

**ENVIRONMENTAL CORPORATE SOCIAL RESPONSIBILITY IN PAKISTAN
AVIATION INDUSTRY AND ITS IMPACT ON BRAND IMAGE AND CUSTOMER
LOYALTY**

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Abstract

Purpose of Study – The sole purpose of this research thesis is to find and analyze the CSR responsibility of Pakistan aviating industry and how it impacts brand image and customer loyalty among consumers. CSR is an emerging concept in Pakistan and many industries are working on it including Pakistan industries and aviation industry is from one of them.

Design - Online survey was being conducted and data was collected from a total 442 respondents. Two questionnaires were made. One for ECSR, because the population for the ECSR were people of a particular aspect, they were the people who were on the position of making policy and implementation in operations, in an organization.

Findings - This study was set to find the effect of Environmental Corporate Social Responsibility (ECSR) on Customer Loyalty (CL) and Brand Image (BI). And Brand Image effect on Customer Loyalty. Study found out that the ECSR had no effect whatsoever on the Customer Loyalty and Brand Image, the reliability analysis of the variables showed that the inter-item correlation is un-acceptable. . The Brand Image affected the CL to moderate extent. The effect was moderate.

Research Limitations – This research has limitation that due to ongoing Corona-Virus Pandemic, Researcher were unable to physically administer questionnaire and see if the respondent answered carefully reading the questionnaire or not. This lead to the output of this study being poor and data was rendered unreliable. The Variables involved in this stud were not affecting each other much. This was because there were no practically proven thing that will support that the industry is implementing ECSR aspects or in process of implementing.

Practical implications – Found out that in Pakistan Aviation Industry if the corporations like Airline and other stake-holder start to practice ECSR that might possibly positively affect CL and BI, rendering the organizations more business. But the indicators were showing poor relations in this regard.

Theoretical implication – The study finding offer very valuable addition to the already stack of knowledge and awareness about the existing level of ECSR implementation in the industry. This study will help future researchers to consider and remove the limitations of this study.

Key Words – Environmental corporate Social Responsibility in Pakistan, Pakistan Aviation Industry, Customer Loyalty, Brand Image

1. INTRODUCTION

1.1. Background

Over the past 30 years, awareness regarding impact of human activity on environment has been increasing significantly. Now, people become more concern about the social and environmental impact of aviation. Tourism industry also has the prominent impact on environment. Definitely, this industry providing both social and economic benefits to the aviation industry but has negative impact on environment but to maximize the profit should not be the priority of aviation industry(Wilson, 2018).

As per definition, “corporate social responsibility (CSR) is defined as the principles or policies that business must involve in order to contribute in society welfare instead of just maximizing profit”. The purpose of CSR is to pay back to the social community. In Pakistan, air travelers have started to take interest in CSR. CSR contributes in long-term value of airline because CSR has impacts on customer loyalty and to build strong brand image which is the goal of many companies(Wilson, 2018).

Loyalty is somewhat connected to the brand image. A customer can be interested in a product due to the brand image. If a person make a purchase and found that brand product in line with the expectation of image then that customer become a loyal customer until it tries other and that other one proves to be a better(Wilson, 2018).

Industry which promotes the corporate social responsibility and do not disturb its surrounding while operating has more chances to retain their customer and to build strong brand image among its competitors. Pakistan CAA should develop environmental policies continuous improvement of environment; minimize the source of pollution through aviation activities and energy consumption(Heesup Han, 2019).

The term “Environmental concern” is or can be described as one’s awareness about a particular outcome of his/her act that may affect the surrounding environment or environment in general when not acting in eco-friendly manner(Han & Hwang, 2015). Corporate Social Responsibility has been the topic of good interest in the realms of academics due to its effects of the end user (consumer). ECSR Responsibility uniquely is considered a rewarding topic for the educationists and Players of the Industry(Afifah & Asnan, 2015). Environmental CSR is the company’s effort that is not in their liability but still being done and it is incorporated in the company’s environmental concerns and the how they interact with the people who have stakes in the field. It is described as the corporation’s effort to environmentally develop a society without the sacrifice of financial resources(Williamson, Lynch-Wood, & Ramsay, 2006). The overall brand image of any brand or a company shows the Global and also a general belief of that brand that the brand users and other people develop(Assael, 1984). On the other hand, the image is the subjective memory that the customer has regarding a particular entity or company in the question or discussion(Kim & Jang, 2016). It can be made in the mind and then altered before the exposure of Word-of-Mouth and other type of data sources that help make brand image. So a positive image may take that brand over one and otherwise.

Now if we take Pakistan into perspective in the light of what we have discussed above, Pakistan is making no progress, or if we put it this way that there is nothing in this regard. As being in the row of developing countries, Pakistan is just not at the level of realization, not concerned and not equipped to tackle this problem. Pakistan policy makers in the past did a very terrible job in this beast taking into consideration and take action against it. Now we have a quite concerned Government that has taken steps in taking Pakistan in right direction.

1.2.Problem Statement

The Aviation industry of the world impacts the environment with the pollutants like carbon-dioxide and carbon mono-oxides and noise pollution. At present the aviation industry of the world put out the global warming gases into the atmosphere which sum-up to 2%. Different types of the long-term and short-term environmental protection initiatives must be placed into action for the better good of the world by reducing the green house output from the industry. A couple of measures that may help to reduce the impact must be put in place like improving the aircraft technology, improvement in the operations, alternative and sustainable fuels and global market-based measures. Growth in Pakistan's aviation industry and its effects on the environment must be considered. In order to reduce or possibly remove the harm caused to the environment, the Government and aviation sector must work together. And it affects the brand image and loyalty, if a concerned customer cares about these things!

1.3.Research questions

1. Does Pakistan aviation industry is concerned about ECSR?
2. Does ECSR improve brand image and customer loyalty?

1.4. Objectives

1. To find out that Pakistan aviation industry is concerned about environmental corporate social responsibility and has policy and practice in this regard.
2. To find out the how ECSR is affecting brand image and customer loyalty in Pakistan aviation sector.

1.5. Significance

Now if Pakistan is taken into perspective in the light of what is have discussed above, Pakistan is making no progress, or if put it this way that there is nothing in this regard. As being in the row of developing countries, Pakistan is just not at the level of realization, not concerned and not equipped to tackle this problem. Pakistan policy makers in the past did a very terrible job in this beast taking into consideration and take action against it. But they were busy putting their family members into the Pakistan civil aviation authority and Pakistan International Airlines. Now there is a quite concerned Government that has taken steps in taking Pakistan in right direction. But Pakistan needs those things very badly if seen the reality that the environmental disasters roaming in and roaming over Pakistan. Pakistan's cities are in top cities whose air quality is worst. We all know that the aviation activity is one the biggest that destroy the planet environment and slowly intoxicating it to the extent that it is losing its ability to nurture life.

2. PROSE REVIEW

2.1 Corporate Social Responsibility

Customers' perception

Corporate Social Responsibility is considered the activities by the corporate companies to get/chase social values and social needs(Wu & Wang, 2014). The recognition of efforts by the companies by their customers became very important because of the reality that the customer's awareness of CSR, and their attitudes because this will strongly affect their Will to purchase from ((Mejri & De Wolf, 2012). The companies have additionally started looking to their CSR for all partners, and changed their relating strategy. CSR incorporates numerous perspectives, and the researchers must put research in viewpoints as follows(Brunk, 2010; Clarkson, 1995):

- i. Customer focused CSR: Providing customer with very high worth products and services.
- ii. Employee oriented CSR: Providing the company employees with fair evaluation, compensation and promotion.
- iii. Environment oriented CSR: Putting/introducing environmental supporting activities into business policy and operations.
- iv. Economic oriented CSR: Introducing customer friendly prices for the products and services and division of profits with investors.
- v. Community oriented CSR: Doing community improving activities like doing charity, cultural and educational activities.

Environmental corporate social responsibility ((ECSR) (environment oriented CSR)). Subsequent to seeing an expansion in environmental destructions that were contributed by the corrupt business interest and human indiscreet carelessness business associations is going to CSR as its compensation instrument(Banye, Brazioniene, & Gadeikiene, 2010). Organizations would effectively look to incorporate environmental aspects into their activity and operations. These incorporates promoting the benefits of environmental friendly products(Jansson, 2010; Pickett-Baker, 2008; Ramayah, Lee, & Mohamad, 2010), empowering eco-friendly tourism(Chiutsi, Mukoroverwa, Karigambe, & Mudzengi, 2011) industry, creating climate agreeable conduct through working environment atmosphere and many more(Rashid*, , & 2014). Williamson regards ECSR as follows:

"...a concept about companies extra effort integrating environment concerns in their business operations and in their interaction with their stakeholders. It is viewed as the contribution that firms make to sustainable development by balancing and improving environment impacts without damaging economic performance" (p.317)

A significant justification for endeavoring on to explore the ecological component of CSR lies in the crucial idea around which the "green business association" is constructed. An organization that genuinely grasped environmental security and sustainability must have a holistic and reliable and continuous vital administration approach(Velasquez-Manoff, 2009). Its organizational members are anticipated to have the common assumptions and beliefs

about the importance of keep the balance in economic efficiency, social image and environmental answerability. The organizations that are practicing Environmental CSR have to show a firm and continuity in its commitment for every aspect of environmental protection and sustainability challenges.

2.2 Brand Image

A decent brand can affirm a purchaser's great impression, and upgrade acknowledgment of the products(Grewal, Krishnan, Baker, & Borin, 1998). At the point when a brand picture is solid in a shopper's psyche, its items can without much of a stretch acquire more prominent fascination, hence a purchasing binge could be set off(Shamma & Hassan, 2011). Brand picture is a perceptual wonder influenced by corporate correspondence exercises, by methods for which buyers can be directed to openly relate their psyches to the marked items(Maclnnis, Park, & Jaworski, 1986). The brand image, in any case, can be additionally divided into three parts, which are useful, representative and experiential and are as follow:

- i. Functional image: The product can help the customer to solve their consumer issues and help prevent possible problems.
- ii. Symbolic image: The brand has the ability to satisfy consumer's inner wishes like self-value, social status and self-recognition.
- iii. Experimental image: The brand has the ability to satisfy customer's need of diversity and motivation so to provide them with experimental pleasure.

The overall brand image of any brand or a company shows the global and also a general belief of that brand that the brand users and other people develop(Assael, 1984). On the other hand, the image is the subjective memory that the customer has regarding a particular entity or company in the question or discussion(Kim & Jang, 2016). It can be made in the mind and then altered before the exposure of word-of-mouth and other type of data sources that help make brand image. So a positive image may take that brand over one and otherwise. Loyalty is somewhat connected to the brand image. If customer makes a purchase and found that brand product in line with the expectation of image then that customer become a loyal customer until he/she tries other and that other one proves to be a better. Now a day's brands are not just logo, but are a carefully scored experience which is made possible a big marketing spending, action and a carefully chosen mindset. If a brand has a positive brand image that means it has the ability to firmly hold its market value and sales. It also help many other things like customer gratification, superior service, customer loyalty and making the customer buy again(Lai, Griffin, & Babin, 2009). The main focus of the marketing struggle is to embed the product/service into the head of the customer. ECSR can be very beneficial and a competitive edge for making a positive brand image(Raza Naqvi, Ishtiaq, Kanwal, Ali, & Inderyas, MAY 2013).

2.3 Customer Loyalty

Customer faithfulness is most important consumer behaviors that corporates tend to enhance through corporate social responsibility (CSR) as a marketing tool. It has been studied by the researchers that over the years CSR has direct impact to customer loyalty. (Yaeri Kim, 2020)With the passage of time, many airlines are being concerned to implement multiple

policies regarding sustainable environment because customers are now being concerned about CSR in airline industry. However, questions regarding CSR responsibilities have been perceived significant near clients and these responsibilities could potentially increase customer loyalty, but such questions have remains unanswered and attain less attention in today's literature. (ASATRYAN, 2018)

Customer loyalty leads to a customer's unwavering commitment with a brand and there is very less chances that the customer's commitment would change under common circumstances. This includes a set of actions that pinch the intent of customer to retain good relation with a particular brand or also spread word-of-mouth. It is quite essential for a brand to build strong customer loyalty because if a customer has loyalty with brands only then a customer continue to purchase from a brand even under bad reputation.(Yaeri Kim, 2020) As the customers are now being concerned about CSR in Pakistan and prefer airline which considered environmental impact due to emission from aircraft operations. Therefore, Pakistan based airlines must consider the impact of aviation activities on environment and legislate certain policies in order to minimize its impact on environment. This in result will influence the customer retention and build strong customer loyalty. (Shamma & Hassan, 2011)

3. METHODOLOGY

Methodology shows us “how” of any piece of research that is has been done or being done. This describes the ways a researcher uses to design a research or study that will make sure that the study or research will gather valid and reliable, desired results and make sure the research meets the aims and objectives of study.

For Example it overlooks:

- i. WHAT type of data will be collected for research
- ii. From WHO the data will be collected
- iii. HOW the data will be collected for the study
- iv. With which tool or how the data will be ANALYSED

In any kind of research or study, there will be a chapter or section named methodology covering the aspects written above. A good methodology mot just only tells the reader what was done or what choices were made, it also tells fundamentally why those were made. The methodology must justify the given/used design choices by justifying the techniques and methods, were best suited for the research questions, aim and objectives, promising the results will be effective and dependable(Derek Jansen (MBA), June 2020).

3.1. Research Type

Based on the research strategy, this research is quantitative research type. In this research, a hypothesis has been taken, being testifies through the survey and results have been analyzed. On the other hand, in the case of survey quantitative research also finest for measuring, categorizing, ranking, identifying patterns and make generalizations. As in this research survey method has been used to collect primary data. The Questionnaire was adopted from a

number of researches. We didn't used those questions from those papers as-it-is. But we took the concept and used in our research. We molded those questions according to our need. References are as follow (Cristina Raluca Gh. Popescu, 18 October 2019; DANIELLE BERNABE, 2020, January 26).

3.2. Research Approach

Research approach that was used for this paper is deductive research. In this approach, research starts with an existing theory and the same case has been used in this research. Here, an existing theory has been taken which is being applied in other southern countries and applied in Pakistan. Deductive research also allows us to build a hypothesis on existing theory and analyze results.

3.3. Research Strategy

The idea of this paper was to test an existing theory and analyze its result on Pakistan based aviation industry. The emerging environmental issues due to aviation activities increasing day by day but this issue has not been discussing before in this origin. By considering such factors, the research strategy followed in this paper would be explanatory research.

3.4. Sampling Technique

There were 3 variables in this Research (i) Environmental Corporate Social Responsibility, (ii) its impacts on Brand Image and (iii) Customer Loyalty. There were two questionnaires made for the this research, one on Environmental Corporate Social Responsibility and one on brand image and customer loyalty. Hence 2 sampling techniques were also used subsequently. We asked ECSR questions from the representatives of aviation industry corporations who are responsible for policy making and implementation. Brand image and customer loyalty questionnaire was formed and filled from customers.

For ECSR, the sampling technique that was used was of **non-probability** type and in that **purposive sampling** was used. In this technique sample was chosen based on certain characteristics that will give more interesting results than choosing a random sample. Certain characteristic for ECSR were the representatives of aviation industry corporations who are responsible for policy making and Implementation. They were the one who were able to tell us best. As for brand image and customer loyalty, the technique used was **non-probability convenience sampling**. As the COVID-19 was still prevailing and infecting hundreds and thousands of people and killing many daily around the world and the air travel was restricted in country and almost no international travel, we approached people keeping the safety guidelines in mind. Whoever agreed to participate, their response was taken a sample.

3.5. Sample Size

It was evident from the literature review, that more subjects must be sampled than the variables/questions in the questionnaire for algebraic reasons. The Best Ratio of Subjects should be in range of 2:1 to 100:1. 2:1 is seems insufficient and the ratio of 20:1 is still disposed to errors. How much responses to take are an unsettled dispute. The ratio of 5:1 is

considered fine by some writers like **Field, 2005:639; Hair et al., 2010:102; Ho, 2006:207**(UNIVERSITY OF PRETORIA). For the study, that had 2 separate questionnaire and hence 2 different sampling techniques were used. Environmental corporate social responsibility had 16 questions. So according to the rule of thumb provided/cited above 80 samples were needed for it. We collected and used 221 samples for it. For Customer Loyalty and Brand Image, 31 questions were made collectively for both. 155 samples were needed and we collected and used 221 samples. Total of 442 samples were used in this research from the required 235. Clearly we collected and used more than required.

3.6. Target Population

For the data collection of brand image and customer loyalty, the population was the people who travel on domestic or international routes and they travel on Pakistan based airlines. The population for environmental corporate social responsibility, as the name implies were the people working in aviation corporations of Pakistan who worked in making policy and implementation in their respective organization. They were the people who will be able to understand and reply effectively to the questionnaire and the terminologies that were incorporated in the questions.

3.7. Data Pooling

Response Data for this study was collected through online internet survey site called Google Forms and we also used limited printed questionnaire where that was needed. The printed survey gave us the insight that people were giving their responses by carefully and actively studying the questionnaire. Online survey was our preferred way due to the on-going corona virus pandemic problem. The reason for online survey is following:

The measuring instrument/questionnaire was constructed in a way that the respondent will easily be able to understand and will not require further explanation from the researcher. The questionnaire was a mix of open-ended and closed ended questions. Both were self-explanatory. This path eliminated researcher bias as the questionnaire will be self-administered. Internet based questionnaires had low cost of distribution and the flexibility for the respondent to answer it at their own convenience. Online Survey forums like Google Forms and Survey Monkey automatically collect and process numerical data, that helps.

3.8: Data Analysis

The collected through the online tool Google Form was mostly pre-processed. For Further Analysis **IBM SPSS Statistics 25** was used for the further tests and hypothesis testing. The data from environmental corporate social responsibility was processed, coded in a way so that the software SPSS was able to perform the required tests. The same procedure was used for brand image and customer loyalty. Then they were tested. Tests like KMO and Bartlett's test, Reliability test and correlation were done on the sample.

4. STUDY HYPOTHESIS

H1. CSR has positive impact on brand image

CSR is a new emerging concept for many industries and aviation industry is from one of them. Major aim of all companies operating in Pakistan is to be a philanthropic type. Research has shown that the brand image of Unilever has been increased among its customer after knowing that Unilever is being CSR brand. In 2012, Unilever has launched a foundation with the name of Unilever foundation in order to help out more than one billion people to improve their living standard and health. Furthermore, Unilever has also invested in other CSR related projects which include safe water drinking, and safe travel program of Unilever(Raza Naqvi et al., MAY 2013).

H2. CSR has positive impact on customer loyalty

Research has shown that many of the consumers prefer to buy Unilever products due to its great quality and participation in corporate social responsibility. To seek customer's feedback orderly, company has started to operate a complaint call center by the name of "Raabta". Unilever is continuously putting its effort in socio-economic problems and to lessen the poverty of Pakistan. Due to this reason, consumers give importance to Unilever products not only because of its high quality but also for the efforts that company is doing to improve the infrastructure of Pakistan. Hence, due to such reasons, most of the customers give preference to Unilever as compare to other brands and research has proven that it has more loyal customers because of its contribution in CSR related projects(Raza Naqvi et al., MAY 2013).

H3. Brand image has a positive impact on customer loyalty

Companies operating in Pakistan use CSR as a tool to improve relationship with communities as well as economic performance and also to implement long term strategy. Thus, results of the mentioned article shown that Unilever's CSR practices has positive impact on its brand image and this positive brand image leads to strong customer loyalty(Raza Naqvi et al., MAY 2013).

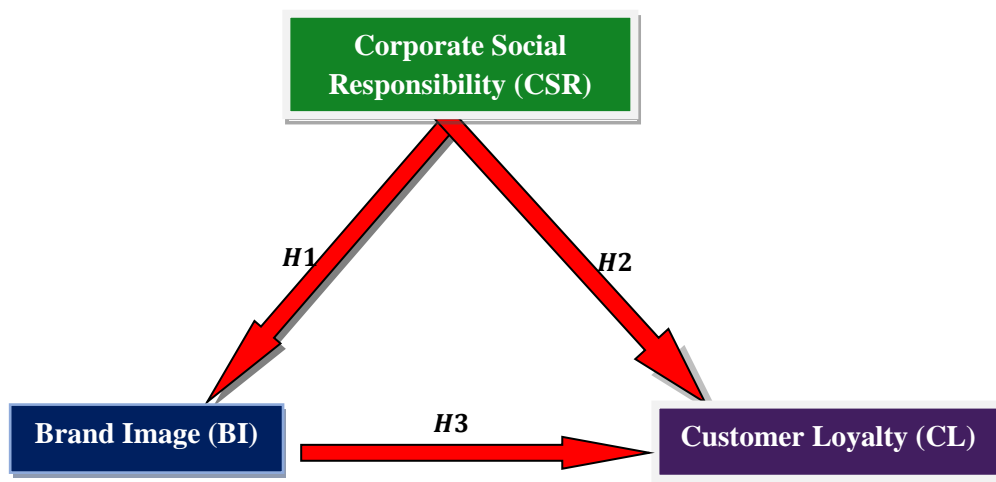


Fig. 1.1 Hypothesized model

5. Analysis and Results

5.1. Factor Analysis

Factor analysis is a statistical technique that is used to compress a large number of study variables into fewer numbers of **factors**. **Kaiser-Meyer-Olkin (KMO)** test is a measure of how suited your data is for **Factor Analysis**. This test measures the sampling adequacy for each variable in the model. Which means that sample data is good for doing factor analysis or not. The value of KMO test above 0.5 is considered good or acceptable for further analysis and tests. The values of less than 0.5 should not be entertained because they possess not significance (UNIVERSITY OF PRETORIA). The significance value of KMO test, if it is less than 0.05, suggest that the data is very good for analysis and testing.

Table 1: KMO Test		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	5224.504
	df	1485
	Sig.	.000

As seen in the table given above that the value of Kaiser-Meyer-Olkin Measure of sampling is higher than 0.7, this shows us that this data can be utilized for further testing. The Significance value is also below 0.05. We can now perform other tests to take the study further ahead.

We also done the factor analysis for all the constructs of the variables involved in this study and Cronbach's alpha was also taken to measure the internal validity of Variables. The variables involved in this study are Environmental Corporate Social Responsibility (ECSR), Customer Loyalty (CL) and Brand Image (BI). Environmental Corporates Social Responsibility being the independent variable and Customer Loyalty and Brand Image are both dependent variables. The value of factor analysis for the constructs should lie above 0.5. The values of above 0.7 is considered very good. But the values of 0.5 to 0.7 are also considered good and acceptable. All the constructs has value above 0.5 (UNIVERSITY OF PRETORIA). Only one construct in study has value below 0.5. Mean & Standard Deviation also given in table 2 below:

Table 2: Validity, Descriptive Statistics & Reliability

Items	Factor Extraction	Mean	SD	Cronbach's Alpha
Environmental Corporate Social Responsibility		42.55	9.804	.675
ECSR 1	.749			
ECSR 2	.731			
ECSR 3	.757			
ECSR 4	.785			
ECSR 5	.719			
ECSR 6	.666			
ECSR 7.1	.727			
ECSR 7.2	.761			
ECSR 7.3	.767			
ECSR 7.4	.736			
ECSR 7.5	.694			
ECSR 7.6	.629			
ECSR 7.7	.752			
ECSR 7.8	.685			
ECSR 7.9	.770			
ECSR 7.10	.723			
ECSR 7.11	.597			
ECSR 7.12	.749			
ECSR 7.13	.727			
ECSR 7.14	.761			
Customer Loyalty		50.61	11.893	.785
CL 1	.749			

CL 2	.604			
CL 3	.702			
CL 4	.702			
CL 5	.621			
CL 6	.731			
CL 7	.549			
CL 8	.443			
CL 9.1	.641			
CL 9.2	.639			
CL 9.3	.650			
CL 9.4	.648			
CL 9.5	.768			
CL 9.6	.723			
CL 9.7	.657			
CL 9.8	.716			
CL 9.9	.739			
CL 9.10	.645			
CL 9.11	.759			
CL 10	.708			
CL 11	.610			
CL 12	.671			
CL 13	.670			
CL 14	.631			
CL 15	.703			
Brand Image		19.32	5.245	.753
BI 1	.648			

BI 2	.751			
BI 3	.697			
BI 4	.525			
BI 5	.682			
BI 6	.777			
BI 7	.798			
BI 8	.747			
BI 9	.598			
BI 10	.764			

5.2. Composite Reliability Analysis

Composite Reliability or Cronbach's Alpha is used in studies to check the variable's reliability for the study. It is a measure of internal consistency, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. As the average inter-item correlation increases, **Cronbach's alpha** increases as well. Can we rely on the variable for the study or not. It is done by checking the value of Cronbach's alpha of a variable against the constructs. As a general rule the value above 0.5 is considered good/acceptable.

Table 3: Cronbach's Alpha of ECSR, CL & BI

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.330	.329	3

As seen in the table above that the Reliability test gives the value of 0.330, well below the acceptable limit of 0.5. Some authors say that the value of 0.7 and above is good but some authors press that the data with value of 0.9 and above is good. The value of 0.330 means that the data we have is not acceptable and is considered poor for the research (Mohsen Tavako, 2011).

5.3. Correlation

It is a Statistical measure, which is widely used in study to assess the strength of relationship between 2 or more variables which are used to in the underlying study. A high correlation means that the variables are strongly related and has impact on each other. And a weak correlation means that the variables are not related (Franzese & Iuliano, 2019). The values of correlation range from -1 to +1, it means that the relations perfect lies between the variables. If the value is ± 1 , it means that the variables have perfect relationship and if one variable will increase the other one will also increase if the value of positive and if the value is negative then if one decrease the other will follow.

Table 4: Correlation

Correlations				
		ECSR	CL	BI
ECSR	Pearson Correlation	1		
CL	Pearson Correlation	.023	1	
BI	Pearson Correlation	-.010	.409**	1
** . Correlation is significant at the 0.01 level (2-tailed).				

As we can see in the table above that the value of correlation between ECSR and CL is 0.023. It means that the value is near 0 and has no relationship. The value of relationship between ECSR and BI is -.010 which show that the value is near 0 and have almost no relationship between them. Relationship between CL and BI is at a moderate degree as their value is 0.409 (Solutions). Significant at 0.01 level 2 tail means that the value will be considered significant if their value lies between 0.001 and 0.010 (Chetty, (2015, Jul 15))

5.4. Hypothesis Testing

For the testing of Hypothesis that they are related or not, we use Regression analysis. **Regression analysis** is a set of statistical processes for assessing the relationships between a dependent variable of the study and one or more independent variables of the study. In the regression analysis in the SPSS software we used 3 factors to test our hypothesis. The three are Adjusted R-Square value, P-value (significance) and Durbin Watson test. R-square is also called a Coefficient of Determination. It is used to measure/see how close the data we collected is to the regression line. Its value range from 0 to 1, meaning if the value is 0.7, it

means that the data has 70% variation in the output variable is explained by input variables. The Adjusted R-square is an altered version of R-square.

A Durbin Watson test used in statistics to find autocorrelation after the regression analysis. If its value is in range of 1.5 to 2 then there is no autocorrelation and the value of less than 1.5 shows positive autocorrelation and value of greater than 2.5 shows negative autocorrelation(Beyer, 2002). Significance or p-value is used to find out that the study's null hypothesis is accepted or it was rejected. As general rule for researcher ease, the Durbin Watson output, which comes in range of 1.5 to 2.5, thought to have no auto-correlation.

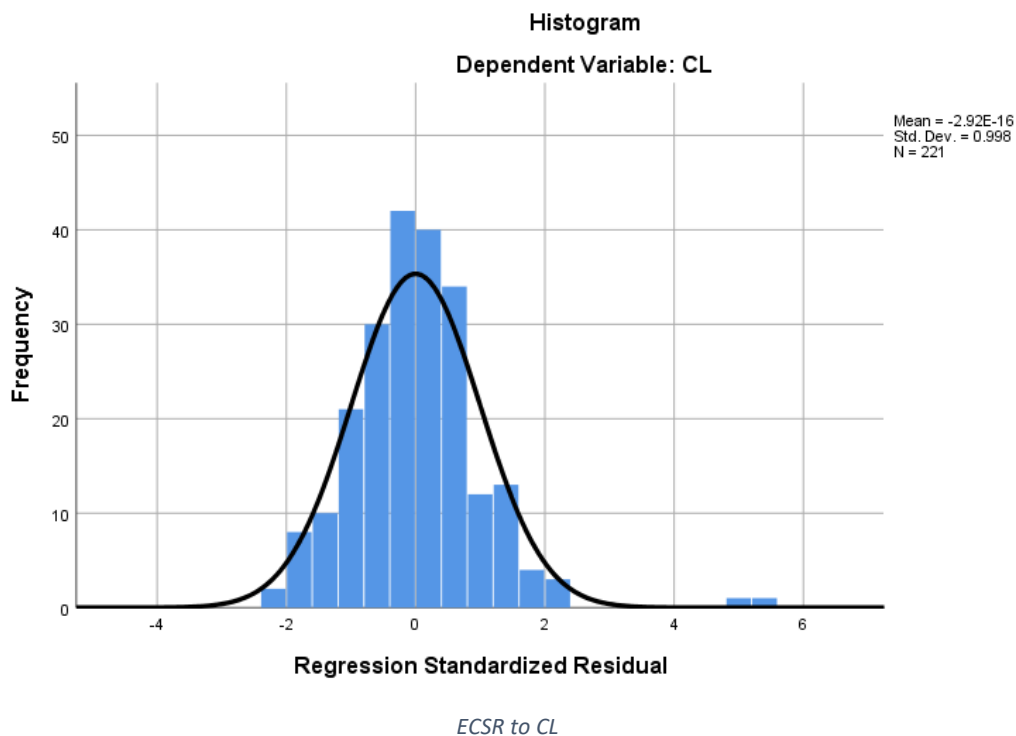
Table 5: Model Parameter: Environmental Corporate Social Responsibility as Independent Variable			
Dependent Variables	Adjusted R-square	p-value	Durbin-Watson Statistic
Customer Loyalty (CL)	-.004	.737	1.584
Brand Image (BI)	-.004	.878	1.739

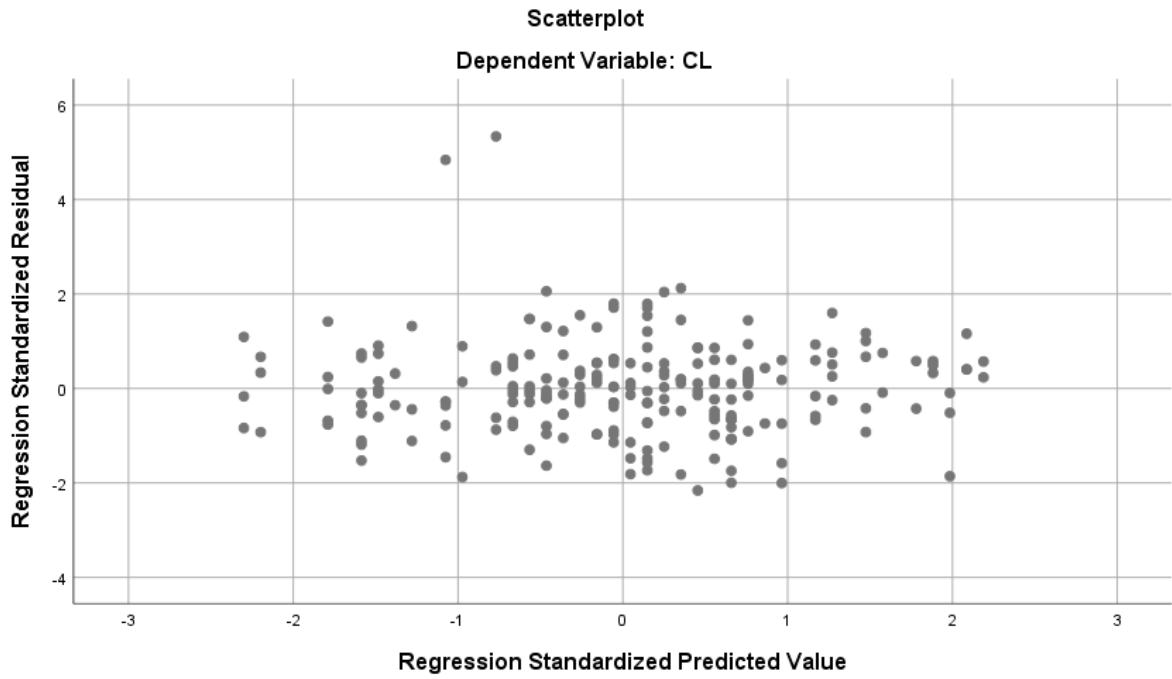
Table 6: Model Parameter: Brand Image as Independent Variable			
Dependent Variables	Adjusted R-square	p-value	Durbin-Watson Statistic
Customer Loyalty (CL)	.164	.000	1.659

Table 7		
Hypothesis	Hypothesis Statement	Result
H1	ECSR has positive impact of Brand Image	As value of p is 0.737, so the hypothesis is found not supported.

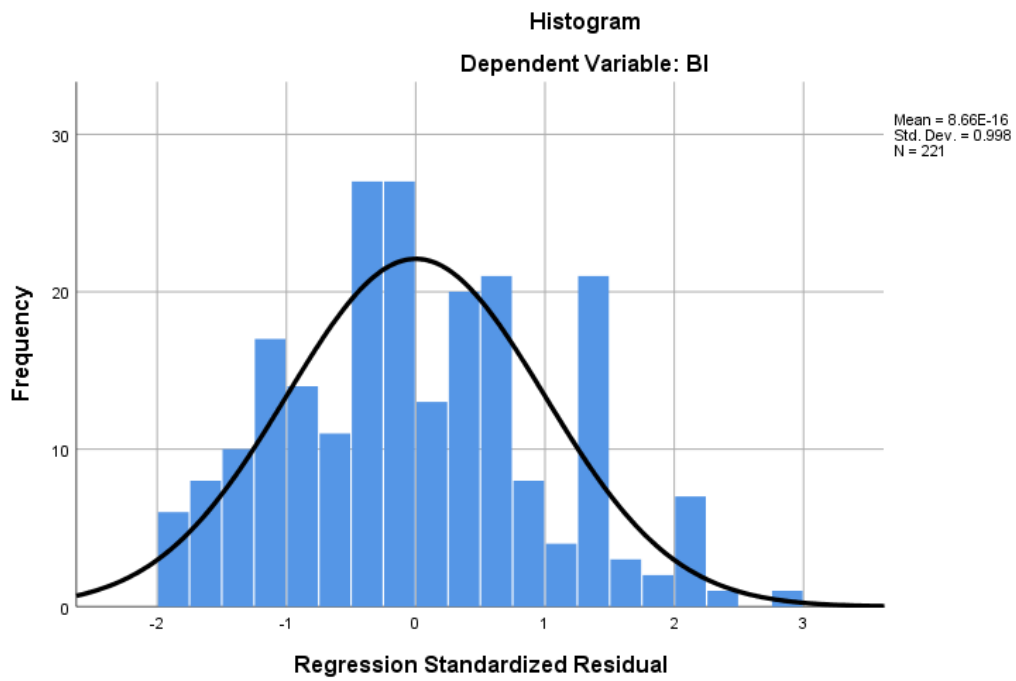
H2	ECSR has positive impact on Customer Loyalty	As value of p is 0.878, so the hypothesis is found not supported.
H3	Brand Image has positive impact on Customer Loyalty	As value of p is 0.000, so the hypothesis is found to be supported.

From the above table 6 we can see that the Adjusted R-square value of Customer loyalty and Brand image is -0.004. The negative R-square value is considered zero (Schauberger, 2014) and shows that the no data is lying on the regression line. The data proved to be unauthentic. The value for customer loyalty with brand image as independent variable the adjusted r-square value shows that 16% lie on the regression. As seen in finding table, the value of Durbin Watson test for all three variables are in range of 1.5 to 2.5. So there is not auto-correlation. The H1 is rejected because the p value is greater than 0.05, so the hypothesis H1 is not supported. Same is H2. For H3, the p-value is less than 0.05, the hypothesis is a supported.

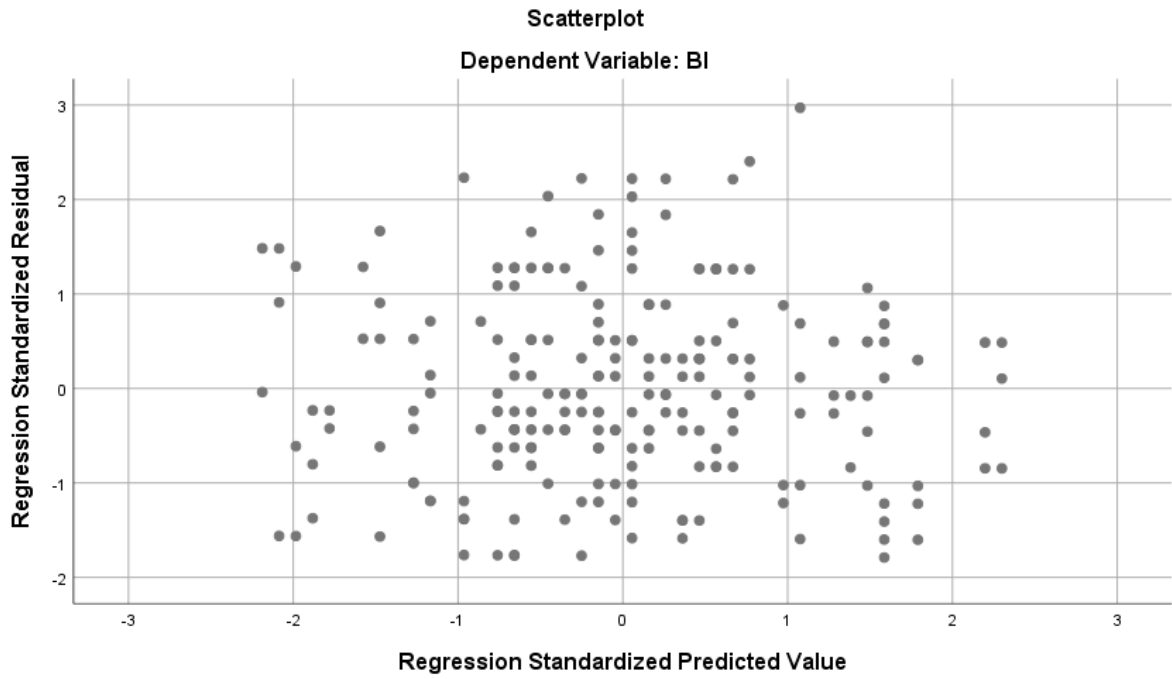




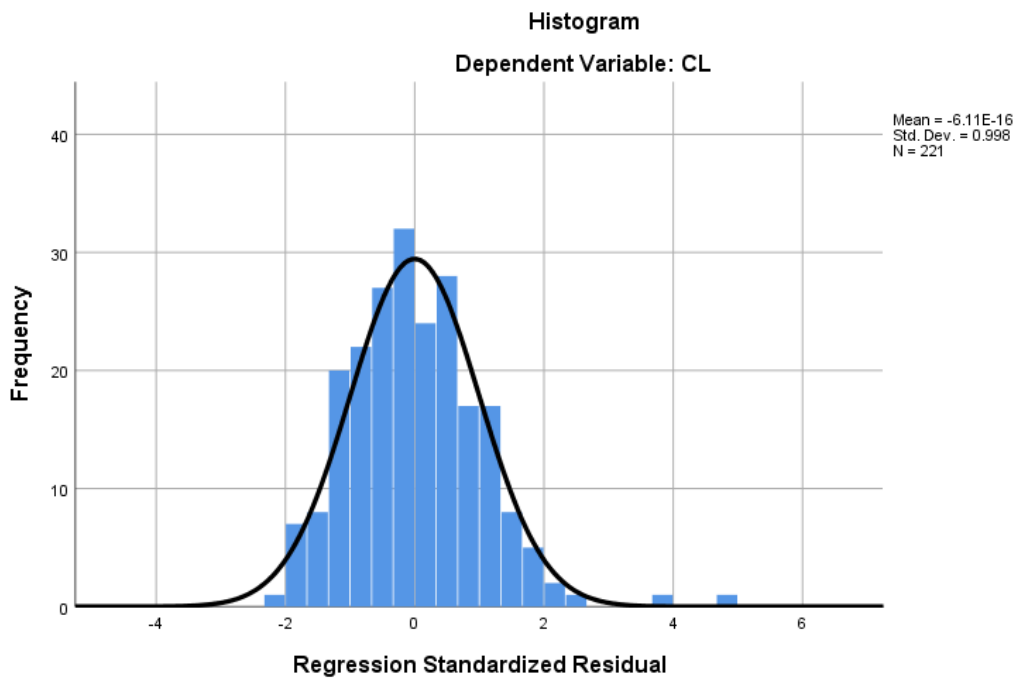
Scatter Plot ECSR to CL



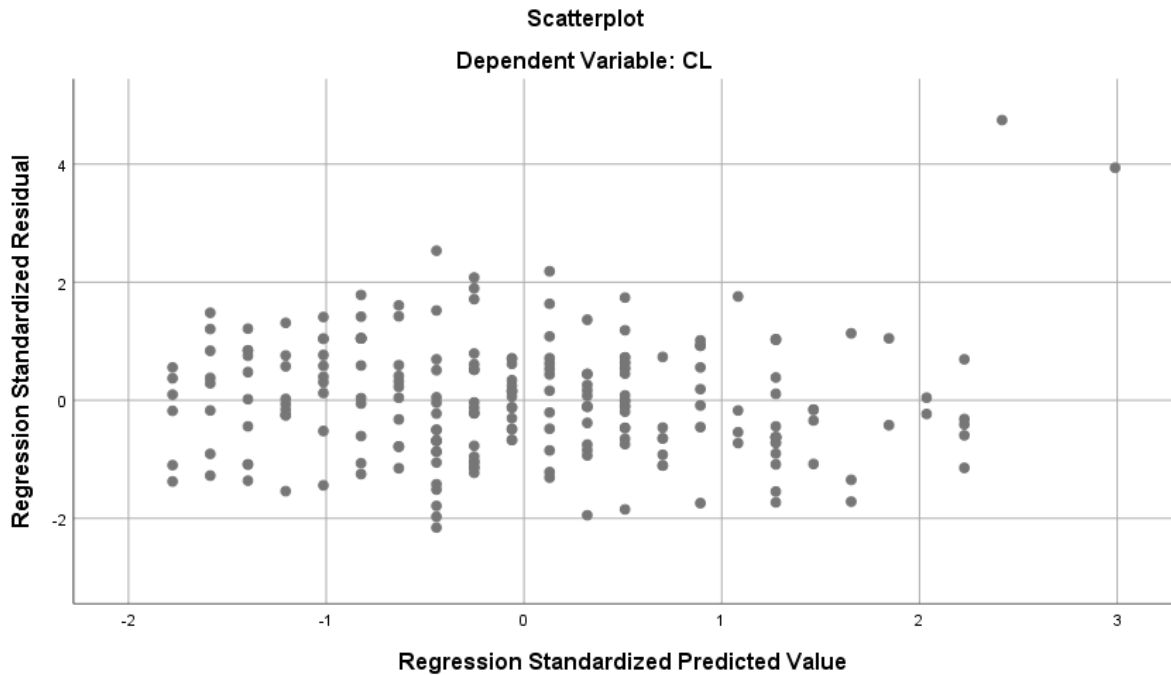
ECSR to BI



Scatter Plot ECSR to BI



BI to CL



Scatter Plot BI to CL

6. Discussion & Conclusion

The purpose of this research thesis is to find and analyze the environment corporate social responsibility of Pakistan aviating industry and how it impacts brand image and customer loyalty among consumers. CSR is an emerging concept in Pakistan and many industries are working on it including Pakistan industries and aviation industry is from one of them. Online survey was being conducted and data was collected from a total 442 respondents. Two questionnaires were made. One for ECSR, because the population for the ECSR were people of a particular aspect, they were the people who were on the position of making policy and implementation in operations, in an organization. This study was set to find the effect of Environmental Corporate Social Responsibility (ECSR) on Customer Loyalty (CL) and Brand Image (BI). And Brand Image effect on Customer Loyalty. Study found out that the ECSR had no impact whatsoever on Customer Loyalty and Brand Image, but the reliability analysis of the variables showed that the impact was very poor. The Brand Image under the effected CL to moderate extent. The effect was moderate.

6.1. Practical implication

Findings of this study have a prominent impact on practical implication. After this research Pakistan aviation industry would get to know that population is being concern about environment corporate social responsibility. In this instance, Pakistan aviation industry would practice more implications about environment and design their policies which would be environmental friendly. As being part of aviation industry, many airlines have implemented certain strategies to reduce the impact of airlines on environment. Large numbers of airlines have published certain reports in which they discussed their goals to reduce the impact of

aircraft related activities on environment and to consider corporate social responsibility in their SOP's.

Moreover, this study would help to analyze that at what extent Pakistan aviation industry is concern about environment and what the further steps and measures are need to be taken. Aviation industry has a prominent impact on environment, so airlines and airports must take into consider and focus on these aspects. Airlines should adopt fuel efficient aircraft and make proper use of uneaten food. Overall aviation industry need to improve their CSR related policies and regulation.

6.2.Theoretical implications

The impact of CSR on customer loyalty and brand image has been analyzed in this research. The results have shown that CSR impacts positively to brand image and customer loyalty but at very low level. The significance level of concernment is not so strong. This indicates that the variables are not quite much concern about environment corporate social responsibility. The study finding offer very valuable addition to the already stack of knowledge and awareness about the existing level of ECSR implementation in the industry. This study will help future researchers to consider and remove the limitations of this study.

6.3.Future research and limitations

The findings of this research provide information regarding impact of CSR on brand image and customer loyalty. At first, due to covid-19 safety concerns, we did not get access to visit airports or airlines offices to collect data by hand and get more information regarding research topic. In this result, data was collected completely online based which cannot be assure that whether the participants have carefully read the questionnaire. In future research, after the situation of Covid-19 has been overcome; research data can be collected by visiting airports and lines in order to ask interview questions. Secondly, in this research the policies and SOP's have been evaluated. In future, the actual implementation and performance of aviation industry regarding CSR can be analyzed. Third, while collecting customer response, the flow of customer quite less due to dismiss of flights due to covid-19. In future, feedback from more regular travelers can be taken who are more aware of term CSR.

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Appendix A

Questionnaire

ENVIRONMENTAL CORPORATE SOCIAL RESPONSIBILITY IN PAKISTAN AVIATION INDUSTRY AND ITS IMPACT ON BRAND IMAGE AND CUSTOMER LOYALTY

Demographics

1. Name: _____
2. Gender: _____
3. Age: _____
4. Organization
 Airline General Aviation Ground Handling CAA
 Other: _____
5. Position in Airline/Organization:
 CEO Director Manager Head of Department Officer
6. Name of your Organization : _____
7. Education: _____
8. Experience in Field: _____

Environmental Corporate Social Responsibility

9. Are you aware of the term Environmental Corporate Social Responsibility?
 Yes No
10. Do your Organization/Airline Practice Environmentally Friendly Practices?
 Yes No
11. How important is it for you, as an employee that Airlines and Organizations, in general, operate on an Environmentally Responsible level.
 Extremely Important Important Neutral Not Important Not Important at all

- f) Noise Reduction 1 2 3 4 5
- g) Reducing Uneaten Food 1 2 3 4 5
- h) Reducing Single use Plastic 1 2 3 4 5
- i) Reduce Water wastage (Recycling) 1 2 3 4 5
- j) Offset Emissions (Purchase CO2 Compensation) 1 2 3 4 5
- k) Using less paper and print on both sides 1 2 3 4 5
- l) Fuel Efficient Ground Machinery 1 2 3 4 5
- m) Less use of chemicals for Servicing 1 2 3 4 5
- n) Non-Reactive and Non-Dangerous Chemicals for Servicing 1 2 3 4 5

Questionnaire Customer Loyalty and Brand Image

Demographics

1. Name *

2. Email (Optional)

3. Gender *

Mark only one oval.

Male

Female

4. Age *

18- 27

28-37

38-47

48-57

58 and Above

5. Education *

- Matric
- Intermediate
- Bachelor
- Masters
- M.Phill
- Ph.D.

6. What you Do? *

- Student
 - Job
 - Business
 - Retired
 - Other:
-

Customer Loyalty

7. Which Pakistani Origin Airline you usually travel on? *

- PIA
 - Serene
 - Air Blue
 - Air Sial
 - Not Travel by Air
 - Other:
-

8. Do you Choose that Airline every-time you travel? *

- Yes
 No

9. Describe the reason of Choosing that Airline. * *Mark only one oval.*

- Price
 Comfort
 Flight Schedule
 Food
 On Time
 Environmental Friendly Practices
 Flight Entertainment
 Other: _____

10. Are you aware of the term Environmental Corporate Social Responsibility *

Mark only one oval.

- Yes
 No

11. Do the Airline which you choose Practice Environmental Corporate Social Responsibility? *

Mark only one oval.

- Yes
 No

12. Have you heard from your airline of choice that they Practice Environmental Friendly Practice?
- Yes
- No

13. If the answer to the question above is yes, Then tell where you heard it from?

Mark only one oval.

- Social Media (Airline Certified Account)
- Televised (TV) Advertisement
- Newspaper
- Online
- Airline Website
- Other:

14. What are the Environmental Friendly Practices they practice? *

Check all that apply.

Environmental Sustainable development

- Green marketing
- Reusable Utensils (Bamboo or Compostable Material)(in Lounges and aboard Flights
- Fuel Efficient & Latest Aerodynamic Aircrafts
- Sustainable Aviation Fuels (Biofuels)
- Reduce Noise by using New Generation Aircrafts
- Reducing Uneaten Food
- Reducing Single use Plastic (On Flight & in Lounges)
- Reduce Water wastage (Recycling)
- Offset Emissions (Purchase CO2 Compensation)
- Using less paper and print on both sides
- Other: _____

15. Describe the Importance of these to you. *
 Check all that apply.

	Extremely Important	Important	Indifferent	Not Important	Not Important at All
Green marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Sustainable development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reusable Utensils (Bamboo or Compostable Material)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fuel Efficient & Latest Aerodynamic Aircrafts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainable Aviation Fuels (Biofuels)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce Noise (Engine) by using New Generation Aircrafts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing Uneaten Food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing Single use Plastic (On Flight & in Lounges)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce Water wastage (Recycling)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offset Emissions (Purchase CO2 Compensation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using less paper and print on both sides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. How important is it for you, as a customer that Airlines and Organizations, operate on an Environmentally Responsible level. * *Mark only one oval.*

	1	2	3	4	5	
Extremely Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not Important at All

17. Incorporating Environmental Friendly Practices into operations in Pakistan can be a Premium and can add cost to Ticket Price, will you still buy/travel on the same airline that is practicing them? * *Mark only one oval.*

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

18. You will prefer Environmental Friendly Practices over price? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

19. Will you prefer Environmental Friendly Practices over Flight comfort? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

20. Will you prefer Environmental Friendly Practices over good food? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

21. Will you prefer Environmental Friendly Practices over Flight Entertainment? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

Brand Image

22. What kind of image do you have about the Pakistan based airline brands? *

Mark only one oval.

- Impressive Image
- Not so Impressive Image
- No Image at all

23. What kind of image do you have about the Quality of Pakistan based airline brands? *

Mark only one oval.

- Excellent Quality
- Good Quality
- Average Quality
- Bad Quality

24. Which of the following Pakistan based Airline Brand you prefer to travel? *

- PIA
- Air Blue
- Serene Air
- Air Sial

25. What is your preference while buying airline ticket? *

Mark only one oval.

- Price
- Environmental activity
- Past experience
- Advertisement
- Recommendation

26. At what extent you prefer an airline which is concern about environment? *

Mark only one oval.

- Very Highly Preferable
- Preferable
- Undecided
- Little preferable
- Not at all Preferable

27. Would you prefer an airline which is concern about environment over other airlines which are not? * *Mark only one oval.*

Yes

No

28. Would you prefer an airline which is concern about environment over an airline offering less fare? * *Mark only one oval.*

Yes

No

29. How would you evaluate the quality of current environmental condition of Pakistan? *

Mark only one oval.

Excellent

Good

Fair

Poor

Very poor

30. Evaluate the responsibility fulfilled by Pakistan aviation industry in order to preserve environment due to aircraft activities? *

Highly Responsible

Somewhat Responsible

Not at all Responsible

Undecided

31. Evaluate the performance of Pakistan based airlines to minimize the impact of aircraft activities on environment? *

- Far Above Standards
- Above Standards
- Meets Standards
- Below Standard
- Far Below Standards