

# **An Investigation of Perceived Justice, Service Performance and Customer Satisfaction Within the Airline Industry**

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*Service performance appears to be particularly crucial in the airline industry following the COVID-19 pandemic. In addition, perceived justice is another construct within this industry that impacts customer satisfaction. A model is proposed that considers the impact of perceived justice and service performance on customer satisfaction within the airline industry. The findings indicate that service performance is positively related to both perceived justice and customer satisfaction, and that perceived justice is also positively related to customer satisfaction.*

*Keywords: perceived justice, service performance, customer satisfaction, airline industry*

## **INTRODUCTION**

Consumers are currently traveling by air more than ever before, primarily due to the effects of COVID-19 on their freedom of movement. In addition to this hike in air travel, numerous calamities have occurred in the recent months, including, but not limited to, the tire falling off a United Airlines plane near San Francisco, various passengers attempting to open airplane exit doors whilst in the air, and a section of the fuselage of an Alaska Airlines plane blowing out at 6,000 feet near Portland, Oregon. Such extreme mishaps, as well as those of lesser danger, cause consumers to think twice about which airline they may wish to patronize. Of course, various issues are beyond the airline's control; yet, some service failures may be mitigated by proper employee training (Hoffman & Kelley, 2000).

Corporations continually strive to obtain repeat patronage and the airline industry is no exception. According to Hoffman, Kelley, and Rotalsky (1995), the reaction of a service provider toward a service failure has the potential to either create a satisfied customer or a severe problem, and that a viable plan for service recovery should be readily available should customer issues arise. In addition, various researchers have commented that the development of service recovery strategies is imperative and that these strategies should be based upon an understanding of service failure, with the ultimate goal of retaining customers at

a higher rate (Hart, Haskett & Sasser, 1990; Lockshin & McDougall, 1998; Mack, Mueller, Crotts & Broderick, 2000; Stratemeyer, Geringer & Canton, 2014; Swanson & Hsu, 2009).

A perusal of the current literature found that perceived justice and service performance has been explored in numerous categories of corporations, including, but not limited to, banking (Chebat and Slusarczyk, 2005); electronics (Maxham and Netemeyer, 2003); online gaming (Ding and Lii, 2016); location-based services (Zhou, 2016); hotels (Assioras, Skouatis, Giannopoulos, Buhalis, and Karaosmanoglu, 2023; Stratemeyer, Geringer and Canton, 2014); mobile phones (Bahri-Ammari and Bilgihan, 2019; and Sidhu, Ong and Balagi, 2023); fast food industry (Ateke, Ogonu, Ishmael, Officer and Harcourt, 2015); the fashion industry (Shin and Lee, 2010); and the beauty service industry (Ryou, 2015). The current study will examine the U.S.-based airline industry and its customers in relation to perceived justice, service performance, and customer satisfaction.

### **Perceived Justice**

Perceived Justice is defined as “the degree to which consumers feel they have been treated equitably, when the failure is handled and the recovery process is activated” (Ding, Ho and Lii, 2015, pg. 2).

Various research studies addressing perceived justice list three aspects of this phenomenon; 1) distributive justice (compensation), 2) procedural justice (fairness of corporate policies, etc.), and 3) interactional justice (treatment of customers whilst service recovery is addressed) (Mattila, 2001; Ding, Ho & Lii, 2015). Numerous research studies have been published regarding perceived justice in the airline industry (Blodgett et al., 1993; Tax et al., 1998; and Maxhem and Netemeyer, 2015). A perusal of the relevant literature indicates that studies investigating perceived justice in the airline industry have all shown that the three aspects listed have an impact on customers’ perception of perceived justice (del-Rio Lanza et al., 2009). Previous research studies state that the strength of all three aspects of perceived justice has been found to be prevalent, although these studies do not all agree as to which aspect is the strongest amongst the three (Blodgett et al, 1997; Ho and Jang, 2009; Nazif, 2010; Nikbin, Armesh, Heydari, and Jalalkamali, 2011; and Ok et al, 2005).

After all, the airline industry is a service industry comprised of humans and there is certainly room for error. Failure to provide adequate services to customers, and the subsequent complaints by these disgruntled humans, are all a circumstance of doing business. According to Anderson & Streukens (2009), perceived justice can serve as a catalyst to consumer communication to other consumers via electronic word-of-mouth platforms (Mahrous, 2023). Ellyawati (2017) comments that “satisfied customers tend to make repeat purchase and spread positive word-of-mouth” and that customers will spread negative word-of-mouth and continue to patronize the airline even though they are unsatisfied with the service recovery effort. This finding was not the norm throughout the literature, as the majority of studies agree that perceived justice affects customer satisfaction and repeat patronage. In fact, according to Mostert, De Meyer, and van Rensburg (2009), a majority (66.2%) of subjects stated that they either would never again fly with an airline or would fly less with said airline after a service failure; however, 82.6% of subjects said they continued to fly with an airline when they were satisfied with the company’s service recovery efforts. Another study by Vazquen-Casielles, Rio-Lanza, and Diaz-Martin (2007) found that past service efforts by airlines “directly influences overall customer satisfaction” (pg. 254) and that the greater the quality level of service efforts, the greater the customer satisfaction.

According to Bejou and Palmer (1998), airlines are “particularly susceptible to service failures” (p. 47), and accordingly, airlines were among the earliest adopters of strategies related to relationship marketing to aid customer retention.

In addition, perceived justice has a direct effect on customer trust and recovery satisfaction (Ding, Ho and Lii, 2015). In some instances, customers do not air their grievances but rather walk away from an airline due to dissatisfaction with their customer service. In most instances, customers simply want adequate service recovery after an incident. Gronroos (1988) defines service recovery as the actions taken by an organization in response to service failure. According to Lewis & Spyropoulos (2001), although a customer’s level of loyalty may be damaged by a service failure, it also provides an opportunity to strengthen the corporate/customer relationship, fostering trust and influencing future purchase intentions.

## **Service Performance**

Beginning with the seminal study on customer satisfaction by Anderson (1973), corporations have striven to develop excellent service recovery and performance. Previous research has indicated that the primary indicator of customer satisfaction is service performance (Liljander and Strandvik, 1997; Chen and Yang, 2000); thus, corporations' business objectives are primarily created to attain customer satisfaction (Hair, Gabriel, and Patel, 2014). According to Chen and Yang (2000), "U.S. airlines compete primarily on price and are not known for good quality service" (pg. 1).

Service quality, or performance, "reflects the way a service is delivered and outcomes of the interaction between customers and the organization" (Chen and Yang, 2000, pg. 1). Such performance may develop a satisfied customer or a dissatisfied customer, depending upon the three aspects of perceived justice (Chen and Yang, 2005; Tsikriktsis, 2007). Top-notch service quality has been found to develop customer loyalty and satisfaction, thus resulting in lower levels of brand switching (Cronin et al., 2000; Dike, Davis, Abrahams, Anjomshoae, and Ractham, 2024; Shin, Park, and Kim, 2021; and Warnock-Smith and Morrell, 2008). Interestingly enough, a 2013 study by Yayla-Kullu and Tansitpong found that price was not a factor in airline service performance, with 80 percent of "low cost carriers" scaling as efficient and a total of 43 percent of "full-service airlines" operating at an efficient level (pg. 6).

A perusal of the current literature indicates that a large number of studies have been conducted and published that address perceived justice and service performance in regard to international airlines, including but not limited to Asia (Mahrous, 2023); Africa (Kazemi and Nazif, 2010; Iran (Ghalandari, Babalinia and Jogh (2012); Indonesia (Ellyawati, 2017); India (Gautam, 2011); Nigeria (Haliru and Mokhtar, 2017); China (Wen, and Chi, 2013); Kuala Lumpur (Nikbin, Ismail and Marimutbu, 2013); Thailand (Jareankiatbovorn, 2018); and the United Kingdom (Schoefer and Ennew, 2005), but it has been found that the number of such studies addressing the United States' population are limited. The current study includes U.S. respondents only. In addition, the vast majority of studies addressing perceived justice and service performance in the airline industry were published prior to 2020 and therefore cannot account for the effects of Covid-19 and the latest challenges faced by that specific industry, which may contribute to customer satisfaction.

## **Customer Satisfaction**

The airline industry is "one of the most highly competitive business environments", leading to a need to necessitate a more rigid understanding of how to attain customer satisfaction (Simsek & Demirbar, 2017, P. 12).

A plethora of research papers have been published addressing various constructs' affect upon customer satisfaction following the 1965 seminal study by Cardoza (in Severt, 2006), addressing the concept.

Customer Satisfaction is defined as "an emotional state or development of attitude which comes about due to the interaction or encounter which a customer has with a service provider; it is often seen as a mental comparison of his pre and post experience with respect to the service rendered to him (Abbas, Abdullah, & Mokhtar, 2015, p. 259).

An alternate definition of Customer Satisfaction is offered by Armstrong and Kotler (2020) as "a person's feelings of pleasure or disappointment resulting from comparing a product or service's perceived performance in relation to his or her expectation" (pg182).

Customer satisfaction is vital to all industries, and the airline industry is no exception. Customer satisfaction has been found to "positively and significantly" lead to customers' purchase intention as well as participation in word-of-mouth follow-up of their experience, thus leading to customer loyalty (Abbas et al, 2015; Putra & Yasa, 2021; Simsek, K., & Demirbag, O., 2017, p. 11; Xu, Liu & Gursoy, 2019). Although customer satisfaction is striven toward in all industries, the hospitality and tourism field is different because it usually includes a combination of products and services, not just one or the other, and both need to be managed properly to aid the corporation in remaining competitive (Crotts, Mason & Davis, 2009; Matzler, Ballom, Hinterhuber, Renzi & Pichler, 2004). Gould (1995) states that customer satisfaction influences customer repurchase intentions and loyalty, thereby driving future sales. Consequently, customer satisfaction has garnered considerable attention in measuring a firm's financial performance and is reflected

in its profit margin (Sun & Kim, 2013). A satisfactory service recovery may lead to customer satisfaction and reduce unfavorable word-of-mouth and increase repurchase intention (Pai 2015).

Research studies of the impact of perceived justice upon customer satisfaction have investigated a wide range of service categories. A number of studies have indicated that all three aspects of perceived justice have a direct effect on customer satisfaction (Ding, Ho, & Lii, 2015; Matikiti, Roberts-Lombard, & Mpinganjira, 2018; Martinez-Tur, Peiro, Ramos, & Molina, 2006; Severt, 2002). Studies by Ghalandari et al. (2012) and Gautam (2011) found that corporate image, in addition to perceived justice, had a positive influence on customer satisfaction. Kazami, Nazif, and Forouharfar (2011) found that customer satisfaction is important in developing customer trust toward an airline corporation, and that trust in turn builds repurchase intention and positive word-of-mouth communication. Carrillo, Svenson, & Neira (2019) established a positive relationship between perceived justice and future behavior intentions.

Service quality is required of businesses, and airline companies are no exception (Stratemeyer & Geringer 2017). According to Tegar et al. (2018), airline companies are in competition to “improve the superior quality of service to meet customer satisfaction” (p.619) and better service can differentiate corporations and improve customer loyalty and satisfaction (Namukasa 2013; Ong & Tan, 2010; & Farooq, Salam, Fayolle, Jaafar, & Ayupp, 2018). Much previous research has established a link between the “service quality dimensions consisting of tangibility, sympathy, reliability, and responsiveness” having a positive and significant impact on customer satisfaction (Hussain, Al-Nasser, & Hussain, Y., 2015; Shin & Kim 2008). Simsek & Demirag (2017) found that airline brand image is also important in the development of customer satisfaction.

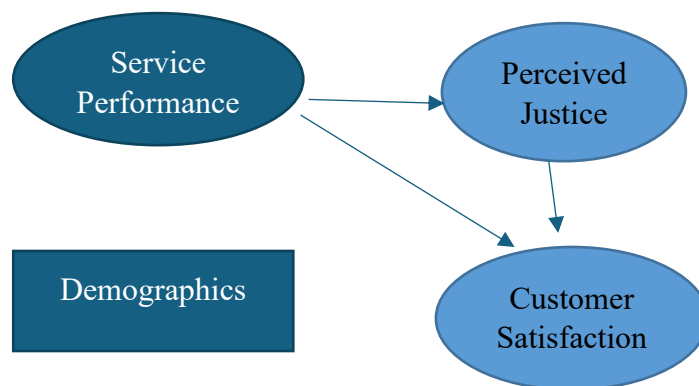
In summary, previous research studies have consistently highlighted the strong relationship between perceived justice and customer satisfaction, as well as between service performance and customer satisfaction. Although these studies are numerous, a perusal of the current literature also indicates that the studies addressing these links all occurred prior to COVID-19 and the recent airline maladies, and that either, or both, may have an effect upon the links.

## METHODOLOGY

### The Operational Model

The theoretical framework of this study utilizes the operational model presented in Figure 1. This model suggests that there are two constructs (i.e., Service Performance and Perceived Justice) that impact Customer Satisfaction for airline services. Additionally, this study examines the effect of service performance on Perceived Justice within the airline industry.

**FIGURE 1**  
**OPERATIONAL MODEL**



## Sampling Procedure

To collect the data for this study, a simple random sampling procedure is employed. The sampling units consist of a paid survey panel from Qualtrics®, and an online questionnaire was developed and administered to these respondents. All items were subsequently generated based on previous research (Bamford & Xystouri, 2005; Mattila, 2001; McColl-Kennedy & Sparks, 2003; McCollough, Berry, & Yadav, 2000), and were subjected to an analysis regarding their psychometric properties. A total of 173 usable questionnaires were collected after eliminating respondents who did not pass the initial screening process.

## Measures

All of the scales used to measure the constructs in this study are derived from research and/or instruments that were also designed and/or conceptualized from previous studies. Because the validity of these scales has been supported in other research (Mattila, 2001; McColl-Kennedy & Sparks, 2003; McCollough, Berry, & Yadav, 2000), the primary goal of this research was to reaffirm the reliability of these scales in the scale purification process. Therefore, the internal consistency of each scale item and the overall Cronbach's alpha score for the constructs are assessed.

The scale measuring Service Performance is adopted from the work of Bamford and Xystouri (2005), who used a case approach research method to identify performance issues within the airline industry. In addition, McColl-Kennedy and Sparks (2003) developed items to measure perceived service issues, including factors such as service failures (i.e., unavailable or slow service), service providers (i.e., employee behavior and actions), things outside the service provider's control, and customer-related issues. Based on these studies (Bamford & Xystouri, 2005; McColl-Kennedy & Sparks, 2003), an 11-item scale was developed in order to measure service performance within airlines. Overall, this scale received an alpha of .920, thus showing a very sufficient level of internal consistency.

To measure Perceived Justice, the research of Mattila (2001) on service recovery efforts is utilized to represent this scale, which includes factors such as distributive justice, procedural justice, and interactional justice. Ten items were adopted from this study, and several were reverse-coded. The scale as a whole received an alpha of .932, again showing a sufficient level of internal consistency.

Customer Satisfaction is measured using scales developed by several authors (Mattila, 2001; McCollough, Berry, & Yadav, 2000), which incorporated the unique aspects of customer satisfaction within the services industry. Five items represented this construct, and the reliability analysis for this scale shows an overall alpha of .970, suggesting that this scale is also reliable for further analysis.

The following hypotheses have been developed for this study:

*H1: Service Performance will have a positive relationship with Perceived Justice.*

*H2: Service Performance will have a positive relationship with Customer Satisfaction.*

*H3: Perceived Justice will have a positive relationship with Customer Satisfaction.*

## RESULTS

Table 1 presents the demographic characteristics of the sample, consisting of 173 respondents. Of the total respondents, 39.3% were male and 60.7% were females. The majority of the respondents were over 55 years of age accounting for 55.5%. Most of the respondents were Caucasian (white) accounting for 76.9%. More than half of the respondents (50.3%) were married.

**TABLE 1**  
**DEMOGRAPHICS**

Variable		N	Percentage
Gender	Male	68	39.3
	Female	105	60.7
Age	Under 24	5	2.9
	25-35	16	9.2
	36-45	27	15.6
	46-55	29	16.8
	55+	96	55.5
Ethnicity	Asian	7	4
	Black	19	11
	Caucasian	133	76.9
	Hispanic/Latino	12	6.9
	Multiracial	2	1.2
Family status	Divorced	40	23.1
	Married	87	50.3
	Single	35	20.2
	Other	11	5.4
Salary range	Under \$20,000	18	10.4
	20,000-39,999	42	24.3
	40,000-59,999	41	23.7
	60,000-79,999	31	17.9
	Over 80,000	41	23.7

An analysis of the three constructs in this model is presented in the following Tables (Tables 2-4). Specifically, Service Performance has eleven items and Perceived Justice has ten items, both measured on a scale from 1 (strongly disagree) to 7 (strongly agree). Satisfaction is measured with five items on a scale from 1 (very dissatisfied) to 7 (very satisfied).

**TABLE 2**  
**SERVICE PERFORMANCE**

Item	$\bar{X}$	SD	Load	95% CI	PVE	$\rho$
<i>Service Performance</i>					.516	.920
I usually get the seat(s) I want.	5.21	1.42	.617	[.484,.716]		
When food or beverages are provided, it is mostly good.	4.63	1.61	.692	[.602,.769]		
There is usually plenty of overhead space for luggage.	4.65	1.78	.767	[.714,.833]		
There is sufficient leg room on most airplanes.	4.04	1.88	.726	[.656,.786]		
The attitudes of ground and flight staff is positive.	5.46	1.39	.787	[.718,.848]		

I rarely experience any flight cancellations or delays.	4.90	1.46	.721	[.612,.784]		
The power or Wi-Fi is sufficient on most flights.	5.02	1.61	.618	[.522,.718]		
Other passengers are usually civil and courteous.	5.13	1.45	.786	[.713,.840]		
I have never been overbooked for a flight.	4.89	2.04	.569	[.410,.682]		
The airline lounge is usually spacious and comfortable.	4.97	1.56	.711	[.604,.776]		
Overall, I am comfortable on most flights.	5.34	1.48	.854	[.804,.891]		

Note:  $\bar{X}$  = Average Value, SD = Standard Deviation, CI = Confidence Interval, PVE = Percentage Variance Extracted, and  $\rho$  = DG-Rho

**TABLE 3**  
**PERCEIVED JUSTICE**

Item	$\bar{X}$	SD	Load	95% CI	PVE	$\rho$
<i>Perceived Justice</i>					.579	.932
When there was a problem, the outcome I received was fair.	5.19	1.59	.838	[.796,.882]		
In resolving the problem, the airline and/or their employees gave me what I needed.	5.13	1.52	.861	[.811,.896]		
The airline and/or their employees showed adequate flexibility in dealing with my problem.	4.96	1.66	.810	[.750,.876]		
The service employees were appropriately concerned about my problem.	5.04	1.64	.824	[.752,.870]		
The service employees' communications with me were appropriate.	5.47	1.43	.816	[.759,.867]		
When there was a problem, I did not get what I deserved. (r)	4.85	1.79	.754	[.680,.822]		
The outcome I received was not right based on the problem. (r)	4.65	1.78	.716	[.622,.805]		
The length of time taken to solve my service problem was longer than necessary. (r)	4.38	1.84	.657	[.560,.746]		
The employees did not put the proper effort into resolving my service problem. (r)	4.82	1.86	.639	[.511,.754]		
The service employees did not give me the courtesy I was due. (r)	5.17	1.87	.656	[.544,.758]		

Note:  $\bar{X}$  = Average Value, SD = Standard Deviation, CI = Confidence Interval, PVE = Percentage Variance Extracted, and  $\rho$  = DG-Rho

**TABLE 4**  
**SATISFACTION**

Item	$\bar{X}$	SD	Load	95% CI	PVE	$\rho$
<i>Satisfaction</i>					.894	.970
How do you feel about airlines and their service employees?	5.40	1.40	.942	[.921,.961]		
How satisfied are you with airline company's handling of problems?	5.11	1.58	.937	[.910,.961]		
How satisfied or dissatisfied does traveling with airlines leave you feeling?	5.16	1.58	.940	[.910,.957]		
How do you feel about airline companies meeting your needs?	5.18	1.61	.954	[.934,.971]		
Overall, how satisfied are you with airlines and their employees?	5.37	1.50	.955	[.934,.972]		

Note:  $\bar{X}$  = Average Value, SD = Standard Deviation, CI = Confidence Interval, PVE = Percentage Variance Extracted, and  $\rho$  = DG-Rho

As shown in the previous tables, internal consistencies were assessed using Dillon-Goldstein's Rho, with a criterion of a value greater than 0.7 indicating high reliability, as recommended by Hwang and Takane (2014) and Benitez et al. (2020). Results showed that all variables within the model structure were highly consistent, with Rho values ranging from .920 to .970. Convergent validity was assessed by calculating the Percentage Variance Extracted (PVE) with a recommended threshold of .5, as suggested by Manosuthi et al. (2021).

The results indicated that the instrument used in this study had good convergent validity, with PVE values ranging from .516 to .894. Construct validity was assessed through factor analysis, which grouped similar questions into the same variables. Results showed that all factors were highly related, with factor loading values ranging from .569 to .854 for Service Performance, from .639 to .861 for Perceived Justice, and from .937 to .955 for Satisfaction.

The goodness of fit of the structural model was evaluated using the Goodness-of-Fit Index (GFI) and the Standardized Root Mean Square Residual (SRMR), with recommended criteria of 0.90 and 0.08, respectively, as suggested by Hu and Bentler (1999). Results indicate that the GFI was .968 and the SRMR was .095, suggesting a good fit of the model. Discriminant validity was assessed using the Heterotrait-Monotrait ratio of correlations (HTMT) with a recommended threshold of less than .85, as suggested by Henseler et al. (2015). Results showed that two variables had HTMT values less than .85, indicating good discriminant validity, as shown in Table 5.

**TABLE 5**  
**GFI**

	Service Performance	Perceived Justice	Satisfaction
Service Performance		.693	.854
Perceived Justice	.692		.793
Satisfaction	.899	.793	

Note: The upper diagonal is the correlation matrix; the lower diagonal is the HTMT ratio



Table 6 presents the results of the hypotheses, suggesting that these relationships are positive and statistically significant, based on the path coefficients and confidence intervals at 95% confidence level of the structural equation model. Therefore, the research findings indicate that path coefficients are statistically significant ( $P < .05$ ) for the path model relationships.

**TABLE 6**  
**HYPOTHESES RESULTS**

	Estimate	95% CI	Results
<b>H1:</b> Service Performance will have a positive relationship with Perceived Justice.	.693	[.603, .782]	Supported
<b>H2:</b> Service Performance will have a positive relationship with Customer Satisfaction.	.587	[.491, .664]	Supported
<b>H3:</b> Perceived Justice will have a positive relationship with Customer Satisfaction.	.386	[.306, .474]	Supported

## MANAGERIAL IMPLICATIONS

Consumer's perceptions of how airlines treat customers is an issue that all airlines need to acknowledge. Collecting data on these consumer perceptions would support any Customer Relationship Management (CRM) program, and provide management with valuable insights to aid in strategic decisions. An understanding of consumer perceptions regarding the processes, people, and physical evidence is essential to compete in the airline industry.

As this study showed, consumer perceptions of service are related to their service performance expectations regarding service failure remedies ( $\beta_1 = .693$ , 95% CI = .603, -.782,  $p < .05$ ), which supports Hypothesis 1 (H1). While consumer perceptions of service contribute to satisfaction ( $\beta_2 = .587$ , 95% CI = .491, -.664,  $p < .05$ ), which supports Hypothesis 2 (H2), perceived justice after a service failure is an important component that also contributes to satisfaction ( $\beta_3 = .386$ , 95% CI = .306, -.474,  $p < .05$ ), which supports Hypothesis 3 (H3).

Airlines should always have contingency plans in place for any service failures to mitigate dissatisfaction and recognize that service failures are inevitable. A proper CRM program will collect data on customers and develop appropriate service offerings as a result, knowing that it is not if a service failure will occur, but rather when it will occur.

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