel by Asian Consumers with Norwegian Airline**

The research study is to find out the number of years that Asian consumers had traveled with Norwegian airline in Norway. It can be observed from the research findings, the majority of the Asian consumers (62.7%) who participated in this research study had traveled by Norwegian airline more than one to three years, 19.6 % had traveled more than three to five years, 14.6% less than one year, 1.9% traveled more than five years and 1.3% reported not applicable.

### **3. Purpose of Travel with Norwegian Airline in Norway**

This survey was done to know the purpose of travel of Asian consumers with Norwegian airline. The findings of result shows that the main reason to use air transportation airline for the survey respondents is tourist flights. It can be analyzed that, a majority of Asian consumers, i.e. 102 (64.6%) travel with Norwegian airline as a purpose of tourist. Similarly, 30.4% of Asian consumers (48) mentioned that they traveled for visiting relatives or friends, 3.2% (5) travel only

for business purpose. Finally, 1.9% of Asian consumers, i.e. 3 responses for other purpose mentioning educational purpose, educational trips, and study.

#### **4. Travel Often with Norwegian Airline in Norway**

This survey was done to know how often Asian consumers in Norway travel with Norwegian airline. It can be observed that 41.1 % of Asian consumers (65) in Norway traveled quarterly with Norwegian airline. Then, 28.5% (45) of Asian consumers traveled monthly, 15.2 % (24) annually, 14.6% (23) rarely and 0.6% (1) weekly. Most of the Asian consumers prefer to travel Quarterly with Norwegian airline in Norway.

#### **5. Asian Consumers Preferable Travel Time**

The consumers have a different choice of options towards choosing the better time for their travel. Here, the researcher did survey towards finding the appropriate time that Asian consumers preferred to travel with Norwegian airline in Norway. It can be analyzed that, 36.7 % of Asian consumers, i.e. 58 prefers to travel in the afternoon with Norwegian airline in Norway. Secondly, 27.2% of Asian consumers love to travel in the evening, 17.1% prefers in the morning, 5.7% in the night. Finally, 13.3% of the Asian consumers reported that they have no choice towards travel time.

#### **6. Factors that Perceive Asian Consumers for Choosing Norwegian Airline in Norway**

Appendix 3 (6) shows the analysis of the factors that perceive Asian consumers for choosing Norwegian airline in Norway. The factors were used as; price, service quality, airline reputation, airline safety, route availability and convenience and frequent flier programs and other. The respondents have given the multiple response options for selecting the different perception factors for choosing Norwegian airline in Norway. It can be analyzed clearly that, 28.8% of Asian consumers choose service quality as the most perceive factors for choosing Norwegian airline in Norway. Then 26.8% of Asian consumers choose the price, 23.2% select airline safety, 10.9% choose airline reputation, 7.9% route availability and convenience and 2.3% frequent flier program.

The result shows that service quality is one of the prominent factors for organizations to succeed and gain a competitive advantage. The consumers are always dedicated to service quality first and then other factors. In order to compete and achieve profitability, the company's need to deliver the

qualitative products or services as per the needs or wants of consumers. This can be fulfilled by doing research on the market and identify the preferences of consumers.

### **7. Factors that Satisfies Asian Consumers for Choosing Norwegian Airline in Norway**

Appendix 3 (7) explains the factors that satisfy Asian consumers for choosing Norwegian airline in Norway. The factors that used are; security, flight timeliness, information convenience, in-flight services, baggage handling, and collection and handling complaints of consumers. The respondents have options towards giving their multiple choices towards selecting the several factors that satisfy them for choosing Norwegian airline in Norway. It can be analyzed that 36.4% of Asian consumers choose the security factors that satisfy them for choosing the Norwegian airline in Norway. Similarly, 18.2% of Asian consumers choose baggage handling and collection, 14.8% choose flight timeliness, 12.4% choose in-flight services, 10.3% choose handling complaints of consumers and 7.9% select information convenience.

The result represents that security is one of the essential factors that make consumers satisfied in choosing the airline. The consumers always want to feel safe and secure while traveling to various places by airline. In order to make the consumers satisfied with Norwegian airline, the companies should focus more on providing security. The researchers are innovating the latest means of technology to provide additional benefits to the consumers. To compete and gain a competitive advantage in the airline, the companies need to adopt modern technology and make the consumers feel safe for choosing the airline.

### **8. Rating in terms of Service, Safety and Security, and Fare Cost**

The survey questionnaire responses from Asian consumers are presented in Table 6. The following are the analysis of Asian consumers rating in terms of service, safety and security and fare cost of Norwegian airline.

**Service:** The research survey deals with finding the Asian consumers rating of Norwegian airline in terms of service. The respondents have rated their options based on five scales, i.e. Excellent, Very good, Good, Fair and Bad. The research finding shows that, out of total respondents, 55.7% of Asian consumers have rate good service of Norwegian airline in Norway. Likewise, 34.8% rated very good, 4.4% each rated on both excellent and fair service and 0.6% bad service. This shows

that service quality plays a significant role for the airline industry to attract the consumers which in turn helps to gain the market share and able to compete with other competitors.

**Safety and Security:** This survey illustrates towards finding the Asian consumers rating of Norwegian airline in terms of safety and security. The research result shows that 58.2% of Asian consumers have rated good safety and security of Norwegian airline in Norway. Similarly, 31% has rated very well and 10.8% rated excellent. The results show that safety and security is an essential component for airline companies to attract consumers to travel. Therefore, the adoption of new modern technology for an airline helps to enhance consumers to have safe and secure flights.

**Fare Cost:** This survey explained the rating of Norwegian airline among Asian consumers in terms of fare cost. It can be observed that 64.6% of Asian consumers have rated good fare cost of Norwegian airline in Norway. Likewise, 18.4% responded very good fare cost, 8.9% on excellent and 8.2% on fair. The fare cost plays a significant role in the airline industry to attract consumers. Norwegian airline offers the low-cost fare to its consumers for traveling both national and international. The consumers are price sensitive and they always look different fare price before making the decision to buy tickets. Further, they prefer to purchase a low-cost fare for their travel. Therefore, the results also implicate towards Asian consumers being satisfied with the fare cost of Norwegian airline in Norway.

### **4.3 Reliability Testing**

To check the reliability of the used SERVQUAL model, the Cronbach's alpha of internal consistency is computed for five dimensions, tangibility, reliability, responsiveness, assurance, and empathy of both expectations, and perceptions of Asian consumers.

#### **1. Reliability Testing of Asian Consumers Expectations:**

Appendix 4 illustrates the reliability scale of five dimensions under Asian consumers expectations towards the service quality of Norwegian airline in Norway. The reliability scale was also calculated when each item was deleted from each dimension in order to see if the deleted item is affecting the result or not. According to Bryman & Bell (2011), whenever Cronbach's alpha increases when an item is deleted, it shows that item is not the most appropriate for measuring that dimension. It can be observed that almost all the items displayed a lower value of reliability when

deleted showing it is a true measure under that dimension. In observing at the reliability coefficient ( $\alpha$ ) of all five dimensions, it shows they have their coefficients higher than 0.60, i.e. tangibles (0.764), reliability (0.743), responsiveness (0.709), assurance (0.723) and empathy (0.752) meaning that these dimensions show a true measure of service quality.

## **2. Reliability Testing of Asian Consumers Perceptions:**

Appendix 5 shows the reliability testing for the items of Asian consumers perceptions towards the service quality of Norwegian airline in Norway. It can be observed that all the items showed a lower value of reliability when deleted, except for TA 1 (Comfortable in-flight seats) which had a higher value of 0.684, showing it is not the true measure under that dimension. The reliability coefficient of all five dimensions was in the desired frame towards  $\alpha = > 0.60$  i.e. tangibles (0.643), reliability (0.745), responsiveness (0.633), assurance (0.727) and empathy (0.659) meaning that these dimensions comprising of different items show a true measure of service quality.

## **4.4 Validity Testing**

In order to check the validity of the used SERVQUAL model, both convergent and discriminant validity are computed for five dimensions; tangibility, reliability, responsiveness, assurance, and empathy of both expectations and perceptions of Asian consumers. Appendix 6 shows the validity testing where its first part explained the Pattern Matrix of Asian consumers expectations and perception towards the service quality of Norwegian airline in Norway and second part, the testing of convergent and discriminant validity.

### **1. Pattern Matrix of Asian consumers Expectations and Perceptions:**

In the Pattern Matrix of Asian consumers, each dimension of the SERVQUAL model with its items of both expectations and perceptions are explained along factor component. The factor 1 denotes the results of Asian consumers expectations and factor 2, the results of perceptions of Asian consumers. The extraction method is Principal Component Analysis and the rotation method is Promax with Kaiser Normalization converged in 3 Iterations.

### **2. Test of Convergent and Discriminant Validity:**

Here, the testing of convergent and discriminant validity with five dimensions of Asian consumers Expectations and Perceptions are computed as; average loading factor should be greater than or

equal to 0.70 for convergent whereas average variance extracted should be greater than correlation square for the establishment of discriminate validity. The following Table 7 summarized the convergent and discriminant validity.

Dimensions	Average Loading (AL)	Average Variance Extracted (AVC)	Correlation Square (r <sup>2</sup> )
Tangibility (TA)	0.791	0.632	0.05
Reliability (RL)	0.813	0.661	0.00
Responsiveness (RE)	0.777	0.605	0.00
Assurance (AS)	0.803	0.645	0.04
Empathy (EM)	0.795	0.633	0.04

*Table 7: Summary of Convergent and Discriminant Validity*

It can be analyzed that average loading of each dimension for both expectations and perceptions of Asian consumers are computed to test convergent validity. The average loading of each dimension greater than 0.7 that shows the validity results of convergent. On the other, for testing discriminant validity, average variance extracted, and correlation square is compared. Hence, the average variance extracted of each dimension for both expectations and perceptions of Asian consumers shows greater than correlation square that shows valid results. Therefore, the testing of validity under convergent and discriminant explains the true measure of service quality.

#### **4.5 Gap analysis between Asian Customer’s Expectations and Perceptions using the mean value**

Appendix 7 shows the descriptive statistics of Asian consumers’ Expectations and Perceptions of service quality. The SERVQUAL model has been adopted in this part for studying the gap in each statement of five dimensions of service quality. The analysis showed a comparison of customers’ perceptions of service quality of Norwegian airline with their expectations done using the mean value analysis. The mean scores of customers’ expectations ranged from 5.96 to 6.43. The highest expectation (AS 3; 6.43) is towards the politeness of airline employees. The next highest expectation parameter (TA 2; 6.34) is towards airline employees appeared neat and tidy. On the other, the lowest expectation (EM 3; 5.96) is giving personal attention to consumers by airline employees. Also, the next lowest expectation (EM 2; 6.07) is related to convenient flight schedules and enough frequencies of the airline. The overall mean score for expectations shows 6.23. The

mean score of customers' perceptions ranged from 5.33 to 5.91. The lowest perception item (EM 3) is giving personal attention to consumers by airline employees with a mean of 5.33. On the other, the highest perception item (AS 3) is politeness of airline with a mean of 5.91. The overall mean score for customers' perceptions of service quality items is 5.65.

The highest gap scores were reported on the dimension of reliability (RL 1, RL 2 and RL 3) with a negative score of 0.83, 0.70 and 0.80. On the other, the lowest gap score is found on items of assurance dimension, AS 2 with a negative score of 0.46. The overall SERVQUAL gap score is negative 0.58. Therefore, Asian consumers had perceived the service quality of Norwegian airline lower than their expectations. Appendix 8 shows the paired sample statistics to test the gap between expectations and perceptions of Asian consumers. The findings of result implicate that the paired expectations and perceptions of each item of service quality dimensions are significant as all values at two-tailed test ( $p=0.000$ ), less than 0.05. The overall results imply that service quality delivered by Norwegian airline in Norway should be improved because all items of service quality were assessed below customers' expectations.

## **4.6 Testing of Hypotheses**

### **Hypothesis (H1):**

**Service quality dimensions provided significantly affect the perceived service quality.**

To test the hypothesis (H1): Service quality dimensions; tangibility, reliability, responsiveness, assurance, and empathy are set as independent variables and perceived service quality as dependent variables. The Pearson correlation, multiple regression, and multicollinearity analysis are used for analyzing the outcomes. Appendix 9 depicts the result of Pearson correlation between service quality dimensions and perceived service quality.

**Tangibility and Perceived Service Quality:** The correlation between tangibility and perceived service quality shows 0.655 which indicate a strong positive correlated. The two-tailed significance for this relationship shows the value of  $p$  equal to 0.000, lower than alpha ( $\alpha = 0.01$ ).

**Reliability and Perceived Service Quality:** The correlation between reliability and perceived service quality shows 0.539 which indicate a strong positive linear relationship. The significance for this relationship at two-tailed test is the value of  $p$  equal to 0.000 that is lower than alpha ( $\alpha = 0.01$ ).

**Responsiveness and Perceived Service Quality:** The correlation between responsiveness and perceived service quality shows 0.586 which indicate a strong positive linear relationship. The two-tailed significance for this relationship shows the value of p equal to 0.000, lower than alpha ( $\alpha = 0.01$ ).

**Assurance and Perceived Service Quality:** There is a strong positive relationship between assurance and perceived service quality with value 0.630. The two-tailed test for this relationship shows the value of p equal to 0.000 that is lower than alpha ( $\alpha = 0.01$ ).

**Empathy and Perceived Service Quality:** The correlation between empathy and perceived service quality shows 0.586 which indicate a strong positive linear relationship. The two-tailed significance shows the value of p equal to 0.000, lower than alpha ( $\alpha = 0.01$ ).

The conclusive results under Pearson correlation implicate that the independent variables such as tangibility, reliability, responsiveness, assurance, and empathy significantly affect the perceived service quality. Hence, the hypothesis, H1 is accepted.

Appendix 10 shows the result of multiple regression and multicollinearity analysis for five dimensions; tangibility, reliability, responsiveness, assurance, and empathy of service quality and perceived service quality. The first table is the model summary where the value of R represents the simple correlation of 0.811 that indicates a strong positive correlation. The R Square value shows 0.657 that implies that service quality dimensions explain 65.7% of the variance in perceived service quality towards Norwegian airline in Norway. The remaining 34.3 % of the variance in perceived service quality is explained by other factors that are beyond the scope of this study. The second table is the ANOVA summary which shows the five independent variable which significantly affects the perceived service quality towards Norwegian airline in Norway. Thus, the result shows  $F(5, 152) = 58.225$  and the significance value at two-tailed is  $p=0.000$ , less than 0.05.

The third table is Coefficients which are tests whether the unstandardized or standardized coefficients are equal to zero in the population. The unstandardized coefficients of B under tangibility, reliability, responsiveness, assurance, and empathy shows 0.310, 0.135, 0.136, 0.191 and 0.132. This means that for every unit increase in tangibility, reliability, responsiveness, assurance, and empathy, we expect 0.310, 0.135, 0.136, 0.191 and 0.132 increase in perceived service quality is predicted, holding all other variables constant. The standardized coefficients of



Beta under five independent variables, tangibility has the larger beta of 0.349 with t statistics of 6.081. Furthermore, the two-tailed significance value of five independent variables shows less than 0.05 at 95% level of significance.

The fourth table is the testing of multicollinearity of independent variables with tolerance and variance inflation factors (VIF). Based on the output result, collinearity statistics, VIF value is between 1 to 10 and tolerance value is greater than 0.1 which can be concluded that there are no multicollinearity symptoms.

To conclude, service quality dimensions significantly affect the perceived service quality. Thus, the hypothesis (H1) is accepted.

### **Hypothesis (H2):**

#### **There is a significant difference between customers' expectations and perceptions of service quality**

For testing the hypothesis (H2) concerning a significant difference between customer's expectations and perceptions of service quality, mean value analysis and a paired sample test is computed. Paired sample T-test has been used for analyzing the gap between consumer's expectations and perceptions of each statement of service quality dimensions of Norwegian airline. The SERVQUAL model has been adopted in this part for studying the perceived gap in the five dimensions of service quality. In order to test this objective, the hypothesis has been tested at 0.05 level of significance. The gap analysis between Asian customer's expectations and perceptions are computed using Mean value and Paired sample T-test shown in section 4.5. The detailed computations are shown in Appendix 7 and 8. From the mean value analysis and Paired sample T-test, service quality gap (Perceptions – Expectations) in Norwegian airline is significant with respect to all the five dimensions of service quality Therefore, hypothesis (H2) is accepted.

### **Hypothesis (H3):**

#### **Perceived service quality significantly affects customer satisfaction**

In order to test the hypothesis (H3): Perceived service quality is set as an independent variable and customer satisfaction as the dependent variable. The Pearson correlation, regression, and multicollinearity analysis are used for examining the results.

Appendix 11 shows the results of Pearson correlation analysis between perceived service quality and customer satisfaction. It can be observed that there is a moderate positive relationship between perceived service quality and customer satisfaction with a value of 0.544. The significance value at two-tailed test shows p equal to 0.000, which is lower than alpha ( $\alpha = 0.01$ ). Thus, we conclude that the hypothesis (H3) is accepted.

Appendix 12 depicts the findings under the regression and multicollinearity analysis of perceived service quality and customer satisfaction. The first table shows the summary of the model where the value of R is 0.544 and R square is 0.296. The value of R-square 0.296 implies that perceived service quality explains 29.6% of the variance in customer satisfaction of service quality towards Norwegian airline in Norway. The remaining 70.4% of the variance in customer satisfaction is explained by other factors. <sup>16</sup>Generally, a low R-squared is most problematic when we want to produce predictions that are reasonably precise. Furthermore, if the value of R-squared is low but have statistically significant predictors then we can still draw important conclusions about how changes in the predictor values are associated with changes in the response value. In this study findings, as there is a low R-squared but the significance value at two-tailed test shows the p-value equal to 0.000, less than 0.05. Thus, it meets the above conditions.

The second table is ANOVA summary where the perceived service quality significantly affects the customer's satisfaction. Thus, the result shows  $F(1, 156) = 65.571$  and the significance value at two-tailed test is  $p = 0.000$  which is less than 0.05. The third table is a coefficients summary where the unstandardized coefficients of B of perceived service quality are 0.739. This means for every unit increase in perceived service quality, we expect 0.739 increase in customer satisfaction is predicted, holding all other variables constant. Likewise, the standardized coefficients of Beta show 0.544 with t-values 8.098 and significance value is 0.000 which is less than 0.05 at 95% level of significance.

The fourth table is testing of multicollinearity of independent variables with tolerance and variance inflation factors (VIF). As per computed result of collinearity statistics, VIF value is between 1 to 10 and tolerance value is greater than 0.1 which can be concluded that there are no multicollinearity

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<sup>16</sup> <http://blog.minitab.com/blog/adventures-in-statistics-2/regression-analysis-how-do-i-interpret-r-squared-and-assess-the-goodness-of-fit>

indications. Therefore, the overall results depict that perceived service quality significantly affects customer satisfaction. Thus, hypothesis (H3) is accepted.

#### **Hypothesis (4):**

##### **Service Quality Dimensions significantly affect customer satisfaction.**

To test the hypothesis (H4): Service quality dimensions, tangibility, reliability, responsiveness, assurance, and empathy are set as an independent variable and customer satisfaction as the dependent variable. Appendix 13 depicts the result of Pearson's correlation between independent variables as service quality dimensions and the dependent variable as customer satisfaction.

**Tangibility and Customer Satisfaction:** There is a moderate positive correlation between tangibility and customer satisfaction with a value of 0.500. The value of p at two-tailed significance shows 0.000 which is less than alpha ( $\alpha = 0.01$ ).

**Reliability and Customer Satisfaction:** The correlation between reliability and customer satisfaction shows the value of 0.358, i.e. there is a moderate positive linear relationship. The value of p equal to 0.000, smaller than the significance level (two-tailed,  $\alpha = 0.01$ ).

**Responsiveness and Customer Satisfaction:** The linear relationship between responsiveness and customer satisfaction shows the value of 0.511, a moderate positive correlation. The two-tailed significance level of p-value is 0.000, lower than alpha,  $\alpha = 0.01$ .

**Assurance and Customer Satisfaction:** The correlation between assurance and customer satisfaction shows 0.853 which is a strong positive linear relationship. The value of p under one-tailed significance is 0.000 which is lower than alpha ( $\alpha = 0.01$ ).

**Empathy and Customer Satisfaction:** The correlation between empathy and customer satisfaction is 0.454, i.e. there is a moderate positive correlation. The one-tailed significance level of p-value shows 0.000 which is lower than alpha ( $\alpha = 0.01$ ).

From the above analysis, it can be depicted that there is a positive relationship and service quality dimensions significantly affect customer satisfaction. Therefore, hypothesis H4 is accepted.

Appendix 14 describes the multiple regression and multicollinearity analysis of service quality dimensions and customer satisfaction. The first table shows the summary of the model where the value of R is 0.850 and R Square is 0.722. The value of R Square denotes that the service quality dimensions explains 72.2% of the variance in customer satisfaction of service quality towards Norwegian airline in Norway. The remaining 27.8% of the variance in customer satisfaction is explained by other factors. The Second table is ANOVA that summarized as the service quality dimensions significantly affect customer satisfaction, i.e.  $F(5, 152) = 79.095$ ,  $p(0.000) < 0.05$  at two-tailed significance level.

The third table is the coefficients summary. The unstandardized coefficients of B show that the coefficients of tangibility, responsiveness, and assurance are 0.220, 0.46 and 0.900. This means that for every unit increase tangibility, responsiveness and assurance, we expect 0.22, 0.46 and 0.90 increase in customer satisfaction is predicted, holding all other variables constant.

The standardized coefficients of Beta show higher assurance values of 0.775, with larger t-value (13.439) and lower p-value (0.000) less than alpha ( $\alpha = 0.05$ ) at 95% level of significance. Similarly, the next highest Beta is 0.182 (tangibility) with t-value 3.532 and lower p-value (0.001) less than alpha ( $\alpha = 0.05$ ) at 95% level of significance. The standardized coefficients of Beta for responsiveness 0.044 and reliability and empathy, a negative of 0.008 and 0.076 respectively. Also, the significance value for responsiveness, reliability, and empathy at two-tailed test  $p > 0.05$ . Thus, the coefficients of tangibility and assurance are significant whereas reliability, responsiveness, and empathy are insignificant. The fourth table is testing of multicollinearity of independent variables with tolerance and variance inflation factors. From the result of collinearity statistics, VIF value is between 1 to 10 and tolerance value is greater than 0.1 which can be concluded that there are no multicollinearity symptoms.

To conclude, service quality dimensions of tangibility and assurance has a significant impact on customer satisfaction whereas reliability, responsiveness, and empathy do not impact on customer satisfaction. Thus, hypothesis (H4) is partially accepted.

#### 4.7 Results of Hypotheses Test

The following Table 8 clearly illustrates the summary of the results of four hypotheses test.

<b>Hypotheses</b>	<b>Hypotheses Path</b>	<b>Results</b>
H1	Service quality dimensions provided significantly affects the perceived service quality	Accepted
H2	There is a significant difference between customers expectation and perception of service quality.	Accepted
H3	Perceived service quality significantly affects customer satisfaction.	Accepted
H4	Service quality dimensions significantly affect customer satisfaction.	Partially Accepted

Table 8: Results of Hypotheses Test

## **Chapter 5: Discussion and Conclusion**

This chapter helps to provide answers to the research question by summarizing the findings drawn from the discussion and analysis chapter. Also, it covers the contribution and implications in managerial and theoretical perspectives, limitations of the study and further suggestions for future research.

### **5.1 Discussion and Conclusion**

The study is based on empirical findings gathered from 158 survey questionnaires which were conducted among Asian consumers in Norway. Service quality measurement is an important managerial tool for understanding needs and wants of customers by analyzing the experience of consumers in the service provided. Further, it can help firms towards finding their weaknesses and strengths to make a better service for consumers. The most key role of service quality is by affecting the customers' satisfaction, i.e. high quality of service strongly and positively influences the customer's satisfaction (Jhandir, 2012). Thus, firms need to measure the consumer's perceptions of service quality for offering a better service and improve their firm in today's competitive market.

This study aimed to identify the dimensions of service quality of the airline industry. The conceptual model was constructed based on previous literature and SERVQUAL five-dimensional scale, suggested by Parasuraman, Zeithaml & Berry (1988). The service quality gap analysis was also included in my conceptual model for determining whether there is a significant difference between consumers expectations and perceptions of service quality based on the SERVQUAL approach. This approach contains a questionnaire which evaluates five generic service dimensions or factors of 15 questions each evaluating both expectations and perceptions using a seven-point Likert scale.

The purpose of this research was to investigate the perceptions of Asian consumers towards the service quality of Norwegian airline in Norway, thus my research question stated: What are the major variables that influence the perception of Asian consumers towards the service quality of Norwegian airline in Norway? And is followed by four hypotheses explaining the relationship between construct in research model. The proposed research model was empirically tested with the data that were collected from Asian consumers towards Norwegian airline service quality. The

data that were collected shows a better evidence for the reliability and validity of the measurement model. The Pearson correlation, multiple regression, and multicollinearity analysis were executed to test hypotheses (H1, H3, and H4) whereas the paired sample statistics to test the hypothesis (H2).

Customer satisfaction depends on the differences between customers' expectations and perceptions towards the service quality. The research findings revealed that the expectations of Asian customers exceeded their perceptions. The overall computations of the mean for customers' expectations towards service quality in Norwegian airline are quite high. On the other, the mean for customers' perceptions is low giving negative scores when compared with expectations. Parasuraman, Zeithaml & Berry (1985) suggested that when the perceptions of customers towards service quality is high then there is a high customer satisfaction and vice-versa. In my research results, the perceptions of Asian consumers towards service quality is low in compared to their expectations, forming dissatisfaction (Perceptions < Expectations).

From the analysis of hypothesis H2, there is a significant difference between Asian consumers expectations and perceptions of service quality. This shows that the Asian consumers are not satisfied with the services delivered by Norwegian airline in Norway. A similar by Asefi, Delaram & Deris (2017) found that there is a significant difference between students' expectations and perceptions regarding the educational services offered in a School of Nursing and Midwifery. Thus, the service quality delivered was lower than what expected by the students. Each dimension items of service quality, i.e. tangibility, reliability, responsiveness, assurance, and empathy need to be improved by the Norwegian airline for fulfilling the gap between customers' expectations and perceptions. The customers are playing a significant role in the success or growth of the airline industry. The relationship between customers and airline employees creates the strongest role for the achievement of airline goal. The management of Norwegian airline should give individual attention and understand the specific needs of Asian consumers by providing comfortable in-flight seats, efficient check-in and baggage handling, convenient flight schedules, and enough frequencies, make consumers feel safe, prompt service, answer their questions, etc.

The evaluation of inter-correlation between the service quality dimensions and perceived service quality shows that each dimension of service quality has positive significance with perceived service quality and thus, hypothesis H1 is accepted. A study found by Tsoukatos & Mastrojianni

(2010), perceived service quality is a relative quality of a service that is perceived by consumers through making a comparison between the actual performance of firm service with their expectations that are formed by experiences, word-of-mouth communications, and memories. Each dimension of service quality has its own importance for Norwegian airline towards satisfying Asian consumers in Norway.

The Pearson correlation and regression analysis demonstrate that perceived service quality has significant impacts on customer satisfaction as  $r = 0.544$  and  $p=0.000$ , less than 0.05. This means that perceived service quality has significant impacts on customer satisfaction in the airline industry and thus, H3 is accepted. This result is consistent with many previous studies as a study by (OMOLLO, 2016) found that perceived service quality has significant impacts on customers satisfaction in the airline industry in Kenya. Similarly, another study by Ahn & Lee (2011) found statistically significant impacts of perceived service quality on customer satisfaction. Likewise, as Wilson et al. (2008) stated that service quality is very significant for providing a higher level of customer satisfaction. Therefore, the result of this research study is consistent with many previous studies. The improvement of service quality is a crucial factor for sustainable differentiation and competitiveness in the airline industry. The management of Norwegian airline needs to develop and implement market-oriented service strategies for identifying Asian customers' needs and expectations to serve them better in an effective and efficient manner.

For hypothesis H4, service quality dimensions of tangibility and assurance are significant that affect customer satisfaction whereas reliability, responsiveness, and empathy are not significant. The present study has provided evidence of the fact that improving the reliability, responsiveness, and empathy of airline will lead to improved customer satisfaction. This study has also shown that a better quality of interaction with personnel will result in improved customer satisfaction. These findings support the results of past studies, Ali et. al (2014), who observed the airline tangibles, terminal tangibles, personnel, empathy, and image were significant contributors to customer satisfaction. Consistent with previous studies, this research has also provided evidence for the influence of airline tangibles on customer satisfaction (Nadiri et al. 2008). The airline company should be able to create high perceptions using Reliability: on-time departure and arrival, in-flight services consistently and performing service first time; Responsiveness: willing to help customers, prompt service, and efficient check-in and baggage handling service; Empathy: understood



specific needs of customers, convenient flight schedules, and enough frequencies and individual attention.

The competition is increasing in the service sector and the service quality is significantly important for the airline industry to compete and gain a sustainable competitive advantage. The higher quality of service helps to retain the customers and ensures survival and growth in the market (Dabholkar, Shepherd & Thorpe, 2000). The improvement of service quality is considered as a key concern in the airline industry (Hoffman & Bateson, 2002). The previous research has shown that among various competitive variable for airlines, i.e. service quality, fares cost, market access and frequency, service quality is the most highly competitive variable (Banfe, 1992). With the increase of low-cost airline, it has become prudent for examining whether perceived service quality is a prime driver for customer satisfaction. A number of studies have found on the effects of service quality in the service sectors, but relatively few researchers focused on the part of the airline industry.

From the results, it can be inferred that even though all the service quality dimensions are significant for the perception of service quality, some dimensions are found to be more significant than others. Further, the results obtained from Norwegian air passengers in Norway, it finds that perceived service quality positively influences passenger's satisfaction towards airline. The study also suggests that service quality dimensions significantly influence customer satisfaction. Generally, the capability of an airline towards offering superior service quality by understanding customer expectations facilitates business growth and survival in the airline industry.

Particularly, the improvement of service quality to understand and match the expectations of customers influences capability to deliver relatively error-free service that pleases customers. Therefore, having the tendency for retaining customers' patronage, enlarge market share and by extension constitute a means for enhancing the profitability of the business. Finally, to need to build and increase customer satisfaction, Norwegian airline in Norway must offer quality service that meets and exceeds Asian consumers satisfaction for enhancing the growths and profits.

## **5.2 Managerial Implications**

The results of this research work suggest the five practical implications for airline service quality. The analysis of empirical results presented that the SERVQUAL model can be used for measuring the service quality in the context of the airline industry. The five dimensions such as; tangibility, reliability, responsiveness, assurance, and empathy under the SERVQUAL model shows a positive significant correlation with perceived service quality. Correspondingly, the relationship between service quality and its dimensions is significant and positively related to customer satisfaction. This research study has important implications regarding airline service quality. The analysis showed that service quality was a significant driver of both perceived service quality and customer satisfaction. The management of Norwegian airline should realize that improvements in service quality enhance customer satisfaction and perception of value. In order to improve in service quality, Norwegian airline should seek to take effective measures and set quality standards that guarantee a better quality of service. Furthermore, the Norwegian airline should listen to their consumers and employees. Consumers and airline employees are considered as most important sources of information for the Norwegian airline to improve service quality because they are correlated among each other. The compliments of consumers and complaints are taken usually by airline employees and such feedback can then be used as a better source in terms of improving service quality and developing service strategies. Also, the employees of the airline should be trained to recognize and to respond to consumers effectively because many positive and negative influences come from the human interaction among consumers and airline employees.

The training of employee and their involvement are linked towards profitability and employee satisfaction is linked to customer satisfaction. Thus, the airline should focus on training the empathetic personnel who are in direct contact with passengers, such as, at gates and while boarding airline. The practices of human resource management should be in place for employee job satisfaction in order to improve job performance and that leads to customer satisfaction (Parast and Fini, 2010). The development and training of frontline employees will allow to not only meet, but exceed the expectations of passengers', thus creating a basis for satisfaction and, therefore, competitive advantage. The managerial implications towards measuring service quality can help management for providing reliable data that can be used to monitor and maintain improved service quality. With the use of the SERVQUAL model for assessing the service quality enables

management for better understanding the various dimensions and how they affect service quality and customer satisfaction.

From the study findings, it shows that the SERVQUAL model is a useful tool for measuring service quality in the airline industry. This model can be of significant use for managers of Norwegian airline in knowing how customers assess service quality in the airline industry and guide them to increase customers' service experiences. In looking at the service quality gaps, managers can identify where improvement of performance is needed. It is significant for the management of service-based firms for knowing how consumer perceived service quality in the airline industry. The measurement of service quality can help management provide important data which can be used to monitor and improve service quality. With the use of the SERVQUAL model for assessing service quality enables the management for a better understanding of the dimensions of services and how they affect the quality and customer satisfaction. The findings also show that consumers (Asian in our case) expected more than what they perceive, and this leads to no satisfaction. Therefore, airline management must act to improve all the statements of service quality in order to get higher perceived service quality and customer satisfaction.

### **5.3 Limitation and Future Research**

There are some limitations found in this research study. The research was focused mainly on the perception of Asian consumers towards the service quality of Norwegian airline in Norway, thus none of the European consumers are considered. Due to the limited time frame and a larger number of the target population, non-probability convenience sampling was followed for collecting data, since it is considered to be less reliable while drawing inference about population. The limited sample may not reflect perceptions and expectations of Asian consumers towards the service quality of Norwegian airline. A majority of the respondents belong to a certain age group of 30-39 years old. Thus, the number of total respondents is relatively too small. Therefore, the further research could be conducted for identifying the different perceptions towards the service quality among more diverse demographic groups by gender, age, the frequency of flight, income level, nationality and so on including both Asian and European consumers in Norway. This research study will remain as a part of reference for future study related to the airline industry in Norway.

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## Appendices

### Appendix 1: Survey Questionnaire

# PERCEPTION OF ASIAN CONSUMERS TOWARDS THE SERVICE QUALITY OF NORWEGIAN AIRLINE IN NORWAY

Dear Respondents,  
Warm Greetings !!

I am a Master student studying Master of Science in Business at Nord University, Bodø, Norway. This survey is undertaken to complete my Master Thesis as mandatory work. It would be grateful if you help me by answering the following questionnaire. This survey will take less than 10 minutes of your time. Your response is completely anonymous and confidential. Thank you for your cooperation !!

\*Required

## PART 1: GENERAL INFORMATION

### 1. Gender \*

*Mark only one oval.*

- Male  
 Female  
 Other: \_\_\_\_\_

### 2. Age \*

*Mark only one oval.*

- 18 - 25  
 26 - 29  
 30 - 39  
 40 and Above

### 3. Level of Education

*Mark only one oval.*

- High School  
 Bachelors  
 Masters  
 Other: \_\_\_\_\_

**4. Marital Status \***

*Mark only one oval.*

- Single
- Married
- In a relationship

**5. Nationality \***

*Mark only one oval.*

- Nepalese
- Indian
- Pakistani
- Other: \_\_\_\_\_

**6. Employment Status**

*Mark only one oval.*

- Student
- Full-time Job
- Part-time Job
- Self-employed
- Unemployed
- Other: \_\_\_\_\_

**7. Monthly Income Level**

*Mark only one oval.*

- Below 10000 NOK
- 10000 - 20000 NOK
- Above 20000 NOK
- Not Applicable

**PART 2: CONSUMER PREFERENCES**

Please choose the following option that satisfies your opinion.

**8. Which airline did you choose for domestic flights in Norway? \***

*Mark only one oval.*

- Norwegian
- SAS
- Widerøe
- Other: \_\_\_\_\_

**9. How long have you been travelling with your current chosen airline?**

*Mark only one oval.*

- Less than one year
- More than one to three years
- More than three to five years
- More than 5 years
- Not applicable

**10. What is your purpose of travel?**

*Mark only one oval.*

- Business
- Visiting relatives or friends
- Tourist
- Other: \_\_\_\_\_

**11. How often do you travel with your chosen airline?**

*Mark only one oval.*

- Annually
- Quarterly
- Monthly
- Weekly
- Daily
- Rarely

**12. What time do you prefer to travel?**

*Mark only one oval.*

- Morning
- Afternoon
- Evening
- Night
- No choice



**13. What factors perceive you for choosing your current airline? Multiple Choices. \***

*Tick all that apply.*

- Price
- Service quality
- Airline reputation
- Airline safety
- Route availability and convenience
- Frequent flier programs
- Other: \_\_\_\_\_

**14. What factors satisfies you for choosing your current airline? Multiple Choices. \***

*Tick all that apply.*

- Security
- Flight Timeliness
- Information convenience
- In-flight services
- Baggage handling and collection
- Handling complaints of consumers

**15. How you rate your chosen airline in terms of service?**

*Mark only one oval.*

- Excellent
- Very good
- Good
- Fair
- Bad

**16. How you rate your chosen airline in terms of safety and security?**

*Mark only one oval.*

- Excellent
- Very good
- Good
- Fair
- Bad

**17. How you rate your chosen airline in terms of fare cost?**

*Mark only one oval.*

- Excellent
- Very good
- Good
- Fair
- Bad

## **PART 3: EXPECTATIONS AND PERCEPTIONS OF CHOSEN AIRLINE SERVICE**

This section of the survey deals with your expectations and perceptions of your chosen airline service.

### **A. Expectations**

---

This survey deals with your opinions of chosen airline services. Please show the extent to which you think firms offering airline services should possess the features described by each statement. Select one of the seven numbers next to each statement.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree

**18. The airline should have comfortable in-flight seats.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**19. The airline employees should appear neat and tidy.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**20. The in-flight facilities and interiors of the airline should be clean.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**21. The airline should have on-time departure and arrival.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**22. The airline should perform the services right the first time.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**23. The airline should provide good ground or in-flight services consistently.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**24. The airline employees should always be willing to help their consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**25. The airline should give prompt service to their consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**26. The airline should have efficient check-in and baggage handling services.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**27. The airline should make feel safe to their consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**28. The airline should have the knowledge to answer the questions of consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**29. The airline employees should be polite.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**30. The airline employees should understand the specific needs of consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**31. The airline should have convenient flight schedules and enough frequencies.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

32. **The airline employees should give personal attention to their consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

## B. Perceptions

---

This survey deals with your feelings about chosen airline service. Please show the extent to which you believe chosen airline has the feature described each statement. Select one of the seven numbers next to each statement.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree

33. **The airline has comfortable in-flight seats.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

34. **The airline employees appear neat and tidy.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

35. **The in-flight facilities and interiors of the airline are clean.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**36. The airline has on-time departure and arrival.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**37. The airline performs the service right the first time .**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**38. The airline provides good/in-flight services consistently.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**39. The airline employees are always be willing to help consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**40. The airline employees give prompt service to their consumers.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

**41. The airline provides efficient check-in and baggage handling service.**

*Mark only one oval.*

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

42. The airline makes consumers feel safe.

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

43. The airline employees have the knowledge to answer the questions of consumers.

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

44. The airline employees are polite.

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

45. The airline employees understand the specific needs of consumers.

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

46. The airline has convenient flight schedules and enough frequencies.

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

47. The airline employees give consumers individual attention

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

48. How do you perceive the service quality of your chosen airline in general?

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

49. Are you satisfied with the service quality offered by your chosen airline in Norway?

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

50. Any Comments

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## Appendix 2: Demographic Characteristics of Respondents

### Gender (1)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	118	74.7	74.7	74.7
Female	40	25.3	25.3	100.0
Total	158	100.0	100.0	

### Age (2)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-25	13	8.2	8.2	8.2
26-29	67	42.4	42.4	50.6
30-39	76	48.1	48.1	98.7
40 And Above	2	1.3	1.3	100.0
Total	158	100.0	100.0	

### Level of Education (3a)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid High School	5	3.2	3.2	3.2
Bachelors	23	14.6	14.6	17.7
Masters	128	81.0	81.0	98.7
Other	2	1.3	1.3	100.0
Total	158	100.0	100.0	

### Other\_Education (3b)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid PhD	156	98.7	98.7	98.7
Total	2	1.3	1.3	100.0
Total	158	100.0	100.0	

### Marital Status (4)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	69	43.7	43.7	43.7
Married	81	51.3	51.3	94.9
In a Relationship	8	5.1	5.1	100.0
Total	158	100.0	100.0	

**Nationality (5a)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Nepalese	109	69.0	69.0	69.0
Indian	12	7.6	7.6	76.6
Valid Pakistani	30	19.0	19.0	95.6
Other	7	4.4	4.4	100.0
Total	158	100.0	100.0	

**Other\_Nationality (5b)**

	Frequency	Percent	Valid Percent	Cumulative Percent
	151	95.6	95.6	95.6
Afghanistan	3	1.9	1.9	97.5
Valid Bangladesh	3	1.9	1.9	99.4
Iran	1	.6	.6	100.0
Total	158	100.0	100.0	

**Employment Status (6)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Student	65	41.1	41.1	41.1
Full-time Job	63	39.9	39.9	81.0
Valid Part-time Job	22	13.9	13.9	94.9
Self-employed	4	2.5	2.5	97.5
Unemployed	4	2.5	2.5	100.0
Total	158	100.0	100.0	

**Monthly Income Level (7)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 10000 NOK	44	27.8	27.8	27.8
10000 - 20000 NOK	66	41.8	41.8	69.6
Valid Above 20000 NOK	39	24.7	24.7	94.3
Not Applicable	9	5.7	5.7	100.0
Total	158	100.0	100.0	

### Appendix 3: Respondents Response

#### Which airline did you choose for domestic flights in Norway? (1)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Norwegian	158	100.0	100.0	100.0

#### How long have you been traveling with your current chosen airline? (2)

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than one year	23	14.6	14.6	14.6
More than one to three years	99	62.7	62.7	77.2
Valid More than three years to five years	31	19.6	19.6	96.8
More than five years	3	1.9	1.9	98.7
Not Applicable	2	1.3	1.3	100.0
Total	158	100.0	100.0	

#### What is your purpose of travel? (3)

	Frequency	Percent	Valid Percent	Cumulative Percent
Business	5	3.2	3.2	3.2
Valid Visiting relatives or friends	48	30.4	30.4	33.5
Tourist	102	64.6	64.6	98.1
Other	3	1.9	1.9	100.0
Total	158	100.0	100.0	

#### How often do you travel with your chosen airline? (4)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Annually	24	15.2	15.2	15.2
Quarterly	65	41.1	41.1	56.3
Monthly	45	28.5	28.5	84.8
Weekly	1	.6	.6	85.4
Rarely	23	14.6	14.6	100.0
Total	158	100.0	100.0	

**What time do you prefer to travel? (5)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Morning	27	17.1	17.1
	Afternoon	58	36.7	53.8
	Evening	43	27.2	81.0
	Night	9	5.7	86.7
	No Choice	21	13.3	100.0
	Total	158	100.0	100.0

**What factors perceive you for choosing Norwegian airline in Norway? (6)**

		Responses		Percent of Cases
		N	Percent	
Perceived Factors <sup>a</sup>	Price	81	26.8%	51.3%
	Service quality	87	28.8%	55.1%
	Airline reputation	33	10.9%	20.9%
	Airline safety	70	23.2%	44.3%
	Route availability and convenience	24	7.9%	15.2%
	Frequent flier program	7	2.3%	4.4%
Total		302	100.0%	191.1%

a. Dichotomy group tabulated at value 1.

**What factors satisfies you for choosing Norwegian airline in Norway? (7)**

		Responses		Percent of Cases
		N	Percent	
Satisfied Factors <sup>a</sup>	Security	120	36.4%	75.9%
	Flight timeliness	49	14.8%	31.0%
	Information convenience	26	7.9%	16.5%
	In-flight services	41	12.4%	25.9%
	Baggage handling and collection	60	18.2%	38.0%
	Handling complaints of consumers	34	10.3%	21.5%
Total		330	100.0%	208.9%

a. Dichotomy group tabulated at value 1.

**How you rate your chosen airline in terms of service? (8)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	7	4.4	4.4
	Very good	55	34.8	39.2
	Good	88	55.7	94.9
	Fair	7	4.4	99.4
	Bad	1	.6	100.0
	Total	158	100.0	100.0

**How you rate your chosen airline in terms of safety and security? (9)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	17	10.8	10.8
	Very good	49	31.0	41.8
	Good	92	58.2	100.0
	Total	158	100.0	100.0

**How you rate your chosen airline in terms of fare cost? (10)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	14	8.9	8.9
	Very good	29	18.4	27.2
	Good	102	64.6	91.8
	Fair	13	8.2	100.0
	Total	158	100.0	100.0

#### Appendix 4: Reliability Testing of Expectations

<b>Dimension</b>	<b>Number of Items</b>	<b>Items</b>	<b>Cronbach alpha for dimensions</b>	<b>Cronbach alpha if item deleted</b>
Tangibles	3	TA 1	0.764	0.663
		TA 2		0.775
		TA 3		0.590
Reliability	3	RL 1	0.743	0.663
		RL 2		0.685
		RL 3		0.626
Responsiveness	3	RE 1	0.709	0.576
		RE 2		0.616
		RE 3		0.655
Assurance	3	AS 1	0.723	0.670
		AS 2		0.600
		AS 3		0.631
Empathy	3	EM 1	0.752	0.669
		EM 2		0.695
		EM 3		0.637

### Appendix 5: Reliability Testing of Perceptions

<b>Dimension</b>	<b>Number of Items</b>	<b>Items</b>	<b>Cronbach alpha for dimensions</b>	<b>Cronbach alpha if item deleted</b>
Tangibles	3	TA 1	0.643	0.684
		TA 2		0.558
		TA 3		0.363
Reliability	3	RL 1	0.745	0.669
		RL 2		0.670
		RL 3		0.643
Responsiveness	3	RE 1	0.633	0.455
		RE 2		0.510
		RE 3		0.629
Assurance	3	AS 1	0.727	0.525
		AS 2		0.717
		AS 3		0.655
Empathy	3	EM 1	0.659	0.637
		EM 2		0.506
		EM 3		0.531

## Appendix 6: Validity Testing of Asian consumers Expectations and Perceptions

### Pattern Matrix of Asian Consumers Expectations and Perceptions (1)

Dimensions	Pattern Matrix <sup>a</sup>		
	Component		
	Items	1	2
<b>Tangibles</b>	ETA1	0.821	
	ETA2	0.787	
	ETA3	0.857	
	PTA1		0.635
	PTA2		0.768
	PTA3		0.879
<b>Reliability</b>	ERL1	0.815	
	ERL2	0.795	
	ERL3	0.827	
	PRL1		0.808
	PRL2		0.808
	PRL3		0.825
<b>Responsiveness</b>	ERE1	0.818	
	ERE2	0.794	
	ERE3	0.776	
	PRE1		0.801
	PRE2		0.784
	PRE3		0.688
<b>Assurance</b>	EAS1	0.761	
	EAS2	0.829	
	EAS3	0.816	
	PAS1		0.83
	PAS2		0.777
	PAS3		0.802
<b>Empathy</b>	EEM1	0.82	
	EEM2	0.794	
	EEM3	0.832	
	PEM1		0.78
	PEM2		0.79
	PEM3		0.755

Extraction Method: Principal Component Analysis

Rotation Method: Promax with Kaiser Normalization

a. Rotation converged in 3 Iterations



**Testing of Convergent and Discriminant Validity (2)**

Dimensions (Expectations and Perceptions)		Convergent and Discriminant Validity						
		Loading	Loading Square	Error Variance	Average Loading	Average Variance Extracted	*r	**r <sup>2</sup>
<b>Tangibles</b>	ETA1	0.821	0.674	0.326	0.791	0.632	0.216	0.05
	ETA2	0.787	0.619	0.381				
	ETA3	0.857	0.734	0.266				
	PTA1	0.635	0.403	0.597				
	PTA2	0.768	0.590	0.410				
	PTA3	0.879	0.773	0.227				
<b>Reliability</b>	ERL1	0.815	0.664	0.336	0.813	0.661	-	0.001
	ERL2	0.795	0.632	0.368				
	ERL3	0.827	0.684	0.316				
	PRL1	0.808	0.653	0.347				
	PRL2	0.808	0.653	0.347				
	PRL3	0.825	0.681	0.319				
<b>Responsiveness</b>	ERE1	0.818	0.669	0.331	0.777	0.605	0.042	0.00
	ERE2	0.794	0.630	0.370				
	ERE3	0.776	0.602	0.398				
	PRE1	0.801	0.642	0.358				
	PRE2	0.784	0.615	0.385				
	PRE3	0.688	0.473	0.527				
<b>Assurance</b>	EAS1	0.761	0.579	0.421	0.803	0.645	0.194	0.04
	EAS2	0.829	0.687	0.313				
	EAS3	0.816	0.666	0.334				
	PAS1	0.830	0.689	0.311				
	PAS2	0.777	0.604	0.396				
	PAS3	0.802	0.643	0.357				
<b>Empathy</b>	EEM1	0.820	0.672	0.328	0.795	0.633	0.198	0.04
	EEM2	0.794	0.630	0.370				
	EEM3	0.832	0.692	0.308				
	PEM1	0.780	0.608	0.392				
	PEM2	0.790	0.624	0.376				
	PEM3	0.755	0.570	0.430				

\*Correlation = r

\*\*Correlation Square = r<sup>2</sup>

**Appendix 7: Descriptive Statistics of Asian consumer's Expectations and Perceptions**

<b>Service Dimensions</b>	<b>Items</b>	<b>Expectations Mean (E)</b>	<b>Perception mean (P)</b>	<b>Gap (P – E)</b>
Tangibles	TA 1	6.32	5.82	-0.50
	TA 2	6.34	5.87	-0.47
	TA 3	6.25	5.64	-0.61
Reliability	RL 1	6.23	5.40	-0.83
	RL 2	6.17	5.43	-0.74
	RL 3	6.18	5.38	-0.80
Responsiveness	RE 1	6.24	5.71	-0.53
	RE 2	6.19	5.70	-0.49
	RE 3	6.16	5.58	-0.58
Assurance	AS 1	6.28	5.78	-0.50
	AS 2	6.30	5.84	-0.46
	AS 3	6.43	5.91	-0.52
Empathy	EM 1	6.28	5.75	-0.53
	EM 2	6.07	5.60	-0.47
	EM 3	5.96	5.33	-0.63
<b>Total Score of five dimensions</b>		<b>6.23</b>	<b>5.65</b>	<b>-0.58</b>

**Appendix 8: Paired Sample Statistics to Test the Gap between Expectations and Perceptions of Asian consumers**

<b>Service Dimensions</b>	<b>Paired Expectations &amp; Perceptions</b>	<b>Paired Difference Mean</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Tangibles	ETA 1 & PTA 1	0.500	5.813	157	0.000
	ETA 2 & PTA 2	0.468	5.333	157	0.000
	ETA 3 & PTA 3	0.608	6.772	157	0.000
Reliability	ERL 1 & PRL 1	0.829	9.889	157	0.000
	ERL 2 & PRL2	0.741	8.832	157	0.000
	ERL 3 & ERL 3	0.804	9.360	157	0.000
Responsiveness	ERE 1 & PRE 1	0.532	5.787	157	0.000
	ERE 2 & PRE 2	0.487	5.518	157	0.000
	ERE 3 & PRE 3	0.576	6.311	157	0.000
Assurance	EAS 1 & PAS 1	0.500	7.030	157	0.000
	EAS 2 & PAS 2	0.468	5.807	157	0.000
	EAS 3 & PAS 3	0.525	6.769	157	0.000
Empathy	EEM 1 & PEM 1	0.525	5.859	157	0.000
	EEM 2 & PEM 2	0.468	5.508	157	0.000
	EEM 3 & PEM 3	0.633	6.563	157	0.000

**Appendix 9: Correlation Between Service Quality Dimensions and Perceived Service Quality**

Dimensions		1	2	3	4	5	Dep.
Tangibility (1)	Pearson	1	0.463**	0.378**	0.434**	0.413**	.690**
	Correlation						
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	158	158	158	158	158	158
Reliability (2)	Pearson	0.463**	1	.433**	0.375**	0.367**	.539**
	Correlation						
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	158	158	158	158	158	158
Responsiveness (3)	Pearson	0.378**	0.433**	1	0.567**	0.490**	0.586**
	Correlation						
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	158	158	158	158	158	158
Assurance (4)	Pearson	0.434**	0.375**	0.567**	1	0.562**	0.630**
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
	N	158	158	158	158	158	158
Empathy (5)	Pearson	0.413**	0.367**	0.490**	0.562**	1	0.586**
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	158	158	158	158	158	158
Perceived Service Quality (Dependent)	Pearson	0.655**	0.539**	0.586**	0.630**	0.586**	1
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	158	158	158	158	158	158

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

**Appendix 10: Regression Analysis of Service Quality Dimensions and Perceived Service Quality**

<b>Model Summary<sup>a</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.811 <sup>a</sup>	0.657	0.646	0.344
a. Predictors (constant), Tangibility, Reliability, Responsiveness, Assurance, and Empathy				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.(2-tailed)
1	Regression	34.450	5	6.890	58.225	0.000 <sup>b</sup>
	Residual	17.987	152	0.118		
	Total	52.437	157			
a. Dependent Variable: Perceived Service Quality						
b. Predictors (constant), Tangibility, Reliability, Responsiveness, Assurance, and Empathy						

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval			
		B	Std. Error	Beta	t	Sig. (2-tailed)	Lower Bound	Upper Bound
1	(Constant)	0.515	0.304		1.693	0.093	-0.086	1.117
	Tangibility	0.310	0.051	0.349	6.081	0.000	0.209	0.411
	Reliability	0.135	0.050	0.154	2.706	0.008	0.036	0.233
	Responsiveness	0.136	0.048	0.175	2.842	0.005	0.042	0.231
	Assurance	0.191	0.055	0.224	3.491	0.001	0.083	0.300
	Empathy	0.132	0.046	0.174	2.864	0.005	0.041	0.222
a. Dependent Variable: Perceived Service Quality								

Model	Collinearity Statistics	
	Tolerance	Variance Inflation Factors (VIF)
Tangibility	0.685	1.460
Reliability	0.699	1.431
Responsiveness	0.594	1.682
Assurance	0.549	1.822
Empathy	0.613	1.632

### Appendix 11: Correlation Between Perceived Service Quality and Customer Satisfaction

		1	Dependent
Perceived Service Quality (1)	Pearson Correlation	1	0.544**
	Sig. (2-tailed)		0.000
	N	158	158
Customer Satisfaction (Dependent)	Pearson Correlation	0.544**	1
	Sig. (2-tailed)	0.000	
	N	158	158

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

### Appendix 12: Regression Analysis of Perceived Service Quality and Customer Satisfaction

Model Summary <sup>a</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.544 <sup>a</sup>	0.296	0.291	0.661
a. Predictors (constant), Perceived Service Quality				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig. (2-tailed)
1	Regression	28.612	1	28.612	65.571	0.000 <sup>b</sup>
	Residual	68.071	156	0.436		
	Total	96.684	157			
a. Dependent Variable: Customer Satisfaction						
b. Predictors (constant), Perceived Service Quality						

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval	
	B	Std. Error	Beta	t	Sig. (2-tailed)	Lower Bound	Upper Bound
1 (Constant)	1.619	0.517		3.131	0.002	0.598	2.641
Perceived Service Quality	0.739	0.091	0.544	8.098	0.000	0.558	0.919
a. Dependent Variable: Customer Satisfaction							

Model	Collinearity Statistics	
	Tolerance	Variance Inflation Factors (VIF)
Perceived Service Quality	1.000	1.000

### Appendix 13: Correlation Between Service Quality Dimensions and Customer Satisfaction

Dimensions		1	2	3	4	5	Dep.
Tangibility (1)	Pearson	1	0.463**	0.378**	0.434**	0.413**	0.500**
	Correlation						
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	158	158	158	158	158	158
Reliability (2)	Pearson	0.463**	1	0.433**	0.375**	0.367**	0.358**
	Correlation						
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	158	158	158	158	158	158
Responsiveness (3)	Pearson	0.378**	0.433**	1	0.567**	0.490**	0.562**
	Correlation						
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	158	158	158	158	158	158
Assurance (4)	Pearson	0.434**	0.375**	0.567**	1	0.511**	0.833**
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
	N	158	158	158	158	158	158
Empathy (5)	Pearson	0.413**	0.367**	0.490**	0.562**	1	0.454**
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	158	158	158	158	158	158
Customer Satisfaction (Dependent)	Pearson	0.500**	0.358**	0.511**	0.833**	0.454**	1
	Correlation						
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	158	158	158	158	158	158

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



**Appendix 14: Regression Analysis of Service Quality Dimensions and Customer Satisfaction**

<b>Model Summary<sup>a</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.850 <sup>a</sup>	0.722	0.713	0.420
a. Predictors (constant), Tangibility, Reliability, Responsiveness, Assurance, and Empathy				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig. (2-tailed)
1	Regression	69.841	5	13.968	79.095	0.000 <sup>b</sup>
	Residual	26.843	152	0.177		
	Total	96.684	157			
a. Dependent Variable: Customer Satisfaction						
b. Predictors (constant), Tangibility, Reliability, Responsiveness, Assurance, and Empathy						

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval			
		B	Std. Error	Beta	t	Sig. (2-tailed)	Lower Bound	Upper Bound
1	(Constant)	-0.515	0.372		-1.385	0.168	-1.250	0.220
	Tangibility	0.220	0.062	0.182	3.532	0.001	0.097	0.343
	Reliability	-0.010	0.061	-0.008	-0.163	0.871	-0.130	0.110
	Responsiveness	0.046	0.059	0.044	0.785	0.434	-0.070	0.162
	Assurance	0.900	0.067	0.775	13.439	0.000	0.768	1.033
	Empathy	-0.078	0.056	-0.076	-1.387	0.167	-0.189	0.033

a. Dependent Variable: Customer Satisfaction

Model	<b>Collinearity Statistics</b>	
	Tolerance	Variance Inflation Factors (VIF)
Tangibility	0.685	1.460
Reliability	0.699	1.431
Responsiveness	0.594	1.682
Assurance	0.549	1.822
Empathy	0.613	1.632