THE STRUCTURAL EFFECT OF AIRLINES ECO-FRIENDLY ACTIVITIES ON CORPORATE TRUST AND CUSTOMER CITIZENSHIP BEHAVIOR

MinA Han, Asiana Airlines Corporation, Gangseo-gu, Seoul, Korea
KyungJae Rhee (Corresponding Author), Geumgang University, Korea

ABSTRACT

Because of the seriousness of the environmental crisis, demands that companies behave in an eco-friendly manner have increased. In addition, the global pandemic of COVID-19 has become an opportunity to stress the need for a more rigorous response to the current situation. The Organization for Economic Cooperation and Development (OECD) and European Union (EU) are making the provision of economic stimulus measures contingent upon eco-friendly management to overcome the pandemic. This has attracted the attention of the aviation sector. The present study verified empirically the structural impact of airlines' eco-friendly activities on corporate trust and customer citizenship behavior (CCB). It found that in-flight service and waste recycling had a positive effect on corporate trust. In-flight service had a positive effect on advocacy, and waste recycling and corporate trust had a positive effect on advocacy, tolerance, and helping in terms of CCB.

Keywords: Eco-Friendly Activities, Corporate Trust, Customer Citizenship Behavior (CCB), Airlines.

INTRODUCTION

The world is experiencing a major crisis as a result of the COVID-19 pandemic, and the situation has underlined the need for a comprehensive and integrated approach to human health. Governments in every country are supporting various economic stimulus measures to overcome the pandemic, and the Organization for Economic Cooperation and Developed (OECD) is insisting on devising eco-friendly policies to restore the world after COVID-19 to "build back better". Recently, the OECD reported that the pandemic has highlighted the significance of human interference with biodiversity in helping to create the conditions for pathogens to leap from animals to humans, and it emphasized the critical complementarity of environmental health and resilience in relation to public health (OECD, 2020).

In addition, the European Union declared that it would overcome the economic crisis of COVID-19 by fostering a green industry and providing 25% of its economic recovery packages toward the response to climate change (EU, 2020). As part of its green policy, the Korean government is also pursuing the Green New Deal to accelerate the transition of eco-friendly and low-carbon industrial structures to advance environmental systems and foster eco-friendly industries (Korea Policy Briefing, 2020). As such, environmental protection is recognized to be more important than the economy by governments around the world in the face of the health crisis. Companies are now able to secure their future only through eco-friendly management. This process has become a global trend. The aviation industry, facing crisis of survival due to the

spread of COVID-19, is actively pursuing a green initiative and corporate environmental compliance so that it can access bailout packages.

The aviation industry is an important part of the national economy. It drives economic growth by moving people and goods around the world (Waitz et al., 2004), but emits 742 million tons of CO_2 annually (Air Transport Action Group, 2015). With an annual increase in passenger numbers of more than 5%, the aviation industry's carbon emissions have increased rapidly at an annual rate of 2% since 2000 (IEA, 2020). In 2016, the International Civil Aviation Organization (ICAO) decided to implement the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) with the aim of not increasing carbon emissions in the sector from 2020. From 2027, compulsory participation in CORSIA among all countries except certain exempt ones (i.e., least developed countries, small island developing countries, inland developing countries, and countries with less than 0.5% of the revenue-tonne-kilo (RTK) share in the international aviation sector in 2018 and less than 90% of the accumulated global RTK) is being planned (ICAO, 2018). Accordingly, airlines are striving to improve its positive image and the trust (Han et al., 2019) of customers by undertaking eco-friendly measures (Kolsaker & Payne, 2002) through efficient aircraft operation management to reduce carbon emissions, the use of eco-friendly in-flight products, and waste and recycling management. Eco-friendliness and sustainable management have become the driving force of competitiveness between aviation and service companies. They are also an important factor in inducing customers voluntary participation and customer citizenship behavior (CCB). In modern society, the customers of service companies are emerging as human resources voluntarily participating in corporate management by acting as temporary employees of the organization. The airline industry differs from other industries in that customers participate in the service process in a limited space called an airplane. Customer citizenship behavior, which is adopted as an outcome variable in the present study, has an important effect on service quality, customer satisfaction, and customer commitment through the interaction between service providers and customers (Chen et al., 2015; Lengnick-Hall et al., 2000).

The present study aimed to examine empirically the structural relationship between airlines' eco-friendly activities, corporate trust, and CCB, and to present survival and sustainable management and business directions for airlines. The study is structured as follows. In the results, frequency analysis, exploratory factor analysis, reliability analysis, confirmatory factor analysis, path analysis, and indirect effects are analyzed, followed by comprises a discussion and a conclusion.

Theoretical Background

As a consensus has spread that solving environmental problems has a close relationship with the sustainable growth of humanity, it has been argued that the paradigm of corporate management should be transferred from the natural environment and applied to new environmental management through the preservation of the ecosystem (Elkington, 2004). As public awareness of environmental improvement increases, sustainable and eco-friendly managements are being emphasized as the new elements of corporate competitiveness. In addition, eco-friendly management in countries around the world is being applied as part of economic stimulus measures to defeat the pandemic. Eco-friendly management refers to continuous environmental development in a company's production activities to minimize environmental damage (Jeong, 1995) and to improve productivity, quality, and financial

performance (Cairncross, 1992). Interest in environmental management is becoming an important issue in the aviation industry and in others, such as manufacturing and hospitality. Airlines are taking a positive and supportive attitude toward environmental management; it has been revealed that they can play an important role in environmental protection (Chen, 2013). According to the International Energy Agency (IEA, 2020), the aviation industry's carbon emissions, which now account for 2% of global carbon emissions, will increase to more than 3% by 2050. As a means of solving the aviation industry's environmental problems, the ICAO has set a goal to reduce international aviation greenhouse gas emissions using 2020 as the baseline, and has developed CORSIA, a system that allows airlines exceeding the baseline to purchase emission units from the carbon market and offset the excess (ICAO, 2018). However, due to the sharp decline in international aviation activity consequent upon the pandemic, it was decided that 2019 emissions would be used to determine the baseline (ICAO, 2020). In the post-COVID-19 era, sustainable and eco-friendly management will be an essential condition, not a choice, for the survival of airlines.

Trust is a condition that appears worthy of serious consideration (Kelman, 1961), and is broadly defined in terms of individuals, groups, and organizations. Corporate trust is a concept developed in respect of reliability (Newell & Goldsmith, 2001). It refers to the level of belief that a supplier can provide in the desired product or service (Kolsaker & Payne, 2002), or that formed by experiencing a product or service in a relationship between a company and a customer (Chauchuri & Holbrook, 2001). Thus, when a company improves the perceived quality of products and services, consumers feel appreciation and reciprocity (Morales, 2005). In an innovative, specialized, and rapidly changing business environment, corporate trust becomes an important factor in forming long-term purchase intention and customer loyalty along with a positive evaluation of product or services (Doney & Cannon, 1997). In addition, from a consumer's point of view, corporate trust acts as a means to reduce perceived risks and anxiety factors in various purchasing situations, allowing a state of continuous solidarity to be maintained between company and customer (Moorman et al., 1992). In other words, corporate trust induces positive behaviors among customers, and is a key prerequisite for a long-term relationship.

The concept of CCB is derived from organizational citizenship behavior (Groth, 2005), which refers to an individual's discretionary behavior that improves organizational development and function without direct and explicit compensation. It is the application of citizenship behavior within the organization (Organ, 1988). Yi & Gong (2013) state that CCB involves the voluntary participation of customers to improve corporate performance. In this regard, the customer plays an important role as a temporary employee in the service process (Namasivayam, 2003), such that that the customer is regarded as a secondary employee (Halbesleben et al., 2003). Customers advance not only their personal interests but also organizational interests through positive word of mouth or recommendations, and improve the quality of service by cooperating with service providers (Doney & Cannon, 1997). Many researchers have constructed the concept of CCB with sub-factors. For example, Groth (Groth, 2005) conceptualizes CCB as comprising recommendations, feedback, and helping, while Yi & Gong (2013) suggest advocacy, tolerance, feedback, and helping. The present study is based on the traditional concept of CCB, which consists of advocacy, tolerance, and helping.

Hypotheses and Research Design

The importance of eco-friendly management for solving environmental problems is now

a feature of almost every industry. Researchers have noted the positive effect of eco-friendly company activities on corporate trust. Inoue & Kent (Inoue & Kent, 2012) demonstrate that consumers exhibit positive corporate trust and environmental attitudes toward sports teams who involve recycling during home games. Ji & Byeon (2011) confirm that environmentally friendly room service has a significant effect on corporate trust. In general, the eco-friendly activities of companies are expected to have a significant impact on the environmental behavior of customers and thus to increase the reputation of those companies. Thus, the following hypothesis is proposed:

H1. Eco-friendly activities will have a positive (+) effect on corporate trust.

After experiencing the service of an eco-friendly company, customers play a positive role in corporate performance through voluntary actions such as recommendations, word of mouth, feedback, and helping other customers. Consumers' interests in eco-friendly products or services lead to their voluntary corporate participation and CCB (Kariminia et al., 2013). Chen et al. (2012) claim that airlines gain advocacy, support and loyalty from customers when they adopt various measures to protect the environment. Han (2019) shows that airlines' eco-friendly education, in-flight service, social contribution, and campaign activities have a significant impact on CCB. Hwang et al. (2018) argue that, to highlight their eco-friendly image, airlines have to practice eco-friendly management such as fuel saving and the use of recycled products. Thus, the second hypothesis is proposed:

H2. Eco-friendly activities will have a positive (+) effect on customer citizenship behavior (CCB).

The social exchange theory explains that trust is a key variable in driving citizenship behavior (Organ, 1988). Service quality encourages customers to perceive companies positively, and the trust formed as a result appears as CCB (Lin et al., 2011). Ok (2019) finds that consumer trust significantly affects CCB. For Choi (Lin et al., 2018), the higher the corporate trust, the more voluntary the CCB, for example in terms of recommendations, helping other customers, or suggesting useful ideas. Thus, the final hypothesis is proposed:

H3. Corporate trust will have a positive (+) effect on customer citizenship behavior (CCB).

A research model based on the above hypotheses is presented in Figure 1 to examine the effect of airlines' eco-friendly activities on corporate trust (CORPT) and CCB.

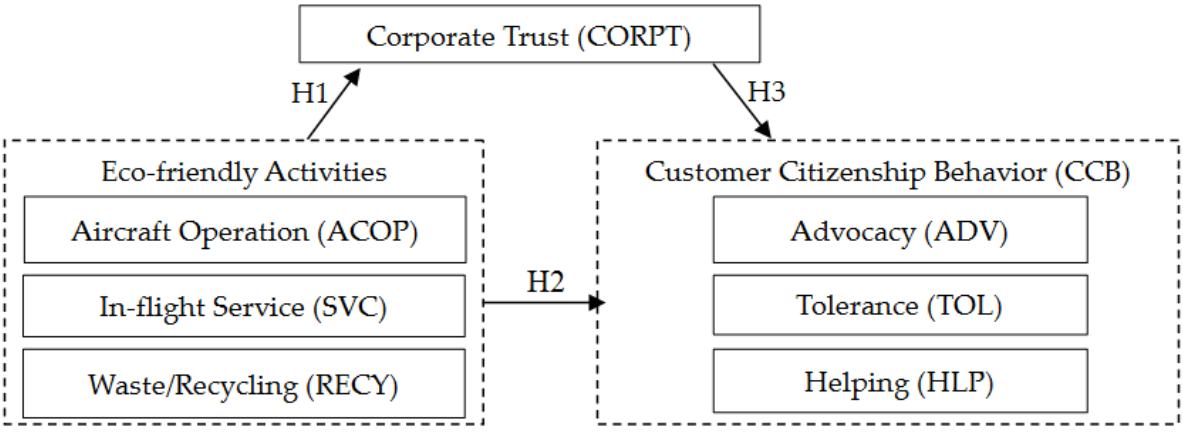

FIGURE 1
RESEARCH MODEL

The present study is composed of airlines' eco-friendly activities, CORPT, and CCB as key variables. Airline eco-friendly activities are categorized as aircraft operation (ACOP), in-flight service (SVC), and waste recycling (RECY); ACOP refers to operating aircrafts eco-friendliness in consideration of energy saving, and noise and carbon reduction; SVC to services provided in-flight in consideration of the environment; and RECY to the minimizing of the negative environmental impact of food and materials generated from services. Corporate trust is the belief that a company will provide the product or service that customers want. Customer citizenship behavior is defined as the company-friendly behavior that customers voluntarily provide in response to the service they receive from the company. The contents of the measurement questions are shown in Table 1.

TABLE 1
MEASUREMENT QUESTIONS

Variable		Measurement Questions	Previous researches
Eco-friendly Activities	Aircraft Operation (ACOP)	1. Reduction of fuel and carbon emissions by introducing eco-friendly aircraft	Chen (2013); Niu et al. (2016); Karaman & Akman (2018) Han (2019)
		2. Noise management during takeoff and landing of aircraft	
		3. Fuel saving by shortening aircraft taxiing time	
		4. Minimizing carbon emissions through regular aircraft engine cleaning	
		5. Reduction in use of aircraft fuel by shortening the route of operation	
		6. Use of eco-friendly material maintenance parts	
	In-flight Service (SVC)	1. Use of eco-friendly food materials	
		2. Use of eco-friendly in-flight packaging	
		3. Use of eco-friendly in-flight items (blanket, paper cups, napkins, water soap, etc.)	
		4. Reduced aircraft weight by the use of light in-flight items (lightweight carts, etc.)	
		5. Reduced paper consumption by replacing newspapers and magazines with in-flight entertainment systems	
		6. Reduction of aircraft weight by encouraging pre-orders of duty-free products	

		7. Use of eco-friendly interiors	
		8. Maintain the proper temperature in the cabin	
	Waste & Recycling (RECY)	1. Saving of water by controlling the amount of water flow in the toilet	
		2. Recommending pre-ordering of in-flight meals to reduce food waste	
		3. Reduction in resource consumption by recommending the use of passengers' own headsets	
		4. Food management (e.g., by providing the right amount of food)	
		5. Recycling	
		6. Less use of disposable plastic	
Corporate Trust (CORPT)		1. Confidence of the quality/service provided	Yim et al. (2008)
		2. Reliable quality/service	
		3. Professional quality/service	
		4. Sincerity	
Customer Citizenship Behavior (CCB)	Advocacy (ADV)	1. Spreading positive experience to others	Groth (2005); Yi & Gong (2013)
		2. Recommendation to others	
		3. Recommendation to friends and acquaintances	
	Tolerance (TOL)	1. Tolerating service that is below expectations	
		2. Tolerating mistakes by employees	
		3. Acceptance when the service takes longer than usual	
	Helping (HLP)	1. Willing to provide assistance when other customers need it	
		2. Help if other customers are having problems	
		3. Advice to other customers	
* A 7-point Likert scale was used for the study.			

RESULTS

In order to examine the structural relationship between airline eco-friendly activities, corporate trust, and CCB, a survey was conducted among passengers with air travel experience. The final 533 survey responses were collected and examined using frequency analysis, exploratory factor analysis (EFA), reliability analysis, confirmatory factor analysis, and structural model analysis. Finally, bootstrapping was used to verify the statistical significance of indirect effects.

Table 2 summarizes the results of the frequency analysis that was conducted to establish the demographic characteristics of the respondents. Of the total 533 respondents, 71.1% were women and 36.6% were in their '40s. Of the eco-friendly airlines chosen by the passengers, domestic full-service carriers (FSCs) comprised the highest number, at 56.8%.

TABLE 2
SAMPLE CHARACTERISTICS

		Frequency	(%)
Gender	Male	154	28.9
	Female	379	71.1
Age	20s	63	11.8
	30s	180	33.8
	40s	195	36.6
	Over 50	95	17.8
Airlines	Full-service carriers (FSCs)	303	56.8
	Low-cost carriers (LCCs)	71	13.3

	Foreign	67	12.6
	Others	92	17.3

Exploratory factor analysis and reliability analysis were conducted to verify the reliability and validity of the measured variables. The results are presented in Table 3. For exploratory factor analysis, a principal component analysis was performed using the varimax rotation method, and SVC5, SVC6, SVC8, RECY5, and RECY6 with factor loading and a commonality of less than 0.5 were removed to ensure the validity of the variables. The value of KMO was 0.908, which indicated a good choice for factor analysis. The value of the Bartlett sphericity test was 10955.257 and the significance probability was 0.000, which indicated that factor analysis was appropriate and that common factors existed. In addition, Cronbach's alpha coefficients for each variable exceeded the acceptable standard of 0.6 in the reliability analysis of the internal consistency between the items of the measurement tool. Therefore, the validity and reliability of the measurement tool were confirmed.

TABLE 3
RESULTS OF EXPLORATORY FACTOR ANALYSIS AND RELIABILITY ANALYSIS

Variables	Components							Commonality	Cronbach's Alpha
	1	2	3	4	5	6	7		
CORPT2	0.873	0.181	0.093	0.14	0.147	0.132	0.202	0.902	0.945
CORPT3	0.855	0.175	0.084	0.176	0.16	0.148	0.192	0.884	
CORPT1	0.842	0.197	0.101	0.173	0.172	0.136	0.229	0.888	
CORPT4	0.811	0.114	0.058	0.18	0.207	0.101	0.147	0.781	
SVC2	0.14	0.847	0.189	0.068	0.03	0.117	0.137	0.811	0.875
SVC3	0.15	0.84	0.211	0.064	0.104	0.145	0.179	0.84	
SVC1	0.139	0.783	0.243	0.166	0.06	0.112	0.003	0.735	
SVC4	0.11	0.574	0.367	0.07	0.044	0.128	0.186	0.534	
SVC7	0.213	0.567	0.184	0.145	0.014	0.32	0.122	0.539	
ACOP3	0.079	0.099	0.795	0.013	-0.001	0.098	0.016	0.658	0.823
ACOP5	0.015	-0.021	0.742	-0.028	0.089	0.042	-0.004	0.562	
ACOP2	0.036	0.239	0.677	0.17	-0.087	0.114	0.067	0.571	
ACOP4	-0.017	0.359	0.677	0.037	-0.035	0.126	0.105	0.617	
ACOP1	0.12	0.301	0.642	0.152	-0.003	0.069	0.081	0.552	
ACOP6	0.142	0.354	0.556	0.082	0.006	0.17	0.118	0.504	
HLP2	0.243	0.152	0.104	0.851	0.197	0.078	0.201	0.902	0.912
HLP1	0.238	0.181	0.096	0.835	0.171	0.101	0.198	0.874	
HLP3	0.147	0.081	0.117	0.807	0.216	0.103	0.172	0.78	
TOL1	0.217	0.029	0.031	0.127	0.855	0.104	0.139	0.827	0.899
TOL2	0.197	0.036	-0.003	0.208	0.849	0.13	0.156	0.845	
TOL3	0.158	0.098	-0.057	0.196	0.834	0.154	0.145	0.817	
RECY2	0.076	0.202	0.033	0.092	0.059	0.777	0.073	0.669	0.764
RECY4	0.06	0.127	0.151	0.084	0.02	0.773	0.147	0.669	
RECY3	0.11	0.088	0.143	-0.019	0.194	0.704	-0.059	0.578	
RECY1	0.194	0.133	0.161	0.119	0.134	0.61	0.217	0.532	

ADV2	0.317	0.173	0.123	0.212	0.189	0.144	0.833	0.941	0.952
ADV1	0.294	0.214	0.081	0.24	0.177	0.114	0.803	0.885	
ADV3	0.272	0.204	0.13	0.252	0.23	0.174	0.784	0.894	
KMO : 0.908; Bartlett sphericity test : 10955.257 (p = .000)									

Confirmatory factor analysis was performed to verify the fitness of the measurement model and the construct validity of the measurement variables for the seven factors extracted through exploratory factor analysis. The results are presented in Table 4. In order to enhance the suitability of the model, RECY3 and ACOP5 with squared multiple correlation values less than 0.4 were removed. As a result, the fit of the measurement model was found to be χ^2=636.283, df=278, p=0.000, and the values of comparative fit index (CFI) and Tucker-Lewis index (TLI) were 0.966 and 0.960, respectively–higher than the cut-off value of 0.9 (Tabachnick & Fidell, 2007) or 0.95 (Hu & Bentler, 1999). In addition, the values of the standardized root mean square residual (SRMR) and root mean square error of approximation (RMSEA) were 0.044 and 0.049, respectively, which were lower than the cut-off value of 0.06 (Hu & Bentler, 1999) or 0.07 (Steiger, 2007). This confirmed the suitability of the study's measurement model.

In order to verify the construct validity of the measured variables, convergent validity and discriminant validity were checked. Convergent validity for each variable was verified by confirming the average variance extracted (AVE) and construct reliability (CR). The CR of all construct concepts exceeded the cut-off value of 0.70. As for the AVE values, five of the seven factors exceeded the cut-off value of 0.50, and the ACOP and RECY exceeded 0.40. In the structural equation, the AVE between 0.40-0.50 was not a valid cut-off value (Thompson, 2004), so the AVE result was considered to be acceptable. In addition, discriminant validity can be judged by whether the square root of the AVE of the construct concept exceeds the value of the correlation coefficient between the two concepts (Fornell & Larcker, 1981), so the study was considered to have discriminant validity.

TABLE 4
CONVERGENT VALIDITY AND DISCRIMINANT VALIDITY ANALYSIS

Variables	1	2	3	4	5	6	7	AVE	C.R
1. ACOP	0.702							0.493	0.829
2. SVC	0.672**	0.781						0.61	0.885
3. RECY	0.469**	0.523**	0.693					0.48	0.734
4. CORPT	0.325**	0.463**	0.451**	0.906				0.82	0.948
5. ADV	0.364**	0.483**	0.487**	0.629**	0.934			0.873	0.954
6. TOL	0.092	0.232**	0.386**	0.481**	0.492**	0.867		0.751	0.9
7. HLP	0.328**	0.399**	0.386**	0.526**	0.577**	0.498**	0.89	0.792	0.919
χ^2=636.283, df=278, p=0.000, CFI=0.966, TLI=0.960, SRMR=0.044, RMSEA=0.049									
Note: Diagonal dark values are square root of AVE, *p<0.05, **p<0.01, and ***p<0.001									

The structural equation maximum likelihood method was applied to verify the research model and hypotheses; the results are presented in Table 5. As a result of analyzing the fitness of the research model, χ^2=733.584, df=281, and p=0.000. The values of CFI and TLI were 0.956 and 0.950, respectively, which were higher than the cut-off value of 0.9 (Tabachnick & Fidell,

2007) or 0.95 (Hu & Bentler, 1999). The values of SRMR and RMSEA were 0.059 and 0.055, respectively, which were lower than the cut-off value of 0.06 (Hu & Bentler, 1999) or 0.07 (Steiger, 2007). Model fitness was therefore satisfied.

The relationship between eco-friendly activities and corporate trust was analyzed. The unstandardized path coefficients of SVC and RECY were 0.483 and 0.408, respectively, and were found to have a positive significant effect on CORPT at the 0.1% level. The results indicated that if an airline's in-flight service and waste recycling increased by one unit, the corporate trust of the airline could be expected to increase by 0.483 and 0.408 units, respectively, while holding all other relevant variables constant. Hypotheses 1-2 and 1-3 were therefore confirmed.

Next, the relationship between eco-friendly activities and the three sub-factors of CCB was analyzed. The unstandardized path coefficients from ACOP to ADV, TOL, and HLP were -0.014, -0.328, and 0.033, respectively. Among the three paths, that from ACOP to TOL was significant at the 1% level. The result indicated that if an airline's aircraft operation decreased by one unit, tolerance toward the airline would be expected to increase by 0.328 unit. In contrast with Mayer et al.'s findings (Mayer et al., 2012), it was found that aircraft operation did not affect corporate trust. This result can be attributed to the lack of eco-friendly awareness by customers using Korean airlines; it seems that considerable effort will be needed to improve the perception of customers. Hypotheses 2-1, 2-2, and 2-3 were therefore rejected. The unstandardized path coefficients from SVC to ADV, TOL, and HLP were 0.190, 0.015, and 0.131, respectively. Among the three paths, only that from SVC to ADV was significant at the 5% level. Hypothesis 2-4 was therefore confirmed. The unstandardized path coefficients from RECY to ADV, TOL, and HLP were 0.321, 0.520, and 0.291, respectively, and were significant at the 0.1% level. The results suggest that if an airline's waste recycling activities increased by one unit, advocacy, tolerance, and helping of the airline would be expected to increase by 0.321, 0.520, and 0.291 units, respectively. Hypotheses 2-7, 2-8 and 2-9 were therefore confirmed.

Lastly, the relationship between corporate trust and CCB was analyzed. The unstandardized path coefficients from CORPT to ADV, TOL, and HLP were 0.420, 0.424, and 0.377, respectively, and were significant at the 0.1% levels. The results indicate that if corporate trust of an airline increases by one unit, advocacy, tolerance, and helping of the airline would be expected to increase by 0.420, 0.424, and 0.377 units, respectively. Therefore, hypotheses 3-1, 3-2, and 3-3 are adopted.

TABLE 5
RESULTS OF PATH ANALYSIS

Path		Estimate		S.E	C.R.	p
		B	β			
H1-1	ACOP→CORPT	-0.063	-0.045	0.092	-0.682	0.495
H1-2	SVC→CORPT	0.483	0.331	0.099	4.886	***
H1-3	RECY→CORPT	0.408	0.305	0.083	4.903	***
H2-1	ACOP→ADV	-0.014	-0.011	0.072	-0.193	0.847
H2-2	ACOP→TOL	-0.328	-0.213	0.104	-3.159	0.002**
H2-3	ACOP→HLP	0.033	0.024	0.085	0.385	0.700
H2-4	SVC→ADV	0.190	0.141	0.077	2.462	0.014*
H2-5	SVC→TOL	0.015	0.010	0.108	0.142	0.887
H2-6	SVC→HLP	0.131	0.092	0.091	1.438	0.150

H2-7	RECY→ADV	0.321	0.260	0.068	4.757	***
H2-8	RECY→TOL	0.520	0.359	0.098	5.313	***
H2-9	RECY→HLP	0.291	0.222	0.079	3.703	***
H3-1	CORPT→ADV	0.420	0.454	0.039	10.626	***
H3-2	CORPT→TOL	0.424	0.391	0.055	7.655	***
H3-3	CORPT→HLP	0.377	0.385	0.046	8.202	***
χ^2=733.584 df=281 p=0.000 CFI=0.956 TLI=0.950 SRMR=0.059 RMSEA=0.055						
* p <0.05, ** p <0.01, and *** p <0.001						

In order to verify the mediation effect of corporate trust in the relationship between eco-friendly activities and CCB, a 95% confidence interval of 2,000 standard extractions was set and bootstrapping was performed. The results are shown in Table 6. The estimated values of the mediation effects of ACOP→CORPT→ADV, ACOP→CORPT→TOL, and ACOP→CORPT→HLP were -0.026, -0.027 -0.024, respectively. They were found to be insignificant. In contrast, the estimated values of mediation effect of SVC→CORPT→ADV, SVC→CORPT→TOL, and SVC→CORPT→HLP were 0.202, 0.205, 0.182, respectively, and so were significant at the 1% level. In addition, the estimated values of mediation effect of RECY→CORPT→ADV, RECY→CORPT→TOL, and RECY→CORPT→HLP were 0.171, 0.173, 0.154, respectively. They were found to be significant at the 1% level. These results suggest that the customers trusted companies that engaged in eco-friendly in-flight service and recycling, and that this led to voluntary participation advocacy, tolerance, and helping other customers.

TABLE 6
RESULTS OF INDIRECT EFFECT

Path	Indirect effect (B)	95% CI [LB, UB]
ACOP→CORPT→ADV	-0.026	[-0.111, 0.065]
ACOP→CORPT→TOL	-0.027	[-0.112, 0.063]
ACOP→CORPT→HLP	-0.024	[-0.100, 0.055]
SVC→CORPT→ADV	0.202**	[0.091, 0.326]
SVC→CORPT→TOL	0.205**	[0.084, 0.346]
SVC→CORPT→HLP	0.182**	[0.066, 0.326]
RECY→CORPT→ADV	0.171**	[0.090, 0.297]
RECY→CORPT→TOL	0.173**	[0.098, 0.286]
RECY→CORPT →HLP	0.154**	[0.084, 0.253]
* p<0.05, ** p<0.01, and *** p<0.001. B: non-standardization factor		

CONCLUSION

As the world attempts to negotiate COVID-19, governments are supporting various economic stimulus measures, and the OECD is devising eco-friendly policies for the post-pandemic world. The economic difficulties that have over the past year have affected all industries, the aviation sector in particular. By examining the structural relationship between airlines' eco-friendly activities, corporate trust, and CCB, the present study aimed to present data

to show the importance of eco-friendly policies, because the environmental management of companies in the post-COVID-19 era has drawn a great deal of attention. The relationship between eco-friendly activities and corporate trust and the impact of eco-friendly activities on CCB, the effect of corporate trust on CCB, and the mediating effect of corporate trust in the relationship between the eco-friendly activities of airlines and CCB have been investigated.

First, it was found that in-flight service and waste recycling, which are sub-factors of eco-friendly activities, had a positive and significant effect on corporate trust. The results indicated that corporate trust can be improved through eco-friendly activities such as the use of eco-friendly food materials and in-flight items, recycling, and restrictions on the use of plastic products. The results also suggested that airlines should build corporate trust through strategies for sustainable management which not only maximize corporate profits, but also protect and preserve nature.

Second, it was found that in-flight service have a positive effect on advocacy. When an airline provided eco-friendly food ingredients, packaging containers, and eco-friendly service products on board, customers showed voluntary advocacy by recommending the company to other customers. In addition, among eco-friendly activities, waste recycling was found to have a positive and significant effect on advocacy, tolerance, and helping. The results suggested that the recycling and food-related eco-friendly activities conducted by airlines were linked to customers' daily lives, and that such corporate activities could lead to the active participation of passengers.

Third, it was found that corporate trust had a positive and significant effect on all of the sub-factors of CCB (i.e., in the present instance, advocacy, tolerance, and helping). This meant that the higher the customer's trust in the company, the more they recommended it to others, encouraged its positive aspects, and tolerated service delays or less than expected levels of service. In addition, corporate trust led to CCB, a voluntary corporate participation behavior that manifested itself in a willingness to provide assistance to other customers when they needed it. Therefore, it is suggested that the trust of customers in the company is a key variable that leads to citizenship behavior.

Finally, in-flight service and waste recycling were found to have a mediating effect on the relationship with CCB. These results implied that customers trust companies that engage in eco-friendly activities, and trust in companies leads to the voluntary participation of customers in the form of advocacy, tolerance, and helping. In this study, by diversifying the constituent factors of CCB, which is an outcome variable, the results of each factor of eco-friendly activities are derived. Preparing strategies for the post-COVID-19, the structural relationship between eco-friendly activities, corporate trust, and CCB would be devised for airlines.

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