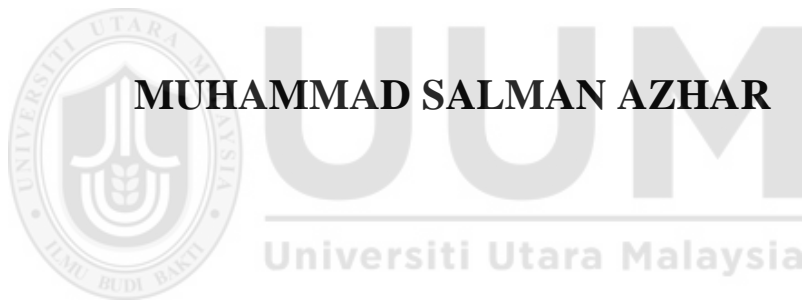


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**THE EFFECT OF CUSTOMER RELATIONSHIP
MANAGEMENT FACTORS ON AIRLINE CUSTOMER
SATISFACTION**

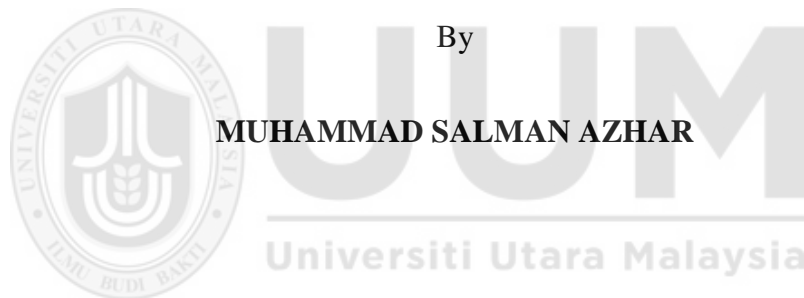


DOCTOR OF PHILOSOPHY (MARKETING)

UNIVERSITY UTARA MALAYSIA

(2020)

**THE EFFECT OF CUSTOMER RELATIONSHIP MANAGEMENT
FACTORS ON AIRLINE CUSTOMER SATISFACTION**



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In Fulfillment of the Requirement for the Degree of Doctor of Philosophy



Pusat Pengajian Pengurusan Perniagaan
(School of Business Management)

Kolej Perniagaan
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ABSTRACT

Airline industry of Pakistan is facing the issue of high passenger turnover, poor infrastructure, ineffectiveness of operations, poor service quality, increasing rate of flight delays and cancellation that leads to passenger's diffidence. This study investigates mediating effect of corporate image on the relationship between service quality, trust, physical environment, social network interaction, relationship through solving customer problems and customer satisfaction in airline industry of Pakistan. The theories of SET and EDT integrates to explain the relationship between CRM factors, corporate image and customer satisfaction. The data was collected from passengers of PIA, SAI and ABQ, in five airports of Pakistan by using a structured questionnaire and 576 visible responses were analyzed. Using PLS-SEM to analyze the data and test hypotheses, the present study shows that relationship between service quality, trust, physical environment and relationship through solving customer problems were significantly related to corporate image and customer satisfaction. However, the results revealed that social network interaction has shown insignificant relationship with corporate image and customer satisfaction. The findings suggest that mediating effect of corporate image was found significant on the relationship between service quality, trust, physical environment, relationship through solving customer problems and customer satisfaction. Nonetheless, corporate image did not mediate the relationship between social network interaction and customer satisfaction. This study delivers understanding in service marketing area and help airline companies to employ the implementation of role of service quality, customer trust and physical environment, and relationship through solving customer problems as main drivers of customer satisfaction.

Keywords: Customer Satisfaction, Customer Relationship Management, Corporate Image, Expectation Disconfirmation Theory (EDT), Social Exchange Theory (SET)

ABSTRAK

Industri penerbangan Pakistan sedang menghadapi masalah lebih penumpang yang tinggi, infrastruktur yang lemah, ketidakberkesanan operasi, kualiti perkhidmatan yang rendah, peningkatan kadar kelewatan penerbangan dan pembatalan yang menyebabkan kurangnya keyakinan penumpang. Kajian ini menyiasat kesan pengantara imej korporat ke atas hubungan antara kualiti perkhidmatan, kepercayaan, persekitaran fizikal, interaksi jaringan sosial, hubungan melalui penyelesaian masalah pelanggan dan kepuasan pelanggan dalam industri penerbangan di Pakistan. Teori SET dan EDT digabungkan untuk menerangkan hubungan antara faktor-faktor CRM, imej korporat dan kepuasan pelanggan. Data dikumpulkan daripada penumpang PIA, SAI dan ABQ, di lima buah lapangan terbang di Pakistan menggunakan soal selidik berstruktur, dan 576 maklum balas yang diterima telah dianalisis. Dengan menggunakan PLS-SEM untuk menganalisis data dan menguji hipotesis, kajian ini menunjukkan hubungan yang signifikan bagi kualiti perkhidmatan, kepercayaan, persekitaran fizikal dan hubungan melalui penyelesaian masalah pelanggan berkaitan dengan imej korporat dan kepuasan pelanggan. Walau bagaimanapun, hasilnya mendedahkan bahawa interaksi jaringan sosial menunjukkan hubungan yang tidak signifikan dengan imej korporat dan kepuasan pelanggan. Dapatan kajian ini mencadangkan kesan pengantaraan imej korporat yang didapati signifikan ke atas hubungan antara kualiti perkhidmatan, kepercayaan, persekitaran fizikal, hubungan melalui penyelesaian masalah pelanggan dan kepuasan pelanggan. Namun, imej korporat tidak mengantarakan hubungan antara interaksi jaringan sosial dan kepuasan pelanggan. Kajian ini memberi pemahaman dalam bidang pemasaran perkhidmatan dan membantu syarikat-syarikat penerbangan dalam pelaksanaan peranan kualiti perkhidmatan, kepercayaan pelanggan dan persekitaran fizikal, dan hubungan melalui penyelesaian masalah pelanggan sebagai pemacu utama kepada kepuasan pelanggan.

Kata kunci: Kepuasan pelanggan, pengurusan perhubungan pelanggan, imej korporat, Teori Ketaksalahan Jangkaan (*Expectation Disconfirmation Theory*) (EDT), Teori Pertukaran Sosial (SET)

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LIST OF ABBREVIATIONS

GDP	Gross Domestic Product
IATA	International Air Transport Association
PIA	Pakistan International Airlines
ABQ	Air Blue International Airlines
SAI	Shaheen Air International
IPT	International Passenger Traffic
PCAA	Pakistan Civil Aviation Authority
NAP	National Aviation Policy
CS	Customer Satisfaction
CI	Corporate Image
PE	Physical Environment
TR	Trust
PS	Relationship through Solving Customer Problems
SQ	Service Quality
SNI	Social Network Interaction
CRM	Customer Relationship Management
SET	Social Exchange Theory
EDT	Expectation Disconfirmation Theory
PIAC	Pakistan International Airline Corporation
JCR-VIS	Japan Credit Rating Agency and Vital Information Services
R&D	Research and Development
IT	Information Technology
PLS	Partial Least Square

SEM	Structural Equational Modeling
EM	Estimation Maximization
SPSS	Statistical Package for Social Sciences
CMV	Common Method Variance
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
HTMT	Heterotrait -Monotrait Ratio
WOM	Word of Mouth
MV	Mediating Variable
CR	Composite Reliability
DV	Dependent Variable
PIAL	Pakistan International Airline Limited



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CHAPTER 1

RESEARCH OVERVIEW

1.0 Introduction

In this modern era the business sector increasingly focuses on the management of customer relationships. Customer relationship management (CRM) explicitly acknowledges the long-run value of current and prospective customers and it look for the organizational profits, increase in the shareholder value by developing, maintaining, and enhancing the customer relationships with the company (Naveen & Venkataramana, 2014). Numerous researchers and academicians all over the world have highlighted the importance of customers. When customers are motivated with the company, they show higher level of satisfaction which consequently initiates their repetitive buying behavior and recommend same to others.

Generally, customers adopt a loyal behavior towards the service providers, if they have a strong corporate image within customers and they feel satisfied with the services delivered by them (Ali, Alvi, & Ali, 2012). Similarly, the cost of securing a new customer is 5 times greater than holding an existing one and retrieving a lost customer is 50 to 100 times more costly (Ofori et al., 2017; Zietsman et al., 2019; Boonlertvanich, 2019). Hence, the biggest challenge for a business is the management of customer attrition that can be removed by considering customer needs to reduce the rate of defection and their goal is to build a long-term customer relationship to support customer satisfaction (Ozkan & Suer, 2019).

In service-based industries, it is considerably challenging for the companies to achieve customer satisfaction. Specifically, airline industry comprises of extremely complex

services and products as well as strong service elements (Brochado, Rita, Oliveria, & Oliveria, 2019). Due to increase in competition, numerous airlines have started focusing on satisfaction level of their passengers (Singaravelu, & Amuthanayaki, 2017).

Moreover, the airline industry is an essential segment for a nation's economic development (Jahmani, 2017). It is considered as a chief economic force in terms of both direct and multiplier influence on other economies that includes tourism, manufacturing, education and construction (Oghojafor & Adekoya, 2014). Due to 2007-2008 economic crisis Numerous airlines closed their set-ups while some of them merged their operations with others for their survival to continue and compete productively. There had been a rapid growth in airline industry in previous 25 years, due to the reason that it supports trade of whole world as well as tourism activities and international investment (Hussain, 2016). Hence, for many industries the airline industry is a center of globalization (Hanlon, 2000) as it offers prospects and trials for business units in this industry (Hussain, 2016).

Hence, the current study was conducted on airline industry of Pakistan. The next section highlights the background of the study including airline industry of Pakistan, followed by problem statement which leads to the need of current study. Furthermore, objectives, research questions, significance, scope of the study and definition of key terms are discussed.

1.1 Background of the Study

In the worldwide business ground, the focus of management has shifted towards more customer-centric outlook from the drive of solely producing profit. The service industry is putting customer satisfaction at their precedence due to increasing competition (Ford, Paparoidamis, & Chumpitaz, 2015). In effort for gaining competitive advantage customer satisfaction is main end goal of each business that leads to customer values (Chattopadhyay, 2012). Throughout the world, organizations are striving to produce superior quality products and services to produce exceedingly satisfied customers (Brun, & Karaosman, 2019).

Similarly, for every profit-oriented organization, customer satisfaction is an essential element of success as it influences the company's market share. Additionally, satisfied customers are less sensitive to price, tends to be less affected by competitors and ensure customer loyalty (Herhausen et al., 2019; Rita et al., 2019). There are a few services that are exceptionally multifarious in nature which involve numerous stages of service experiences that effect customer satisfaction level (Bravo et al., 2019). Thus, it is very challenging for business in services industries, to achieve customer satisfaction.

The service sector is a significant economic contributor in rising phase of contemporary development all over the world (Mujahid & Alam, 2014), as it increases the change of economic growth by contributing to the growth in GDP (Zhou, 2015). There is a huge effect of service sector on job creation and regional development by providing: (1) the import-substituting and the exporting services, mainly the producer services, (2) personal services to residents and, (3) an extensive collection of business services that may fascinate the foreign investors (Pylak & Majerek, 2015).

The importance of service sector can be identified by the amount of growth in it and its association with other sectors of the economy (Mujahid & Alam, 2014). The backbone of service sector comprises of finance, transport and telecommunication which opens international market competition, it has been considered as a tertiary sector after the manufacturing and agricultural sector in many developing countries (Gani & Clemes, 2013). Though, the significance of service sector is acknowledged fully when the fundamental needs and demands of agriculture and manufacturing sectors are satisfied (Gani & Clemes, 2010).

Generally, the activities of service sector are largely classified into two types of activities: the market and non-market services activities. The market activities mainly include personal services (hotels and restaurants), distribution services (transport and storage), producer services (banking and finance) and communication services (internet). The non-market activities include the social services (health, education and housing) (Mujahid & Alam, 2014; Li, Clemes, & Gani, 2015). The service sector comprises of four most important sub-sectors in Pakistan that includes: producer (Financial Institution), distributive (Storage and Communications, Transport, Hotels and Restaurants, Retail and Wholesale Trade), social (Defense Social Community, Private Services and Public Administration) and personal services (Ownership and Dwelling, Entertainment and Recreation Services) (Ahmed & Ahsan, 2011).

In Pakistan, economic development trademark is transferred from agriculture economy through manufacturing economy to a services economy (Mujahid & Alam, 2014). In Pakistan, the service sector growth rate is greater than the industrial and agriculture sector growth rate (Ahmed & Ahsan, 2011). More than fifty percent of the GDP of Pakistan is contributed by service sector (Ajmair, Gilal, & Hussain, 2016).

Table 1.1*Sectoral Contribution to the GDP growth (% points)*

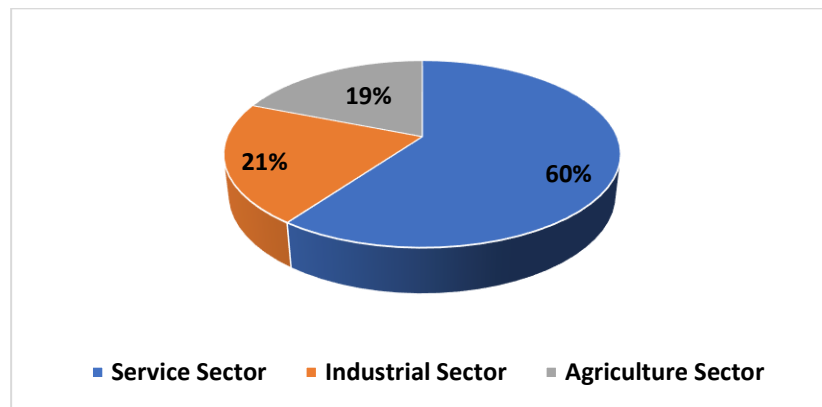
No	Sector	2013-14	2014-15	2015-16	2016-17	2017-18P
1	Services	2.6	2.55	3.35	3.83	3.85
2	Agriculture	0.53	0.45	0.03	0.41	0.73
3	Industrial	0.92	1.06	1.18	1.14	1.21
-	Manufacturing	0.76	0.53	0.50	0.78	0.84

Source: Pakistan Economic Survey (2017-2018)

However, the service sector is growing to the above average rate (shown in the table 1.1) as compared to other sectors of Pakistan which includes manufacturing, industrial and agricultural sector. The share of service sector has increased in the fiscal year 2017-18 to 3.85% points as compared to the previous fiscal year 2016-17 from 3.38 % points (Economic Survey of Pakistan, 2017-18). In the fiscal year 2017-18, Pakistan has shown a better than expected performance in service sector, the share of service sector in fiscal year 2018 has reached to 60.23 percent of Pakistan's GDP (Shown below in figure 1.1) (Pakistan Economic Survey, 2017-18). In the fiscal year (2018-19), service sector of Pakistan has shown a growth rate of 4.71 percent. Specifically, the sector of transport, storage and communication has recorded 3.34 percent growth rate i.e. road-transport 3.85 percent, air-transport 3.38 percent and railways 38.93 percent (Pakistan Economic Survey, 2018-19).

Figure 1.1

Share of GDP in service sector of Pakistan (% points)



Source: Pakistan Bureau of Statistics (2017-18)

In new century, airline industry is one of the most essential aspect that significantly affects global development which eventually supports economic growth and productivity of the country (Perovic, 2013). Among all economies of the world, airline industry plays a central role in view of recent movement towards globalization (Oghojafor & Adekoya, 2014).

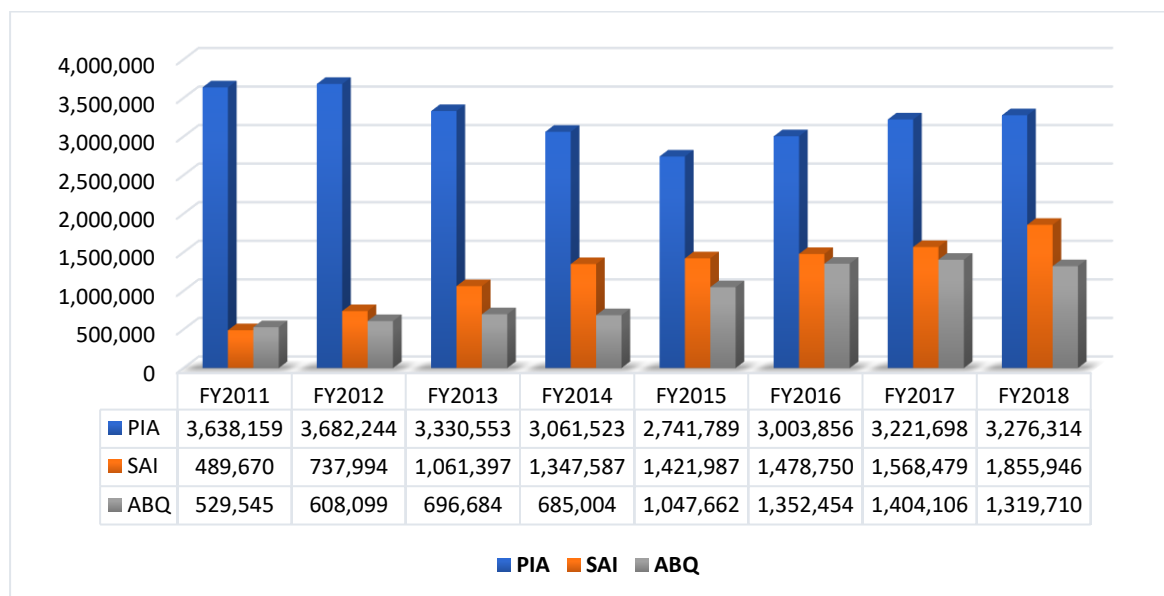
Moreover, airline industry is the one among the most elusive industries that deals predominantly with services provision that contributed to over 581 billion US dollars in global revenue in 2020 (Statista,2020). International Air Transport Association's statistics (IATA) of the year 2016, shows that international passenger traffic (IPT) has increased by 6.7% comparative to IPT in year 2015 (IATA Reveals 2016 Passenger Figures, 2017). According to IATA fact sheet report (2016), the worldwide rapid transportation system is only provided by airline industry which makes it important for tourism and global businesses. The worldwide economic impact of airline industry is \$2.7 trillion together with the induced, direct, indirect and catalytic effects of tourism.

In 2015, about 3.6 billion passengers were transported by IATA and carried approximately 35% of interregional exports of goods by value and 51.2 million tons of freight. In 2015, 54% of international tourists traveled by air transport while in the year 2017, greater than 4 billion international tourists traveled by air transport (Statista, 2018). During 2016, airline industry triggered worldwide economic growth by contributing to the global GDP with 732 billion US dollars (IATA, 2017). Though, regardless of these developments the airline industry is still facing rigid challenges that are instigating mergers consolidations or even closures (Hussain, 2016).

In Pakistan, there are three major airlines which operate internationally that consist of Pakistan International Airlines (PIA), Shaheen Air International Limited (SAI) and Air Blue Limited (ABQ) (Qasim, 2015, JCR-VIS sector update, 2016). Numerous new airlines namely: Bhoja Air, Aero Asia, Rajhi Aviation and Hajvairi have already exited from the industry due to intense competition in the domestic market leaving the aforementioned three airlines in the field. PIA has captured 71.40% market share of the industry that is the maximum as compared to others, Air Blue has 8.70% share Pakistani airline industry (Zaheer, Akbar, & Ramzan, 2013). For many years after the establishment of Pakistani airline industry, PIA remained the only operator of the country then, rapidly private airlines namely SAI, ABQ and Askari Airline arrived as competitor of national flag carrier (PIA).

Figure 1.2

Passenger's Statistics of PIA, Shaheen Air (SAI) and Air Blue (ABQ)



Source: (PCCA Statistics, 2018)

In Pakistan, total international passenger traffic (IPT) has increased by 6% during fiscal year 2016-17 and amounted to 14.6 million passengers. Foreign carriers dominate in terms of IPT market share with the same recorded at 58% during fiscal year 2016-17. In the last five years average passenger traffic grew by 6.3% and movements of aircraft grew by 7.1% (PCAA Statistics, 2019). The passenger air traffic for the year 2018 grew as compared to previous years by 3,276,314 PIA, 1,855,946 ABQ and 1,319,710 SAI as shown in figure 1.2 above. Furthermore, it is anticipated that air traffic will propagate more than this due to the socioeconomic stability and economic progress being tracked by government of Pakistan (NAP, 2019). Following foreign carriers, PIA holds the second highest market share of IPT at 22% followed by SAI at 11% and Air Blue at 10% in the year 2017 given in table 1.2.

Table 1.2

International Passenger Traffic (Market share)

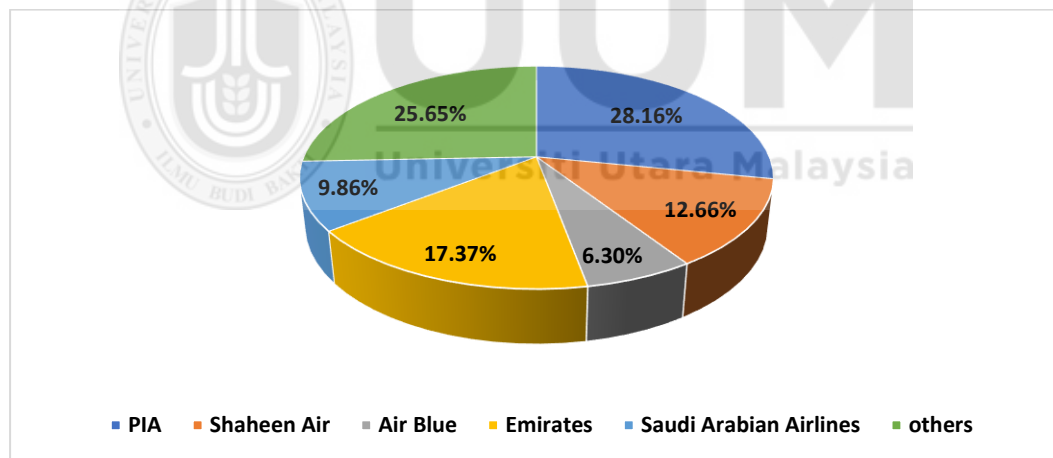
Domestic Passengers	2012	2013	2014	2015	2016	2017
Market share						
ABQ	6%	7%	6%	9%	10%	10%
PIA	39%	34%	28%	23%	22%	22%
SAI	8%	11%	12%	12%	11%	11%

Source: Credit Rating Company Limited, JCR-VIS (2018)

Moreover, PIA has the largest share among the other international airlines operating in Pakistan on international routes that is 28.16%, ABQ has 25.65% and SAI has 12.66% as shown below in figure 1.3 (PCAA, 2015).

Figure 1.3

Share of airlines operating in Pakistan on International Routes



Source: (PCAA, 2015)

The role of customer's perception about service quality is indispensable due to the worldwide competition in airline industry (Koklic et al., 2017). Customer satisfaction has become a central and leading method for customer evaluation in airline industry as it is the most competitive industry among the service sectors (Park, 2019). The

passenger satisfaction is a key strength for airline companies in today's competitive environment, if passengers do not feel satisfied with services provided by airlines, they will reassess their decision of buying for future flights and will possibly alter their decision towards another airline (Archana & Subha, 2012). Similarly, numerous airline companies are emphasizing on CRM as a mean for handling customer relationships to raise customer satisfaction (Salah & Abou-Shouk, 2019; Johan et al., 2020). Therefore, customer satisfaction is a fundamental notion of CRM particularly in airline industry.

1.2 Problem Statement

Airline industry is facing challenges all around the world, since decades in terms of customer satisfaction (Forgas, et al., 2012). The advent of low-cost carriers changed the price patterns of airlines market, regardless of service quality concerns full-service airlines are largely perceived as superior quality and are vulnerable due to rise in popularity of low-cost airlines (Rajaguru, 2016). Ultimately, this leads to intense competition in entire airline industry (Kusumawardani, & Aruan, 2019). Effective customer relationship management is required to retain customer satisfaction to compete in the airline industry (Siering, Deokar, & Janze, 2018). To sustain in front of competitors, it is important for airlines to satisfy their passengers and translate their satisfaction into behavioral commitment (Sezgen, Mason, & Mayer, 2019). Therefore, airlines extremely compete among themselves to obtain passenger's satisfaction (Pitchayadejanant & Nakpathom, 2016).

Review of literature indicated that studies on customer satisfaction in various industries has remained under researched relating to the composite nature of human perceptions and behaviors e.g. airline industry (Ali et al., 2015), automobile industry (Izogo & Ogba, 2015) and healthcare sector (Shabbir et al., 2016). Explicitly, it is far more

challenging for businesses that operate in service sector to achieve and sustain customer satisfaction (Li et al., 2017). previous studies have examined numerous drivers of customer satisfaction that have either positive or negative impact (Alireza, Ali, & Aram, 2011; Kandampully & Suhartanto, 2000). Prior studies have linked customer satisfaction with employee performance (Sattar et al., 2015), customer value (Flint et al., 2011, Alireza, Ali, & Aram 2011), monetary price (W.-T. Lai & Chen, 2011), innovativeness of service (Ambroz & Praprotnik, 2008), product reliability (Ganguli, 2008) and service quality (Hu et al., 2009).

On the basis of extensive literature review, five CRM factors were identified in this study that are closely linked with customer satisfaction i.e. service quality, social network interaction, physical environment, relationship through solving customer problems and trust in airline industry context. Except customer database and employee behavior all the identified factors discussed in prior researches were included in the study. Whereas, employee behavior was not considered as a separate factor as service quality covers this aspect also. Similarly, customer's database was also not selected as a factor of CRM in airline context due to the inclusion of factors like relationship through solving customer problems and social network interaction.

Therefore, prior studies focusing on customer relationship management factors that influence customer satisfaction, such as trust (Ibrahim et al., 2015; Ra'ed, Hayat, & Hani, 2019), service quality (Bin-Nashwan, & Hassan, 2017; Amril, Wardi, & Masdupi, 2019), social network interaction (Azzam, 2014; Mosadegh, & Behboudi, 2011), relationship through solving customer problems (Azzam, 2014; Bin-Nashwan, & Hassan, 2017), and physical environment (Azzam, 2014) have shown a significant

relationship with customer satisfaction. Still, there is dearth of research that systematically link customer relationship management factors and customer satisfaction specifically in Pakistani context. There are still gaps that are not being well addressed by past researchers. Therefore, the study in hand will investigate customer satisfaction to study the reason behind passenger's lack of confidence in Pakistani airlines and attempts to bridge the gaps by examining passenger's satisfaction in the local context.

Firstly, several studies have been carried out to assess the influence of customer problem solving on customer satisfaction in different industries. However, these studies have shown mixed results. For instance, Metwally, (2013) revealed that there is significant influence of customer problem solving on customer satisfaction in airline industry. Similarly, Shammout & Haddad (2014) and Surpriaddin et al., (2015), found that in banking industry solving customer problems has a significant relationship with customer satisfaction. Whereas, Carvajal et al., (2011) found no significant association between solving customer problems and customer satisfaction. Additionally, numerous researchers have found that physical environment has a significant relationship with customer satisfaction (Jang et al., 2011; Martin-Ruiz et al., 2012; Ali, Amin & Ryu, 2016) however, Ali et al., (2016) revealed that physical environment has no significant relationship with customer satisfaction. Likewise, several studies have found a positive and significant influence of service quality on customer satisfaction (Cuong, & Khoi, 2019; Alauddin et al., 2019; Kuo, Wu, & Deng, 2009; Yee, Yeung, & Cheng, 2008). Whereas, the study of Munusamy et al., (2010) conducted in Malaysian banking industry revealed that service quality has a positive but non-significant relationship with customer satisfaction.

Moreover, numerous studies have concluded that trust has a positive and significant relationship with customer satisfaction (Aldas-Manzano et al., 2011; Wu, 2013; Khan & Rizwan, 2014) although few researches have shown contradictory results which showed customer trust and customer satisfaction has no significant and positive relationship among themselves (Haryono et al., 2015; Belás & Gabcova, 2016). Similarly, prior research studies have shown a bi-directional relationship among trust and customer satisfaction (Chinomona & Sandada, 2013). Likewise, in business-to-consumer environment of airline industry trust has been rarely examined (Saleem, Zahra, & Yaseen, 2017).

Similarly, previous studies have shown evidence on creation of social media interaction strategy and the use of social media in business (Tuten, 2008; Lloret-Romero, 2011) however, there are dearth of empirical nature on social network interaction in context of corporate image formation of corporations. Likewise, a deeper analysis required to transfer desired corporate image through social networks, is still missing in prior studies (Kuvykaite & Piligrimiene, 2013). Therefore, the inconsistent results suggest that further research is needed to confirm past findings of the relationship between physical environment, relationship through solving customer's problems, social network interaction and trust on customer satisfaction.

Secondly, prior researchers have found that insufficient research has been conducted on corporate image (Nguyen & Leblanc, 2002). Moreover, past studies have not noticeably recognized a strong association between satisfaction and corporate image (Azoury, Daou, & Khoury, 2014). Also, customer satisfaction does not essentially lead to an encouraging corporate image. This opposes a large amount of prior literature

which states that the corporate image is a collected effect of customer (dis)satisfaction (Fornell, 1992; Yuvaraj, & Rajendiran, 2020). Therefore, there is a great need to discover influence of corporate image in intangible service offerings. Moreover, several studies have tried to study corporate image (Jani & Han, 2014). Instead, the role of corporate image is still confusing in the assessment of service framework that must be clarified (Giovanis et al., 2016). Additionally, research reveals that relationship between customer satisfaction and corporate image is still unclear (Minkiewicz et al., 2011).

Thirdly, the complete understanding of determinants of customer satisfaction have remained rather indescribable (Farooq et al., 2018). Customer satisfaction is among the most extensively used conception for market success in airline industry (Chow, 2014; Hussain, 2016; Park, 2019). Airline service companies' have determined customer satisfaction as an important base for a successful business (Ali, Dey, & Filieri, 2015; Curras-Perez & Sanchez-Garcia, 2016; Yang, Tjiptono, & Poon, 2018). Prior studies on airline industry broadly focused to find customer satisfaction as a vital base to maintain customers loyalty (Leong, Hew, Lee, & Ooi, 2015; Jiang & Zhang, 2016). Prior studies conducted on customer satisfaction have shown mixed and contradictory results. Customer satisfaction has been widely considered as a predictor, outcome or moderator in airline industry context (Ringle et al., 2011, Gures et al., 2014, Ali et al., 2015, Hussain, 2016). Therefore, assessing customer satisfaction in airline context, is relevant and frequent in current scenario (Hussain, 2016).

Similarly, prior studies indicated that studies on customer satisfaction with in service sector i.e. airline industry were rather limited especially in Pakistan. Most studies were

mainly conducted in the Western and other Asian countries including Archana & Subha (2012) & Ahadmotlaghi & Pawar (2012) in India, and Huang (2010) conducted research in Taiwan. Similarly, Saadat et al., (2018) & Ismail & Hussin, (2016) conducted their study in Malaysia, and Namukasa (2013) conducted research in Uganda. Baker, (2013) in America, Geraldine and David, (2013) in Nigeria, Riorini and Widayati (2018) and Hussain, (2016) in United Arab Emirates. Whereas, in context of Pakistan airline industry there are scarce research studies that primarily stress on service quality and customer satisfaction (Moshsan et al., 2011; Ali et al., 2015).

Fourthly, prior studies on Pakistani airlines have exclusively focused service quality (Baloch et al., 2014; Shah et al., 2014; Qasim, 2015; Baloch & Jamshed, 2017; Farooq et al., 2019; Ali et al., 2015; Saleem et al., 2017; Shah et al., 2020), corporate image (Ali et al., 2015; Saleem et al., 2017; Selase, 2018), customer satisfaction (Ahmad et al., 2012; Shah et al., 2014; Shah et al., 2020), customer loyalty (Baloch et al., 2017), employee performance (Zameer et al., 2014) and employee motivation (Ahmad et al., 2012). Regardless of the growing number of empirical studies on customer satisfaction in Pakistani airlines that focus on service quality (Baloch & Jamshed, 2017; Farooq et al., 2019; Ali et al., 2015; Saleem et al., 2017; Shah et al., 2020), it has been observed that Pakistan airline industry seem to over-look the verified relationship between service quality and customer satisfaction (Baloch et al., 2014). The airline service industry is still under explored and due to its exceptional nature further research is required to find service quality of Pakistani airlines and its influence on overall customer satisfaction (Ali et al., 2015; Radovic-Markovic et al., 2017; Farooq et al., 2018). Therefore, analyzing customer satisfaction in Pakistani airline service industry

could provide an empirical evidence of how airline management build relationship with their customers to enhance the company's corporate image.

Fifthly, Pakistani airline industry is currently facing a lot of criticism about its service quality issues. PIA is continuously facing problems to remove its lousy service image (Farooq et al., 2019) due to lack of related personnel and trained staff, high fares, potential entry of competitors, low morale of workers, a lot to do to build its corporate image, poor condition of the aircrafts, cancellation of flights in last minutes and lack of modern technology (Zaheer et al., 2013). Moreover, services provided by PIA are very poor that flights are frequently postponed or delayed due to weather conditions (Zakir, Rehman, & Rehman, 2016). The cancellation of flight and flight delays have become routine matter for PIA. Due to increasing rate of flight delays and cancellation, norm rather than exception is eroding the corporate image of PIA which is turning passengers away from the flag carrier airline. The tickets purchased by people are quite expensive and received service does not matches with the international standards (Namukasa, 2013). The poor service quality and ineffectiveness of operations of PIA has badly affected passenger's confidence, satisfaction and loyalty (Baloch et al., 2014). Therefore, national flag carrier airline (PIA) is facing the problem of passenger turnover and aggressive competition in the airline industry (Baloch & Jamshed, 2017).

According to worldwide airline ranking for the year 2017, PIA was ranked on the 80th spot among 87 airlines of the world while in the year 2018 it stood on 70th position among 72 airlines. This airline ranking was based on three key criteria for cross-country comparison that include service quality, on-time arrival to the destination and how well the complaints are resolved by airline about flight delays. PIA severely lags in resolving

customer complaints about the delays of flights (Airhelp, 2018). PIA seems to be too far behind the world leading airlines thus it seems close to impossible to catch them up (Business Recorder, 2017). Additionally, PIA is having world highest ratio of accidents as well as highest maintenance cost and lowest service quality level due to which PIA has lost customer satisfaction (Baloch et al., 2014). Henceforth, there is a great requirement to investigate the standard of service quality regarding passenger's expectations keeping in view the trust and deteriorating bond amongst passengers and PIA (Baloch & Jamshed, 2017).

Finally, based on the concerns discussed above, this study has been directed to link the theoretical gaps in existing literature. Likewise, limited number of empirical studies have investigated the mediating effect of corporate image in the relationship between CRM factors namely: service quality, trust, social network interaction, physical environment, relationship through solving customer problems and customer satisfaction. Concerning the theoretical gaps detailed in the problem statement, present study attempted to address as, "To what extent do service quality, trust, social network interaction, physical environment, relationship through solving customer problems affects customer satisfaction and does corporate image play any mediating role between them in airline industry of Pakistan."

1.3 Research Questions

Based on the above problem statement the following research questions are derived:

1. To what extent do service quality, relationship through solving customer problems, physical environment, social network interaction and trust influence customer satisfaction?

2. What is the relationship between corporate image and customer satisfaction?
3. To what extent do service quality, relationship through solving customer problems, physical environment, social network interaction and trust influence corporate image?
4. Does corporate image mediate the relationship between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and customer satisfaction?

1.4 Research Objectives

Based on the research questions above the following specific objectives are developed:

1. To study the relationship between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and customer satisfaction.
2. To investigate the effect of corporate image on customer satisfaction.
3. To study the relationship between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and corporate image.
4. To examine the mediating effect of corporate image between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and customer satisfaction.

1.5 Research Significance and Contribution of Study

The study that examines the mediating effect of corporate image on the relationship between service quality, physical environment, social network interwork interaction,

relationship through solving customer problems, trust and customer satisfaction in Pakistan airline industry is significant as add to the existing body of knowledge. Moreover, this study offers an empirical support and guidance to practitioners (leaders, managers, and employees), scholars, marketers and researchers in airline industry to design and implement the effective strategic feature in an organization. Overall, the current study findings help the other organizations to get a better understanding of how to implement these CRM strategies in order to improve customer satisfaction. Moreover, the study brings with it some theoretical and practical significance.

1.5.1 Theoretical Significance of Study

Theoretically, research outcome provides several contributions to corporate image as a mediating variable (MV) on the relationship between service quality, social network interaction, relationship through solving customer problems, physical environment and trust and customer satisfaction among the airline passengers in Pakistani airlines context which has received scarce attention among researchers. This study makes partial use of the conceptual framework of Expectancy Disconfirmation Theory (EDT) model in Pakistani airlines context by adding more components of CRM and corporate image.

Moreover, by considering corporate image as a mediator, this study contributes to the scarce literature on customer satisfaction. It also adds to the existing literature by introducing CRM factors (service quality, social network interaction, relationship through solving customer problems, physical environment and trust) based on SET theory in understanding the factors that influence customer satisfaction. Additionally, this research work added key empirical evidence to the field of CRM and corporate image that was based on the theory of Social Exchange (SET) and EDT in Pakistani

airline industry context. This will give a better picture of the role of corporate image in influencing customer satisfaction. The study makes contributions as it boosts the pool of conceptual and empirical literature that determine passenger's satisfaction in Pakistani airline industry.

1.5.2 Practical Significance of Study

In addition, to the literature development and theory, this research provides practical contribution to airline marketers in better understanding of customer satisfaction and imparting deeper insight in airline industry in South Asian region in general and specifically in Pakistani context, as there are very limited studies which have been conducted in this region. Furthermore, this study assists academicians and future researchers as an input for embarking upon similar researches in future and estimate to further their insight regarding the issue.

Generally, the findings and conclusion from this study offer good directions and guidelines for managers, marketers, business practitioners as well as management of airlines of Pakistan that can help to elicit passenger's satisfaction and by addressing the root problems hindering customer satisfaction in Pakistani airline industry. Moreover, the study would help the Pakistani airlines management to know to what extent do their passengers are satisfied with their services and to make such strategies that can help to attain better service quality, physical environment, corporate image by solving customer complaints, building trust and social network interaction in the airlines in Pakistan. Similarly, in practical sense this study is significant as it helps airlines to build their relationship by trust that is enhanced in every phase of their trip during their travel.

1.6 Scope of Study

The study focuses to examine the influence of the CRM factors, corporate image and customer satisfaction in airline industry of Pakistan. The study further extends to determine mediating role of corporate image among CRM factors and customer satisfaction in airline industry. Data was collected from a sample size of 576 passengers through a field survey. The current study was carried out in Pakistan's airline industry context and its implications are equally significant for any other service industry, as it studied the role of CRM factors of an organization and their effect on customer satisfaction.

Hence, the unit of analysis was the individual passengers of international flights of the three international airlines of Pakistan namely: PIA, SAI and ABQ that were travelling out of the terminals at Peshawar, Quetta, Karachi, Islamabad and Lahore international airports respectively.

1.7 Operational Definition of Key Terms

i. Customer Satisfaction

It refers to the feeling of pleasure or disappointment about product or service's perceived performance in comparison to the customer expectations. The organizations strive to build high quality relationships with the customer and bring efforts to make them happy (Wang, 2014).

ii. Corporate Image

It is defined as the overall impression of firm that is well managed, financially sound, supports local communities, employ talented people, has strong marketing capability, offers high quality services and new products frequently (Moon, 2007).

iii. Customer Relationship Management (CRM)

It is defined as a customer centric managerial strategy which seeks to create an enduring relationship with customers that are profitable by engaging comprehensive knowledge of customers and to provide solutions to customer's problems (Hasan et al., 2012).

iv. Service Quality

It is the evaluation process in which the perceived service is compared with the actual service delivered, it is a form of attitude and delivery of superior service by an organization to its customers (Hapsari et al., 2017).

v. Social Network Interaction

Refers to build customer relationships through interaction with customers through website and sending them e-messages, e-promotions, e-information via emails and social media as a competitive advantage for the organization (Azzam, 2014).

vi. Physical Environment

It refers to the physical surroundings, space or functions, signs, artifacts and ambient conditions of the natural or social environment. The most important component of the physical environment comprises of the comfortable and relaxing seating, appropriate

temperature and quality as well as the facilities provided by the organization (Wu & Liang, 2009).

vii. Relationship through Solving Customer's Problems

It refers to the efforts taken by the organization to resolve the customer problems by reviewing the complaints by customers periodically, giving response directly to the problems and deals effectively if any customer experiences any problem (Azzam, 2014).

viii. Trust

It refers to the confidence in the integrity and reliability of exchange partners. Therefore, trust is the belief that the other party can fulfil its unspoken and open promises and that it is prepared to do so (Seto'-Pamie, 2012).

1.8 Organization of the Thesis

This thesis is divided into five main chapters. Each chapter covers special topic related to the study:

Chapter 1: Research Overview

In this first chapter, overview of the study discussed. Specifically, this chapter includes background, problem statement, objectives and research questions, the significance, scope of the study, definition of key terms, and organization of the thesis.

Chapter 2: Literature Review

This chapter review prior literature related to the topic under study. This chapter starts with a discussion on corporate image and customer satisfaction underlying theories relating to the study are social exchange theory (SET) and expectancy disconfirmation theory (EDT). The CRM factors are reviewed as the determinants of customer

satisfaction. This chapter also analysis previous studies pertaining to the relationship between CRM factors and customer satisfaction as well as the proposed MV (i.e. corporate image). The relevant literature is important towards the development of research framework and hypotheses of the study.

Chapter 3: Research Methodology

This chapter discusses the research methodology that is employed in this study. The research design, sampling procedures, data collection methods, research instrument, measurement and scale are discussed in this chapter. In addition, the statistical techniques and the statistics used to test the hypotheses are also highlighted in this chapter.

Chapter 4: Data Analysis and Findings

Chapter 4 presents the results of the study comprising of data analysis and findings that answer the research questions and objectives. The Smart PLS (version 3.2.8) is used for data analysis the measurement model comprising of individual item reliability, internal consistency reliability, convergent validity and discriminant validity Whereas, structural model comprising of path coefficients, R-squared values, effect size and predictive the relevance of entire model are discussed in this chapter. Similarly, the results of analysis involve mediation effect of corporate image of the structural model are presented in this chapter.

Chapter 5: Discussion of Results

Finally, Chapter 5 focuses on the discussion of the findings, which includes the implications of the study, limitations and recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

The purpose of this study was to identify CRM factors to measure customer satisfaction in airline industry of Pakistan. This chapter presents an overview of airline industry of Pakistan. Refer to the development of theoretical framework, the study discussed underpinning theories namely: Social Exchange Theory (SET) and Expectation Disconfirmation Theory (EDT) from previous empirical studies that. Next, this chapter reviewed related literature: conceptual and theoretical background of dependent, independent and mediating variables chosen in this study that included past literature on social network interaction, service quality, physical environment, trust, relationship through solving customer problems, customer satisfaction and corporate image. Grounded on prior literature, the theoretical framework and proposed hypotheses are presented.

2.1 Overview of Pakistan Airline Industry

Pakistan International Airline (PIA) has been the only Pakistani airline since 1955 (Ali et al., 2015), but it was converted in April 2016 to company that was directed by companies Act 1984, through PIAL conversion Act 2016 (Pakistan Economic Survey 2018-19). Pakistan Civil Aviation Authority (PCAA) was came in to being in 1982, as a controlling body in governing and aligning activities of civil aviation in the country (Deen & Arshad, 2007). The airline industry of Pakistan was started up when Pakistan International Airlines Corporation (PIAC) was merged with Orient Airways to become Pakistan's national flag carrier called PIA (Zaheer et al., 2013). In PIA the operations

are carried out by a range of advanced aircrafts that ranges from Boeing 777 airplane which is among the world's best aircraft to the super-quiet Airbus A-320. It has 32 aircrafts in its fleet with average age of fleet is 13.2 years (PIAC, 2018).

Since independence (1947), the domestic travel business was dominated by PIA and its predecessors lately, Air Blue (ABQ) and Shaheen Air International (SAI) were established that have steadily increased market share and are sustainable competitors of PIA. Shaheen air international (SAI) was the first private airline of Pakistan that came in to existence in 1993. In late 1994, the shaheen air became fully working airline by offering commercial flights domestic passengers of Pakistan. Currently, SAI is Pakistan's second largest airline service. It is a low-cost airline service in Pakistan. SAI comprises of 18 aircraft in its fleet that include Airbus A319, A320, and A330s. Numerous domestic and international destination flights are offered by SAI. Locally, it does its operations in Karachi, Islamabad, Lahore, Peshawar, Sialkot, Multan and Quetta whereas, internationally, it has flights to Guangzhou, Muscat, Kuwait, Manchester, Riyadh, Al-Ain, Dubai, Dammam, Jeddah, Abu Dhabi, Sharjah, Makkah and Madina (Shaheen Air, 2018).

Airblue (ABQ) is the third airline service in Pakistan on the basis of market share that has been founded in 2003. ABQ has 8 aircrafts in its fleet. It is privately owned low-cost carrier airline that is operating in Pakistan. Airblue operates 30 scheduled flights that provides daily services connecting four domestic destinations comprising of Karachi, Islamabad, Peshawar and Lahore with international services to Dubai, Abu Dhabi, Sharjah and Muscat whereas the base airport of airblue is the Jinnah International Airport, Karachi (Airblue, 2018). Due to intense competition in the

market, numerous new airlines namely Bhoja Air, Aero Asia, Rajhi Aviation and Hajvairi airlines departed from the airline industry of Pakistan as their survival in domestic airline market was not possible. Moreover, a new player called Air Indus entered in the domestic market, but it has a very small market share (Qasim, 2015).

In 2015, PIA has completed its 60 years and the commercial airline industry has marked the first 100 years. Due to an increase in competition from the foreign airlines, the expected entry of new airlines and with the emphasis of government to revive PIA may upsurge the competitive landscape (JCR VIS sector update, 2016). It is very essential for the local airline industry of Pakistan that it should develop in a systematic manner to meet the local and foreign passenger's expectations (Qasim, 2015).

Presently, PIA is suffering from an awful financial state. In order to make it self-reliant, present government is very concerned. Numerous efforts are in progress to reduce the corporation's losses and to improve the financial health by numerous means and modes. Government is taking strict action against mismanagement and corruption prevailing in the organization (Pakistan Economic Survey 2018-19).

2.2 Customer Satisfaction (CS)

2.2.1 Conceptualizing Customer Satisfaction (CS)

The word "satisfaction" is a derivative of word "satis" from Latin language which means "facere" and "enough" which means to do or make. Therefore, products and services that are satisfying have the capability to deliver what is being required for being "enough." There are two associated words with satisfaction the one is satiation, which roughly means enough up to the point of surplus, while other one is satiety that means an overabundance or a plentiful of enough, as it is necessarily undesirable to

have too much enough of something. So, ultimately these terms demonstrate that satisfaction indicates a filling or fulfillment (Masroujeh, 2009). Following the pattern of CS conception, table 2.1 summarized the definitions of CS progressed over time by the eminent scholars in the past studies.

Table 2.1: *Definitions of Customer Satisfaction*

<i>Author & Year</i>	<i>Definition</i>
Juan and Yan, (2007)	“It is related to the feeling of disappointment or happiness felt by customer when he/she assesses the perceived properties of certain products as compared to customer expectations about that product properties”.
Akbar and Parvez, (2009)	“It is a response that occurs as an outcome of the method of evaluating what has been received in contradiction of what had been expected which includes, needs and wants associated with the purchase decisions”
Dominici and Guzzo, (2010)	“It is regarded as a belief of business that leads to value creation for customers, forestalling and handling their expectations, indicating their ability and obligation to fulfill their needs”.
Voss et al., (2010)	“It is a collective, global evaluation based on experience with a firm over time in long-term context”.
Kotler and Keller, (2012)	It is defined as “customers’ overall feelings of pleasure resulting from perceived outcomes in relation to expectations and desires”.
Kocoglu and Kirmaci, (2012)	It is defined as “customer wishes, needs and expectations that are overcome or met by the product/service that leads to the decision of repurchase and customer loyalty”.
Suki et al., (2012)	It is defined as “judgment of customers about their experience after the consumption of product or service; or the customer's judgment about service or product delivered is what they expected.”
Jacka and Keller, (2013)	It is defined as “the extent to which the customers’ expectations are met or surpassed that lead to customers repurchase decisions.”
Khan and Khan, (2014)	“It is stated as the evaluation of the end-user’s post-usage of a product or a service to deliver expected joy and fulfilment”.

Srivastava, (2015)	“It is a total or complete assessment about service or a product by time, as an outcome of purchase and customer’s usage experience”.
Pizzi et al., (2015)	“It is an interactive process that unfolds over time which relates directly to the performance of service quality features”.

As presented in table 2.1, CS is a most extensively studied concept in the field of marketing (Singh & Crisafulli, 2016; Oh & Kim, 2017) that is vital for various firms (Ying et al., 2016; Hussain et al., 2018). To be sustainable and profitable a business must satisfy its customers to attain CS (Radovic-Markovic et al., 2017; Farooq, 2016; Farooq et al., 2018).

According to customer’s perspective, CS can also be seen about their needs, wants and expectations all over the life cycle of product or service that have been met or exceeded, delaying unwaveringness and ensuring repurchase (Usta et al., 2014). Additionally, some researchers indicated that CS plays a dynamic role in improving and retaining the continuing customer’s relationship among companies (Hoq & Amin, 2009).

Additionally, positive word-of-mouth (WOM) is delivered as a result of CS which is a valued form of firm’s indirect advertising (Park et al., 2005). For any organization to accomplish its objective, it can be said as the degree of CS reveals the achievement rate of objectives of organization. Customers that are satisfied with the organization are inclined to generate a favorable and responsive association with them. Customers feel pleasure when suitable services are provided instantaneously as needed or estimated and also pass their opinion to others by creating referral-based customers (Saleem, Zahra, & Yaseen, 2017).

Moreover, CS solely depends upon the ability of products and services to meet with the customer's expectations (Alam et al., 2016). But, the expectations of customers vary rapidly so it becomes more challenging for the firm to meet the customer expectations. Hence, to meet them appropriately firms must track the changing expectations of customers (Santouridis & Trivellas, 2010; Yaqub, Halim, & Shehzad, 2019).

2.2.2 Role of Customer Satisfaction in Organizations

A business must satisfy its customers to be profitable and successful (Shin & Elliott, 2001). The whole paradigm of marketing rotates around the phenomenon of CS (Saeed et al., 2011). Additionally, there are a lot of benefits that are obtained from this as follows (Clemes, et al., 2008; Byambaa & Chang, 2012; Dovalienė et al., 2007; Naik, Gantasala, & Prabhakar, 2010; Okumu, 2012; Rafati & Shokrollahi, 2011):

- It effects company's profitability positively.
- It has a great outcome on durability of customer relationships with service provider.
- Satisfying the customers helps in customer loyalty to the point that it becomes the requirement for maintaining a good relationship with customers.
- The customers who are satisfied due to good customer relationship marketing, will repurchase, be loyal to the brand and will lead to positive WOM.
- It helps to increase cross-buying, decrease price sensitivity, increase customer loyalty and increase positive WOM.
- It helps the organization to receive fewer complaints, hence reducing costs in handling failures.
- The organizations keep existing customers, which are profitable as compared to new customers to replace those lost (El-deen, Hasan & Fawzy, 2016).

2.2.3 Previous Studies on Customer Satisfaction

Past studies have identified numerous predictors of CS in different work settings. Such as customer focus, responsiveness, post-flight services, convenience, staff assistance (Kaur & Narula, 2019), service performance (Uyoga & Lagat, 2019), corporate image (Ashraf et al., 2018), customer service (Ismail & Hussin, 2016), service quality (Ozker and Suer, 2019; Sukaisih et al., 2015), Trust (Saleem, Zahra & Yaseen, 2017), relationship development (Long et al., 2013), physical environment (Azzam, 2014), interaction management (Long et al., 2013) and solving customer problems (Azzam, 2014). Some recent previous studies on CS that are studied with different predictors in different work settings shown in table 2.2.

Table 2.2: *Previous Studies on Customer Satisfaction in various industries*

Author & Year	Context	Country	Predictors	Satisfaction Measure	Respondents
Kaur and Narula, (2019)	Airline Industry	India	CRM (Customer focus, Responsiveness, Post-flight Services Convenience, Staff assistance)	Passenger & employee satisfaction	Employees and Passengers
Uyoga and Lagat, (2019)	Airline Industry	Kenya	Service Performance	Passenger satisfaction	Passenger
Ozker and Suer, (2019)	Banking Industry	Turkey	Service quality	Customer satisfaction	Customers
Kim, Cho and Kim, (2019)	Wine Industry	Korea	Customer Service	Customer satisfaction	Customers
Ashraf et al., (2018)	Service Sector	Pakistan	Perceived value, Corporate Image, Service Quality	Customer satisfaction	Customers

Saleem, Zahra and Yaseen, (2017)	Airline Industry	Pakistan	Trust, Service Quality	Passenger satisfaction	Passenger
Ismail and Hussin, (2016)	Airline Industry	Malaysia	Customer Service	Passenger satisfaction	Passengers
Sukaisih et al., (2015)	Hotel Industry	Indonesia	Corporate Image and Service Quality	Customer Satisfaction	Customers
Hussain et al., (2015)	Airline Industry	UAE	Corporate image, Perceived value and Service quality	Passenger satisfaction	Passengers
Ene and Ozkaya, (2014)	Retail Industry	Turkey	Corporate Image	Customer Satisfaction	Customers
Azzam, (2014)	Banking Industry	Jorden	Service quality, Customer Database, Social network Interaction Employee Behavior, Physical Environment and Solving Customer Problems	Customer Satisfaction	Customers
Long et al., (2013)	Retail Industry	Iran	Relationship Development, Interaction Management, customer service, Employee Behavior	Customer Satisfaction	Customers
Wu et al., (2011)	Transport Industry	Taiwan	Corporate Image	Passenger satisfaction	Passengers

As indicated in table 2.2 above, majority of past studies were conducted in service context comprising of transport, retail and banking sector. In addition, these studies

were conducted in UAE, turkey, Indonesia, Malaysia, Korea, Jorden, Kenya, Taiwan, Iran and India. However, few studies were conducted in Pakistan especially in airline industry. Thus, current study was conducted in Pakistani airline industry context.

2.2.4 Role of Customer Satisfaction in Airline Industry

The airline industry is enormously a competitive industry. The satisfied customers are transformed to the regular customers therefore the concept of customer satisfaction is important (Khudhair, Jusoh, & Mardani et al., 2019). CS has become an important requirement in airline industry to develop a competitive advantage that supports its survival in strong competition. The airline companies have been extremely concerned in providing a high quality of service since 1990s. Different types of incentives were offered to customers by airline companies that include computerized reservation systems and frequent flyer programs to build and increase customer's loyalty (Metwally, 2013).

In a highly competitive environment, the delivery of superior quality services to passengers is the competitive advantage for airline's productivity and continuous growth. To increase CS level among passenger's numerous airlines are focusing on airline service quality (Archana & Subha, 2012). So, passenger's satisfaction is essential for measuring service quality of the airline corporations (Lau et al., 2011; Archana & Subha, 2012). Keeping in mind the strong rivalry in the airline industry, it is not enough to just satisfy customers. Rather, customers should be highly satisfied, which can bring long-term relationship with customers. But, contrariwise, dissatisfied customers through their behaviors can express their feelings which may have impact on firm's profitability (Hussain et al., 2015). Upadhyaya (2013), revealed that the complaints of customers are critical for the evaluation of CS. Two types of complaints

were focused in this study; controlled and uncontrolled. The controlled complaints generally include the matters of delays, price issues and the involve delays, concerns about the airline crew and matters of price.

2.3 Corporate Image (CI)

An image is referred as a concept that is related to an individual about another individual or a group or an organization. It can also be stated that image is an impression that is held by a group or an individual which tries to build or strike upon others concerning himself or herself or itself (Ene & Ozkaya, 2014). A CI can be shortly described as all types of impressions about the corporation that are made by the community. Moreover, CI is a tangible and a valuable entity that is very difficult to replicate which is responsible in obtaining sustainable and greater financial performance (Martenson, 2007).

According to the study of Weiwei (2007), CI is defined as the reply of consumer to entire offering that is sum of ideas, beliefs, and impressions about organization perceived by public. It is associated with ideology, business name, tradition, architecture, impression of quality and diversity of products or services which are communicated by every person that interacts with clients of organization.

Moreover, CI is outcome of people beliefs, feelings, knowledge, thoughts, experiences and impressions that they have about organization (Minkiewicz et al., 2011). These thoughts, feelings and attitude help in formation of organizational strategies of consumers including the firm's vision and mission statement (Zameer et al., 2015). CI is associated with emotions therefore, the image about corporation varies from one person to another. More essentially, CI is to confirm that a good will is generated by

the corporation. It is possible that an inaccurate or partial information can negatively influence CI. To have a good reputation among the community, corporations operate to create a positive image in front of their target audience. Therefore, it enables the firm to intensify its operations and profits (Ene & Ozkaya, 2014).

The study of Giovanis et al. (2014) discovered that CI has been recognized as an essential element in complete judgment about the corporation. The corporate image depicts the general perception of people regarding a specific corporation which is associated with behavioral and physical characteristics of a corporation.

2.3.1 Role of Corporate Image (CI) for the organization

CI comprises of inferences and information about company as an employer, supplier, employee, community, and customer as a corporate citizen (Adeniji et al., 2014). As CI is related to stakeholder's behavior, therefore, they struggle to cultivate and achieve their CI due to many reasons that are:

- Persuading the investors and financial institutions.
- Encouraging sales, consequently, influencing customer loyalty
- Improvement of competitive advantage of the corporation that leads to higher profitability.
- Creating a goodwill for the organisation
- Encouraging advantageous relationship with the community they operate, otherwise it may have trouble in selection, recruitment and maintaining the employee morale.
- Creation of employee's identity to achieve their satisfaction.
- Encouraging good relationship with opinion leaders, government and various interest groups (Adeniji, Osibanjo, & Abiodun, 2012).

An advantageous CI inspires shareholders to invest in a corporation, increases profits, retain customers, attract good staff, and associates with the superior overall earnings (Robert & Dowling, 2007). The CI shapes strategic value about a corporation by yielding it a competitive advantage over its competitor corporations. The corporations do this by trying to surpass their competitors in marketing of new products, employing best candidates on job and to display cost-effectiveness which generates higher sales and good corporate image (Adeniji et al., 2014).

2.3.2 Role of Corporate Image in Airline Industry

It plays a vigorous role to attract passengers and to distinguish a firm from other competitors, since the more trustworthy an airline is, the greater confidence it can construct between its passengers (Hussain et al., 2015). The image of airline covers its goodwill, overall perception, promotional offers and value for money (Hussain, & Ekiz, 2007). The CI of airlines has influence one passenger's expectation who has authority and is unrestricted in selection of airline. Hence, airlines should be very conscious about their goodwill and CI (Nadiri et al., 2008; Radovic-Markovic et al., 2017). The airlines must bring a variety of promotional offers to maintain their CI (Gudmundsson et al., 2002; Farooq et al., 2018).

A significant time period and effort is essential to build, enhance and sustain CI however it can be crushed instantaneously. In the airline industry a policy of zero-tolerance for faults is usually followed, as any fault occurring in airline operations could badly disturb their CI (Hussain, 2016). Therefore, in airline industry the administration of CI is a key marketing strategy of a firm (Wu, 2011).

2.4 Theoretical Underpinnings of the Study

The following underpinning theories are employed in this study to arrive at the conceptual framework and development of hypothesis. SET is the main theory that focuses on five variables of the study and EDT is the supporting theory that mainly focuses on customer satisfaction as shown clearly in theoretical framework.

2.4.1 Social Exchange Theory (SET)

SET is a comprehensive conceptual paradigm that covers numerous socio-scientific disciplines comprising of social psychology, management and anthropology. As a family of conceptual models SET is better understood (Cropanzano & Mitchell, 2005). SET is considered among the oldest theories of social behavior that has been popular in social psychology literature and sociology (Homans, 1958).

Originally, SET theory was a theory of sociology that was proposed by Emerson (1976) as a bilateral rewarding process including two or more social groups (Boley et al., 2014; Rasoolimanesh, Jaafar, Kock, & Ramayah, 2015). The SET is generally attributed to the work of Homans (1961) in sociology and Thibaut and Kelley (1959) in psychology. The foundation for development of SET is the social behavior that is an exchange between at least two persons, costly or rewarding and tangible or intangible (Homans, 1961). These propositions are based on the notion of reciprocity (Emerson, 1976), that leads to the principle that an action of individual towards another is grounded on expectations that the action will cause an appropriate and comparative reaction through which individuals will get some value.

The response of the person is more valuable which will further provoke the rewarding activity (Homans, 1961). The emergence of trust in various repeated exchanges is an

important outcome predicted by SET (Das & Teng, 2002; Cropanzano & Mitchell, 2005; Bercovitz et al., 2006). To presume the existence of trust from the prior exchange relationships the scholars have often explicitly or implicitly relied upon SET (Lioukas, & Reuer, 2015).

SET has been defined as a set of actions which are voluntary and motivated by expected return that comprises of superior service quality, customer trust and corporate image. In economic social exchange perspective, tangible returns include money while intangible returns and reciprocity includes association (Blau, 1964). According to Blau (1964), SET realizes a transactional relationship, or the party's action accustomed on rewarding response of another party that is involved in an exchange (Fan, Mahmood, & Uddin, 2019). Furthermore, SET examines how the costs in a relationship or the structure of rewards affect patterns of interaction. Once the individuals have judged the costs and rewards in an exchange process, they will enter in a relationship in which they can minimize costs and maximize benefits (Nunkoo & Ramkissoon, 2012).

Moreover, this study used SET framework as a unique conceptual model that determines the efficiency of passenger-airline service provider voluntary and non-voluntary reciprocal relationship in airline context. Persons that get much from others are under pressure to give much to them that persons give much to others try to get much from them. This process is a balance in exchange that works out at equilibrium among the parties (Homans, 1958).

On the other hand, passengers expect from the airline's management to give back much to them as they trust their services. Hence, this process of give and take tends to be balanced in the exchange process at equilibrium points. Thus, individual passengers in

an exchange process expect a comfortable and relaxing flight experience from the airline as a result passenger stay loyal to the airline service provide and trust them. The passengers expect a healthy physical environment, a superior service quality, trustable service provider, effective problem handling procedure and efficient interaction through social networks in return passengers show their trust, positive WOM and loyalty about purchase of airline services.

Thus, SET suggests that all human beings basically form a relationship based on a subjective cost-benefit analysis which has elements of a relationship that have a positive value of an individual such as friendship, acceptance, social support, and companionship. While, costs are the elements which individual passengers considered as negative for instance money, time and effort spent to sustain the relationship (Tomasello et al., 2010). The social exchange is of the opinion that individual passenger will add the benefit and subtract the costs in order to determine the relationship, hence whether passenger continue the relationship or not depends on the worth of the relationship, that is positive relationship are expected to continue while the negative relationship is expected to collapse (Monge & Contractor, 2003).

2.4.2 Expectancy Disconfirmation Theory (EDT)

EDT measures customer satisfaction from the discrepancy among expectations and customer's experiences in perceived products or services (Spreng & Jr, 2003). EDT is among the most well-known theories in the field of marketing that has gained extensive recognition in research that seeks to explain customer satisfaction (Yen & Lu, 2008). The EDT was developed by Oliver (1980) and postulated that post-purchase satisfaction of customer is mutually determined by expectancy disconfirmation and pre-purchase expectation.

The EDT proposes that satisfaction level of customers is associated with the direction of disconfirmation experience and size that follows an outcome of matching the performance of service against expectations. Mainly, customer satisfaction happens by relating perceptions in contrast to a standard (e.g. expectations) or a consequence of uninterrupted experience regarding the product or service (Mattila & O'Neill, 2003).

The expectation or desire and experience or perceived performance are two well-known variables of EDT (Elkhani & Bakri, 2012). Firstly, the expectation or desire is associated with the pre-purchase time that are initial expectation or desire of the customer about a specific performance. Secondly, the experience or perceived performance is associated with the post-purchase time that the customer gets the experience after perceiving a real performance (Au & Tse, 2019). The disconfirmation of expectation or desire can be either positive or negative. In the case if customer's perceived performance about a product or service quality is greater than customer's expectations or desire will lead to positive disconfirmation. Whereas, in the same way if perceived performance of customer is not as good as what is expected or desired about product or service quality than this will lead to negative disconfirmation (Elkhani & Bakri, 2012; Au & Tse, 2019).

The variation among the desire or initial expectation and performance or perceived experience is known as disconfirmation of desire or expectation (Oliver, 1980). The disconfirmation of desire or expectation can be either positive or negative. In the case if customer's perceived performance about a product or service quality is greater than customer's desire or expectations, this will lead to positive disconfirmation. Whereas, in the same way if perceived performance of customer is not as good as what is desired

or expected about product or service quality than this will lead to negative disconfirmation (Elkhani & Bakri, 2012).

Suhartanto and Noor (2012) studies EDT which observes the development of expectations, that are reflected by perception of pre-consumption associated with product or services. Although performance is based on perception of customers about goods and services. Disconfirmation rises from the inconsistency amongst actual performance of the goods and services and the previous expectation of customers about them. According to the study of Mohajerani (2013), there are two views in EDT that are the contrast effects and assimilation effects. According to contrast effect, there would be overemphasis in the perception of results. It means that the favorable result will be supposed as more satisfactory results and the disapproving one will be perceived as less favorable results. Conversely, assimilation theory is the perception of consumer about the performance of the product drawn towards his/ her expectations that determines customer satisfaction. Customer satisfaction and future purchase decisions are achieved due to positive disconfirmation. However, negative disconfirmation results in searching for another product to satisfy the customer's need.

The theory of disconfirmation not only postulates the effect of disconfirmation of expectations on customer satisfaction level while it also suggests an influence of expectations and perceived performance on customer satisfaction, the prior expectations of customers may affect them on the way to a particular reaction, for that reason they measure recovery of service conforming their level of satisfaction to their level of expectations for avoiding dissonance that would rise in the case if these levels were diverse (Szymanski & Henard, 2001).

Additionally, a common theme in the expectation and disconfirmation literature is that satisfaction is said to be function of the size and direction of disconfirmation, that is when passengers are satisfied in the case of positive disconfirmation and when they are dissatisfied in the case of negative disconfirmation. Furthermore, it was hypothesized that prior expectation and disconfirmation are the only determinants of satisfaction (Oliver, 1980). But subsequent research has shown that actual performance exerts independent effects on satisfaction (Churchill Jr. & Surprenant, 1982). Meanwhile, in some cases, the experience is considered as the only determinant of satisfaction (Brown et al., 2008).

Therefore, the current research study is grounded on EDT as base theory (Oliver, 1980), which postulates that post-purchase satisfaction is the result of both expectations and perceived performance together which is mediated by positive or negative disconfirmation of performance expectations. To decide about customer's expectations those are met or not, the comparison between expected and actual delivered performance is done (Jader & Sentosa, 2015). When an airline provides benefits to passengers that exceed passenger's expectation than passenger satisfaction with service arises. The passengers will travel more often when they feel satisfied with that airline. Due to his/her negative experience if passenger does not feel satisfied than he/she will reassess their decision of buying for future journeys and will possibly shift to any other airline (Archana & Subha, 2012).

Rendering to current theory, EDT acknowledged that customer satisfaction is principally illustrated by the gap that occurs among desires, expectations and perceived

performance which is known to be a favorable method for explaining customer satisfaction. This theory proposes that satisfaction is affected by direction i.e. either positive or negative, intensity or size and the gap or disconfirmation among expectations and perceived performance. Based on the satisfaction experiences numerous researchers have claimed that corporate image is a function of the accumulative effect of customer (dis)satisfaction (Johnson & Fornell 1991; Bolton & Drew 1991; Oliver & Linda 1981; Fornell 1992) and the corporate image is an essential factor to evaluate customer satisfaction when it is difficult to evaluate services delivered by the firms (Andreassen Lindestad, 1998). Moreover, EDT has been theorized as one of the most essential theory (Oliver, 1977, 1980) that supports the influence of customer satisfaction on corporate image (Hussain, 2016; Au & Tse, 2019).

2.5 Customer Relationship Management (CRM)

CRM helps to manage all the relationship elements that a company has with its current and future customers. The practice of preserving an enduring customer relationship is labelled more recently as CRM. This enables businesses to improve, recognize and retain customers through better experience attracts new ones, decreases costs of customer management and increases profitably. The key success factors in competitive market is suitable understanding and implementation of CRM strategy (Rajesh & Manivannan, 2013). Moreover, CRM is a comprehensive strategy of business which is based upon the viewpoint “customer is king” that means customer is essential for firm. It includes operations, marketing, sales, research and development (R&D), customer service, IT and finance to increase the effectiveness of customer interactions. Besides, CRM progress beyond other methods and tools to compass and capture analytical, operational and combined (Boris, 2012).

It is essential to establish marketing and management activities with a mutually beneficial relationships with customers through partnerships as a basic principal CRM to become successful and profitable. CRM takes account of different features like relationship quality, customer satisfaction, service quality, trust, commitment, loyalty and customer retention. The aim of a successful CRM is understanding desires and needs customers of which are fulfilled by combination with organization's technology, people, strategy, and enterprise process with these desires (Fagbemi & Olowokudejo, 2011).

Furthermore, the activity of CRM is concerned with key customers of company, organizational competence, knowledge management of customers, with intention of improving organizational effectiveness and customer related decisions, that leads towards enhancement of marketing performance in specific and in general as well. The aim of CRM depends upon two objectives, i.e. improving marketing performance of company and supporting the social cause (Van de Brink et al., 2006). CRM is a method of management that implicates following steps for maintaining a successful relationship with customers over time that would lead to an increased retention of gainful customers that are identifying, attracting, developing and maintaining successful customer.

CRM plays a pivotal part in organizational success as accomplishing customer satisfaction, it is closely associated with achievement of enterprise excellence (Milovic, 2012). It is one of the approaches to manage customer as its emphases on judging customers as specific instead of as part of group (Lambert, 2010; Das, 2012). CRM is centered to deliver reliable, superior, and economical facilities to all stakeholders of

firms by facilitating communication and decision-making. According to the viewpoint of services provided individually, concept of CRM supports to adapt services or products to each discrete customer of firm. In furthermost progressive state, CRM can also be used for the creation of one-to-one and personalized experience that will help individual customer for upcoming opportunities of marketing centered on history and preferences of customer.

Almost all prior studies propose that CRM is a process by which information related to customer is used to provide solutions to problems of customers, however according to the perspective of relationship marketing where communication is done among customer and marketer for attaining customer retention (Bull, 2003). Moreover, CRM is found to be a concept of management's interactions of company with its clients, customers and sales prospects (Long et al., 2013).

To shape customer-oriented behaviors the first and foremost requirement is that, the organizations should have to cultivate a suitable working environment for service in work (Al-Azzam, 2016). As providing personnel with technology, modern tools, inspirational leadership customer satisfaction tracking, appropriate rewards systems and complaints management systems that can all generate these behaviors (Mechinda & Patterson, 2011). However, the scholars contend that CRM cannot be successful unless the project is totally integrated by them, even if corporations enjoy the most innovative technology and adapt a customer - oriented method (Sin et al., 2005; Yim, et al., 2005).

2.5.1 The Role of CRM in Achieving Customer Satisfaction (CS)

CS is identified as the degree to which customers feel satisfied regarding goods purchased and services rendered. It is said to be as a declaration to buyer about relevance of reward that has been acknowledged in exchange of services experienced by customers. All the efforts of companies are to accomplish needs, wants, desires, aims and expectations of customers (Boone & Kurtz, 2013).

The customer satisfaction has been defined by Jeong and Lee (2010) as:

- A critical replication about customers with reference to product or service throughout time spans of its effectiveness.
- A feedback to deliberation on production expectations and experience regarding the use and consumption of services.
- An emotive (sentimental) response or a way of collaborative perception and acknowledgement.
- A review of emotional style which encompasses the combination of customer's sentiment related to expectations that are unexplained and experiences of prior consumption.

CRM factors have a progressive relationship with CS. CS will be increased automatically due to a good CRM strategy implemented by the company alternatively, CS is caused in the absence of a good strategy for CRM implementation. Likewise, a comprehensive, consistent, and personalized information technologies have a progressive influence on CS. CRM can help to interconnect with customers by satisfying their expectations by using the medium of modern communication. CS will be enhanced by fulfilment of customer's expectations (Jeong & Lee, 2010).

Currently, customer-centered philosophy has been adopted by most of companies to fulfill customer needs and to improve customer's perceived values, therefore it is important for survival to adopt customer-centric strategies that aims at sustaining and improving relationships with prevailing customers. Those customers that are highly satisfied from firm probably more frequently make purchases, in larger size and purchase further products and services by service provider. Most of the firm's emphasis on discovering fresh customers in place of holding and nourishing the base of existing ones. Though, there is a tough competition among companies, as customer retention has become more rather than acquisition of new ones (Ampoful, 2012).

The applications of CRM are expected to have an influence on level of CS for these two reasons. Firstly, the applications of CRM facilitate companies for the customization of their offerings to each customer. By the accumulation of information through the interaction of customer and giving out this information to determine the unseen patterns, these applications of CRM help the companies to modify what they offer to customers according to their tastes. From a viewpoint of customer, the modified offerings improve the perceived quality of products and services. The perceived quality is thought to be a determinant for determining customer satisfaction level, the CRM applications through their effect on perceived quality indirectly affect CS level.

Secondly, in addition to enhancement of perceived quality of the offering, the applications of CRM also permit the firms for the improvement of reliability of experiences in relation to consumption by assisting the well-timed and precise handling

of orders of customer along with customer requests and continuing customer account management (Mithas et al., 2005).

2.5.2 CRM in Airline Industry

Airlines are focusing on CRM as a strategic tool to manage customer's relationship as they have realized the significance of having satisfied customers. CRM in airline industry comprises of the complete travel experience of customers. CRM in airlines starts as passenger interact with a particular airline and sustained till post-flight services (Kaur & Narula, 2019). The airline industry has been a primary adopter of modern relationship marketing strategies in its search of continuous customer relationships.

In the airline operations other activities are also implemented that are considered to enhance and maintain customer relationships. The airline companies try to distribute superior quality of services that improves value perceptions of airline services that leads towards customer satisfaction. A digitalized market has been created due to persistent use of internet in airline business which expands the dealing processes with customer's management, acquisition and maintenance. The drift towards disintermediation benefits, the airlines avoid customers to get closer to the travel agents or other mediators and use Internet to enable a two-way communication (Cheng et al., 2008).

Using internet by airlines, market information and valuable customer knowledge is obtained that presents potential for cultivating customer relationships. Furthermore, airlines are at their initial stage of development of an extensive range of CRM applications which permit airlines to deliver customized and integrated customer services on a one-to-one base (Cheng et al., 2008).

2.6 CRM Factors

Regardless of the rapid development in CRM literature, the CRM factors and their influence on customer outcomes need to be researched more for attaining more results (Iriqat & Daqar, 2017).

According to the study of Cho, et al., (2013) that was conducted on a departmental store found four CRM factors i.e. employee behavior, relationship management, interaction management and services quality that are associated to CS and contribute to customer loyalty. Similarly, Long et al., (2013) exposed four CRM factors i.e. relationship development, employee behavior, service quality and interaction management that influence CS level of department store customers in Tehran, Iran. Likewise, Khalafinezhad & Long (2013) found four key elements of CRM i.e. relationship development, interaction management, service quality and employee behavior that influence CS and customer loyalty.

Muther (2012) and Karjaluoto et al., (2014) focused on five elements of CRM i.e. CRM system integration, customer's database, service quality, employee behavior and solving customer problems that leads to CS. Moreover, Azzam (2014) focused on the influence of CRM on CS in banking industry of Jordan and exposed six CRM factors i.e. physical environment, employee's behavior, customer database, social network interaction, solving customer problems, service quality and that leads to customer satisfaction. Similarly, Iriqat and Daqar, (2017) identified five CRM factors i.e. service quality, customer's database, solving customer's problems, CRM system integration and employee's behavior in Palestinian banking industry that leads to long-term customer loyalty.

Moreover, in relationship marketing research, trust is identified as one of the most widely examined and confirmed constructs. All social relationships would function irregularly or fail without trust (Leninkumar, 2017). Likewise, trust is regarded as an important component for a successful relationship – most importantly in CRM (Law Wong & Lau (2005). Trust is the basis of communication relationships in providing services to customers (Lainamngern & Sawmong, 2019).

2.6.1 Service Quality

It is an overall impression of organizational effectiveness and its services to consumer or it can be understood as a sequence of services delivery in a chain of procedures (Chen & Chang, 2005). It is also defined as the degree to which a service meets or exceeds the necessities and expectations of customers (Baker, 2013). Generally, the definitions of service quality focuses on assembling customer's needs and requirements, how well delivered service matches expectations of customers (Gursoy et al., 2005; Namukasa, 2013). In service industry, the provision of an outstanding service quality and greater customer satisfaction is an essential subject.

Moreover, service quality is an indescribable idea apprehending superiority or meaning of excellence, meeting or exceeding expectations, conformance to specifications and value (Saleem, Zahra, & Yaseen, 2017). Therefore, quality is postulated as a fit between customer perception and expectations. From a service perspective, the service quality has been studied as an individual construct i.e. an antecedent of customer satisfaction (Ali et al., 2015; Namukasa, 2013).

2.6.1.1 Measuring Service Quality in Airlines

In service-based industries, it is particularly more challenging to improve service quality and attaining customer satisfaction (Ali et al., 2015). Similar in the case of

airline industry, that comprises of strong service component as it provides variety of products and services that can affect customer satisfaction (Archana & Subha, 2012). Moreover, passenger satisfaction plays a dynamic role in airline industry to measure service quality and effects the probability that consumers will uphold their relationships with the airline. By creating and maintaining service quality the airlines can take advantage and attain competitive advantage that leads to customer satisfaction which provide various benefits to the airlines including the construction of strong relationship among the airline and passengers, reassuring passenger loyalty, producing a positive corporate image, generating WOM endorsements that will endorse airline, providing an auspicious foundation for repurchase activities, reassuring an increase in the airline's profit (Park, Robertson, & Wu, 2005; Rizan, 2010).

The service quality of airline is very complex and dissimilar as compared to other industries (Feng & Jeng, 2005). The airline industry contains a series of services, and the delivery of services can be distributed into basic and peripheral services as well as ground and on-board services (Li et al., 2017). Therefore, airlines must understand the strategic position of service quality. Perpetually to upgrade service quality in long run it is not expensive rather, it is an investment which will create a bigger profit and a larger market share in future (Hussain, 2016).

2.6.1.2 Relationship between Service Quality, Customer Satisfaction and Corporate Image

Previous scholars have found that service quality and CS are extremely interrelated. there exist a sturdy and a progressive relationship between service quality and CS (Kuo et al., 2009; Gonzalez et al., 2007; Zhao et al., 2012 and Haghghi et al., 2012). The research illustrates that service quality comprises of reliability, responsiveness,

assurance, tangibility and empathy influences CS. A superior service quality should be provided by service provider as it is normally considered an antecedent of customer satisfaction to attain a superior CS level (Baker, 2013).

In prior literature, the idea about service quality is more and more discussed in understanding factors that induce CS (Gee et al., 2008). Numerous studies illustrate that service quality impacts CS, amongst other studies are conducted by Taleghani et al., (2011), Shirsavar et al., (2012), Che-Hui et al., (2011), Marinković et al., (2012), Fang et al., (2011), Karim (2012), Brady & Cronin (2001), Liao (2012), Ou et al., (2011), Huang (2008) as well as Terblanche and Boshoff (2001), Hume & Mort (2010). Similarly, Yee, Yeung, & Cheng, (2008), investigated that service quality has a positive impact on CS or an antecedent on CS (Koivumäki, Ristola, & Kesti, 2008; Kuo, Wu, & Deng, 2009; Vera & Trujillo, 2013; Meesala & Paul, 2018; Murali et al., 2016; Miranda et al., 2017; Abror et al., 2019; Solimun, & Fernandes, 2018). Meesala and Paul (2018) have found the association between service quality, CS and customer loyalty and found that service quality has a significant influence on CS. Moreover, Vera and Trujillo (2013) revealed that CS is a consequence of service quality. The study of Cuong & Khoi (2019) and Alauddin et al., (2019) found that service quality has a significant positive relationship with CS.

Moreover, service quality is a key driver of corporate image (Kant, Jaiswal, & Mishra, 2017; Sadiarth, 2019). Henceforth, service quality should be actively managed and monitored as it is an essential constituent to improve the corporate image of corporation (Maeng & Park, 2015). The research conducted by Park et al., (2004), studied the relationships between pricing, perceived value, service quality, satisfaction of passengers, behavioral intention and corporate image concerning the airlines of Korea.

Their study has found that an airline that possess a superior corporate image can appeal greater number of passengers.

Based on related prior researches of Andreassen and Lindestad, (1998), Hawkins, Best and Coney (2001) and Sarin, Sego and Chanvarsuth (2003) the businesses that possess a good corporate image will increase CS. Numerous studies have found a significant relationship of service quality with corporate image (Iqbal et al., 2017; Hassan & Shamsudin 2019). Moreover, their studies found a positive relationship among service quality and corporate image. According to the study of Kuo and Tang (2013) service quality only has a direct influence on CS. However, service quality also has an indirect influence on CS through corporate image. The study of Chien and Chi (2019) has revealed that corporate image mediates relationship among service quality and CS.

2.6.2 Physical Environment

It is defined as an environment created by service provider which includes design, aesthetics, layout and decoration (Lee & Jeong, 2012). Physical environment includes the substantial atmosphere in which service products are delivered. Physical environment is an essential element that influences customer satisfaction (Martin-Ruiz, Castro, & Diaz, 2012). There are three primary dimensions of physical environment which effect customer's perceptions of physical environment (i.e., perceived quality), follow their internal (i.e., satisfaction with physical environment) and external reactions (continuing, re-patronage, approach/avoidance). Ryu and Han (2010) in their study proposed three dimensions of physical environment that are, ambient conditions (elements that are associated with aesthetics), functionality and spatial layout, symbols, signs and the artifacts. According to Okello and Yerian (2009), familiar environmental

ambience, customer comfort and compatible environmental standards are few concerns that develop customer satisfaction.

There have been numerous dimensions of physical environment that have been focused by scholars which have revealed some divergence on any integrated physical environment dimension that can be applied on all service organizations (Jeon & Kim, 2012). Originally, the physical environment involves three dimensions that include functionality and spatial layout, ambient conditions, and symbols, signs and artifacts. Spatial layout is related to the size, shape, equipment, arrangement of machinery, and furnishing while functionality is associated with capability of these items to satisfy needs of customers. Ambient conditions are associated with the features of physical environment which can arouse customer's five senses comprising of lighting, music, temperature, noise and scent. Finally, symbols, signs and artifacts designate the tools that deliver information about service facilities to customers (Moon et al., 2015).

Moreover, physical environment is a predictor of customer satisfaction under the CRM factors, as physical environment can either improve or overwhelm the emotions of customers that may affect CS (Ali, Kim & Ryu, 2016).

2.6.2.1 Physical Environment in Airline Industry

Regardless of numerous studies on influence of physical environment in several industries, specifically researches on understanding the multidimensional physical environment, the airport and aviation industries have not benefitted from them. A study had been conducted by Moon et al., (2015) which proposes four dimensions for evaluation of airports physical environment that comprises of facility aesthetics, layout

accessibility, cleanliness and functionality. Still, the significant aspects of the environments were ignored that include passengers with special needs, signage, dining and retail options, baggage trolleys, crowded elevators and electronic walkways, aroma, power sockets, and internet/WiFi connectivity (Ali et al., 2016).

2.6.2.2 Relationship between Physical Environment, Customer Satisfaction and Corporate Image

Prior literature review proposed that there is an uninterrupted connection among physical environment and CS (Hanaysha, 2016; ÇETİNSÖZ, 2019; Ryu & Han, 2010; Han et al., 2019). Similarly, the outcomes exposed that the perception about physical environment has significant effect on CS. Furthermore, physical environment is an indicator of CS, thus signifying that CS has a direct and positive association with features of positive behavior of customers (Ryu & Han, 2010).

Several researches have focused on how perception of customer about physical environment effect their satisfaction levels in service settings where they pass a substantial time (Krogh, & Connolley, 2011; Ryu et al., 2012; Cristo, Saerang, & Worang, 2017). The progressive views about physical environment can lead to CS with the service providers that is followed by likelihood to endorse the services provider to others (Ryu et al., 2012). Likewise, the study of Ali, Amin, & Ryu, (2016) found that physical environment is positively related to CS.

Moreover, physical environment has a positive and significant impact on CS that is supported by past studies (Ryu et al., 2012; Nam et al., 2011; Gagić et al., 2013; Haery & Badiezadeh, 2014). According to Haider et al., (2010) physical environment is more

likely to develop higher degree of CS. Various scholars discovered that physical environment is one of the fundamental indications that customer is inclining to use for the assessment of the value he/she receives from a service offering (Yang & Chan, 2010; Ali et al., 2013).

The research done by Minkiewicz et al., (2011) revealed that physical environment is the ease of orientation, visual appeal and cleanliness that plays a vigorous role in communicating corporate image of the service organization towards its customers. The firm's physical and behavioral attributes are associated with corporate image that includes business name and variety of business products and services. The corporate image helps the firm to attract more customer to their products and services (Rehman, 2012). Therefore, a strong corporate image is likely to be strengthened by artistically reachable, clean and pleasing physical environment (Minkiewicz et al., 2011).

2.6.3 Social Network Interaction

The use of social media provides companies a distinctive access to important information which is directly associated to their customers that includes requirements, experiences and complaints (Trainor, 2012). Social media is defined as a type of electronic communication (as blogging and web sites for social networking) by the help of which users generate an online communication to share information and contents (as videos) (Seymour, 2011). Social media is termed as a media that is designed to be circulated by the social interaction using extremely accessible and ascendable online publishing techniques (University of Kentucky, 2011). These technologies comprise of

Twitter, YouTube, LinkedIn, Facebook, Flickr, Myspace, iTunes and second Life but are not limited to them (Esu & Anyadighibe, 2014).

Moreover, several types of online platform are offered by social media that include, content communities, social networks, wikis and rating, blogs, microblogs and review sites (Kim & Park, 2017). Furthermore, social media types can be categorized by their capability in promoting the social functions (Briscoe, 2009; Chan & Guillet, 2011). Furthermore, social network interaction predicts customer satisfaction and is a part of CRM, that includes socializing, interaction with customers and building relationships with them through the reviews of customers and customer opinions that are the most effective strategies of marketing (Chan & Guillet, 2011; Kim & Park, 2017).

2.6.3.1 Social Network Interaction in Airlines

The airline industry is among the most socially intensive sectors of the economy which use social media platforms for conducting two-way communication with their customers (Liau & Tan, 2014). Airline companies use social media platforms and socially intensive sector to conduct two-way communication with their customers (Yee Liau, & PeiTan, 2014). To progress and deepen the relationships with customers now airlines can make use of new tools to spread news and facts rapidly while customers can raise their voices openly (Hudson & Thal, 2013).

The airline companies have rapidly implemented social media management with YouTube channels, Twitter, Facebook and blogs. The airlines use social media frequently to better realize the foreign markets and to increase customer range. The premium economy booking by Air New Zealand is an example of the use social media

that introduced 'share and earn' action in 2012 to monetarily reward each customer from UK according to the recommendation of Facebook, Twitter, blogs or emails (Koch & Tritscher, 2017).

2.6.3.2 Relationship between Social Network Interaction, Customer Satisfaction and Corporate Image

There are numerous ways to have customer interface that includes communication along distribution channels and touch points, if a company is enthusiastic to build a constant relationship with customers (Brown & Gulycz, 2006). The basic aim is to determine when and how customers would want to contact and communicate with the company. There are a few methods to implement interaction management that includes: getting feedback of customers and by using attractive ways for interaction with customers that might include use of social networking websites. The activities of interaction should be well organized and modified through touch points available to provision of customer profiles that are developed in relation and established by the help of gathered data from previous customer records (Lindgreen et al., 2006).

Dzierzak (2008) has investigated that use of social media has created immense opportunities for the development of positive corporate image, on the other hand there are less potentials for controlling the communication through traditional media. The social media use more often is integrated into marketing strategies of corporations (Kuvykaite & Piligrimiene, 2013). It is new for the corporations to practice social media integration into strategies of marketing the corporations. The average experience of corporations about the use of social media is about three years (Owyang, et al., 2011). Hence, in the last few years companies participate in social media was commenced to explore the practical and academic grounds (Kuvykaite & Piligrimiene, 2013).

2.6.4 Relationship through Solving Customer Problems

The complaints by customers include all written, oral and electronic communications in which customers give their discontentment about failure or deficiency in the product or service (Tolba, Seoudi, Meshreki, & Shimy, 2015). The complaint behavior of customer is defined as the set of all the responses either behavioral or non-behavioral depicted by customers that include negative perceptions concerning a consumption event which is activated by dissatisfaction with that event (Atalik, 2007).

The organizations may remain unaware to substantial problems without complaints than the chance of pacifying unhappy customers vanishes. Perhaps, the biggest hurdle towards potential of organizational learning and the effective service recovery in this context is the fact that only five to ten percent of customers that are dissatisfied truly complain in a formal way after a service failure (Atalik, 2007). Yet, what establishes an effective complaint handling is a debatable question.

Complaint handling is defined as the strategy which a company use to resolve service failures for managing consumer dissatisfaction of post-purchase. Appropriately, handling complaints help to provide a prospect for company to not only correcting the problem, on the other hand also convert that problem into a pleasing service encounter (Istanbulluoglu, 2017). Likewise, complaint handling includes policies that companies adopt in handling the service failures and learn from it for avoiding such failures in future (Shammout & Haddad, 2014).

However, in service marketing the eventual path is performing right services the first time, errors are inevitable in some cases. Similarly, customer service or responsiveness

is a factor that describes willingness of an organization to reply quickly to customer's queries and complaints (Einwiller & Steilen, 2015). A positive complaint handling intensifies probabilities of a positive WOM and repurchasing behavior from prior customers who were unsatisfied (Orsingher, Valentini, & Angelis, 2010).

Moreover, solving customer problems is a key predictor of customer satisfaction under CRM factors. Previous literature shows that post-purchase customer satisfaction increases when customer believe that company has put greater effort to solving the problem after their complaint (Cambra-Fierro, Melero-Polo, & Sese, 2015).

2.6.4.1 Relationship through Solving Customer Problems in Airlines

In various instances a good problem-solving strategy displays the company's willingness to help its customers. In numerous cases, the airlines fail to deliver satisfactory services to their customers due to flight delays, lost luggage, improper service in plan and at the counter, in addition desired seats are not provided to customers. Each airline deals with such incidents in its own way. Few airlines simply apologize about the breakdown of service to its customers whereas various airlines apologize and compensate in different manners (Waheed & Khan, 2019).

The airline industry faces many breakdowns in services that can be divided into four categories including: cargo and baggage services, passenger services, catering services and engineering services. The common complaints faced by the airline industry mainly comprises of convenient flight schedule, fulfillment of special meal requests, punctuality, food quality, baggage receipt at flight destination, delivery and check-in services (Kim & Lee, 2009).

Moreover, the airline failures are classified as process failure or the outcome failure. Process failures are the non-flight related service failures of porter services, safety and security, trolleys, departure rooms and other auxiliary services of pharmacies and bank facilities. The outcome failures are flight related service failures including boarding facilities and flight schedules (De Jager & Bin Laden, 2012; Souse & Desai, 2015). Airlines have developed service recovery policies to report service failures for the resolution of customer complaints and inquiries and recover their trust and satisfaction (Cheng, Chen, & Chang, 2008).

2.6.4.2 Relationship between Relationships through Solving Customer Problems, Customer Satisfaction and Corporate Image

The customer complaints need to be solved to customers who were previously unsatisfied about services provided by the company than eventually they become satisfied again (Wah Yap et al., 2012; Osarenkhoe, & Komunda, 2013). The complaint handling or solving is important as it increases CS. It is the capability of a firm to hold and answer the complaint well and rapidly to change perceptions of customers who were formerly unsatisfied and then become satisfied (Supriaddin, Palilati, Bua, & Patwayati, 2015; Iqbal et al., 2017; Aldaihani, & Ali, 2018).

Customer complaints handling is the chief determining factor of CS as well as the decision of customer to stay with an organization. The greater CS level with products and/or services of the organization the lesser would be the number of complaints by the customers (Metwally, 2013). Complaint handling gives an opportunity to the company to know about their insufficiencies and retention of customers.

Although, it influences customer behavior and perceptions as well as future satisfaction of all customers of the company (Gelbrich & Roschk, 2011). Therefore, it is very essential to resolve all complaints with carefulness and to take customer communications seriously (Bodey & Grace, 2006). It also describes the reason that why communication with customers should be stimulated, and customer complaints should be supposed to be as openings for enhancement in quality and increase in CS (Tolba, Seoudi, Meshreki, & Shimy, 2015).

Prior researches have shown little to average ranks of responsiveness to forum complaints or emails (Avidar, 2013; Kent, Taylor, & White, 2003; Einwiller & Steilen, 2015). The effectiveness of complaint handling is dependent on the match (or mismatch) among type of benefits delivered by company and the type of benefits required by customer in the process of complaint handling (Cambra-Fierro, Melero, & Sese, 2015). In the case of service failure, the customer suffers a loss due to that failure and the connection becomes unstable as customers are striving to seek steadiness in services (Ringberg, Odekerken-Schröder, & Christensen, 2007).

The successful and operational complaint handling will allow company to retain CS in numerous ways, comprising of efficient customer feedback by the company, decrease the negative WOM, increase customer loyalty and customer retention (Istanbulluoglu, 2017). However, the firms cannot always satisfy complaining customers as financial resources are limited or the complaint can be handled only with an adjournment due to complex structures for handling, directing and monitoring complaints of customers (Ryngelblum, Vianna, & Rimoli, 2013).

The experience of customers and their satisfaction with complaint handling process is estimated to affect overall CS level with the organization (Tolba, Seoudi, Meshreki, & Shimy 2015). Furthermore, one of significant aim of complaint handling system is to sustain and even improve the overall CS (Salin, et al., 2018; Lee & Hur, 2019). Moreover, the corporation which do not responds to the written complaints of the customers may create a negative corporate image of the company. Inadequately held complaints of customers creates a negative image which is extremely difficult to change. Many researches have been conducted on the customers who feel dissatisfied when their complaints are not responded which creates a negative corporate image of the company (Clark et al., 1992; Kalb, 1996).

2.6.5 Trust

It is the willingness of party based on expectation to be exposed to actions of another party that trustee will accomplish a specific action that is essential to trustor, regardless of the capability to control or monitor that other party (Zhu & Chen, 2012). Trust can be observed as a trusting belief and a trusting intention. The trusting intention refers to the willingness or intention of trustor to depend on trustee while trusting belief discusses user's perceptions of service provider's characteristics, comprising of integrity, ability, and benevolence (Deng, Lu, Wei, & Zhang, 2010). A service provider will expect an increase in customer satisfaction when the company is being trusted by customer (Kassim & Abdullah, 2008). Generally, if a customer does not trust the service provider based on experience, he/she will possibly be dissatisfied with that service provider (Deng et al., 2010).

Scholars have found that in the long-run, trust will affect customer satisfaction (Kim, Ferrin, & Rao, 2009), it will be improved over time when feeling of faith in the service

provider is established (Chiou & Droge, 2006). Similarly, trust is a positive predictor of customer satisfaction (Leninkumar, 2017) under the key CRM factors, as it helps to build, the trust in service provider or may weaken firm's reputation that may ultimately terminate the trust.

2.6.5.1 Measuring Trust in Airlines

Trust is the passenger's willingness to depend on airline in which customer has confidence (Cheng et al., 2008). A customer's belief on the airline is built on the trust that the airline will take its passengers seriously which is based on the expectation that customer interest is the priority of airline (Ebert, 2007). For instance, customers are likely to travel again with the airline only when they have trust on that airlines (Ali et al., 2015). Additionally, customers who travel frequently likely become loyal to the brand only when they trust in airline due to its superior service quality (Nyadzayo & Khajehzadeh, 2016; Saleem et al., 2016).

Trust is also related to customer's perception about the capability of an airline to deliver superior quality services during the phases of pre-consumption, consumption and post-consumption (Gures et al., 2014). Moreover, customers faith and confidence in airlines ability in managing issues of secondary service for instance; lost baggage reclaims, aircraft safety and waiting- lounge conditions are reflected by trust (Saleem et al., 2016). The travelers face uncertainty when they take a flight such as flight delays, reservation oversight, poor service and cancellations along the whole service process. It is essential ingredient for successful relationships to cultivate trust in airline to capture customer confidence in their service quality (Cheng et al., 2008).

According to social exchange viewpoint, beliefs of customers are formed about the degree to which airlines give value to their customers and how much they are capable

in providing customer care that customers expect during their travel (Pakdil & Aydın, 2007). Secondly, trust is also related to customer's perception about the capability of airline in providing superior services (Saleem, Zahra, & Yaseen 2017). Thirdly, trust reveals the faith and confidence of customers about airlines capability in managing secondary service issues that include lost baggage reclaims, waiting-lounge conditions and aircraft safety.

2.6.5.2 Relationship between Trust, Customer Satisfaction and Corporate Image

Trust is an essential factor that facilitates people to construct relationship in uncertainty. Similarly, it is vigorous factor for building strong relationships with customers and obtaining market share which must be accomplished earlier to customer satisfaction. Trust is essential in services sector, when technology is used principally for customer interaction. (Kutol & Juma, 2016).

Numerous researchers are interested in longstanding associations, consequently repetitive purchasing behavior have claimed that to preserve customer commitment during difficult times, trust may undeniably be a fundamental aspect (Morgan & Hunt, 1994). Most of researches have measured trust as a uni-dimensional construct (Garbarino & Johnson, 1999; Morgan & Hunt, 1994). Though, few researchers have proposed (Singh & Sirdeshmukh, 2000; Doney & Canon, 1997) that considering trust as a multidimensional concept would be better.

In association among customer satisfaction, customer loyalty and customer trust has also been a mediating factor (Castaneda, 2011). From a prior relationship, trust in a firm was designated as an important intercessor resulting in positive consequences (Hui, Ho,

& Wan, 2011). Bradford et al. (2009) proposed various benefits of trust that includes: increased sales performance (volume), a stronger commitment to the relationship and information exchange.

Prior literature reveals that interdependencies exist between satisfaction and trust (Kennedy, Ferrell, & LeClair, 2001; Thomas, Cunningham, & Williams, 2002). Trust is based on the past satisfaction experiences (Naskrent & Siebelt, 2011). Based on relationship among satisfaction and trust, customer trust has been viewed from a comprehensive view as the company's overall impression. Thus, as customer satisfaction with the firm increases, there would be an increase in customer trust towards the company (Roman, 2003). The increase in customer satisfaction will assist in building customer trust (Kim, Ferrin, & Rao, 2009; Platonova et al., 2008; Teimouri et al., 2012; Leninkumar, 2017; Setiawan & Sayuti, 2017; Marinkovic & Kalinic, 2017).



The theory of identity states that corporate image can be changed into trust in others through the phenomenon of “self-verification”. Trust is made based on the decision, words and actions that are being performed by the one who is trusted. Moreover, the signal theory describes that the consumer can appropriately differentiate the differences of quality among products dependent on supplementary product quality signals like the corporate image (Lin & Lu, 2010).

Similarly, when the customer possesses a good corporate image about the organization, by the time it would influence customer trust. Prior literature predominantly has focused on the impact of corporate image on customer trust (Sallam, 2016). Whereas, a small

amount of prior studies has explored the association between customer trust and corporate image (Lin & Lu, 2010; Sallam, 2016; Selamat et al., 2016; Ariani, Firdous, & Haivdinor, 2019).

2.7 Relationship among Corporate Image and Customer Satisfaction

Corporate image includes the emotional state of employees of corporations and perceptions of customers, media, shareholders, external interested parties and public about corporation (Jo Hatch, & Schultz, 2003). Pina et al., (2006) have revealed that objective evaluation of corporate image is legitimately challenging as corporate image is a subjective as well as an intuitive concept.

Few researchers have also found that corporate image has influence on customer satisfaction during observation of how customer satisfaction is formed due to accumulated purchase experiences (Hu & Huang, 2011). Several researchers have explored that perception of corporate image impacts customer satisfaction, as corporate image shapes expectations of customers prior to their visit. Subsequently, customer satisfaction is dependent on evaluation among actual service and customer's expectations (Cuong & Khoi, 2019).

Moreover, company's image in minds of customers is enhanced when a customer is satisfied with service and this image will directly impacts CS, therefore it makes mutual relationship between corporate image and customer satisfaction (Azoury, Daou, & Khoury, 2014). Throughout, observation about the formation of customer satisfaction, few researchers have revealed that corporate image has influence on CS (Oliver, 1981; Fornell, 1992; Bolton & Drew, 1991; Hu & Huang, 2011).

Similarly, Cameran et al., (2010) declared that there is substantial confirmation in the prior literature that supports the relationship among corporate image and CS therefore, it is argued repeatedly that CS should be eventual objective of all corporations (Sallam, 2016). Also, corporate image is an essential feature for service evaluation of the firm as it is a chief component for inducing CS (Wu, 2011).

Numerous prior studies have found the relationship among corporate image and CS (Abd-El-Salam & Shawky, 2013). Correspondingly, corporate image has a strong impact on CS (Cameran et al., 2010; Sallam, 2016). Moreover, few researchers concluded that corporate image is highly interrelated to CS (Hart & Rosenberger, 2004; Malik et al., 2012; Setiawan, & Sayuti, 2017; Ashraf, Ilyas, Imtyaz, & Ahmad, 2018).

2.8 Corporate Image as a Mediating Variable

MV refers to an intervening variable that is created when the third variable mediates among two or more associated variables (Hair et al., 2010). Hence, the mediation is applied to justify why and how the relationship exists in explicating the actual influence of the independent variable (IV) on dependent variable (DV). Therefore, to bridge the gap, the mediating effects of corporate image on the relationship between social network interaction, physical environment, trust, relationship through solving customer problems, service quality and CS is observed in the study.

Logically, if the airline has a good corporate image due to high quality physical environment, superior service quality, good social network interaction and prompt in solving customer problems and building trust with their passengers, they may become satisfied and recommend that airline service to friends, relatives and others.

2.9 Research Framework

The research frame work delineates the input as well as output of the present research project. Based on extensive review of prior researches, the study examined seven constructs service quality, trust, physical environment, relationship through solving customer problems and social network interaction as IV, corporate image as MV while customer satisfaction functions as the DV. Prior studies and literature review have established a causal link among the variables, other than the fact that this study used EDT and SET as underpinning theories in the research framework. The variables that need to be tested were linked together.



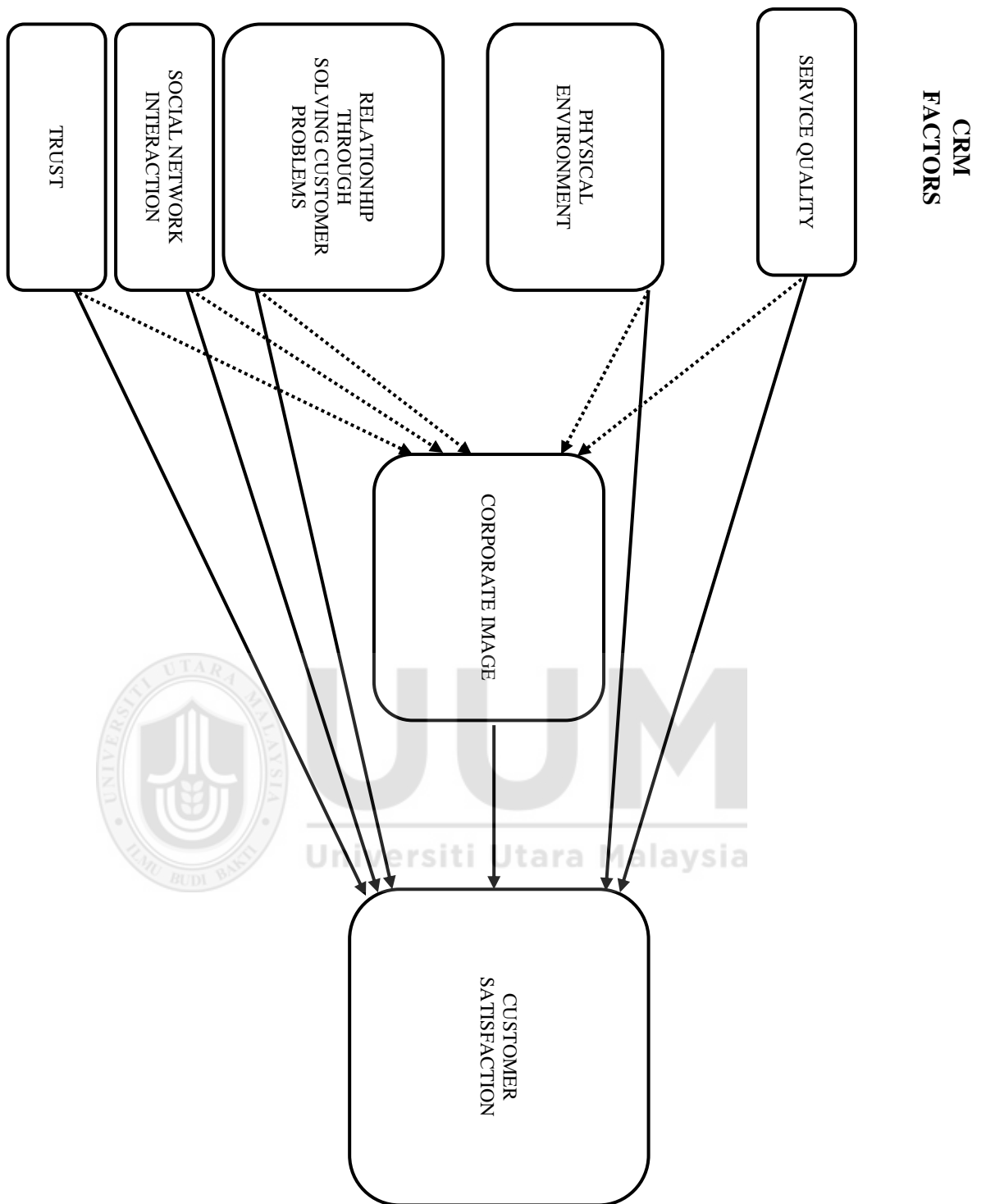


Figure 2.1

Research Model

Building on prior literature review and underpinning theories as discussed above, the research framework is depicted in figure 2.1. The research framework of the study showed that service quality, trust, social network interaction, physical environment and

relationship through solving customer problems have a significant relationship with CS that can be found in literature review service quality (Gonzalez et al., 2007; Zhao et al., 2012; Haghghi et al., 2012), physical environment (Azzam, 2012; Lee & Jeong, 2012; Martin-Ruiz, et al., 2012; Ali et al., 2013) social network interaction (Aral et al., 2013; Hanna et al., 2011; Gu & Ye, 2014), trust (Krishnamoorthy, Aishwaryadevi, & Bharathi, 2016) and relationship through solving customer problems (Metwally, 2013; Dinnen & Hassanien, 2011; Azzam, 2014).

2.10 Hypothesis Development

With the help of extant literature review and theoretical justifications, the hypotheses development for this study has been formulated for empirical testing and validation. This study employed seven constructs namely: service quality, physical environment, relationship through solving customer problems, social network interaction and trust as the independent variables, corporate image as a MV and customer satisfaction as dependent variable. Sixteen hypotheses were formulated for testing the current study.

SET is considered as an exchange of social behavior which can offer material and non-material benefits to its partners in the process. Hence, the theory suggests that individual passengers can voluntarily make new relationships with airline service providers with the expectation that such behavior can redeem itself (Homans, 1958). From a social exchange perspective, customers view the airline company as it values its customers, able to provide customer care and fulfill their expectations during flight (Aksoy et al., 2003, Pakdil & Aydın, 2007).

Applying the underlying principles of the SET, this study proposed that CRM factors such as service quality, trust, physical environment, relationship through solving customer problems and social network have the tendencies to influence the corporate image and customer satisfaction of the airline passengers. Consistent with the postulates of this theory, this study highlights the importance of CRM factors. Furthermore, the positive corporate image encourages passengers trust and confidence toward the airline and ensure satisfaction.

Incorporating EDT in airline context, there are different products and services that are offered by airlines in two categories either the economy or premium due to which different perceptions and expectation are formed by passengers leading to either satisfaction or dissatisfaction with the service delivered. The expectations of consumer utility may increase the proportion of the amount they pay. Subsequently, it is a trade-off of value between what is given and what the customers get, based upon their perceptions and expectations that leads to satisfaction towards different service classes (Zeithaml, 1988).

The service attributes of economy and premium passengers are valued differently thus their level of satisfaction would vary since passenger's service expectation level concerning service class determining their satisfaction level (Laming & Mason, 2014; Sezgen, Mason, & Mayer, 2019). When a passenger is satisfied with physical environment, trust, social network interaction, service quality, relationship through solving customer problems and corporate image of airline it will lead to positive disconfirmation and when passengers are unhappy it will lead to negative disconfirmation.

According to the research model in Figure 2.1, the airlines that give importance to customer relationship practice by improving their service quality, enhanced physical environment, trust, social network interaction and relationships through solving customer problems for achieving higher level of customer satisfaction in their passengers. Past researchers indicated that service quality (Haghighi et al., 2012), physical environment (Ali et al., 2013), social network interaction (Gu & Ye, 2014), trust (Krishnamoorthy et al., 2016) and relationship through solving customer problems (Azzam, 2014) could influence customer satisfaction. Thus, it was hypothesized that:

H1: Service quality has a positive and significant relationship with CS.

H2: Physical Environment has a positive and significant relationship with CS.

H3: Social network interaction has a positive and significant relationship with CS.

H4: Relationship through solving customer problems has a positive and significant relationship with CS.

H5: Trust has a positive and significant relationship with CS.

H6: Corporate Image has a positive and significant relationship with CS.

H7: Service quality has a positive and significant relationship with CI.

H8: Physical Environment has a positive and significant relationship with CI.

H9: Social network interaction has a positive and significant relationship with CI.

H10: Relationships through solving customer problems has a positive and significant relationship with CI.

H11: Trust has a positive and significant relationship with CI.

The model also suggests corporate image as mediator in the relationship between service quality, physical environment, trust, social network interaction and

relationships through solving customer problems and customer satisfaction. To test the mediation effect, Baron and Kenny (1986) suggested that the IVs need to be significantly related to the MV (i.e., corporate image), and the mediation variable needs to have a significant relationship with the DV (i.e., customer satisfaction). Thus, to test the mediation effect of corporate image on customer satisfaction, the following hypotheses were formulated:

H12: Corporate Image mediates the relationship between Service Quality and CS.

H13: Corporate Image mediates the relationship between Physical Environment and CS.

H14: Corporate Image mediates the relationship between Social Network Interaction and CS.

H15: Corporate Image mediates the relationship between relationship through Solving Customer Problems and CS.

H16: Corporate Image mediates the relationship between Trust and CS.

Based on the critical evaluation of previous literature and objectives of the study as well as the current conceptual framework, the above-mentioned hypotheses were drawn.

Table 2.3

Summary of Research Objectives and Hypothesis

<p><i>Objective 1: To explore the relationship between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and Customer Satisfaction.</i></p> <p><i>H1:</i> Service quality has a positive and significant relationship with CS.</p> <p><i>H2:</i> Physical Environment has a positive and significant relationship with CS.</p> <p><i>H3:</i> Social network interaction has a positive and significant relationship with CS.</p> <p><i>H4:</i> Relationship through solving customer problems has a positive and significant relationship with CS.</p> <p><i>H5:</i> Trust has a positive and significant relationship with CS.</p>
<p><i>Objective 2: To investigate the effect of Corporate Image on Customer Satisfaction.</i></p> <p><i>H6:</i> Corporate Image has a positive and significant relationship with CS.</p>
<p><i>Objective 3: To explore the relationship between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and Corporate Image.</i></p> <p><i>H7:</i> Service quality has a positive and significant relationship with CI.</p> <p><i>H8:</i> Physical Environment has a positive and significant relationship with CI.</p> <p><i>H9:</i> Social network interaction has a positive and significant relationship with CI.</p> <p><i>H10:</i> Relationship through solving customer problems has a positive and significant relationship with CI.</p> <p><i>H11:</i> Trust has a positive and significant relationship with CI.</p>
<p><i>Objective 4: To examine the mediating effect of Corporate Image between service quality, relationship through solving customer problems, physical environment, social network interaction, trust and Customer Satisfaction.</i></p>

H12: CI mediates the relationship between Service Quality and CS.

H13: CI mediates the relationship between Physical Environment and CS.

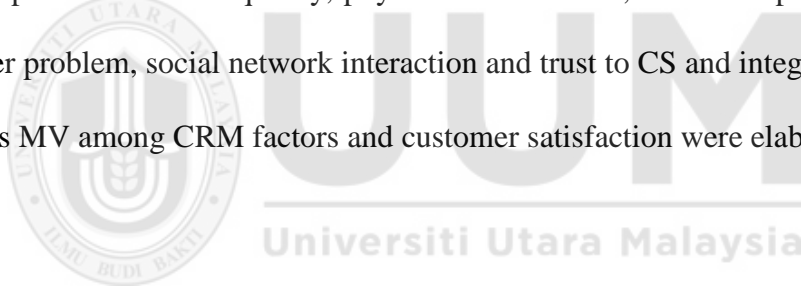
H14: CI mediates the relationship between Social Network Interaction and CS.

H15: CI mediates the relationship between relationship through Solving Customer Problems and CS.

H16: CI mediates the relationship between Trust and CS.

2.11 Chapter Summary

This chapter has discussed relevant literature pertaining to CS and CRM factors. Moreover, the underlying theory that explained the relationship between CRM factors that comprised of service quality, physical environment, relationship through solving customer problem, social network interaction and trust to CS and integrating corporate image as MV among CRM factors and customer satisfaction were elaborated.



CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This research aimed to detect the association among CRM factors i.e. (service quality, trust, social network interaction, and relationship through solving customer problems, physical environment), customer satisfaction and corporate image. This chapter included methodology and research design used in this study. Specially, the research strategy and design, sample design, data collection procedure, and operational definition, measurement of variables, instrumentation, and data analysis is addressed. Lastly, this chapter ends with a discussion on the statistical techniques employed for data analysis.

3.1 Research Design

The study examined association between CRM factors; namely service quality, physical environment, relationship through solving customer problems, relationship through building customer trust and social network interaction and CS and the mediating role of CI is also explored. The study in hand was a correlational research as it investigated the relationships between several factors mentioned above. A correlational research can examine relationships between variables (Fraenkel, Wallen, and Hyun, 1993) therefore, such design was compatible with the objectives of this study.

Moreover, the researcher employed a quantitative method of research in this study that involved questionnaires distribution as the chief practice for data collection. The aim

of quantitative research was to observe the association among one factor i.e. an independent variable and another factor i.e. a dependent variable from a population that is intended for either experimental research that measures subject earlier and later a treatment or a descriptive research that usually measures the subjects once (ALhroot, 2007). Additionally, the quantitative research study was an attempt in quantification of relationships among variables included in this research study. Moreover, in comparison to qualitative approach, this type of research is suitable approach for testing hypotheses (Vogt, Gardner, & Haeffele, 2012).

As this study was cross-sectional one therefore, the data about variables was collected once from the respondents. It was selected due to the reason that it permits huge volume of data collection from a large population in a very cost-effective way. The choice for cross-sectional study was established as an appropriate since, the study has a primary goal of the validation of projected model and in respect of the researcher's resource constraints that includes time as well as money that research has (Sekaran & Bougie, 2010). Moreover, the present study was conducted in a non-contrived situation without the researcher's interference.

3.2 Sampling Design

The target population of study was covered in the sampling design of research. The portion of the population is chosen carefully from the entire population is referred to as sample (Cooper & Schindler, 2001). This phase of the study involved determination of sample size, sampling method, sampling technique and selection of sample type itself (Sekaran & Bougie, 2016).

3.2.1 Population of the Study

The population as described by Denscombe (2014) are all the objects that are in the class of things which are being researched. It is known as total collection of people, things or events that are delightedly investigated by researcher. Sekaran & Bougie (2016) defined population as entire cases or the whole that follows a certain specification; these could be anything of specific interest to the researcher, the people, events or the objects.

The target population comprises of all components that possess information suited for research (Aaker et al., 2010). Therefore, population needs to be exactly recognized, then the research conducted will result imprecise (Malhotra & Birks, 2003). The sample is known as the smaller group that is representative of the entire population (Cavana, Delahaye, & Sekaran, 2001). The quantitative research sampling is highly important and can be beneficial, as this technique will help to save time as well as money (Ghauri & Grønhaug, 2005).

Moreover, Zikmund, Carr, and Griffin (2012), states that the sampling involves any procedure which helps to draw conclusions that are based upon the measurement of a population segment. Preferably, a researcher would like to collect and analyze data from all members of a target population, which is known as census. That is not possible to do in most situations. Instead, a sample can be drawn using either probability or nonprobability procedures from the population. In the survey research, determination of sample size is vital (Bartlett, Kotrlik, & Higgins, 2001). If the sample size is larger, there are less chances of errors for generalization (Saunders, Lewis, & Thornhill, 2009).

The target population of the study were all passengers of three Pakistani air carriers PIA, SAI and ABQ that operates internationally from Pakistan in fiscal year 2017-18. In the fiscal year (2017-18) ABQ 1,320,401, PIA 3,276,314 and SAI 1,855,946 passengers travelled internationally from Pakistan. However, it is impracticable, difficult and costly to study the entire population (Sproull, 2002). Therefore, the passengers travelling internationally through international flights of three international airlines (PIA, SAI and ABQ) from five airports of Pakistan namely; Benazir Bhutto International Airport (Islamabad), Jinnah International Airport (Karachi), Allama Iqbal International Airport (Lahore), Quetta International Airport (Quetta) and Bacha Khan International Airport (Peshawar) were selected as target population of the study. These airports are the main spots from where every international passenger will travel. Even the passengers who travel internationally from other cities like Chitral, Multan, Bahawalpur and many other local airports take a connecting flight from Lahore, Karachi or Islamabad airport. Since, those five airports are the capital of four provinces and Pakistan that accounted for the international air traffic by international airlines in Pakistan.

3.2.2 Sample Size Determination

The determination of an appropriate sample size is essential in a survey research method (Bartlett et al., 2001). The subset of the population is called a sample (Kumar et al., 2013; Sekaran & Bougie, 2013). The sample determination is necessary due to following reasons: First, it is not possible to collect from entire population of study. Second, in order to generalize research findings samples are drawn from the population. The population of the present study consist of 6,451,970 passengers of three airlines of Pakistan namely; PIA, SAI and ABQ. All 6,451,970 passengers could not be studied

because the sample is too large. Also, the entire population could not be studied because of the need for generalization of the findings of the present study.

For the sample size determination in this study, the researcher has used past year passengers' statistics (2017-18) of civil aviation authority to determine the total number of people that have journeyed through these three airlines. The past year data of airline passengers who travelled through these airlines are mentioned below in table 3.1.

Table 3.1

Passenger's statistics according to Civil Aviation Authority

Source: (PCAA, 2018)

AIRLINES	2017-18	Percentage
PIA	3,276,314	51 %
SAI	1,855,946	29 %
ABQ	1,319,710	20 %
Total	6,451,970	100 %

The current study determined the sample size for surveys distribution based on the two corresponding approaches namely, i) a priori G* Power analysis, and Krejcie and Morgan's (1970) sampling table. Principally, G* Power analysis is needed for sample size determination when using PLS-SEM (Hair et al., 2014). Whereas, Krejcie and Morgan's (1970) sampling table is commonly used approach for sample size determination in social sciences and behavioral studies (Sekaran, 2003). The sampling table offers the sample size estimation based on the study population.

Furthermore, for a multivariate analysis, the sample size should be 10 or more times larger than total number of predictors. In this study, there are six predictors and the required sample size should be 60 or more. The G* Power analysis is used to estimate

the appropriate sample sizes according to statistical parameters (Faul, Erdfelder, Lang, & Buchner, 2007). Using this rule of thumb of “10 times or more” the G*Power program (version 3.1.9.2) was employed to guarantee that sample size was sufficient. First, to determine the minimum sample size for the current study, G*Power 3.1.9.2 software was used to perform *a priori* power analysis (Faul et al., 2009; Faul et al., 2007) to ascertain the minimum sample size using six predictors namely; service quality, social network interaction, trust, physical environment and relationship through solving customer problem. For the reason, the current study followed subsequent parameters; medium effect size convention of 0.15, the level of significance 0.05, a sample size of 146 was obtained at the statistical power ($1-\beta$ err prob; .95).

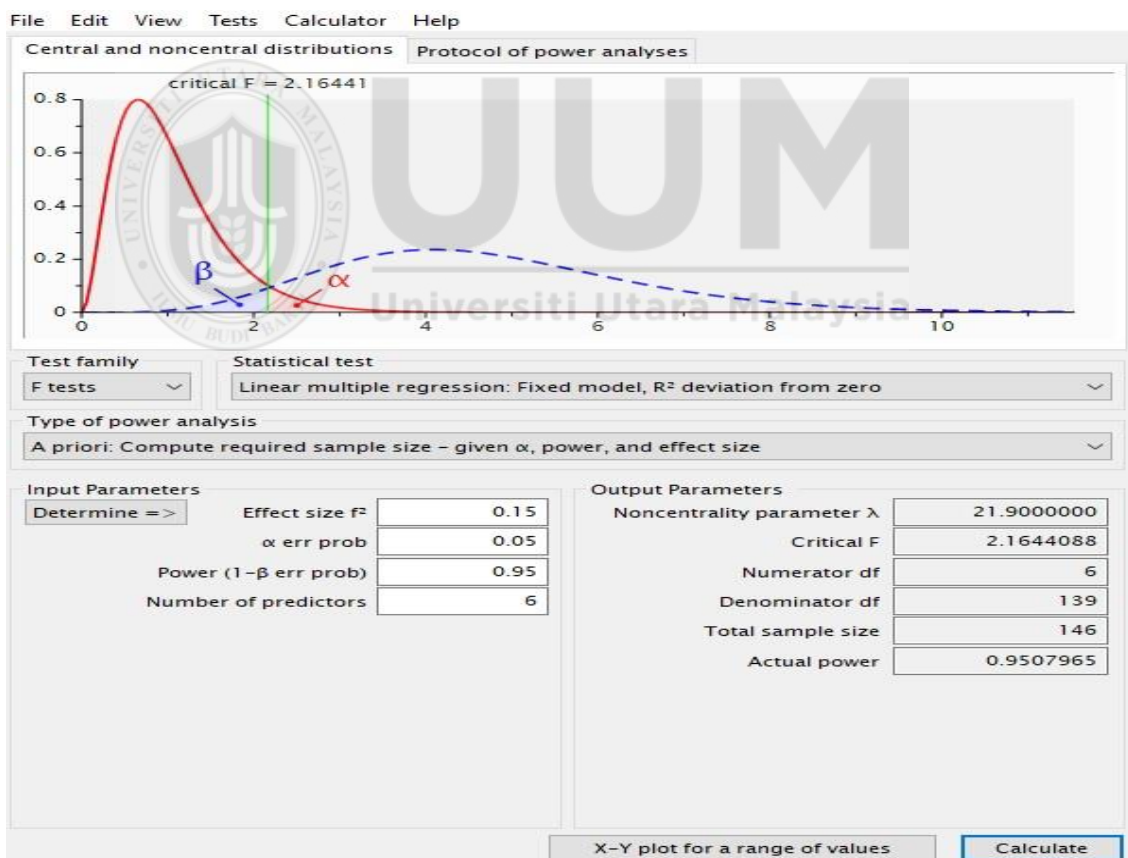


Figure 3.1

*The power analysis of G*Power*

As shown in the output of a priori power analysis, a minimum sample of 146 would be required for this study. However, there are huge variations in repose rate of Pakistan airline industry. Therefore, determination of suitable sample size via other approach becomes critical for the study. Because of this, the current study selected Krejcie and Morgan's criterion instead of *a priori* power analysis for determining sample size.

According to Krejcie & Morgan (1970) sampling guidelines a sample size of 384 was considered as enough for the current study. Moreover, the sample size is 382 for the population of 75000 similarly, the sample size is 384 for the population size of 1000000 and greater (Krejcie & Morgan, 1970). Roscoe (1975) in Sekaran (2000; 2003) suggested some basic rules for the sample size determination, one among which states that the size of sample larger than 30 and less than 500 are appropriate for most researchers. It is further recommended that as the population size increases, the size of sample also increases.

Therefore, the study determined a sample size of 384 passengers for a population size of 6,451,970 (Passengers). Consequently, for this research $N = 6,451,970$ (PIA 3,276,314 ABQ 1,319,710 and SAI 1,855,946 respectively), and $s = 384$. Moreover, previous studies conducted on the airline industry had chosen a sample size of 391 (Abdullah et al., 2007), 324 (De Meyer & Mostert, 2011), 270 (Archana & Subha, 2012), 303 (Namukasa, 2013), 353 (Martey & Frempong, 2014) and 350 (Leong et al., 2015).

Anticipating the low response rate, the researcher distributed more questionnaires as suggested by Miller & Salikind (2002) and Keyton (2015) using the over sampling

method by increasing the sample size by 40 to 50% to address low response rate problem and the issue of unusable responses.

Hence, the sample size was increased by 50% of the total sample size 384 and the total questionnaire distributed were 576. The minimum sample size was 146 that was obtained through power analysis in conjunction with sample size 576 that was already executed in the study, using the sample size determination criteria and recommendation are within the same range (Krejcie & Morgan, 1970).

3.2.3 Sampling Technique

The present study adopted probability sampling design. Probability sampling design was adopted in order to generalize the findings present study. Probability sampling gives each respondent an equal chance of being selected as a sample object (Sekaran & Bougie, 2013). This sampling method is important as there is no bias of the researcher against the choice of another (Salkind & Rainwater, 2003). Moreover, the purpose of the study was to have samples drawn from three international airline of Pakistan.

The proportionate random sampling technique was selected for the current study, which is a probability sampling procedure through which we have divided our sample on the proportion of the passengers traveled with each airline (refer to Table 3.2 below). Therefore, the sample obtained on the basis of the proportion of each airline is known as proportionate random sample (Singh, 2006). So, the proportionate random sampling was considered appropriate for the present study, since it contains a process of categorization, followed by the selection of subjects from each proportion using a simple random sampling procedure. By doing so, sample size of each airline is

determined by dividing the sample size (S) on each airline's passengers traveled last year. The detail proportion of each airline presented in Table 3.2 below.

Table 3.2

List of Proportionately Selected Passengers from Airlines

No	Airlines	Passengers	%	Proportion
1	PIA	3,276,314	51%	294
2	SAI	1,855,946	29%	167
3	ABQ	1,320,401	20%	115
	Total	6,452,661	100%	576

Note: PIA= Pakistan International Airline, SAI = Shaheen international airline, ABQ = Air Blue International

This study was conducted in five regions of Pakistan comprising of four provinces (Sindh, Khyber Pakhtunkhwa, Punjab, Balochistan) and one capital city of Pakistani. Based on capital city of each of four provinces namely Karachi (capital of Sindh province), Lahore (capital of Punjab province), Quetta (capital of Balochistan province), Peshawar (capital of Khyber Pakhtunkhwa province) and Islamabad (capital city of Pakistan) were selected.

Therefore, the data collection was conducted from Karachi, Lahore, Quetta, Peshawar and Islamabad airports respectively. The size and characteristics of these cities were deemed suitable for this study to enable the results generalization across the population. Since, the respondent's sample was selected through the proportionate random sampling technique. The passengers coming out from the arrival terminal were randomly selected to fill out the survey. After seeking their consent, the questionnaires were given to get them filled.

3.2.4 Unit of Analysis

In a given research the unit of analysis characterizes who or what is being studied. A unit of analysis is a group, an individual or the organization in a social science research (Creswell, 2012; Kumar et al., 2013). The individual passenger of international flights of the three international airlines of Pakistan namely: PIA, ABQ and SAI, that were travelling out of the terminals at Peshawar, Quetta, Karachi, Islamabad and Lahore international airports were the unit of analysis for this study.

3.3 Data Collection Method/ Procedure

There are different type's survey data collection methods that consist of: structured interviews, online questionnaires, self-administered questionnaires, telephone questionnaires (Brace, 2018). The forms of survey identified by Neuman (2011), are phone interview, opinion polls, internet and various types of questionnaires. The questionnaires can be collected online, on telephone or on paper by participant who fills out the questionnaire. The author reads the questions defines terms if necessary, to get questionnaire filled in as part of a structured interview (Brace, 2018).

Primarily, a pre-test was conducted to fix content and face validity of survey questionnaire. Then a pilot test was one with 30 passengers for the evaluation of questionnaire in terms of its clarity, wording, time spent and relevancy. Moreover, a cross-sectional survey through the help of structured questionnaire was administered to 576 passengers of three airlines (PIA, SAI and ABQ) at the five (Peshawar, Quetta, Karachi, Lahore and Islamabad) international airports of Pakistan.

Initially, the researcher of the study requested for authorization from the concerned authorities in Pakistan for data collection, as the researcher received permission, the staff of airport was informed about study. The researcher approached the international arrival terminals of each of the five airports respectively.

After that researcher approached passengers coming out from the arrival terminal and waiting for the arrival of their luggage. The passengers were given a questionnaire along with the cover letter having a detailed information about purpose of the survey as well as personal information of researcher of the study. The participants filled the questionnaire and in case of refusal from passenger for participation, another passenger was selected. On the basis of location, the data collection was staggered which took a duration of six months and 15 days from 14-1-2018 to 30-7-2018.

3.4 Research Instrument

A structured questionnaire is a suitable method for data collection, when the researcher of study clearly knows what is essential (Sekaran, 2003). Moreover, the questionnaires are cheaply managed, can be analyzed easily, are liked by most of the people and can lessen partiality as researchers cannot impact on answers of respondents (Sekaran, 2000). The questionnaire development consists of five steps that includes: initial considerations, clarification of concepts, determination of question types, formatting and sequencing, Pretesting and administering the questionnaire (Hair et al., 2007).

The study employed a survey instrument which was developed by broadly reviewing previous literature to recognize scales that were adapted in prior research having solid reliability and validity. The questionnaire was prepared in English language that is easily understandable international and national passengers. The questionnaire was

attached with a covering letter that explained the purpose of study. The purpose of study was clarified introducing a covering letter, respondent's eligibility criteria and confidentiality of responses were assured. The questionnaires were administered to individual passengers (international flights) in their capacity as customers of their respective airline service providers of Pakistan (PIA, SAI) and ABQ).

The research instrument included three main sections:

Section A: Personal Background, that included the demographic variables such as gender, age group, nationality, marital status, highest level of education, occupation, financial earnings (monthly).

Section B: General Information that included the frequency of flights in lines in one year, purpose of travel, class of travel, are you a frequent flyer? Number of trips in last 12 months and

Section C: General Opinion that comprised of twenty-four (24) items to measure; service quality, relationship through solving customer problems, Physical environment, relationship through building customer trust and interaction through social media.

There were 5 items that measured customer satisfaction and 7 items that measured the corporate image with airline services providers.

3.5 Measurement Scale

Wakita et al. (2012) stated that Likert scale is a psychometric scale of response chiefly used in surveys for obtaining the response of participants or their agreement with the given statements. Furthermore, authors describe that this technique of scaling is non-comparable and have single dimension due to the reason that they logically measure the amount of a single trait and are normally perceived as a 5-point scale. The present literature contends that in the last four eras, this scale has been increasingly and

successfully used by sociologists, marketing researchers and psychologists in designing their questionnaire (Kim et al., 2009).

The Likert scales have gained popularity from its applied springiness and easiness in design, coding and administration, its deficiencies apart (Camparo & Camparo, 2012). Disagreeing to criticisms about the use of Likert scales being ordinal in nature and they do not arithmetically complement the parametric statistics, it has been substantially argued by the scholars Camparo & Camparo (2012) and Norman (2010) that parametric statistics could be used for ordinal Likert scales data without distress. Further, the scholars have argued that interval scale of measurement used in business research is an ordinal scale as the answers of participants can be ordered in terms of power of agreement and the amounts on the interval scale poses both the properties ordinal and nominal scales and allows the use of sophisticated calculations (Camparo & Camparo, 2012; Cooper & Schindler, 2006).

Likert scale is to get the responses of respondents while dichotomous scale for few general questions is used. These responses are measured on the scale of five level Likert options, including strongly agree, agree, don't know, disagree and strongly disagree options. Neutral or neither agree nor disagree option is replaced by the don't know option considering advance methods of Likert scale questions, which can remove the answer ambiguity of closeness to more disagree or more of agree (Francis, Acclis, & Jonstan, 2004).

Moreover, prior research studies have effectively applied 5-point Likert scale (e.g., Caruana, 2002; Ehiobuche & Khan, 2012). Therefore, the current research study used

a 5-point Likert scale 5 for “strongly agree”, 4 for “agree”, 3 for “neither agree nor disagree”, 2 for “disagree” and 1 for “strongly disagree” to measure the variables of the research model.

3.6 Operationalization and Measurement

The following section describes the sources of instruments and research variables that were adapted and chosen for this study. The measures are adapted from previous studies with acceptable reliabilities (Cronbach’s alphas). Several studies have widely used these measures including Azzam (2014); Wang (2014); Moon (2007); Wu & Liang, 2009; Seto’-Pamie (2012) and Hapsari, Clemes, & Dean (2017) that are shown in Table 3.2. A 5-point Likert scale ranging from (1) “strongly disagree” to (5) “strongly agree” was employed to measure all variables.

Table 3.3

Source and description of all the variable measures of study

Section Sector	Variable	No. of items	Reliability	Source of scale	Industry
A	Personal Information	7 items	-	Self-construct	-
B	General Information	9 items	-	Self-construct	-
C	Service Quality	7 items	0.91	(Hapsari et al., 2017)	Airline Industry
D	Physical Environment	5 items	0.858	(Wu & Liang, 2009)	Hotel Industry
E	Relationship through Solving Customer Problems	4 items	0.819	(Azzam, 2014)	Banking Industry

F Social Network Interaction	4 items	0.860	(Azzam, 2014)	Banking Industry
G Trust	4 items	0.997	(Seto'-Pamie, 2012)	Financial Services
H Customer Satisfaction	5 items	0.859	(Wang, 2014)	Airline Industry
I Corporate Image	7 items	0.95	(Moon, 2007)	Retail Industry

Based on the literatures, the following constructs were used in the study. The operational definitions are measurements as follows:

- **Service Quality**

It is the evaluation process in which the perceived service is compared with the actual service delivered. It is a form of attitude and delivery of superior service by an organization to its customers (Hapsari et al., 2017). Service quality was measured using 7 items, adapted from (Hapsari et al., 2017), on a 5-point Likert scale with Cronbach alpha value of 0.859 from previous study (Hapsari et al., 2017).

Table 3.4

Items Representing the Service Quality

1. The staff of this airline deliver superior services
2. Overall, the in-flight facilities in this airline are excellent
3. This airline has a convenient flight schedule
4. This airline has convenient reservation and ticketing systems
5. This airline offers an excellent security system
6. I feel safe when I fly with this airline
7. This airline offers excellent baggage handling services

Source: (Hapsari et al., 2017)

- **Physical Environment**

The physical environment is defined as the physical surroundings, space or functions, signs, artifacts and ambient conditions of the natural or social environment. The most important component of the physical environment comprises of the comfortable and relaxing seating, appropriate temperature and quality as well as the facilities provided by the organization (Wu & Liang, 2009). Physical environment was measured using four items, adapted from Wu and Liang (2009), on a 5-point Likert scale with Cronbach alpha value of 0.858 from previous (Wu & Liang, 2009).

Table 3.5

Items Representing the Physical Environment

1. The aircraft lighting is appropriate
 2. The temperature of the aircraft is comfortable
 3. The environment of the aircraft is clean
 4. The aircraft architecture is impressive
 5. The color of the wall and floor are complementary and coordinating
-

Source: (Wu & Liang, 2009)

- **Social Network Interaction**

Refers to build customer relationships through interaction with customers through website and sending them e-messages, e-promotions, e-information via emails and social media as a competitive advantage for the organization (Azzam, 2014). Social network interaction was measured using four items, adapted from Azzam (2014), on a 5-point Likert scale having Cronbach alpha value of 0.860 from previous study (Azzam, 2014).

Table 3.6

Items Representing the Social Network Interaction

1. This airline sends e-messages to customers in order to enhance customer satisfaction
 2. This airline provides e-promotion to foster customer satisfaction
 3. This airline is providing e-information that is essential for customer satisfaction
 4. Web site availability gives competitive advantage to this airline service provider
-

Source: (Azzam, 2014)

- **Relationship through Solving Customer Problems**

It refers to the efforts taken by the organization to resolve the customer problems by reviewing the complaints by customers periodically, giving response directly to the problems and deals effectively if any customer experiences any problem (Azzam, 2014). Relationship through solving customer problems was measured using four items, adapted from Azzam (2014), on a 5-point Likert scale having Cronbach alpha value of 0.819 from previous study (Azzam, 2014).

Table 3.7

- *Items Representing the Relationship through Solving Customer Problems*

1. This airline service provider deals effectively with customer problems
 2. This airline service provider review complaints periodically
 3. This airline service provider officer's response directly to problems
 4. Customers give greater attention to this airline service provider reaction toward complaints offered
-

Source: (Azzam, 2014)

- **Trust**

It refers to the confidence in the integrity and reliability of exchange partners. Therefore, trust is the belief that the other party can fulfil its unspoken and open promises and that it is prepared to do so (Seto'-Pamie, 2012). Relationship through

building customer trust was measured using four items, adapted from Seto'-Pamie (2012), on a 5-point Likert scale with the Cronbach alpha value of 0.997 from previous study (Seto'-Pamie, 2012).

Table 3.8

Items Representing the Trust

1. The airline service provider keeps its promises
 2. The airline service provider really cares about me
 3. I trust this airline service provider
 4. This airline service provider really puts my well-being first
-

Source: (Seto'-Pamie, 2012)

- **Customer Satisfaction**

It is defined as a feeling of pleasure or disappointment of the product or service's perceived performance in comparison to the customer expectations. The organizations strive to build high quality relationships with the customer and bring efforts to make them happy (Wang, 2014). Customer satisfaction was measured using five items, adapted from (Wang, 2014), on a 5-point Likert scale with Cronbach alpha value of 0.859 from previous study (Wang, 2014).

Table 3.9

Items Representing the Customer Satisfaction

1. As a customer, I have a high-quality relationship with the airline
 2. I am happy with the efforts that the airline makes towards its customer
 3. I am satisfied with my relationship with the airline
 4. I can find the product that matches my needs provided by the airline
 5. I think the price I pay for the airline's service is fair
-

Source: (Wang, 2014)

- **Corporate Image**

It refers to the overall impression of the firm that is well managed, financially sound, supports local communities, employ talented people, has strong marketing capability, offers high quality services and new products frequently (Moon, 2007). Corporate Image was measured using seven items, adapted from (Moon, 2007), on a 5-point Likert scale with Cronbach alpha value of 0.95 from previous study (Moon, 2007).

Table 3.10

Items Representing the Corporate Image

1. This airline employs talented people
 2. This airline supports local community
 3. This airline is financially sound
 4. This airline often introduces new services
 5. This airline has strong marketing capabilities
 6. This airline is well-managed
 7. This airline offers high quality services to its customers
-

Source: (Moon, 2007)

3.7 Pretesting the Instrument

Before the pilot study, some respondents and experts in the field were consulted for their views on the questionnaire items, phrases and wordings (Hair et al., 2007). Hence face validity means the extent to which a survey instrument can cover the real meanings embedded in particular concepts (Babbie, 1990). Before running the actual survey, an initial draft of the questionnaire was pretested by asking experts to review it and see if there are any ambiguities that could have been noticeable by the researchers.

Firstly, five experts, including five associate professors from Universiti Utara Malaysia checked on the quality of survey instrument for its face validity in terms of format, wording, simplicity, clarity and ambiguity associated with questionnaire items (Dillman, 1991). Looking at these evaluation criteria, corrections and improvements were suggested, which were later included in the survey instrument. Initially, personnel

behavior was also selected as a CRM factor. Later, it was suggested after validation of research instrument that service quality also covers the aspect of personnel behavior. Therefore, personnel behavior was removed from the study.

3.8 Pilot Study

A pilot study is an initial examination that is conducted to assess feasibility, cost and time of the survey in predicting the correct size of sample and incorporating improvements upon research design before conducting the main study (Hulley, et al., 2007). Basically, the justification for the pilot study includes the determination of validity and reliability of the items in the questionnaire, items, wording, phrases and sound construction as secure accurate results (Sekaran & Bougie, 2013).

Accordingly, selecting a sample of 10 to 20 respondents similar to the population from which the researcher plans to draw the participant for the study is adequate (Gall, Gall, Borg, 2007). While, a sample size for a pilot study to be from 15 to 30 elements (Malhotra, Peterson, & Kleiser, 1999). The reason for pilot study is to determine if the respondents have really understood the research questionnaire and to ascertain the time the respondent needs to complete the survey so that the instrument can be improved (Cooper et al., 2006). Therefore, a total of 30 questionnaire were administered to airline passengers of Pakistan for the exercise. Hence, all 30 questionnaires were completed and returned which represent a respondent rate of 100%.

The pilot study was carried out in November, 2017 and lasted for two weeks. Afterwards, internal consistency reliability scores or Cronbach's alpha values of the variables used this study was determined using SPSS (V.20). Table 3.11 provides the Cronbach's Alpha values of each latent variable found from the plot study of the current study.

Table 3.11*Cronbach's Alpha Values for Pilot Study (n=30)*

Latent Constructs	No of items	Cronbach's Alpha Values
Service Quality	07	0.963
Problem Solving	04	0.962
Physical Environment	05	0.963
Social Network Interaction	04	0.963
Trust	04	0.962
Customer Satisfaction	05	0.962
Corporate Image	07	0.963

In the table 3.11 above, the composite reliability coefficient for the entire latent constructs ranged between 0.962 and 0.963. Therefore, the results of pilot study demonstrated that all measures achieved adequate reliability coefficient. A Cronbach's Alpha of all the constructs are not less than 0.70 while the composite reliability of not less than 0.70 which is adequate to carry out the research.

3.9 Techniques for Data Analysis

To conduct a preliminary analysis on sampled population, this study used SPSS version 21.0 (Hair et al., 2007) and PLS-SEM for the assessment of both structural and measurement model (Hair et al., 2016). Moreover, path modeling was employed and then bootstrapping was applied (Wong, 2013). To generate the *t*-values and standard error of estimate a total of 5,000 resamples were used (Chin, et al., 2003). PLS has ability to give precise estimates of mediator effects by accounting for error that improves validation of theories and reduces the estimated relationships (Helm, Eggert, & Gamefeld, 2010).

The statistical analysis technique employed in this study was Structural Equational Modeling (SEM) technique. SEM technique was selected as it deals with the idea of identification and confirmation of relationships among the variables (Bollen, 1989). In marketing research, SEM techniques for data analysis is a second-generation statistical technique that is used extensively as an analytical tool (Babin et al., 2008).

SEM techniques includes the factor analysis, the path analysis and other approaches which are based on the general linear model. This technique is determined to be the most appropriate as it supports in identification of latent variables and elimination of inappropriate variables from the research model proposed (Bollen, 1989).

SEM can identify the underlying structure of research spectacle through extraction of latent variables from observed variable (Ullman & Bentler, 2003). This statistical technique is more advanced as compared to the most related studies which predominantly uses linear regression or multiple regression to test the relationships. Conversely, this technique provides a more inclusive analysis rather than the simpler one by considering all the factors in combination.

The analysis based on SEM has progressively been useful in social sciences researches, predominantly in marketing researches over the past three decades and is recognized as a user-friendly software (Hair et al., 2014). It assists the detection and verification of associations between numerous variables. Possibly the most significant strong point of SEM is that the associations between several latent constructs can be observed in a way that decreases the error in research model (Hair et al., 2014). This characteristic allows calculation and eventually removal of variables considered as weak measurement (Chin et al., 2008).

The two techniques based on SEM are CB-SEM and PLS-SEM. The CB-SEM includes a maximum likelihood procedure whose goal is to minimize the variance among estimated and observed covariance matrices, as opposite to maximizing explained variance. Whereas, PLS-SEM emphasizes on maximization of variance explained by endogenous constructs. Intrinsically, both techniques have different prominence, PLS-SEM is more appropriate for exploratory work in finding and assessing causal relationships while CB-SEM is more applicable in confirmatory factor analysis (Hair et al., 2011; Hair et al., 2013).

Therefore, the current study adopted PLS-SEM as a suitable instrument for data analysis as the study is predictive rather than confirmatory of an existing theory. The analysis technique was selected based on defined literature (Hair et al., 2011). The major reason for the adoption of PLS-SEM was the non-normality of data as PLS-SEM has statistical properties of robust estimation of a model with non-normal data and/or distribution of the data i.e., skewness and kurtosis (Reinartz, Haenlein, & Henseler, 2009; Henseler et al., 2009; Henseler et al., 2014)

3.9.1 Partial Least Square Structural Equational Modeling (PLS-SEM)

PLS-SEM is increasing in reputation, which is the plethora of current progresses and considerations (Tenenhaus & Tenenhaus, 2011; Lu et al., 2011; Hwang et al., 2010; Henseler et al. 2014; Rigdon, 2014), as well as its repeated use across diverse disciplines (Ringle et al., 2012; Hair et al., 2012; Peng & Lai, 2012). Partial Least Square makes only minimal distribution assumptions to combine a factor analysis with linear regression (Gefen et al., 2000).

PLS is a suitable technique to SEM when the research problems present certain conditions. Especially, in applied research projects PLS is useful for SEM when the data distribution is skewed and there are limited number of participants (Wong, 2013). According to previous research studies using a sample size of 100 to 200 respondents is a good starting point in carrying out path modeling (Hoyle, 1995). The structural equation modelling is of two types it can be formative or reflective. The indicators are considered as reflective if they are highly correlated and interchangeable and their reliability and validity should be carefully examined (Hair et al., 2012). PLS modelling comprises of three parts that are inner relations, outer relations and weighted relations (Jacob et al., 2004).

PLS, technique can enhance prediction in studies involving large samples like the current study (Hair, Sarstedt, Ringle, Smith, & Ream, 2014). The current study examined relationships among seven variables (i.e. service quality, trust, physical environment, social network interaction, relationship through solving customer problems, customer satisfaction and corporate image) with in the structural model and thus, using PLS-SEM techniques was considered appropriate for better prediction especially given that mediating role of corporate image on the association of trust, physical environment, social network interaction, relationship through solving customer problems and customer satisfaction is being explored for the first time (Hair, Hult, Ringle, & Sarstedt, 2014).

Smart PLS is one of the noticeable software applications for calculating PLS-SEM. This software was developed by Ringle et al., (2005), since its launch in 2005 it has

gained popularity among the researchers not only due to the reason that it is freely available to academics and researchers, but also it is user friendly and has advanced reporting features. Even though there are various journal articles that have been published on the topic of Partial Least Square modeling, however the amount of instructional materials available for this software are very limited.

As mentioned above, PLS-SEM is not affected by outlier assumptions and non-normality. Therefore, missing values treatment is necessary before the assessment of model as Smart PLS program is very sensitive to missing values.

3.10 Chapter Summary

This chapter as provided a detailed research plan on how the study was conducted. The theoretical framework, and hypotheses development guided the selection of research methodology. The previous discussion shown the justification for using the instrumentation and measurement chosen, and for using questionnaires for data collection to achieve the current research objectives.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.0 Introduction

This chapter mainly focus on the findings of study that are analyzed using SPSS (version 21.0) and Smart PLS path modelling (version 3.2.8). The initial data screening and preliminary analysis are than discussed comprising of missing value analysis and common method bias/variance test. The results of descriptive statistics of all the latent variables were reported. Using the Smart PLS (version 3.2.8) the measurement model comprising of individual item reliability, internal consistency reliability, convergent validity and discriminant validity was analyzed.

Whereas, the results of structural model are reported that mainly focused on the significance of path coefficients, R-squared values, effect size and predictive the relevance of entire model of the study. Similarly, the results of analysis involve mediation effect of corporate image of the structural model are presented.

4.1 Response Rate

For conducting this research study, 576 questionnaires were circulated to the passengers of three airlines namely: PIA, SIA and ABQ, in five airports of Pakistan namely; Jinnah International Airport (Karachi), Allama Iqbal International Airport (Lahore), Benazir Bhutto International Airport (Islamabad), Quetta International Airport (Quetta) and Bacha Khan International Airport (Peshawar). These airports were selected based on four provinces (Punjab, Khyber Pakhtunkhwa, Sindh, and Balochistan) and one capital city (Islamabad) of Pakistan.

The response rate of passengers from the airports are shown in Table 4.1. The questionnaires that were received back to the researcher were 525 out of 576, among those valid questionnaires were 446 and the number of unanswered and incomplete responses were 79 that were not usable for conducting statistical analysis. To remove all these 79 questionnaires from the data analysis is significant, as they do not really represent the sample of population (Hair, Hult, Ringle, & Sarstedt, 2014).

Therefore, a valid response rate of 446 was used for conducting data analysis. As suggested by Farouk, Elanain, Obeidat, and Al-Nahyan (2016), due to the use of self-administered questionnaire the response rate was relatively high. Correspondingly, the sample of population for this study was made up of 446 responses that represent a valid response rate of 77% in this study and it was suggested that an acceptable response rate in a survey is greater than 30% (Sekaran & Bougie, 2013). So, the higher sample size improves the predictive power of PLS-SEM technique (Hair & Sarstedt, 2014).

Table 4.1

Questionnaire Distribution and Decisions

Response	Frequency/Rate	Percentage (%)
Number of distributed questionnaires	576	100
Number of returned questionnaires	525	91
Number of questionnaires not returned	051	09
Number of rejected questionnaires	079	14
Number of retained questionnaire	446	77

Response rate	91%
Valid response rate	77%

4.2 Data Screening and Preliminary Analysis

In any multivariate analysis the preliminary data screening is highly significant as it normally assists researchers in identification of positive violations about application of the multivariate technique of data analysis (Hair et al., 2007). In this study, before preliminary data screening the entire 525 returned questionnaires were subjected, coded and entered in to SPSS 21.0 version. The returned and usable questionnaires were 446. After the data coding and entry following preliminary analysis were performed that involved missing value analysis through SPSS 21.0 version (Tabachnick & Fidell, 2007; Hair et al., 2010).

4.2.1 Missing Value Analysis

Numerous types of researches have agreed the missing value rate of 5% and below than that is considered as insignificant, even though there is no adequate percentage of missing value in a set of data analysis (Tabachnick & Fidell, 2007). Additionally, in the case of less than 5% rate of missing values in an analysis the researchers have recommended the means substitution method which is an easiest way of replacing the missing values (Coplan, Coleman, & Rubin, 1998; Tabachnick & Fidell, 2007).

Firstly, the Estimation Maximization (EM) was used to check and treat the missing values. EM is a tool that optimizes the accuracy of the overall analysis so that more valid inferences could be drawn from the data (Coakes, 2013). Missing values were

derived from the probability of parameter estimates. In line with recommendation of previous authors, the researcher selected Expectations Maximization imputation for number of reasons.

Firstly, it is acceptable to implement the EM algorithm as it does not change the nature of the association between the variables (Honaker, King, & Blackwell, 2011). Another benefit of using EM algorithm is that, it maintains the sample size and provides more powerful and accurate statistical test. Secondly, replacing missing data with mean centered also has beneficial in modeling interaction but before to creating product interaction terms.

Replacement with mean centering also can help to remove the multicollinearity effects which are produced when working with interaction terms (Kay Wong, 2013). Therefore, replacing missing values which shown in table 4.2 with Expectation Maximization algorithm was commonly used in social sciences studies (Enders, 2010).

Table 4.2
Total and Percentage of Missing Values

Latent Variable	Number of Missing Values
SQ	03
PE	03
SNI	04
PS	02
TR	03
CS	05
CI	02
Total missing value	22
Percentage of missing value	Missing value out of 23,638 data points * 100 = 0.09%

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

Percentage of missing values are obtained by dividing the total number of randomly missing values for the entire data set by total number of data points multiplied by 100%.

The variables and their various respective missing values are shown in the table 4.2. From the table 4.2 given above, twenty-two (22) values are regarded as missing values, which represent the 0.09%. Particularly, service quality had (3), trust had (3), physical environment had (3), and social network interaction had (4), relationship through solving customer problems had (2), customer satisfaction had (5) and corporate image had (2) missing values.

4.2.2 Tests for Non- Response Bias

Non-response bias has been construed as the variance in replies between respondents and non-respondents (Lambert & Harrington, 1990). To assess the possibility of non-response bias, Armstrong and Overton (1977) suggested a time-trend extrapolation system which involves comparison among early and late respondents (i.e., non-respondents). This compares early respondents to late respondents and assumed that subjects who are late respondents are more like non-respondents.

To minimize non-response bias issue, it was recommended that at least 50% response rate should be achieved (Lindner & Wingenbach, 2002). As the data was collected personally by the researcher, testing non-response bias could not be carried out. Since all respondents were given the questionnaire to fill them immediately after which the researcher personally collected them. In this manner, the difference between those who responded earlier and later was not the issue.

4.3 Common Method Variance Test

The CMV is also recognized as mono-method bias which is the variance that is probably caused by measurement method rather than construct of interest (Podsakoff et al., 2003). In self-report surveys researchers have unanimously agreed that CMV is a main concern for scholars (Lindell & Whitney, 2001). CMV, in self-report could also inflate relationship between the variables (Conway & Lance, 2010). To reduce the effects of CMV numerous procedural cures were adopted (Viswanathan & Kayande, 2012). In order to reduce evaluation apprehension, the participants were informed that there is no right or wrong answer to items in the questionnaire. They were assured that questionnaire shall remain confidential.

Moreover, all the questions of questionnaire were written in simple, concise and self-explanatory sentences. All variables of study were exposed to principal components factor analysis (PCA) (Podsakoff & Organ, 1986). The findings of CMV analysis showed that, eight (8) factors were extracted that explained a cumulative of 68.346% variance; with first largest factor explaining 28.256% of the total variance and this is less than 50%. Moreover, results pointed out that no single factor accounted for most of the covariance in the predictor and criterion variable (Podsakoff et al., 2012). Henceforth, it was suggested that common method bias is unlikely to inflate relationships among variables measured in this study.

4.4 Demographic Profile of the Respondents

The demographic profile of respondents is shown in the Table 4.3. The demographic features were measured on nominal and ordinal scale comprising of gender, age, marital

status, highest educational level, occupation, financial earnings. In demographic analysis the distribution of respondent's preliminary based on the gender, which showed that (58.3%) respondents were male whereas (41.7%) respondents were female. The respondent's age illustrates that majority of the respondents fall within the age 20-30 years (29.8%), about (25.6%) fall within the age of 31-40 years and remaining (18.8%) were falling in the age of 41-50 years. With respect to marital status it was observed that most of respondents were married (69.1%) and about 30.9% were single.

Furthermore, it was also observed that about (39.9%) of the respondents were the holder of master's degree, and (33.6%) had bachelor's degree, about (15%) were PhD degree holder and the remaining (8.5%) were holder of diploma or equivalent degree and (2.9%) fall in the category of others. The occupational background of respondents illustrates that about (50.4%) of respondents were employed, about (20.9%) were students, (5.6%) were job seekers and (3.1%) fall in the category of others.

With respect to financial earnings, most of respondents (41.7%) fall in category of 50,000 – 99,999, while (25.3%) earn below 49,999, (20.6%) had financial earnings of 100000- 199999 and (12.3%) had financial earnings of 200000 and above as described in the table 4.3.

Table 4.3

Profile of Respondents

Demographic variables	Frequency	Percentage (%)
Gender		
Male	260	58.3
Female	186	41.7

Age			
	18 - 20	41	9.2
	20-30	133	29.8
	31-40	114	25.6
	41-50	84	18.8
	Above 50	74	16.6
Marital Status			
	Married	308	69.1
	Single	138	30.9
Nationality			
	Pakistani	331	74.2
	Foreigner	115	25.8
	Highest Educational level		
	Diploma	38	8.5
	Bachelors	150	33.6
	Masters	178	39.9
	PhD	67	15.0
	Others	13	2.9
	Occupation		
	Employed	225	50.4
	Self-employed	89	20
	Job seeker	25	5.6
	Student	93	20.9
	Others	14	3.1

Financial Earnings (PKR)		
Below 49,999	113	25.3
50,000 - 99,999	186	41.7
100000 - 199999	92	20.6
200000 and above	55	12.3
Frequency of flights		
Less than 2 times	183	41
2-5 times	95	21
6-10 times	83	18
More than 10 times	85	19
Purpose of travel		
Business	199	44.6
Medical	41	9.2
Holiday	61	13.7
Visiting family/friends	93	20.9
Others	52	11.7
Class in which travel		
Business class	113	25.3
Economy plus	83	18.6
Economy class	250	56.1
Frequent flyer		
Yes	343	76.9
No	103	23.1
Airline for frequent flying		

PIA	271	60.8
SAI	149	33.4
ABQ	26	5.8
Number of travel PIA		
0 time	3	0.7
1 times	100	22.4
2 times	109	24.4
3 times	67	15.0
4 times	70	15.7
5 times	30	6.7
6 times	29	6.5
7 times	27	6.1
8 times	8	1.8
10 times	3	0.7
Number of travel Shaheen		
0 time	147	33
1 time	107	24
2 times	63	14.1
3 times	36	8.1
4 times	30	6.7
5 times	39	8.7
6 times	17	3.8
7 times	7	1.6
Number of travel Air Blue		
0 time	181	40.6

1 time	121	27.1
2 times	97	21.7
3 times	27	6.1
4 times	9	2.0
5 times	9	2.0
8 times	2	0.4

Moreover, it was observed that frequency of flights was (41%) for the respondents who travelled less than 2 times, (21%) who travelled 2-5 times, (19%) for more than 10 times and (18%) for 6-10 times. Moreover, the purpose of travel for the respondents illustrate that about (44.6 %) of the respondents travelled for business trip, about (20.9%) visiting friends and family, (13.7%) for holiday, (11.7%) fall in the category of others and (9.2%) for medical reasons. With respect to the class in which travel, it was observed that most of respondents (56.1%) travelled in economy class, while (25.3%) in business class and (18.6%) in economy plus as described in the table 4.3 above.

Furthermore, it was also observed that about (76.9%) of the respondents were frequent flyer while about (23.1%) were not frequent flyers. with respect to the airline for frequent flying it was observed that (60.8%) of the respondents were the frequent flyers of PIA, (33.4%) of SAI and (5.8%) were the frequent flyers of ABQ. Moreover, the number of times travel through PIA showed that the maximum times respondents travelled were 2 times that was (24.4%), while for the Shaheen airline the maximum respondents travelled 1 time that was (24%) and most of the travelers (40.6%) responded that they do not travelled through Air Blue.

4.5 Descriptive Analysis of the Latent Constructs

After the execution of preliminary analysis, the statistical variables with their description were determined in the study using descriptive analysis that comprises of maximum and minimum scores, standard deviation value, and the mean of all variables. The table 4.4 shown below comprises of minimum, maximum, mean and standard deviation of the latent constructs.

Table 4.4

Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
SQ	446	1	5.00	2.4942	0.76757
PS	446	1	5.00	2.6839	0.66607
PE	446	1	5.00	3.1695	0.89812
SNI	446	1	5.00	3.1015	0.90872
TR	446	1	5.00	2.4731	1.12009
CS	446	1	5.00	2.4776	0.87738
CI	446	1	5.00	2.2687	0.83235

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

As mentioned earlier in chapter 3, the variables were measured on 5-point likert scale whereby “1 = strongly disagree to 5= strongly agree”. The table 4.4 shown above contains the mean scores values of variables within the range of 2.27 to 3.17, the standard deviation values within the range of 0.66 to 1.12. The mean scores for the current study were categorized as low for less than 3.00, moderate for the values between 3.00 and 5.00 and high for the mean score values higher than five.in

conclusion, therefore the respondents tend to answer the questions disagree and moderately agree. The possible explanation is because the airline industry of Pakistan not fully providing best service quality, poor building trust and satisfying their customers as well as there is lot to do to improve their corporate image.

4.6 Assessment of PLS-SEM Path Model Results

To validate the research model a recent research done by Henseler and Sarstedt (2013) reveals that goodness of fit index is not a suitable tool. As the goodness of fit model cannot isolate the valid model from the invalid one so researchers considered it as unsuitable (Hair *et al.*, 2013). In the light of the preceding development, the present study used a two-step procedure of PLS to evaluate and report the outcome of PLS-SEM path as recommended by Henseler *et al.*, (2009).

These two steps are:

- (1) Outer (Measurement) Model Assessment and
- (2) Inner (Structural) Model Assessment (Hair, Ringle, & Sarstedt, 2014).

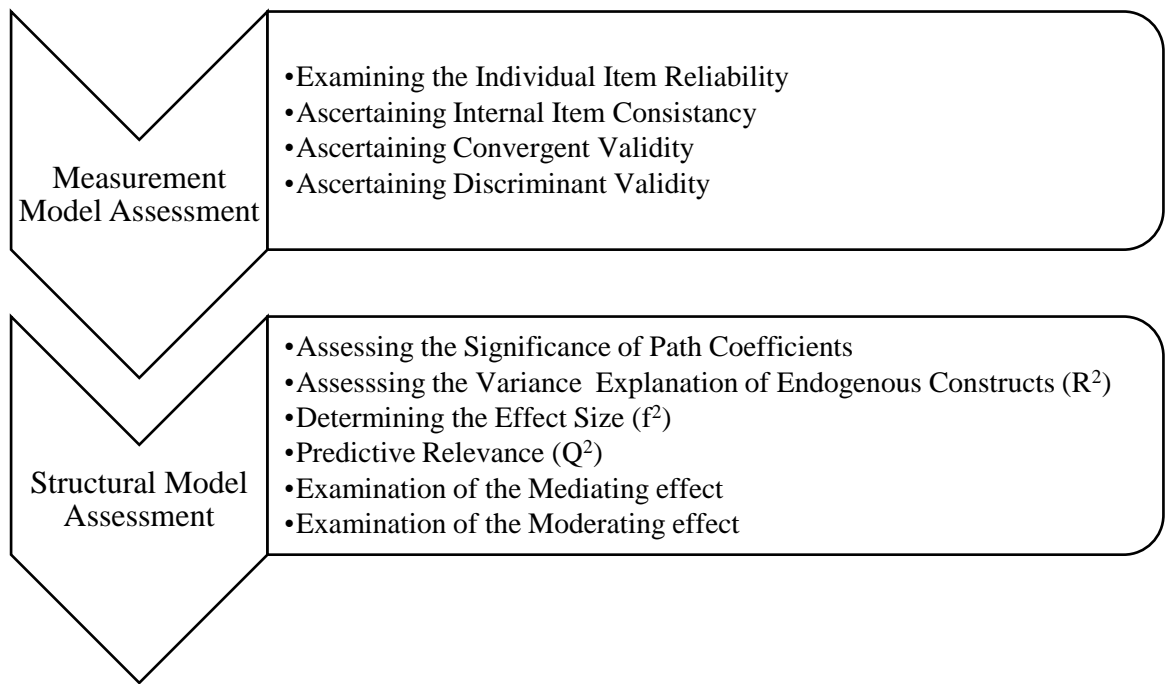


Figure 4.1

Two-Step Process of PLS Path Model Assessment by Henseler et al., (2009)

4.7 Measurement Model Assessment

This study employed PLS-SEM using Smart PLS to estimate the theoretical model (Ringle, Wende, & Will, 2010). The first step is the assessment of outer model also known as measurement model using PLS. This measurement is aimed at determining the goodness of measures which is done through reliability and validity tests (Ramayah et al., 2011). Reliability test determines how reliably a measurement instrument measures the concept it is expected to measure whereas the validity test tries to find out how well an instrument measures a given concept that it is designed to measure (Sekaran & Bougie, 2010).

Moreover, construct internal consistency, individual item reliability, and construct validity are determined in outer model assessment. In this study, PLS approaches

developed by Fornell and Larcker (1981) are employed to evaluate reliability, convergent and discriminant validity of the research instrument.

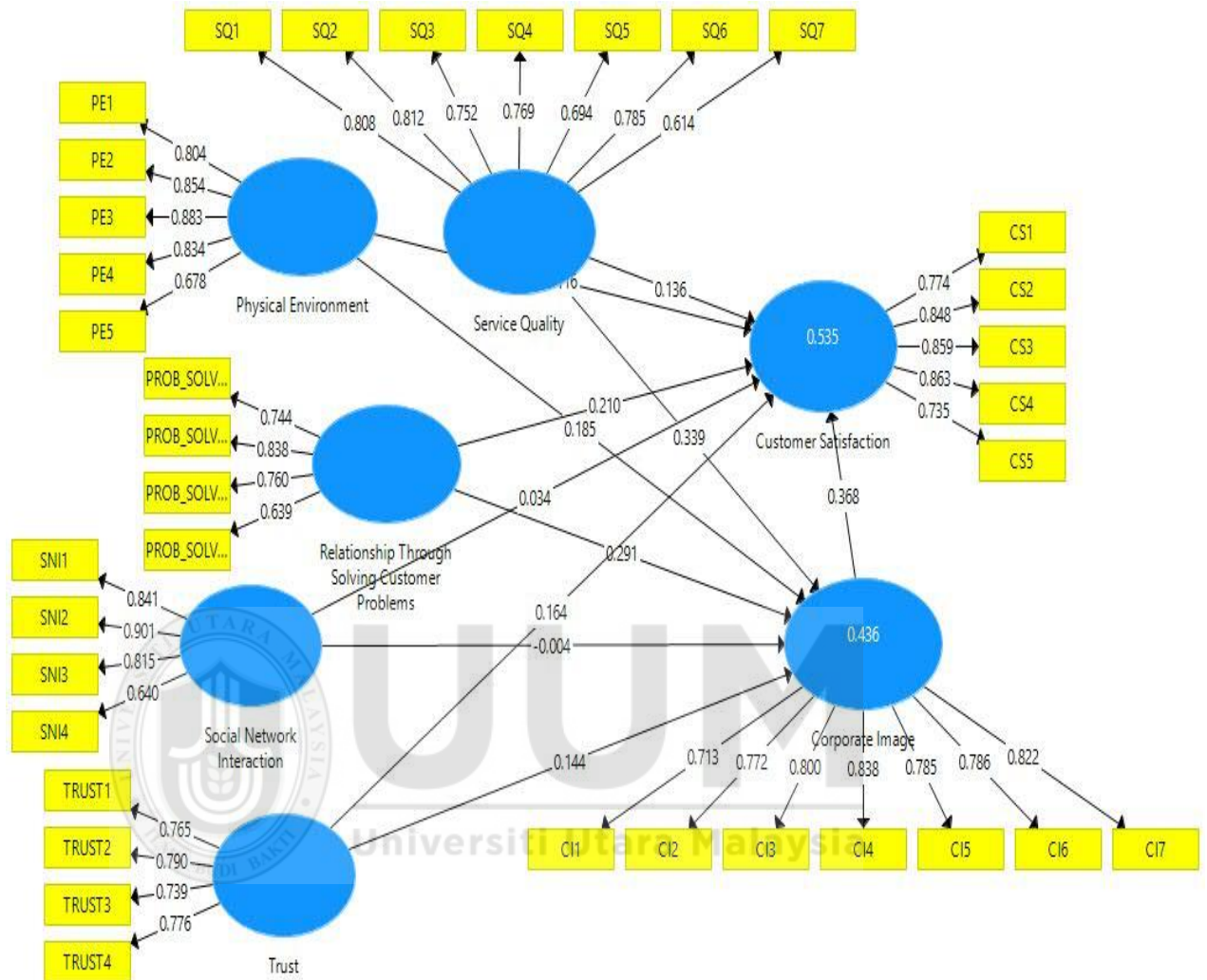


Figure 4.2

The Measurement Model

In measurement model assessment, when determining the internal consistency reliability, the individual item's reliability content validity, convergent validity and discriminant validity are required (Hair et al., 2011; 2014). The measurement model is evaluated according to the criteria of outer loading of individual items 0.5 or above and the value of AVE should be above than 0.5 as well (Vinzi et al., 2010). Moreover, the

outer loading of all items is more than 0.5 and the items that have lower loading are deleted accordingly (Hair et al., 2013; 2014).

All variables were adopted from the prior studies, (also discussed earlier in detail in chapter 3). Therefore, measurement model (outer model) was validated through Confirmatory Factor Analysis (CFA) by inspecting the relationship between items/indicators and their respective underlying construct, using PLS-SEM using software known as Smart PLS 3.2.8 version developed by Ringle, Wende, and Will (2005) (Henseler, Hubona, & Ray, 2017). As recommended by Hair et al. (2010) the minimum sample size requirement is 150 for conducting a CFA, while the sample size of the current study was 446.

4.7.1 Individual Item Reliability

The individual reliability focused on existing, the outer loading of each construct measure (Hair et al., 2014). According to Hair et al. (2014), the principle is to keep items with loadings between .40 and .70. However, the best practice is to hold item with loadings that do not fall below .70 (Henseler et al., 2009; Hair et al., 2014). Following this suggestion, it was found out that out of the 36 measurement items, a total of 4 items factor loadings fall below .70 that were deleted accordingly. The item SQ7 was deleted with factor loading 0.614, Prob_Solv 4 with factor loading 0.639, SNI4 with factor loading 0.640 and PE5 with factor loading 0.678 that were below 0.7. Therefore, in the model 32 items were retained having factor loadings between 0.708 and 0.902.

4.7.2 Internal Consistency Reliability

Internal consistency reliability means the extent to which all the items on a subscale are measuring the same concept, in most of the situations, the most commonly used estimators of internal consistency of instruments are composite reliability coefficient and Cronbach's alpha coefficient (Murray et al., 2015).

For this study, to ascertain the internal consistency reliability of the measure adopted composite reliability coefficient (CR) was chosen. In comparison to Cronbach's alpha, CR measure provides a much less biased estimate of reliability (Gotz, Liehr-Gobbers, & Krafft, 2010). The acceptable criteria for CR should be at least 0.7 or even more (Hair et al., 2011) and for AVE the value should be at least 0.5 or more (Fornel & Larcker, 1981). Moreover, the reliability measure value rho-A that should be more than 0.7 score (Henseler, 2017).

The current study fulfilled the acceptable criteria for composite reliability and AVE values of all the variables as suggested by Hair et al. (2014). All the CR coefficient of each latent variables ranged from 0.848 to 0.92 and each value exceeds the minimum acceptable level of 0.70 which suggests that acceptable internal consistency reliability of the measure was used in this study. Moreover, the Cronbach's alpha value were also calculated in this study to validate the internal consistency of the constructs as shown in table 4.5.

Table 4.5*Results of Measurement Model*

Constructs	Item	Loadings	Cronbach's Alpha	rho-A	Composite Reliability	AVE
PE 0.728			0.877	0.897	0.915	
	PE1	0.823				
	PE2	0.873				
	PE3	0.894				
	PE4	0.821				
PS 0.652			0.730	0.740	0.848	
	PS1	0.811				
	PS2	0.882				
	PS3	0.721				
SNI			0.814	0.826	0.889	0.728
	SNI1	0.848				
	SNI2	0.902				
	SNI3	0.807				
SQ			0.870	0.872	0.902	0.605
	SQ1	0.813				
	SQ2	0.822				
	SQ3	0.761				
	SQ4	0.773				
	SQ5	0.708				
	SQ6	0.786				
TR			0.771	0.785	0.852	0.589
	TR1	0.765				
	TR2	0.790				

	TR3	0.738				
	TR4	0.776				
CI			0.899	0.902	0.920	0.622
	CI1	0.713				
	CI2	0.772				
	CI3	0.801				
	CI4	0.839				
	CI5	0.786				
	CI6	0.785				
	CI7	0.821				
CS			0.874	0.876	0.909	0.668
	CS1	0.773				
	CS2	0.846				
	CS3	0.859				
	CS4	0.864				
	CS5	0.738				

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

4.7.3 Convergent Validity

The convergent validity is the degree to which the items actually signify the proposed latent variable and truly correlate with other measure of the same latent variable (Hair et al., 2011). Based on the recommendations by Fornell and Larcker (1981), the AVE value of each latent construct were examined to determine convergent validity. AVE value is computed as the mean of variance extracted for the items loading on a construct. To achieve adequate convergent validity AVE of each latent variable should not be less than 0.50 (Chin, 1998). Similarly, all AVE values in this study displayed higher

loadings that were greater than 0.50 on their respective constructs, presenting acceptable convergent validity (See table 4.5).

4.7.4 Discriminant Validity

The discriminant validity is the degree to which a latent construct differs from other latent constructs (Duarte & Raposo, 2010). The discriminant validity was assessed using AVE values by comparing correlations among latent variables with square roots of AVE (Fornell & Larcker, 1981). To observe discriminant validity, the study undertaken the model's external consistency, to compare the value of AVE of all latent variables that were shown in table 4.6.

Table 4.6

Latent Variable Correlations and Square Roots of AVE (Fornell - Larcker Criterion)

	CI	CS	PE	PS	SQ	SNI	TR
CI	0.789						
CS	0.651	0.817					
PE	0.330	0.348	0.853				
PS	0.496	0.491	0.121	0.807			
SQ	0.508	0.459	0.215	0.309	0.778		
SNI	0.109	0.132	0.045	0.099	0.203	0.853	
TR	0.417	0.480	0.218	0.479	0.285	0.025	0.768

Note: Entries shown in boldface represent the square root of the AVE

CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

Moreover, to evaluate discriminant validity, the AVE value with score of 0.50 or more is considered (Fornell & Larcker, 1981). Similarly, to recognize acceptable discriminant validity, the square root of the AVE should be greater than the latent construct' correlation (Fornell & Larcker, 1981).

Additionally, a recently developed estimation tool in PLS-SEM (variance based) to assess the factors correlation is Heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015; Pittino, Martinez, Chirico, & Galvan, 2018). The HTMT ratio is vital tool for the evaluation of model which outclass the old approach for discriminant validity that was Fornell-Larcker criterion. According to the criteria of HTMT ratio, the values should be below 0.90 which shows that discriminant validity has been established among reflective constructs (Henseler et al., 2015) as shown in table 4.7. Therefore, following the HTMT criteria, all variables achieved discriminant validity.

Table 4.7

Discriminant Validity Matrix, Heterotrait - Monotrait Ratio (HTMT)

	CI	CS	PE	PS	SQ	SNI	TR
CI							
CS	0.727						
PE	0.362	0.391					
PS	0.599	0.612	0.168				
SQ	0.565	0.516	0.244	0.377			
SNI	0.123	0.159	0.054	0.127	0.237		
TR	0.484	0.569	0.260	0.619	0.344	0.807	

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

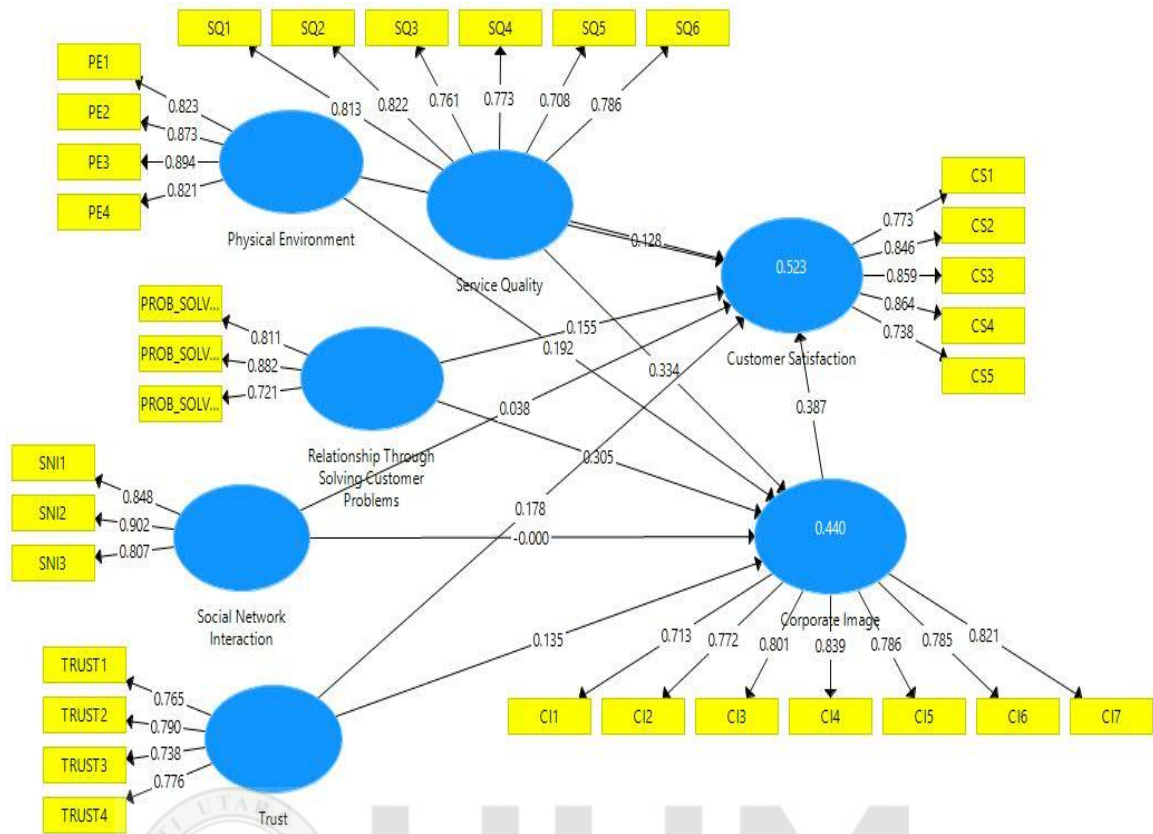


Figure 4.3
Results of Measurement Model (PLS Algorithm)

4.8 Assessment of Significance of the Structural Model

The structural model was assessed in addition to the measurement model of the study. To examine the significance of path coefficients the standard procedure of bootstrapping with 500 bootstrap samples and 446 data cases was employed (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

4.8.1 Assessment of Variance Explained in the Endogenous Latent Variables

In PLS-SEM, the coefficient of determination is an essential measure for structural model evaluation, popularly stated as R-squared value (Henseler et al., 2009; Hair et

al., 2011; Hair et al., 2012). According to researchers the minimum acceptable level for R^2 value is 0.10 (Hair et al., 2010).

In PLS-SEM, R^2 values of 0.67, 0.33, and 0.19 can be regarded as substantial, moderate and weak respectively. In this research study, the R^2 of two endogenous variables were within the acceptable ranges as the R^2 of customer satisfaction 0.523 and R^2 of corporate image 0.440 which mean that 52.3% variance in the customer satisfaction is explained by the service quality, physical environment, trust and relationship through solving customer problems while 44% of variance in corporate image is explained by service quality, physical environment, trust and relationship through solving customer problems. Numerous related studies have achieved similar levels of R^2 values in the past (e.g., Rodriguez & Wilson, 2002; Casielles, et al., 2005; Ehigie & Taylor, 2009; Liu et al., 2011; Hwang et al., 2013). Table 4.8 illustrates R^2 of each endogenous latent variables of this study.

Table 4.8

R-square of Endogenous Latent Constructs

Construct	R Square	Result
CS	0.523	Substantial
CI	0.440	Substantial

Note: CI – Corporate Image; CS – Customer Satisfaction

4.8.2 Direct Relationships the Measurement Model

The paths that are non-significant or showing signs in the opposite direction to hypothesized, do not support hypotheses while significant paths empirically support the proposed causal relationship (Hair et al., 2013). Before the mediating effect was tested, bootstrapping with a resample of 500 was run to find the t -value to assess the direct

relationships. The path coefficients were produced as shown in Figure 4.3 and Table 4.9 and 4.10 showed the bootstrapping results.

The inner modeling analysis of direct relationship among constructs is given through structure model in PLS and their *t*-values for path coefficients. In regression analysis, the path coefficient is like the standardized beta coefficient as argued by Henseler *et al.* (2009). Where *t* values are recognized based on their significance and beta values are recognized from the coefficient of regression. For decision making on the purposed hypothesis, *t*-value greater than 1.967 are considered as significant (Hair et al., 2014).

Firstly, the model was evaluated with examination of direct relationships with the MV (corporate image), and the dependent variable (customer satisfaction) and secondly, hypothesized relationships among constructs were tested through the structural model. In this study five (5) hypothesis were tested for direct relationships with corporate image as MV, out of five (5) hypothesis four (04) were supported and one (01) was not supported.

Furthermore, six (6) hypothesis which have direct relationship with customer satisfaction (dependent variable), were tested, out of six (6) five were supported and (1) one was not supported. The table 4.9 and 4.10 explains the direct effect of every latent variable on dependent variable. The hypotheses were considered as supported and not supported by the researcher on the basis of these standard values. Bootstrapping was done with 500 sampling iterations for 446 cases observations to derive *t*-values.

4.8.2.1 Direct Relationships with Customer Satisfaction

Hypothesis 1: Service Quality has a significant relationship with Customer Satisfaction.

The results have shown that there is a significant relationship between SQ and CS as the ($\beta = 0.257$, $t = 4.479$, $p \text{ value} < 0.001$) which explains that service quality of airline directly influence CS, and it enhances the level of passenger's satisfaction if superior services are provided. Hence, Hypothesis 1 is supported.

Hypothesis 2: Physical Environment has a significant relationship with Customer Satisfaction

A significant relationship between PE and CS was found ($\beta = 0.207$, $t = 5.870$, $p \text{ value} < 0.001$) which explains that physical environment of airline directly influence CS, and it enhances the level of passenger's satisfaction if an enhanced physical environment is provided. Hence, Hypothesis 2 is supported.

Hypothesis 3: Social Network Interaction has a Significant Relationship with Customer Satisfaction

On the basis of PLS algorithm and bootstrapping output results, a non-significant association between SNI and CS was found ($\beta = 0.038$, $t = 0.112$, $p \text{ value} > 0.001$). Therefore, Hypothesis 3 is not supported.

Hypothesis 4: Relationship through Solving Customer Problems has a Significant Relationship with Customer Satisfaction

A significant relationship between PS and CS was found ($\beta = 0.272$, $t = 5.420$, $p \text{ value} < 0.001$) which explains that relationship through solving customer problems of airline

has a direct relationship with CS and it enhances the level of passenger's satisfaction if customer problems are solved. Hence, Hypothesis 4 is supported.

Hypothesis 5: Trust has a Significant Relationship with Customer Satisfaction

A significant relationship between TR and CS was found ($\beta = 0.230$, $t = 4.631$, p value < 0.001) which explains that trust on airline has a direct relationship with CS and it enhances the level of passenger's satisfaction if trust has been provided. Hence, Hypothesis 5 is supported.

Hypothesis 6: Corporate Image has a significant relationship with Customer Satisfaction.

A significant relationship between CI and CS was found ($\beta = 0.387$, $t = 8.277$, p value < 0.001). Hence, Hypothesis 6 is supported.

Table 4.9

Results of hypothesis testing direct relationship with Customer Satisfaction (CS)

Hypotheses	Relationship	Beta	SE	t-value	P-value	Decision
H1	SQ -> CS	0.257	0.057	4.479	0.000	Supported
H2	PE -> CS	0.207	0.035	5.870	0.000	Supported
H3	SNI-> CS	0.038	0.034	1.112	0.267	Not supported
H4	PS -> CS	0.272	0.050	5.420	0.000	Supported
H5	TR-> CS	0.230	0.050	4.631	0.000	Supported
H6	CI-> CS	0.387	0.047	8.277	0.000	Supported

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

4.8.2.2 Direct Relationships with Corporate Image

Hypothesis 7: Service quality has a significant relationship with Corporate Image.

A significant relationship between SQ and CI was found ($\beta = 0.334$, $t = 7.627$, p value < 0.001). Hence, Hypothesis 7 is supported.

Hypothesis 8: Physical Environment has a Significant Relationship with Corporate Image.

A significant relationship between PE and CI was found ($\beta = 0.192$, $t = 5.548$, p value < 0.001). Hence, Hypothesis 8 is supported.

Hypothesis 9: Social Network Interaction has a Significant Relationship with Corporate Image.

Result from the output of the PLS algorithm and bootstrapping showed a non-significant association between SNI and CI ($\beta = -0.000$, $t = 0.012$, p value > 0.001). Therefore, Hypothesis 9 is not supported.

Hypothesis 10: Relationship through solving customer problems has a significant relationship with Corporate Image.

A significant relationship between PS and CI was found ($\beta = 0.305$, $t = 6.716$, p value < 0.001). Hence, Hypothesis 10 is supported.

Hypothesis 11: Trust has a Significant Relationship with Corporate Image.

A significant relationship between TR and CI was found ($\beta = 0.135$, $t = 3.216$, p value < 0.001). Hence, Hypothesis 11 is supported.

Table 4.10

Results of hypothesis testing direct relationship with Corporate Image (CI)

Hypotheses	Relationship	Beta	SE	t-value	P-value	Decision
H7	SQ -> CI	0.334	0.044	7.627	0.000	Supported
H8	PE -> CI	0.192	0.035	5.548	0.000	Supported
H9	SNI-> CI	-0.000	0.038	0.012	0.990	Not supported
H10	PS -> CI	0.305	0.045	6.716	0.000	Supported
H11	TR -> CI	0.135	0.042	3.216	0.001	Supported

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

4.8.3 Assessment of Effect Size (f^2 -squared)

In addition to the assessment all endogenous variables, this study also evaluated effect sizes. The effect of exogenous latent variable through the means of changes in the R-squared on endogenous latent variables (Chin, 1998) were evaluated for the variables. Effect size (f^2) can be calculated as (Callaghan et al., 2007).

$$\text{Effect size (F}^2\text{)} = \frac{R\text{-Squared Included} - R\text{-Squared Excluded}}{1 - R\text{-Squared Included}}$$

The F^2 is computed as the rise in R-squared of the latent variable to which the path is connected, in relation to the proportion of the latent construct's unexplained variance (Chin, 1998). The f^2 describes values of 0.35 as large, 0.15 as a medium and 0.02 as small and 0.00 as none respectively (Cohen, 1988). Table 4.11 demonstrates the effect sizes of the latent variables of the structural model.

Table 4.11*Effect size of Latent Variables*

Latent variable	f^2 -Squared	Effect size
CI		
PE	0.061	Small
PS	0.122	Small
SQ	0.165	Medium
SNI	0.000	None
TR	0.024	Small
CS		
CI	0.175	Medium
PE	0.033	Small
PS	0.033	Small
SQ	0.024	Small
SNI	0.003	None
TR	0.047	Small

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

As mentioned in Table 4.11, the effect sizes with the corporate image (CI) were 0.061 for physical environment, 0.122 relationship through solving customer problems, 0.165 service quality, 0.000 for social network interaction, 0.024 for trust and corporate image 0.175, physical environment 0.033, relationship through solving customer problems 0.033, service quality 0.024, social network interaction 0.003, trust 0.047 on customer satisfaction. Therefore, based on the recommendation of Cohen's (1988), the effects sizes of three exogenous latent variables on corporate image (CI) were viewed as small, and one latent exogenous variable has been viewed as having no effect with the effect

size of 0.000. The effect size of service quality was 0.165 that showed the medium effect size.

Whereas, the effect size of the four exogenous latent constructs on the customer satisfaction (CS) could be viewed as having small effect sizes. One exogenous latent construct showed an effect size lower than small that is 0.003 for social network interaction. The effect size of corporate image was medium with the effect size value of 0.175 shown in Table 4.11 above. Likewise, according to the recommendation of Chin et al. (2003), even the minutest strength of the value of f^2 -squared can be measured as it can influence the dependent variable in its own way.

4.8.4 Assessment of Predictive Relevance (Q^2)

Additionally, as a criterion for predictive accuracy the effect sizes and magnitude of R^2 values were evaluated as suggested by Hair et al., (2013) which states that the researcher should also examine Stone-Geisser's (Q^2) value (Geisser, 1974). In PLS-SEM, Q^2 value is normally used as supplementary assessment of goodness-of-fit (Duarte & Raposo, 2010). The endogenous latent variables needed to have a reflective measurement model is the major criterion required for blindfolding (Sattler et al., 2010).

This study had a reflective measurement model therefore, blindfolding procedure was applied. As blindfolding procedure is a technique for sample reuse that estimate parameter with the remaining data point set and ignores every d^{th} data point in endogenous construct indicators (Hair et al., 2013;). The predictive relevance for a research model is calculated with Q^2 statistics (s) that must be greater than Zero (Henseler et al., 2009). Table 4.12 depicts the cross validated redundancy for CI and CS (endogenous variables). The predictive relevance of research model for this study

was assessed by measuring Q^2 for all endogenous latent variables that are above zero (Henseler & Ringle, 2009).

Table 4.12

Construct Cross validated Redundancy of the Endogenous Latent Constructs (Q^2)

Constructs	SSO	SSE	$Q^2=1-SSE/SSO$
CI	3122.0	2334.8	0.252
CS	2230.0	1507.8	0.324

Note: CI – Corporate Image; CS – Customer Satisfaction.

4.8.5 Testing Mediating Effect

Mediation is a technique that assigns the influence of IV on DV and usually it is a function of predicting and explaining the effect of IV on DV (Hair et al., 2010). The mediation test involves examining the indirect effect of IV on DV through third variable called mediator. In multivariate analysis there are many techniques of confirming mediation (Hayes & Preacher, 2010). There are several techniques that have been used for mediation test such as causal steps approach (Baron & Kenny, 1986) or Sobel test (1982), distribution of the product method (MacKinnon, Lockwood, & Williams, 2004), and bootstrapping approaches (Hayes & Preacher, 2010; Hayes, 2009).

Moreover, before presenting the actual mediation's effect in PLS there is always a need to present structural direct and indirect effects (Hair et al., 2014). Direct effect is essential and should be significant. The test would be conducted by carrying out bootstrapping procedure and the study would continue mediator's analysis. If there is significant direct relationship between exogenous variable and endogenous variable, the third variable called mediator's construct would be included in the PLS path model.

The purpose of introducing another construct is to achieve indirect effect. The relationship of indirect effect is generally concerned with the influence of X on Y through an intervening variable M. Once mediator is included the indirect effect must be significant (Hayes & Preacher, 2010; Hair Jr et al., 2013).

Hair et al., (2013) suggested that sampling distribution of indirect effect and bootstrapping approaches (Hayes & Preacher) and consider both simple and multiple mediation models. Bootstrapping should be preferred to other analytical technique of mediation and could be applied to small sample, which is appropriate for PLS-SEM method (Hair et al., 2010). Furthermore, this study preferred bootstrapping as it represents a more exact calculation to measure mediation (Chin, 2010; Hair et al., 2014).

Moreover, as recommended by Hair et al. (2014) the researchers must follow bootstrapping sampling distribution given by Preacher and Hayes (2004, 2008), for indirect effects that works for simple as well as multiple models. This study determined all the path coefficients by running PLS algorithm and bootstrapping procedure to find the *t*-values for determination of direct relationships if present among IVs and DV before testing the mediation effect.

4.8.6 Testing the Mediating Effect of Corporate Image

Once the relationships were tested, the test of mediation effect was performed. According to Hayes (2009), there are several steps in assessing this relationship. First, a researcher needs to fit a model through SEM to estimate the relationship between predictor and mediator variables – path “*a*” and the relationship between mediator and

the criterion variables – path “*b*” to determine mediation. To do this, bootstrapping was performed. After 500 bootstrapped direct effects were produced, i.e. path “*a*” and path “*b*” were assessed. Second, the *t*-values were identified.

Third, Standard Errors (SE) for all indirect effects was calculated. From the structural model assessment of the study, it was found that out of all study variables included in the structural model four variables, for instance, (PE, PS, SQ and TR) were significantly related to corporate image and customer satisfaction. Whereas, the exogenous variable social network interaction was not significantly related to corporate image and customer satisfaction shown in Table 4.13. It was concluded that all four (4) indirect effects out of five (5) were significant at the 0.05 level.

Table 4.13

Bootstrap results (confidence interval, t-value, p-value, and standard deviation)

Indirect Path Interval	Beta	STDEV	t-value	P-value	Confidence Interval	2.5%	97.5%
PE ->CI->CS	0.074	0.017	4.383	0.000	0.043	0.107	
PS ->CI->CS	0.118	0.023	5.040	0.000	0.074	0.165	
SQ ->CI->CS	0.129	0.021	6.276	0.000	0.089	0.171	
SNI->CI->CS	-0.000	0.015	0.012	0.990	-0.030	-0.027	
TR ->CI->CS	0.052	0.017	2.975	0.003	0.022	0.087	

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

Table 4.13 shows the results of mediation of corporate image (CI) indicating a *t*-value of 4.383 with physical environment (PE); 5.040 with relationship through solving customer problems (PS), 6.276 with service quality (SQ), 0.012 with social network interaction (SNI) and 2.975 with trust (TR).

Table 4.14

Mediator Hypothesis Testing

Hypothesis	Relationship	Path coefficient	St. Error	t-Value	P-Value	Decision
H12	SQ ->CI->CS	0.129	0.021	6.276	0.000	Mediation
H13	PE ->CI->CS	0.074	0.017	4.383	0.000	Mediation
H14	SNI->CI->CS	-0.000	0.015	0.012	0.990	No Mediation
H15	PS ->CI->CS	0.118	0.023	5.040	0.000	Mediation
H16	TR ->CI->CS	0.052	0.017	2.975	0.003	Mediation

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

The table 4.14 showed that CI mediates the relationship between SQ and CS (H12), also mediates the relationship between PE and CS (H13). Similarly, CI mediates the relationship between PS and CS (H15), also mediates the relationship between TR and CS (H16) whereas, CI in (H14) did not mediate the relationship with SNI and CS.

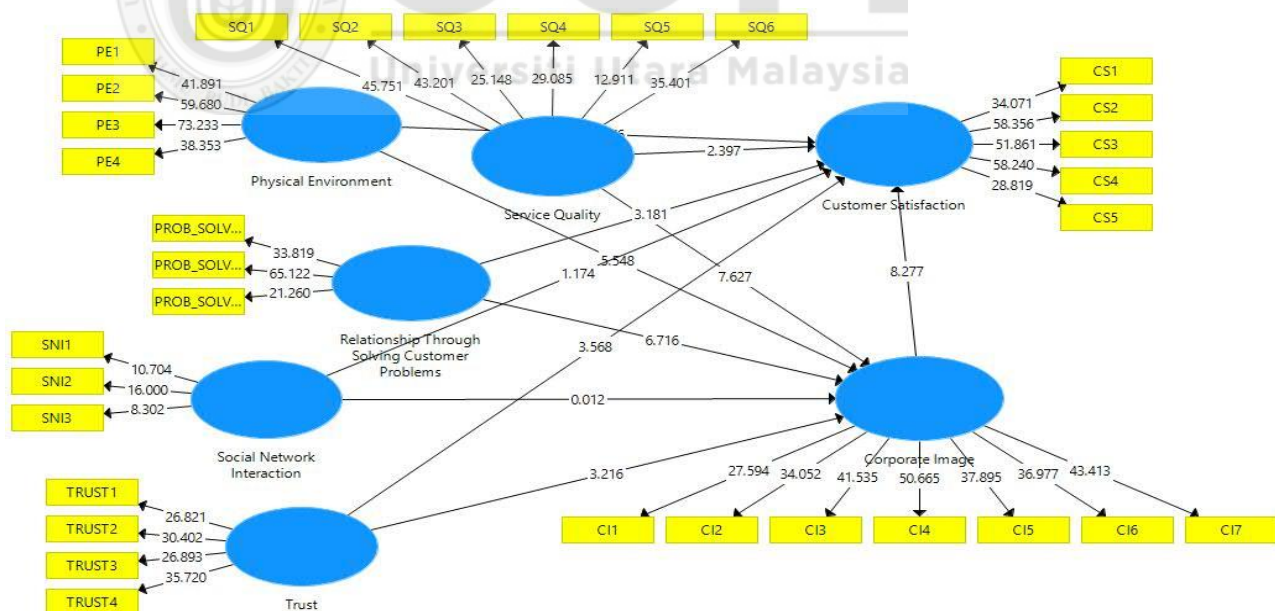


Figure 4.4
Direct and indirect Path Coefficient of the Structural Model (Bootstrapping)

4.9 Summary of Findings

Table 4.15

Summary of Hypothesis

Hypothesis	Statement	Decision
H1:	SQ has a positive and significant relationship with CS	Supported
H2:	PE has a positive and significant relationship with CS	Supported
H3:	SNI has a positive and significant relationship with CS	Not Supported
H4:	PS has a positive and significant relationship with CS	Supported
H5:	TR has a positive and significant relationship with CS	Supported
H6:	CI has a positive and significant relationship with CS	Supported
H7:	SQ has a positive and significant relationship with CI	Supported
H8:	PE has a positive and significant relationship with CI	Supported
H9:	SNI has a positive and significant relationship with CI	Supported
H10:	PS has a positive and significant relationship with CS	Supported
H11:	TR has a positive and significant relationship with CI	Supported
H12:	CI mediates the relationship between SQ and CS	Supported
H13:	CI mediates the relationship between PE and CS	Supported
H14:	CI mediates the relationship between SNI and CS	Not Supported
H15:	CI mediates the relationship between PS and CS	Supported
H16:	CI mediates the relationship between TR and CS	Supported

Note: CI – Corporate Image; CS – Customer Satisfaction; PE – Physical Environment; PS – Relationship through Solving Customer Problems; SQ – Service Quality; SNI – Social Network Interaction; TR – Trust

4.10 Chapter Summary

This chapter reported the findings of the study. SPSS was used to describe the respondents' profile. However, PLS-SEM analysis was employed to test reliability and validity of the measures. The technique of bootstrapping in PLS-SEM analysis was used to test the research hypotheses. In general, the result indicated that the measurement model was deemed acceptable based on strong evidence of reliability,

convergent validity and discriminant validity. After the assessment of measurement model, the structural model was tested. The following chapter discusses the findings, accompanied by implications to practice, future research, and limitation.



CHAPTER 5

DISCUSSION OF RESULTS

5.0 Introduction

The main findings of the study are documented in chapter five keeping in mind the underpinning theories and prior studies on customer satisfaction in airline industry context. The objective of this chapter is to discuss the study findings in relation to research questions, research objectives, hypotheses and theoretical perspectives related to customer satisfaction in airline industry of Pakistan. Specifically, the remaining part of the chapter is organized as follows: Section one summarizes the study findings. Section two discusses the study findings in relation to research question, objectives, hypotheses, past studies and underpinning theories used in the study. Theoretical, practical, and methodological implications of study are addressed in section four. Finally, the section five comprises of limitations and suggestions for future research directions of the study while the last section draws conclusion.

5.1 Recapitulation of the Study Findings

The key objective of this study was to assess the influence of CRM factors namely service quality (SQ), physical environment (PE), relationship through solving customer problems (PS), trust (TR) and social network interaction (SNI) on customer satisfaction (CS) in airline industry of Pakistan. It also examined the mediating role of (CI) on relationship between CRM factors SQ, PE, PS, TR, SNI and CS in airline industry of Pakistan. Specifically, this study has succeeded in advancing the current understanding of the key influence of customer satisfaction in airlines of Pakistan, by giving answers to the following questions:

1. To what extent do SQ, PS, PE, SNI and TR explain CS?
2. What is the relationship between CI and CS?
3. To what extent do SQ, PS, PE, SNI and TR explain CI?
4. Does CI mediate the relationship between SQ, PS, PE, SNI and TR and CS?

Corresponding to research questions and research objectives given above, the data was collected from airline passengers from the five airports of Pakistan. A total valid response of 446 was obtained from 525 questionnaires, representing 71% response rate distributed to the passengers of three international airlines namely: PIA, SAI and ABQ. The data was analyzed using SPSS and PLS-SEM at the 0.05 critical level. Among all the eleven (11) direct relationship between the exogenous latent variables and endogenous latent variable of the study, nine (9) hypothesis were supported while two (2) hypothesis were not supported.

The outcome of study exposed that SQ has a positive and significant influence on CS. PE was found to have a positive and significant influence on CS. The SNI was found to have no influence on CS. Similarly, the PS was found to be positive and significantly related to CS. Moreover, TR was found to be positive and significantly linked with CS. The results of the study showed that SQ has a positive and significant influence on CI. PE was found to have a positive and significant influence on CI. The PS was found to be positive and significantly related to CI. The SNI was found to have no influence on CI. Moreover, TR was found to be positive and significantly linked with CI.

The results further revealed that, among five (5) mediation relationships four (4) hypotheses were supported. The results showed that CI mediates the relationship between service quality and CS. In the same vain, CI mediates the relationship between

physical environment and CS. Additionally, the result indicated that CI mediates the relationship through solving customer problems and CS. Also, CI mediates the relationship between trust and CS. In contrast, CI was not found to mediate the relationship between social network interaction and CS.

The findings of the study validate SET (Homans, 1961) with the direct effect of the relationship between PE, SNI, PS, TR, SQ, CS and CI. The EDT (Oliver, 1980) and was also authenticated when CI was found to mediate the relationship of PE, SNI, PS, TR, SQ and CS. The next section discussed the findings of study, bearing in mind the prior findings and theories that have been gathered, the direct relationships and mediation results.

5.2 Discussions of Results

This section assesses the results of study that were in line with previous researches, EDT and SET. The sub titles of discussion section are mainly organized, following closely the research questions. The results of structural model with the coefficient for each path that specifies the casual relationship between the constructs in the model (Lee, 2010) are provided in the table 4.9 and 4.10. Using the Smart PLS's bootstrap resampling technique (500 resamples) the test on significance of path and hypothesis in path model were performed shown in table 4.13 in previous chapter.

5.2.1 CRM Factors and Customer Satisfaction (CS)

The current study posits that CRM factors (SQ, PE, PS, TR and SNI) perceived by passengers of airlines will significantly influence their CS level. Mainly, the results of this study, exposed that, service quality, physical environment, relationship through solving customer problems, and trust have significant positive relationship with CS.

Based on structural equation modeling (SEM) results, one of the major significant predictor of CS found is service quality. As the results reported that service quality has more effects in prediction of airline's passenger satisfaction ($\beta = 0.257$, $t = 4.479$, p value < 0.001) as compared to other predictors. These findings are consistent with the previous studies Koivumäki, Ristola, and Kesti, (2008), Kuo, Wu, and Deng, (2009) and Yee, Yeung, and Cheng, (2008). Moreover, the results of this study also supported by the argument given by Alauddin, Ahsan, Mowla, and Islam, (2019), that the increase in SQ will contribute to enhance the level of customer satisfaction which consequently make a lifetime firm-customer relationship.

In relation to the research gaps (discussed in chapter 1), this study was identified that the airline industry of Pakistan losing market share due to the modern technology, inefficiency in operations, lowest service quality, cancellation and frequent flight delays are the major reasons behind passenger's dis-satisfaction, The findings discussed above, confirms that the issue of poor service quality of Pakistani airlines resulted in deteriorating bond amongst passengers and Pakistani airlines due to the poor service quality and ineffectiveness of airline operations.

Therefore, it can be concluded that the reason of passenger dissatisfaction in Pakistani airline industry is difference between expected and actual service experienced by passengers that does not match with their perceptions. The result implied that the greater quality of services provided by the airline management to their passengers, will lead toward more satisfaction. If the airline management provide superior quality of services to its passengers, then their satisfaction level will be enhanced, as passenger satisfaction is the main rationale in building a long-term customer relationship. As per the results of this study, the strategic importance of service quality must be realized by

Pakistani airlines and service providers in order to upgrade their SQ in the long term that will produce greater profit and larger market share in future.

Another objective of this study was to investigate the relationship amongst physical environment and CS. The results of this study revealed that, the customer perceptions of physical environment significantly and positively influence CS. This is consistent with the findings of Gagić et al., (2013), Nam et al., (2011), Haery and Badiezadeh, (2014), Ryu et al., (2012), Martin, et al., (2008), Jang et al., (2011), Ali and Amin, (2013) and Martin-Ruiz et al., (2012) that persistently argued the importance of attractive physical environment in encouraging customer satisfaction. Additionally, this study findings are also supported by the argument given by Ali, Amin and Ryu, (2016), that the development of attractive physical environment will contribute to enhance the customer satisfaction which consequently make a long-lasting customer relationship.

The results of this study implied that physical environment is essential in driving passenger satisfaction in Pakistani airline industry as (discussed in chapter 1) the airlines of Pakistan are continuously facing the issues related to poor conditions within the aircrafts and other issues related to in-flight services that are responsible for passenger dissatisfaction. Therefore, these findings confirm that the issue of poor physical conditions of aircrafts has badly effected passenger confidence which ultimately affect the market share of the airline industry of Pakistan. Hence, the above-mentioned findings suggests that there is a greater need to develop an attractive physical environment by improving the physical conditions of aircrafts rendering to the international standards and passenger expectations to achieve their satisfaction that will ultimately lead customers to travel with Pakistani airlines.

One of the major objectives of this study was to examine the relationship between social network interaction with CS. Interestingly, the social network interaction was found insignificant in influencing CS of airline passengers. This finding was inconsistent with the prior studies of Chan and Guillet, (2011) and Kim and Park, (2017) which showed a positive and significant influence of SNI on CS.

A plausible explanation for the non-significant result is perhaps because the airlines of Pakistan may have not effectively implemented social network interaction mediums to get feedback of passengers by using attractive ways i.e., social networking websites. Another plausible explanation for non-significant result is that airline management doesn't have implemented proper customer relationship management department in order to interact with their customers through written emails and telephonically through helpline numbers.

Additionally, using this sample, it can be concluded that the demographic setting of Pakistan has not supported to predict this relationship. For instance, a survey conducted by Data reportal in 2019, reported that only 22 % (44.61 million) of the population of the Pakistan have access to internet and most of them are unfamiliar to the advance features of internet. While only 18% (37 million) of population are active users of social media in Pakistan. This study included 74.2% of the local respondents that might have little or no access to internet or unfamiliar to its usage. This argument implies that most people do not have social network interactions which limit people to express their responses regarding service issues.

Another objective of this study was to examine the association between relationship through solving customer problems with the CS. The results of this hypothesized relationship revealed the positive association between the relationship through solving

customer problems and CS. This relationship findings indicated that the relationship through solving customer problems is the most influential predictor of customer satisfaction ($\beta = 0.272$, $t = 5.420$, $p \text{ value} < 0.001$) in comparison with other predictors employed in this study. These results also concur with previous research conducted in Indonesia, found that PS positively influence the CS (Salim, Setiawan, Rofiaty, & Rohman, 2018).

Moreover, this study findings also supported by the argument given by Lee, and Hur, (2019), the good complaint management system in an organization will contribute to enhance the customer satisfaction which consequently make a customer loyal to the firm for longer period of time. This argument is also supported by the study of Azzam, (2014) conducted in Jordan which revealed that relationship through solving customer problems is the most influential factor that influence customer satisfaction on the basis of the regression results of that study ($\beta = 0.601$ $p < 0.05$) with most of the variance explained 40.1%.

The results of this study confirm that relationship through solving customer problems is a very important factor in driving passenger satisfaction in Pakistani airline industry as debated in chapter 1 that it severely lags in resolving customer complaints about flight delays, cancellation at the last moment and other service issue which are the major reasons behind passenger's lack of confidence on solving customer complaints. So, these finding confirm that the issue of declining market share of the Pakistani airlines caused by the declining trust of the customers is due to the greater inefficiency in responding customer complaints.

Hence, it can be concluded that the reason behind the declining market share of the airline industry of Pakistan is the poor complaint handling of its customers. The results

of this study suggested that there is a greater need of good complaint management system to address the complaints related to flight delays and cancellation in order to gain customer satisfaction which ultimately lead customers to travel with Pakistani airlines.

One of our another objective in this study was to examine the direct influence of the trust on the CS. In line our hypothesized proposition trust has found to have a significant and positive influence on CS. The finding is in line with past studies of Aldas-Manzano et al., (2011), Wu, (2013) and Khan and Rizwan, (2014). Previous research conducted in South Sumatra Indonesia, in the services context found that TR positively influence CS (Setiawan, & Sayuti, 2017). Moreover, this study findings also supported by the argument given by Marinkovic, and Kalinic, (2017) that the increase in TR will contribute to enhance the level of customer satisfaction which consequently makes a long-lasting relationship between firm and its customers.

These results claimed that ensuring customer trust in airline service provider is very important in driving passenger satisfaction as discussed in chapter 1, the airlines of Pakistan seem to be too far behind among the world leading airlines as it possesses the world highest accidental ratio which is the basic reason behind the loss of customer confidence. So, these finding confirm that the issue of declining trust on Pakistani airlines is due to the in efficiency of airline crew, lack of related and trained personnel in ensuring the passengers' safety during their travel.

Hence, it can be concluded that the reason behind lack of trust in airline industry of Pakistan are safety issues. The results of this study suggested that there is a greater need to provide of a healthy and safe travel to passengers that would enhance their trust and lead towards greater satisfaction. Therefore, the airline management of Pakistan

should work on building trust with its passengers that would encourage them to engage in frequent travel through that airline.

Furthermore, the results of this study possess that satisfaction level of customer is accompanying with the direction of disconfirmation experience follows an outcome of matching the service quality, physical environment, relationship through solving customer problems and trust against passenger's expectations. Mainly, CS happens by meeting perceptions in contrast to a standard relating to SQ, PE, PS and TR (e.g. expectations) or a consequence of uninterrupted experience regarding the product or service as argued by Mattila & O'Neil, (2003) "first objective was to examine the relationship between SQ, PE, PS, TR and CS the findings of this study supported that preposition." Whereas surprisingly, the results of the study were inconsistent with prior studies of Chan and Guillet, (2011) and Park and Kim, (2017) who found a positive and significant influence of SNI and CS. While the study conducted by Azzam, (2014) in Jordan revealed that SNI is the least influential factor that influences CS.

The present study, on the other hand looked at the topic from the customers perspective, who actually experiences the services offered by airlines and are assumed to react in response to poor quality of service, less appealing physical environment, in efficient mechanism of handling customer problems, lack of modern technology and frequent flight delays. The passenger trust on the airline depends on the airline management who promises to deliver a healthy and safe environment, superior service quality and prompt handling of customer problems that satisfies airline passengers (consistent with SET). In this study, the reciprocal relationship does not include monetary benefits rather the customer trust in airline management leads to positive word-of-mouth with their feeling of satisfaction.

5.2.2 Corporate Image (CI) and Customer Satisfaction (CS)

The second research question and objective are to address the relationship between CI and CS. In general, corporate image was found to have a strong positive relationship with CS. The results of this study are in line with the previous research conducted in Saudi Arabia, in the services context and found that CI positively influence CS (Sallam, 2016). Moreover, this study findings also supported by the argument given by Setiawan, and Sayuti, (2017) and Ashraf, Ilyas, Imtiaz, and Ahmad, (2018).

Using this sample, it seems logical that positive corporate image of the company is a most popular method to support customer satisfaction and to encourage customer trust on the airlines and leads toward a positive word-of-mouth. Based on the SEM results, it seemed that CI has the most influence as compared to other CRM factors in driving passenger's satisfaction ($\beta = 0.387$, $t = 8.277$, $p \text{ value} < 0.001$). As discussed in chapter 1 the airlines of Pakistan is facing a lot of criticism about its poor service image due to lack of related and trained staff, high fares, low morale of workers, frequent flight delays and cancellation, lack of modern technology, poor condition of aircrafts with world highest accidental ratio are major reasons that have badly eroded the corporate image of Pakistani airline industry. Consequently, these finding confirm that the issue of passenger dissatisfaction in Pakistani airlines is due to its poor corporate image that resulted in the passenger lack of confidence.

Therefore, it can be concluded that the reason behind the poorer corporate image of Pakistani airline are the lot of criticisms about its ineffectiveness of operations that has badly effected passenger's confidence. The results of this study suggested that there is a greater need to hire related and trained staff, improve operations with incorporating modern technology, address frequent flight cancellation or delays, and to develop a proper mechanism of handling service issues to gain customer satisfaction which

ultimately lead customers to travel with Pakistani airlines. A strong and favorable CI of the airline can help to elicit positive perceptions about the airline in market and screen out negative elements that leads towards complete evaluation of organization positively.

5.2.3 CRM factors and Corporate Image (CI)

The third research question and objective are pertaining the relationship between CRM factors (SQ, PE, PS, SNI and TR) and CI. In general, SQ, PE, PS and TR were found to have significant relationship with CI. The results implied that, service quality as perceived by passengers of airline is significant and positively influenced their CI. The result implied that the more superior quality of service provided by the airline management to their passengers, the more favorable corporate image of the airlines thus later contributes to overall success of the organization.

Based on findings of study, it seemed that SQ has more effects ($\beta = 0.334$, $t = 7.627$, p value < 0.001) on CI as compared to other CRM factors that determine passenger's satisfaction. The results also concur with Kant, Jaiswal, and Mishra, (2017) conducted in India, in the services context and found that SQ positively influence on CI. Moreover, this study findings also supported by the argument given by Sadiartha, (2019), that there is a strong association of SQ with CI. Based on the findings of study using this sample, it can be concluded that good service quality is a advantage of airline that contribute to enhance CI which consequently makes a positive relationship with passengers. If the passengers will be provided with good quality of services, they in return would stress in positive word-of-mouth creating a favorable image of airline.

The findings also suggest that physical environment (PE) as perceived by airline passengers is significant and positively related to CI. The results of this study are in line

with the previous research of Nguyen and Leblanc, (2002), to find out the corporate image of intangible services and found that PE is regarded as the aesthetic element in CI creation. Moreover, this study findings also supported by the argument given by prior studies of O'Cass and Grace (2004) and Minkiewicz et al., (2011) that PE plays a fundamental role to support CI. in relation to the problem of this study (as discussed in chapter 1), that Pakistani airline is facing problem with its poor corporate image due to poor condition of its air crafts and world's highest ratio of accidents that has deteriorated passenger's confidence in Pakistani airlines, the results of the study confirms that physical environment provided by airlines is very essential factor in determining airline image in the pakistan.

Surprisingly, the social network interaction among the airlines and passengers was not found to have significant influence on CI. The findings of the study are inconsistent with the study of Kissel, and Büttgen, (2015) that signifies SNI has positive influence on CI. A plausible explanation of this finding could be that Pakistani airlines seemed to overlook the implementation of social media interaction tools to build their CI in front of their passengers in order to retain the existing customers and attract new ones or the website might be not user-friendly or much attractive enough. Using this sample, it can be concluded that most of people might be the local respondents of Pakistan and may not have social network interactions which limit them to express their responses regarding SNI that may cause the rejection of this hypothesis. Another plausible explanation could be that, majority (74.2 %) of respondents of this study were Pakistani nationals who might not be internet user or do not write online reviews in social media networking sites after receiving airlines service.

Based on the SEM results the relationship through solving customer problems as perceived by airline passengers is significant and positively influenced CI. As discussed in chapter 1, PIA was ranked on the 80th spot among the 87 airlines of the world due to its inefficiency in resolving customer complaints about flight delays that has badly eroded its corporate image. So, this study confirms that, the more efficient and quick handling of passenger complaints about flight delays and cancellation the more willingness of these passengers to have a positive word of mouth about the airline that would lead towards a favorable airline image. Using this sample, it can be concluded that airline which gives prompt response to the written complaints by their passengers creates a positive CI of that airline while those who do not respond create a negative CI of airlines.

The findings also suggest that Trust (TR) is statistically significant and positively related to CI. This is in line with the previous research conducted in Malaysia (Selamat et al., 2016), in the services context found that TR is positively related to CI. Moreover, this study findings also supported by the argument given by Lin and Lu, (2010). Prior literature predominantly has focused on the impact of CI on TR of customers. There is a significant role of CI in building trust of consumers to the firm (Flavin, Guinaliu, & Torres, 2005). As discussed in chapter 1, the airlines of Pakistan have a very poor service image that is due to absence of passenger trust in the service provider caused by higher ratio of accidents. Thus, these finding confirm that the issue of declining trust on Pakistani airlines is related to the degree of insecurity or uncertainty during flight.

Hereafter, it can be concluded that the reason behind the lack of trust in airline industry of Pakistan is the safety issues that caused a negative word-of-mouth among passengers and caused decline in airline image. The results of this study suggested that the airline

management of Pakistan should work on building trust with its passengers to improve its corporate image. This study has provided support that customer trust in the airline management would encourage airline's corporate image.

5.2.4 The Mediating effect of Corporate Image (CI) on the relationship between CRM factors and Customer Satisfaction (CS)

The final research question and objective is pertaining to the mediating role of corporate image on the relationship between CRM factors (SQ, PE, PS, SNI, TR) and CS. Analysis of the general model indicated that, firstly corporate image was found to only partially mediate the relationship between CRM factors (SQ, PE, PS and TR) and CS. This mean that to a certain extent, the effect of CRM factors (SQ, PE, PS and TR) as perceived by airline passengers lead to CS is due corporate image of airlines. At the same time these CRM factors also found to have a direct effect on passenger's satisfaction.

Based on the mediation results, it has been found that CI partially mediates the relationship between SQ and CS. This is consistent with prior studies, airlines that possess a better CI can appeal greater number of passengers. Hence, CI is supposed to be as a mediator in the relationship among CS and SQ. Using this sample, it can be concluded that for the overall evaluation of services and companies it is perceived that CI in service marketing is an important factor in actively managing and monitoring SQ should be an essential constituent to improve CI of corporation.

From the result is has been found that CI partially mediates the relationship between PE and CS. Meanwhile, this study probed into the role of PE in airlines through the intermediate influence of CI and it is found to be significant. The degree of CS would increase when passengers feel good about the in-flight PE of the airline (Maeng & Park,

2015). Using this sample, it can be concluded that airline image would improve due to attractive physical environment that in turn would increase CS level. Those passengers who have a positive image about airlines would be more satisfied and recommend it to others using a positive word-of-mouth.

Furthermore, corporate image was revealed to have no mediating effect on SNI and CS. At the same time these SNI also found to have no direct effect on passenger's satisfaction and CI. Therefore, using this sample the result implied that an indirect relationship of SNI to CS through intermediate influence of CI was not significant. This finding is not consistent with the researcher's expectations, as it was found that there is a negative result, and many researchers have of the view that a negative result may also be considered as a contribution as it tends to reveal the truth (Bertea & Zait, 2013).

Specifically, this study also revealed that CI partially mediates the relationship between relationship through solving customer problems and customer satisfaction. To a certain extent, the positive CI is generated among the passengers if their expectations are fulfilled by airline management. Using this sample, it can be concluded that prompt handling of customer problems would result in greater level of passenger's satisfaction. Therefore, a reputable CI develops in the eyes of customers when they are satisfied with problem-solving mechanism beyond expectations in a reciprocal exchange behavior that may benefit the company (consistent with SET). Similarly, the study has found a significant mediating effect of CI between trust and CS. Using this sample, it can be concluded that CI plays a supportive role in the minds of passengers to boost the feeling of trust towards airline service provider that eventually lead to passenger satisfaction.

In conclusion, based on the previous discussion of the findings, service quality and relationship through solving customer problems are among the most influential CRM

factors that significantly influence corporate image and customer satisfaction. Especially, social network interaction was not significant in all hypothesized relationships. This finding raises the question of whether or not the airline management has effectively or efficiently implemented their interaction management system by understanding airline passenger's expectations.

5.3 Contribution of the Study

This study has significant theoretical, methodological, and managerial implications discussed below.

5.3.1 Theoretical Contribution

The theoretical framework of study was obtained from the theoretical gaps and prior empirical evidences outlined in the literature review. The framework was supported and explained by the underpinning theories i.e. Expectancy Disconfirmation Theory and Social Exchange Theory which shed light on constructs of the study. The value of this research is that it has established the relevance of SET in explaining the direct relationships between CRM factors, corporate image and customer satisfaction. The study focuses mainly on the theoretical contribution by adding empirical support in realm of EDT which hinges on the relationship between passenger's satisfaction and corporate image as the integrating variables. In short, the results provide a new direction for the studies on customer satisfaction and its predictors in airline industry of Pakistan.

In past, numerous studies have been conducted on CRM factors as predictors of CS and CI (Baker, 2013; Namukasa, 2013; Haghghi et al., 2012; Zhao et al., 2012; Maeng & Park, 2015; Ryu & Han, 2010; Ali et al., 2013; Chan & Guillet, 2011; Kim & Park, 2017; Shammout & Haddad, 2014; Istanbuluoglu, 2017 and Kutol & Juma, 2016).

However, to the best of researcher's knowledge, the literature lacks studies that simultaneously investigated CRM factors as predictors to study the influence on CS and CI in airline industry of Pakistan. This study, therefore, adds to the existing literature as drivers of customer satisfaction level of airline passengers and airline's corporate image in the eyes of passengers.

This study also contributes to expanding CRM factors research in the context of airlines industry. Most studies on CRM factors were conducted in banking sector (Azzam , 2014; Ozker & Suer, 2019), retail industry (Long et al., 2013; Ene & Ozkaya, 2014), hospitality industry (Sukaisih et al., 2015), but few studies addressed on CRM in airline (Ismail & Hussain, 2016; Kaur & Narula, (2019), However to the best of researcher's knowledge airline industry somehow was neglected in the past, the literature lacks empirical studies that simultaneously investigated CRM factors namely service quality, physical environment, trust and relationship through solving customer problems influence the customer satisfaction level of airline passengers directly and indirectly. Therefore, this study adds to the existing literature by investigating CRM factors as drivers of customer satisfaction and corporate image in airline passengers.

Moreover, numerous scholars have focused on the effect of physical environment of international airports on customer satisfaction (Ali, Kim, & Ryu, 2016; Maeng, & Park, 2015). Whereas, this study contributes towards the existing hospitality management literature by highlighting the physical environment with in the international airline during travel (In-flight) and its relationship with customer satisfaction. Very few studies have focused on physical environment and corporate image in context of international airlines services, Therefore, this study should provide the cornerstone for future studies

of international airlines physical environment and its influence on passenger satisfaction level.

Corporate image (CI) as a mediator is the main contribution of the study as it provides a nuanced understanding of how SQ, PE, PS and TR enhance CS of passengers of airlines industry. CI is a significant factor that is necessary to develop relationship with passengers of airlines which is possible with effective CRM. To the best of researcher's knowledge, the mediating role of CRM factors SQ, PE, PS and TR are not studied in prior researchers. Based on the results, it can be drawn that CI of airline plays an important role to enhance the CS of airline passengers, particularly in Pakistani passengers as airline industry of Pakistan has unfortunately received very scarce attention by researchers. The study has reduced the gap by widely examining CI as a mediator among relationship of four CRM factors and CS to enhance the understanding of the influence of CI in airline industry of Pakistan.

5.3.2 Practical Implication

The current study has introduced several practical implications about CS and CI in the context of Pakistani airlines. Firstly, the results suggest that perception of corporate image is a significant consideration in managing and retaining level of CS in airline passengers of Pakistan. The management of airlines can make considerable efforts in reducing dissatisfaction in passengers by enhancing the service quality delivery, providing a favorable physical environment, solving the problems faced by passengers and building trust as one of the primary objective upheld by airlines in Pakistan.

Secondly, as indicated in the study CI was found to enhance customer satisfaction level of airline passengers, this means that a clean and healthy physical environment, superior service quality, efficient problem-solving mechanism and trust should be in place for the development of CI i.e. Pakistani airline management needs to realize the potential effect of PE, SQ, TR, PS in improving passenger satisfaction. It confirms the significant role of CI and provides valuable insights for service industries. Based on the findings, it is concluded that the management must recognize the strategic importance of CRM factors as these could develop airline image, which could lead to enhanced satisfaction level of passengers.

Thirdly, the study found the empirical evidence for the significant relationship between service quality, physical environment, relationship through solving customer problems, trust, corporate image and customer satisfaction. These findings highlight the importance of between service quality, physical environment, relationship through solving customer problems, trust, corporate image and customer satisfaction to organizations. This study offers further research insights in area of service marketing to help travel agencies to implement the role of SQ, PE, TR, PS and CI as main drivers of CS. Based on the study findings, it is recommended that airline marketers should concentrate on improving pre-flight, in-flight and post flight experience of customers. The service providers should assist customers with recovery claims by refunding the amount paid by customers in case of delayed or cancelled flights and in the event of loss of their baggage.

Fourthly, management should support with replacement of another flight in the case if a customer misses his/her connecting flight. These strategies would provide a good

impression about airline so that it can continue to provide good service in future journeys. Airline managers should personally and promptly respond to passenger in ever service encounter. Likewise, airline managers should encourage the passengers to complain about their flight delay or cancellation by placing a mechanism without being afraid of disadvantaged.

In gist, it is evident from findings that airline management of Pakistan should need to give importance to CRM by enhancing the quality of services offered, by offering a clean, healthy and peaceful physical environment, by building customer trust and by developing an efficient complaint handling mechanism. Moreover, management of airlines of Pakistan needs to realize the potential effect of CRM in improving CS level of airline passengers.

5.3.3 Methodological Contribution

This study also makes methodological contribution. Most of the past studies conducted on customer satisfaction relied on the traditional techniques to check validity and reliability by statistical package for social sciences (SPSS). But due to complex nature of analysis this study employed PLS path modeling to measure convergent validity and discriminant validity of each latent construct.

Furthermore, the properties studied were the individual items reliabilities (alpha symbol), AVE and CR for each latent variable. Convergent validity was measured by checking the value of AVE for the latent variables. Likewise, the discriminant validity was assessed by making a comparison to the correlations between the latent variables and the square roots of AVE and assessing the HTMT, which is a newly developed tool

to assess discriminant validity and bootstrapping of PLS path modeling was employed to test the mediating effects. This is relatively a new tool of analysis that has some important methodological implications.

PLS path modeling is a tool that helps to test the predictive power and robustness of the study that explores customer satisfaction in airline industry of Pakistan which is believed to be under researched. Hence, this study represents exclusive methodological contributions. Additionally, using PLS path modeling in this study provides a new framework for comparisons of results.

Finally, to refine and fit the data for this study, PLS principal component analysis (PCA) was used, therefore providing new knowledge about the influence of PLS-PCA on mediation of CI on the relationship between CRM factors and CS in airlines industry. Therefore, overall, this research had used rigorous approaches (PLS path modelling) to determine the properties of the latent variables demonstrated in the conceptual model of this research.

5.4 Limitations and Future Research Directions

The current study has been achieved to a great extent, also the findings provide both theoretical and practical contributions. Nevertheless, it is worth mentioning that there are some limitations of the current study which further highlighted the scope of future studies. The above-mentioned discussion of the limitations proposed a host of additional research which may extend the findings of this study, even though the study has provided various hypothesized relationships between the exogenous and endogenous latent variables. Similarly, the study offers and makes future

recommendations to make the study findings more robust. The limitations of the study based on findings include the following:

Firstly, the study was conducted on airline industry within one of the developing countries i.e. Pakistan. There would be serious implication in making general inference from this study and caution must be taken in concluding that the outcomes of study are valid for the whole airline industry in general. As such, findings should be validated at different setting to find whether findings can be generalized to airlines industries in different countries of the world. Moreover, future researchers would conduct the similar study in other service sector organizations functioning in Pakistan such as hospitality sector, tourism, health care, education with the view of verifying the current study findings.

Secondly, the major reason for not handling limitations this time was shortage of money and time therefore, the present study employed a survey questionnaire research design that involved the use of cross-sectional data at one point in time for testing the hypothesized relationships. For future research the study may consider longitudinal research design for expanding the findings of research. Additionally, this study considered only three international airlines. Future research may examine the domestic airlines to make comparison among the domestic travelers and international travelers respectively.

Thirdly, this study was mainly focused on passenger's satisfaction in international airline industry of Pakistan and the case used in this study was only limited to 446 valid responses obtained from three international airlines in Pakistan. Fundamentally,

speaking the sample was enough which resulted in 77% response rate. However, future studies that conduct a similar study in the same industry may need to use larger population, which should increase the sample size that is relative to their total population.

Fourthly, this study was quantitative, and the researcher relied on questionnaire data only for statistical analysis. Future research may consider using qualitative or mixed mode methods to examine customer satisfaction that may include the use of interviews from the customers to get more interpretive and in-depth information about the variables of study.

Fifthly, this study was based on self-reported data as all variables were measured by using a 'single survey instrument' there is a probability that CMV might exist. CMV is more inconvenient in analyzing attitudinal or psychological data obtained from a single respondent at one point in time (Avolio et al., 1991). In this study, the data of both independent and dependent variables was perceptions based. Hence, future research may comprise a method to decrease the common method variance, for example, by using objective measures.

Finally, this study identified CI as a mediator variable in airline industry while future researchers can also test its influence in other service sector organizations such as health care, hospitality, tourism, education with view of verifying current study. Other mediating variables such as customer perceived value, customer commitment can be tested in investigating their influence on the relationship between CRM factors and customer satisfaction. The generalizability of the research findings were limited to

airline industry, as the research model was developed on the basis of theoretical grounds. Therefore, this research model can be applied in other service industries, such as transportation (e.g. railways and road transport), education, the hospitality or banking sector as potential avenues of future research to test the generalizability of model. Moreover, future study may include the effect of culture of passenger on satisfaction formation process. Besides this, a richer model could be developed that combines other constructs as well as moderating variables to consider their interactive effects.

5.5 Conclusion

This study examined the relationship among CRM factors namely: SQ, PE, PS, TR and SNI on CS in passengers of three international airlines of Pakistan. It also inspected the role of CI as a mediator on relationship between CRM factors and CS. Furthermore, EDT and SET theory were employed as basis to study the proposed theoretical relationships.

Of 16 research hypotheses, 13 were supported, giving much empirical support to the research model. The CI has shown a significant role as a mediator in the relationship with PE, TR, PS and SQ. Based on research finding, it is concluded that directors of the airlines need to build trust, enhance their physical environment, improve service quality and develop strategies for solving customer problems to increase satisfaction level of airline passengers of Pakistan.

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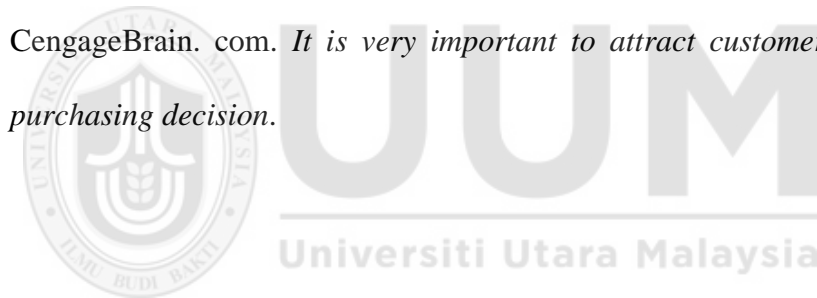
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Appendices

Appendices A: Questionnaire



Dear Sir/Madam,

My name is Muhammad Salman Azhar, a PhD candidate in the School of Business Management, University Utara Malaysia. I am conducting an academic research study as part of my PhD studies. I shall be thankful for your contribution in the treasury of knowledge through responding to this questionnaire.

The information provided will be strictly kept confidential and used for academic purpose only, by the researcher.

Thank you for your cooperation.

Muhammad Salman Azhar
Matric: 901485
School of Business Management
University Utara Malaysia

SECTION A:

Personal Background

The following information is strictly confidential and will only be used for research purpose. I will be grateful if you could kindly fill the required information.

1. Gender

- a. Male b. Female

2. Age group

- a. Below 20
b. 20- 30
c. 31- 40
d. 41 – 50
e. Above 50

3. Marital status

- a. Married
b. Single
c. Others _____ (please state)

4. Nationality

- a. Pakistani
b. Foreigner

5. Highest level of education

- a. Diploma
b. Bachelors
c. Masters
d. Ph.D.
d. Others _____ (please state)

6. Occupational Status

- a. Employed
b. Self Employed
c. Job Seeker
d. Student
e. Others _____ (please state)

7. Financial Earnings (Monthly, Rs.)

- a. Below 49,999
- b. 50000-99999
- c. 100000-199999
- d. 200000-Above

SECTION B:

General Information

1. Frequency of Flights in Airlines in one year.

- a. Less than 2 times
- b. 2 -5 times
- c. 6- 10 times
- d. More than 10 times

2. Purpose of travel

- a. Business
- b. Medical
- c. Holiday
- d. Visiting families / friends
- e. Other (please specify) _____

3. Class in which you travel

- a. Business class
- b. Economy plus
- c. Economy

4. Seat Category

- a. Business
- b. Economy plus
- c. Economy

5. Are you a frequent flyer with any of the Pakistan-based airlines?

- a. Yes
- b. No

6. With which airline are you a frequent flyer?

- a. Pakistan International Airlines (PIA)
- b. Shaheen International Airlines (SAI)

c. Air Blue (ABQ)

7. Within the last 12 months how many times have you travelled using each of the following: Number of trips

- a. Pakistan International Airlines (PIA) ___
- b. Shaheen International Airlines (SAI) ___
- c. Air Blue (ABQ) ___

**SECTION C:
General Opinion**

Please read description given. Then rate the frequency by tick the corresponding next to the statement. Use the following scale:

- 1 = Strongly Dissatisfied (Strongly Disagree)
- 2 = Dissatisfied (Disagree)
- 3 = Somehow Satisfied (Neither Agree nor Disagree)
- 4 = Satisfied (Agree)
- 5 = Strongly Satisfied (Strongly Agree)

Service Quality	1	2	3	4	5
1. The staff of this airline deliver superior services					
2. Overall, the in-flight facilities in this airline are excellent					
3. This airline has a convenient flight schedule					
4. This airline has convenient reservation and ticketing systems					
5. This airline offers an excellent security system					
6. I feel safe when I fly with this airline					
7. This airline offers excellent baggage handling services					

Relationship through Solving Customer Problems	1	2	3	4	5
8. This Airline service provider deals effectively with customer problems					
9. This Airline service provider review complaints periodically					
10. This Airline service provider officer's response directly to problems					
11. Customers give greater attention to this Airline service provider reaction toward complaints offered					

Physical Environment	1	2	3	4	5
12. The aircraft lighting is appropriate					
13. The temperature of the aircraft is comfortable					
14. The environment of the aircraft is clean					
15. The aircraft architecture is impressive					
16. The colour of the wall and floor are complementary and coordinating					

Social Network Interaction	1	2	3	4	5
17. This airline sends e-messages to customers in order to enhance customer satisfaction					
18. This airline provides e-promotion to foster customer satisfaction					
19. This airline is providing e-information that is essential for customer satisfaction					
20. Web site availability gives competitive advantage to this airline service provider					
Trust	1	2	3	4	5
21. The airline service provider keeps its promises					
22. The airline service provider really cares about me.					
23. I trust this airline service provider					
24. This airline service provider really puts my well-being first.					

Customer Satisfaction	1	2	3	4	5
25. As a customer, I have a high-quality relationship with the airline					
26. I am happy with the efforts that the airline makes towards its customer					
27. I am satisfied with my relationship with the airline					
28. I can find the product that matches my needs provided by the airline					
29. I think the price I pay for the airline's service is fair					

Corporate Image	1	2	3	4	5
31. This airline employs talented people.					
32. This airline supports local community.					
33. This airline is financially sound.					
34. This airline often introduces new services.					
35. This airline has a strong marketing capabilities.					

36. This airline is well-managed.					
37. This airline offers high quality services to its customers.					

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT, IT IS GREATLY APPRECIATED.



Appendices B: Descriptive Statistics for Demographic Variables

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	260	58.3	58.3	58.3
	FEMALE	186	41.7	41.7	100.0
	Total	446	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BELOW 20	41	9.2	9.2	9.2
	20-30	133	29.8	29.8	39.0
	31-40	114	25.6	25.6	64.6
	41-50	84	18.8	18.8	83.4
	ABOVE 50	74	16.6	16.6	100.0
	Total	446	100.0	100.0	

marital_status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MARRIED	308	69.1	69.1	69.1
	SINGLE	138	30.9	30.9	100.0
	Total	446	100.0	100.0	

Highest_edu_level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	diploma	38	8.5	8.5	8.5
	bachelors	150	33.6	33.6	42.2
	masters	178	39.9	39.9	82.1
	Ph.D	67	15.0	15.0	97.1
	others	13	2.9	2.9	100.0
	Total	446	100.0	100.0	

Occupation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Employed	225	50.4	50.4	50.4
self employed	89	20.0	20.0	70.4
Job seeker	25	5.6	5.6	76.0
student	93	20.9	20.9	96.9
others	14	3.1	3.1	100.0
Total	446	100.0	100.0	

Purpose_of_travel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid business	199	44.6	44.6	44.6
medical	41	9.2	9.2	53.8
holiday	61	13.7	13.7	67.5
visiting families/friends	93	20.9	20.9	88.3
others	52	11.7	11.7	100.0
Total	446	100.0	100.0	

Class_inwhich_travel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid business class	113	25.3	25.3	25.3
economy plus	83	18.6	18.6	43.9
economy	250	56.1	56.1	100.0
Total	446	100.0	100.0	

Seat_category

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid business	113	25.3	25.3	25.3
economy plus	83	18.6	18.6	43.9
economy	250	56.1	56.1	100.0
Total	446	100.0	100.0	

Frequent_flyer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	343	76.9	76.9	76.9
no	103	23.1	23.1	100.0
Total	446	100.0	100.0	

which_airline_frequently

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid PIA	271	60.8	60.8	60.8
SHAHEEN	149	33.4	33.4	94.2
AIRBLUE	26	5.8	5.8	100.0
Total	446	100.0	100.0	

Number_of_travel_PIA

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	3	.7	.7	.7
1.00	100	22.4	22.4	23.1
2.00	109	24.4	24.4	47.5
3.00	67	15.0	15.0	62.6
4.00	70	15.7	15.7	78.3
5.00	30	6.7	6.7	85.0
6.00	29	6.5	6.5	91.5
7.00	27	6.1	6.1	97.5
8.00	8	1.8	1.8	99.3
10.00	3	.7	.7	100.0
Total	446	100.0	100.0	

Number_of_travel_SHE

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	147	33.0	33.0	33.0
1.00	107	24.0	24.0	57.0
2.00	63	14.1	14.1	71.1
3.00	36	8.1	8.1	79.1
4.00	30	6.7	6.7	85.9
5.00	39	8.7	8.7	94.6
6.00	17	3.8	3.8	98.4
7.00	7	1.6	1.6	100.0
Total	446	100.0	100.0	

Number_of_travel_ABQ

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	181	40.6	40.6	40.6
1.00	121	27.1	27.1	67.7
2.00	97	21.7	21.7	89.5
3.00	27	6.1	6.1	95.5
4.00	9	2.0	2.0	97.5
5.00	9	2.0	2.0	99.6
8.00	2	.4	.4	100.0
Total	446	100.0	100.0	



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Appendices C: Common method Variance.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
				Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.172	28.256	28.256	10.172	28.256	28.256	5.070	14.083	14.083
2	3.335	9.264	37.520	3.335	9.264	37.520	4.033	11.203	25.286
3	2.895	8.041	45.561	2.895	8.041	45.561	3.641	10.115	35.401
4	2.407	6.687	52.248	2.407	6.687	52.248	2.935	8.153	43.554
5	1.894	5.261	57.509	1.894	5.261	57.509	2.775	7.709	51.263
6	1.631	4.530	62.039	1.631	4.530	62.039	2.549	7.082	58.344
7	1.222	3.396	65.435	1.222	3.396	65.435	2.311	6.420	64.764
8	1.048	2.912	68.346	1.048	2.912	68.346	1.290	3.582	68.346
9	.930	2.584	70.930						
10	.900	2.500	73.430						
11	.764	2.121	75.551						
12	.697	1.935	77.487						
13	.680	1.890	79.377						
14	.659	1.831	81.207						
15	.625	1.737	82.944						
16	.547	1.519	84.463						
17	.476	1.322	85.785						
18	.457	1.270	87.055						
19	.416	1.156	88.211						
20	.370	1.028	89.239						
21	.350	.973	90.212						
22	.339	.941	91.153						
23	.323	.899	92.052						
24	.292	.812	92.864						
25	.277	.769	93.633						
26	.270	.750	94.383						
27	.260	.723	95.106						
28	.248	.688	95.793						
29	.225	.625	96.418						
30	.213	.591	97.010						
31	.204	.566	97.576						
32	.193	.537	98.113						
33	.187	.521	98.634						
34	.181	.503	99.137						
35	.172	.477	99.613						
36	.139	.387	100.000						

Extraction Method: Principal Component Analysis.

Appendices D: Cross loadings

Discriminant Validity (cross loadings)

	CI	CS	PE	PS	SNI	SQ	TR
CI1	0.713	0.475	0.340	0.312	0.092	0.434	0.267
CI2	0.772	0.517	0.358	0.322	0.122	0.379	0.302
CI3	0.801	0.467	0.254	0.354	0.066	0.365	0.323
CI4	0.839	0.479	0.204	0.379	0.095	0.424	0.337
CI5	0.786	0.493	0.092	0.444	0.093	0.396	0.292
CI6	0.785	0.493	0.218	0.462	0.045	0.365	0.371
CI7	0.821	0.639	0.336	0.449	0.091	0.434	0.396
CS1	0.442	0.773	0.372	0.333	0.102	0.308	0.443
CS2	0.517	0.846	0.374	0.455	0.071	0.339	0.485
CS3	0.507	0.859	0.256	0.399	0.113	0.395	0.331
CS4	0.586	0.864	0.241	0.402	0.108	0.425	0.353
CS5	0.597	0.738	0.177	0.407	0.147	0.405	0.344
PE1	0.200	0.258	0.823	0.085	0.068	0.171	0.182
PE2	0.243	0.292	0.873	0.090	0.023	0.132	0.173
PE3	0.341	0.358	0.894	0.130	0.041	0.240	0.222
PE4	0.315	0.262	0.821	0.099	0.028	0.176	0.161
PS1	0.488	0.407	0.226	0.811	0.072	0.291	0.458
PS2	0.372	0.392	0.065	0.882	0.089	0.267	0.364
PS3	0.318	0.387	-0.029	0.721	0.078	0.177	0.319
SNI1	0.130	0.101	0.042	0.098	0.848	0.196	0.047
SNI2	0.095	0.117	0.048	0.083	0.902	0.149	-0.026
SNI3	0.044	0.123	0.023	0.068	0.807	0.173	0.047
SQ1	0.408	0.357	0.166	0.188	0.102	0.813	0.202
SQ2	0.384	0.331	0.249	0.167	0.131	0.822	0.202
SQ3	0.336	0.285	0.215	0.133	0.146	0.761	0.224
SQ4	0.353	0.297	0.128	0.242	0.148	0.773	0.290
SQ5	0.449	0.410	0.157	0.337	0.172	0.708	0.223
SQ6	0.407	0.422	0.101	0.328	0.231	0.786	0.197
TR1	0.287	0.341	0.044	0.352	0.083	0.222	0.765
TR2	0.314	0.340	0.095	0.406	0.029	0.198	0.790
TR3	0.252	0.307	0.295	0.289	0.035	0.197	0.738
TR4	0.398	0.454	0.231	0.403	-0.046	0.248	0.776