Multi-Mediation Effects of Personal Self-Congruity and Social Self-Congruity to Perceived Value and Brand Attitude on Chinese Airlines Customers*

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Abstract

Purpose- This study examines the multi-mediation effect of personal self-congruity and social self-congruity to perceived value and brand attitude on aircraft customers in China. **Research design, data and methodology- S**urvey was conducted on Chinese citizens who had flown via Chinese airlines and lived mainly in the Yangtze River delta . 727 cases were analyzed. SPSS 22.0 and AMOS 24.0 were used to analyze the data. **Results -** First, perceived economic value has a positive impact on personal self-congruity and social self-congruity but has no effect on brand attitude. Second, perceived functional value has a positive impact on personal self-congruity, social self-congruity, and brand attitude. Third, based on this, perceived economic value is not directly related to brand attitude. However, there is a relationship between perceived functional value and brand attitude, with personal self-congruity and social self-congruity having mediation effects. **Conclusions –** The Results show that perceived economic and functional value such as competitive airfare, mileage membership, check-in processes, diversified vouchers and coupons, and also basic services such as flight security and flight attendant service having an effect on personal self-congruity. To improve consumer brand attitude, airlines should take into consideration personal self-congruity factors such as their values and lifestyles, and their social self-congruity factors such as their social status and social security.

Keywords : Perceived Value, Social Self-Congruity, Personal Self-Congruity, Brand Attitude.

JEL Classifications: D12, D46, D91.

1. Introduction

The Airline Deregulation Act, passed by the U.S. in 1978 affected aviation industries in Europe and gradually spread its impact globally, causing the air transport industry to become increasingly open and liberal, with low-cost carriers (LCCs) also emerging in this fiercely competitive market. In Korea, the recent emergence and rapid growth of LCCs has led to potential changes in the air transport industry.

China's air transport industry has seen rapid growth since 2000, with an increase of more than 170% of the country's domestic aviation market showing explosive growth in the early 2000s. In 2004, China became the world's second largest market (ITTC, Consultancy Division of Airclaims), just behind the United States. In addition to the three major airlines (Air China, China Easternand China Southern), OK Airways, Spring Airlines and other private airlines were also established in 2005, resulting in more intense competition.

China's airlines which have entered the era of intense competition are not only talking about diversifying marketing strategies, but also attempt to gain competitive advantage by improving customer interest and loyalty to their brand. As the importance of brand competitiveness grows, researchers are becoming more aware of the importance of brand strategy as a vital strategy for

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corporate survival, and state that all airlines are establishing brand strategies for survival (Kim & Lee, 2007).

According to the psychological research of recent consumer-related theories, researchers have begun to change the reason, perspective, and perception of brand theory. In the air transport industry, brands are a means of differentiating them from other airlines, and function as effective means for consumers to remember them. Blackston (1992) states that the brand is one of the most precious intangible properties for all businesses.

Meanwhile, according to a recent study, consumer action is affected not only by the product's functional properties but also by its ability to match with individual consumer's self-interest. In practice, consumers compare the brand characteristics with their personal identity, preferring goods and brands that match their self-identity. Therefore, brands can improve customer satisfaction in the long term by analyzing consumer-centered brand image and monitoring the relationship between brand and consumer.

The results of these studies show a trend of airlines placing importance on brand valuation as an important management strategy, and that consumers' self-congruity with these brands have been proven to affect consumer behavior, demonstrating a need for additional research to be done in this field. Previous research on perceived value and self-congruency has been focused on food service industry, with few studies being done on brand value and self-congruity for the aviation industry.

This study aims to identify the correlation between perceived value, attitude and self-congruity of airline brands in the aviation industry and to draw meaningful implications for consumer behavior. To this end, this study aims to identify the influence of Chinese airlines on their brand awareness in the Chinese airline market through empirical analysis of the influence degree of personal self-congruity and social self-congruity of consumers as multiple mediating variables and to draw implications. The purposes of this study are as follows.

First, this study aims to analyze brand perception, consumer self-reflection and brand attitude, based on existing research for customers who have used Chinese airlines, providing an empirical analysis on the influence of airline value, consumer self-congruency and brand attitude among Chinese airlines. There is plenty of research in the field o consumer psychology and behavior related to branding; this study segments perceived valuation into economical and functional value and segments self-congruity into personal and social self-congruity to examine how these affect attitude toward brands.

Second, this study seeks to validate an intermediary effect of personal self-congruity and social self-congruity in the interrelationship between perceived value and attitude towards brand. This is an overlooked area in literature, and

it is hoped that this study will provide useful information to Chinese airlines to understand consumer psychology and behavior and to develop management strategies based on the impact relationships between consumers and brands, taking into account consumer aspects.

2. Literature Review

2.1. Chinese Airlines status

China's aviation industry has been growing steadily since the 1980s promoted by measures such as government restructuring, deregulation, integration, recombination, price and market liberalization. For 30 years from 1980 to 2010, Chinese aviation industry has progressed through four stages of development, with the reform of public institutions in preparation to enter market economy (1980-1987), reform of entrace approval processes (1987-1997), consolidation, mergers and planned restrictions (2004-2010). Since 2003, the country's management control has been more relaxed, with regulations specifically limited to a strict control on integration and reintegration of the three state-run airlines.

In 2016, the number of civilian aircraft passengers reached 440 million. Taking into consideration the fact that the number of flights boarded per person in China is 1/9 that of the US, it is apparent that there is room for growth in the Chinese market—which has proven to be true with the speed of development in China being significantly higher than the average level in the United States and worldwide. Between 2002-2015, Chinese Air passenger traffic (CAGR) reached 14%, compared with the combined growth rate of 5% and 2% in the world and the United States during the same period. According to Airbus' 2015-2034 China Air Market Forecast Report, China will be the No. 1 air market in the world, surpassing the United States within the next decade, achieving the Chinese Air Passenger Rate (CAGR) of up to 8.3%, with predictions that the rate increase for international passenger traffic rising faster than for domestic flights (Zhen, 2018).

According to Boeing's '2016 China Market Outlook', China's airline market share is expected to grow to about 15% by 2020 and exceed 30% by 2030. In 2030, the number of airline passengers can reach 450 million, which is significantly higher than the growth rate of overall civilian air transport, and the market will expand to 15 times the current market size. Currently, the average airfare for domestic flights by Spring Airlines is about 600 yuan, which is quite inexpensive. Income from airfare is predicted to reach 67.5 billion yuan by 2020 and increase to 300 billion yuan by 2030(CINIC, 2017).

2.2. Perceived Value

Value is a concept that researchers use to understand human behavior in the field of social science, which has been widely studied and accepted in terms of its importance and appropriateness. Researchers related to consumer behavior have presented research results that apply value as a means to understanding consumer attitudes and behaviors (Kim & Kim, 2005).

The concept of perceived value was subjectively defined (Kortge & Okonkwo, 1993) and many analyses were made in terms of perceived value of consumers, and perceived value was defined as overall evaluation of consumers' basic needs and goals (Bolton & Drew, 1991).

Value is defined as the time and psychological cost of the consumer (Randall & Senior, 1996). Perceived value has been explained in terms of psychological, sociological and anthropological aspects of consumers and related studies have been conducted (Park & Jung, 2013). Consumer perceived value can be divided into four categories from the perceptual state. They are emotional value that are helpful in terms of emotional state, social values which can improve the product's conception, economic value which can enable money generated by the reduction of staged costs and long-term costs, and functional value which is conferred from the product's perceived quality(Sweeney & Soutar, 2001). The study of Lee, Byun and Yi(2010) shows that the conceptual definition of perceived value differs depending on the viewpoint, but it is largely divided into practical/economic and cognitive/emotional aspects. The practical/economic aspect emphasized the utility of the product, while the cognitive/emotional aspect emphasized the cognitive psychological aspect that comes from the consumption experience when purchasing the product. In Lee(2011)'s aviation service research, the aviation service sector is classified into four specific dimensions. Functional value was defined as function and quality provided when using service, while monetary value was defined as how much it was worth when converted into cash, and emotional value was defined as psychological emotion for service by customers after using aviation service.

In conclusion, the definition of multidimensional aspects has been studied from the definition of a single aspect that emphasizes economic aspects. This study cites the research definitions of Lee, Byun and Yi(2010) and Sweeney and Southar(2001), mainly for the perceived value aspect. The functional value of airline service was set as an independent variable and classified into two categories: functional value in terms of quality of airline service and economic value in terms of price paid by customers. This is because the aviation service industry expects high quality or value due to relatively high prices, and the air service industry considers the characteristics of the aviation service industry

like the importance of service quality such as airplane type and crew service.

This study made four scales for economic value and functional value and also made a questionnaire item by referring to the previous studies of Lee(2011), Lee, Byun and Yi(2010) and Sweeney and Soutar(2001).

2.3. Brand Attitude

According to Keller's (1993) study, brand attitude is a set of related behavioral trends or states, including subjective perceptions, evaluations, feelings, and a series of behaviors that consumers consistently like or dislike about a brand (Keller, 1993). According to Keller(1998), brand attitude means consistency of brand felt by consumers and is the highest level of brand association type(Keller, 1998). According to Dowling(2001), consumers form attitudes through experience or information, and also form favorable or unfavorable attitudes through automatic or unconscious behaviors (Dowling, 2001). According to Song(2012), brand attitude is the result of continuous interdependence through smooth communication in brand marketing interaction, and therefore, the attitude of consumers about the brand is very important for the company(Song ,2013).

Consumer brand attitude is related to brand reliability, satisfaction and loyalty. Brand attitude is said to interact with both external and internal factors, and most of the existing studies on brand attitude define positive or negative emotional responses that individuals feel about the products purchased by consumers (Song, 2012).

In this study, brand attitude is defined as positive and negative emotions for airline brand by referring to preceding studies of Keller(1993), Dowling(2001) and Song(2012) and variables suitable for the purpose of study, and made scale items measuring consumer satisfaction, loyalty and reuse intention with brand attitude.

2.4. Self-Congruity

The concept of consumer self-congruity was first studied in psychology and recently it is widely cited and used in the field of consumer behavior. In Sirgy's study(1982), self-congruity defined how much self-concept an individual has, and the more he or she perceives how the product or brand is consistent with self-image, the more he or she prefers the brand or product. Consumers' self-congruity in the field of consumer behavior defined the degree of consistency between consumer image and product image(Sirgy, 1982). Today, consumption behavior has a close symbolism, which has been strengthened through consumption behavior. Research by Choi and Cho (2016), and Sim (1998) show that consumers choose the brand that best fits their self-image to maintain a psychological balance on their

behavior, which is called self-image and brand self-congruity. In other words, the degree of consistency between the self-concept perceived by the consumer and the image of a specific brand can be called self-congruity.

Perspectives on self-congruity can be divided into two approaches.

Delozer divided the two types of self-congruity and individuality into perceived self and presumed self. In other words, the self that can be perceived about oneself is called the actual self, and the self that the individual desires to be is called the ideal self(Delozer, 1971; Grubb & Strn, 1971). Sanchez et al. (1975) added the expected self as a concept that exists between actual and ideal self. In the study of French and Alan (1971), the perceived ego-based group image was newly added.

More specifically, Sirgy(1982) and Sirgy et al. (2000) suggest that self-congruity is "actual self-congruity" that matches the actual self with the product or brand image, "ideal self-congruity" that considers the ideal self that individuals seek for themselves, "social self-congruity" that considers how other people would view them, and "ideal social self-congruity" that wishes other people would have a specific image about them (Sirgy et al., 1982, 2000).

The higher the consumer's desire and the higher the needs of the self, the higher the self-congruity. In the study of Ko(2012), personal self-congruity was divided into

expression of values, lifestyle and harmony. Social self-congruity is defined as the expression of social stability and respect, social identity or success. As a result, the effect of social self-congruity on self-congruity could be seen to be greater than that of personal self-congruity(Ko, 2012).

In the study of Park(2014), the actual self-image is defined as the realistic self-concept that one currently possesses about oneself, and the ideal self-image is defined as the self-concept that oneself pursues and wants(Park, 2014). In the research on the development of evaluation model for the airline's social responsibility activities of Park(2016), personal self-congruity was arranged focusing on my image expression, reflection, similarity and consistency, and ideal personal self-congruity was arranged focusing on the reflection, similarity and consistency of an ideal image(Park, 2016). In conclusion, there may be differences in areas that each researcher emphasizes and studies, but in this study, we analyze personal self-congruity and social self-congruity in two dimensions by referring to the previous studies by Go(2012), Park(2015), Choi (2015), and Yoo(2012). Personal self-congruity is composed of personal image, values, lifestyle and ideal aspects related to daily life, while social self-congruity is composed of social safety, status, expected service and ideal aspects. Each variable measurement item are reflected in Table 1.

Table 1: Questionnaire Items

Variables	Items	Reference
Economic Value	1. The airline fee is reasonable.. 2. The airline offers discounts commensurate with ticket prices. 3. It is easy to accumulate airline miles. 4. The airline mileage program is easy to use.	Lee(2011), Lee, Byun & Yi(2010) Sweeney & Soutar(2001)
Functional Value	1. The airline's route is safe 2. The airline's crew is kind. 3. The airline's service is excellent. 4. The airplane cabins are clean. 5. The airline's process check-in is quick.	
Personal Self-Congruity	1. The airline reflects my present values accurately. 2. The airline is in line with my pursuit of values. 3. The airline is in line with the lifestyle I want to pursue. 4. The customers who are using the airline reflect my ideal image.	Go(2012), Park(2015), Choi (2015), Yoo(2012)
Social Self-Congruity	1. The airline can reflect my social status. 2. The airline provides the service I expect. 3. The airline is helpful in my pursuit of social security 4. The airline is in accordance with the service I expect.	
Brand Attitude	1. I am satisfied with the airline's brand. 2. I'm curious about the airline's brand. 3. I have an affinity for the airline's brand. 4. I will recommend the airline's brand to others. 5. I believe in the airline's brand.	Keller(1993), Dowling(2001), Song(2012)

3. Research Design

3.1. Research Model

This study is on the multi-mediation effect of personal self-congruity and social self-congruity of perceived value and brand attitude on customers who used aircraft in China.

The purpose of this study is to check whether perceived value has multiple mediating effects between independent variable and self-congruity. To this end, this study will refer to the theoretical background and present the research model as Figure 1.
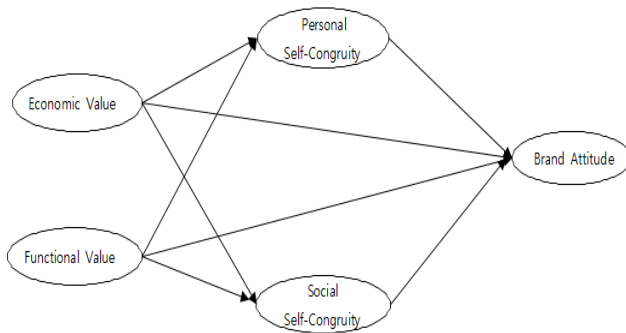

Figure 1: Research Model

3.2. Method

In this study, measurement items of each variable were developed through theoretical consideration such as analysis of previous studies, and a survey was conducted to utilize the collected data. The frequency analysis was conducted to identify the characteristics of the respondents using SPSS 22.0, and factor analysis and reliability analysis were conducted to find out the validity and internal consistency among each component, and correlation analysis was conducted to find out the correlation between all components. As the following step, AMOS 24.0 was used to verify the multiple mediating hypothesis.

3.3. Hypotheses

According to Johar and Siegry (1991), the perceived value of the product affects self-congruity. According to a study on outdoor fashion by Yang and Moon(2015), perceived value (pleasant, social, and conspicuous) has a positive effect on self-congruity, but it has no effect on the functional value of outdoor fashion. Kim, Park and Han(2014) reported that when self-congruity was examined among customers using coffee shops, the non-social type of self-congruity did not have a significant effect on attitude, and the social type of self-congruity did not have a significant effect on attitude, but the functional self-congruity had a significant effect on attitude. The conclusions may be different according to the research subjects of each researcher, but based on the previous studies, the perceived value of Chinese airlines was divided into economic value and functional value, and the self-

congruity of customers was divided into personal self-congruity and social self-congruity.

H1: Economic value among perceived values will have a positive effect on personal self-congruity.
H4: Economic value among perceived values will have a positive effect on social self-congruity.
H6: Functional value among perceived values will have a positive effect on personal self-congruity.
H7: Functional value among perceived values will have a positive effect on social self-congruity.

A study on wine in restaurants conducted by Choi(2015) showed that functional consistency had a significant effect on brand attitude. In Xu, Shin and Lim(2015)'s study on the influence of self-congruity and functional congruence of Chinese consumers using foreign cosmetics on brand attitude, repurchase intention, and recommendation intention, self-congruity and functional congruence have an effect on brand attitude.

In the study of Han(2017), it was concluded that the perceived value in the different situations did not affect the brand attitude, but the knowledge of the category could show a difference between the high and low groups. Especially, in the low knowledge group, perceived value had a significant effect on brand loyalty. Based on the research of Petrick (2002), it is defined as the degree of how the self-congruity is matched with the brand image of the airline that the consumer has. Based on the previous studies, the following hypotheses were established between the perceived value of the Chinese airline and the self-congruity of the customer.

H2: Personal self-congruity will have a positive effect on brand attitude.
H5: Social self-congruity will have a positive effect on brand attitude.

According to Lee(2010)'s research results, there were many studies on perceived value as a factor affecting brand attitude in airline service, and empirically perceived value was found to be an important factor. In the study of oriental cosmetics by Bae, Kim and Oh (2019), it was found that brand value factors except epistemological value factors among the perceived values of the brand had a positive effect on brand satisfaction and brand loyalty. In the study of Kim et al. (2013), the influence relationship between perceived value, satisfaction, reliability and behavioral intention of low-cost carriers was analyzed, and it was proved that monetary value had the greatest influence (Kim, 2013) on satisfaction. The perceived quality research of Park and Park(2006) showed that practical value and hedonic value had a significant positive relationship with

customer satisfaction. These results show that low-cost carriers represent a special consumer market environment. Based on these preceding studies, the following hypotheses were established on the brand attitude between the economic value and the functional value of Chinese airlines and the self-congruity of customers.

H3: Economic value among perceived values will have a positive effect on brand attitude.
H8: Functional value among perceived values will have a positive effect on brand attitude.

According to the results of Hee & Ha(2015)'s research on the mediating effect of the self-image of on the brand personality and brand attachment, it was found that there was both partial and complete mediating effect. Therefore, it was found that the airline should implement the brand reinforcement strategy through the brand attachment of consumers. Based on these preceding studies, the following hypotheses were established on the mediating effect of perceived value, customer self-congruity and brand attitude on Chinese airlines.

H3-1: Personal self-congruity will play a mediating role in economic value and brand attitude.
H3-2: Social self-congruity will play a mediating role in

functional value and brand attitude.
H8-1: Personal self-congruity will play a mediating role in economic value and brand attitude.
H8-2: Social self-congruity will play a mediating role in functional value and brand attitude.

4. Empirical Analysis

4.1. The Characteristics of Samples

The study surveyed Chinese citizens who had flown via Chinese airlines and lived mainly in the Yangtze River delta from July 2, 2019 to September 21, 2019. Of the total, 727 copies were analyzed except 36 copies of the questionnaire where respondents had no experience of flying Chinese airlines. First, to identify the characteristics of 727 subjects by demographic variables, frequency analysis was conducted with variables such as gender, age, position, and industry. The characteristics of the subjects were shown as in Table 2 and the distribution was confirmed evenly, and the subjects of the survey were generalized. So, it can be judged that there is no problem with the subjects of the survey.

Table 2:Characteristics of Respondents

Demographic Properties		Frequency	Percent(%)	Demographic Properties		Frequency	Percent(%)
Gender	Male	204	28.1	Age	Under18	4	.6
	Female	523	71.9		19~30	184	25.3
Education	High School	62	8.5		31~40	409	56.3
	University	494	68.0		40~60	122	16.8
	Master	163	22.4		Up 61	8	1.1
	others	8	1.1	Job	Students	100	13.8
Monthly Salary	Under 6000	145	19.9		Civil servants	79	10.9
	6001~8000	212	29.2		Specialized jobs	318	43.7
	8001~10000	123	16.9		Sales	56	7.7
	10001~12000	98	13.5		The private sector	86	11.8
	12001~14000	68	9.4		Housewife	28	3.9
	Up 14000	81	11.2		Others	60	8.3
Total						727	100

4.2. Reliability and Validity

The five variables used in this study are featured in Table 3, and perceived economic value was 4 scales, functional value was 5 scales, personal self-congruity was 4 scales, social self-congruity was 4 scales, and brand attitude was 5 scales. To explore the causal relationship between these variables and each scale, a covariance structure equation model was constructed. First, to find out whether the scales

of each variable are valid, the exploratory factor analysis(EFA) and the confirmative factor analysis(CFA) were conducted for the measurement scale and variables.
First, exploratory factor analysis was conducted using SPSS 22.0 to measure the validity of the measurement scale developed based on the existing research, and the results were derived as Table 3. The factorial load of each variable scale was found to be over 0.4, and KMO was more than

0.9, and it was confirmed that it came out more than 1 and the total explanation power was 84.405%. The

Cronbach's α value of each variable was over 0.9 and it was judged that it had very good reliability.

Table 3:Exploratory Factor Analysis Results

Constructs	Items	Factor Loadings	Initial Eigenvalues			Cronbach's α
			Total	% of Variance	Cumulative %	
Perceived Value-Economic Value	EV1	.672	3.873	17.603	58.252	.915
	EV2	.778				
	EV3	.818				
	EV4	.841				
Perceived Value-Functional Value	FV1	.792	4.835	21.977	21.977	.945
	FV2	.826				
	FV3	.781				
	FV4	.799				
	FV5	.663				
Personal Self-Congruity	PS1	.578	3.072	13.964	72.216	.945
	PS2	.638				
	PS3	.707				
	PS4	.662				
Social Self-Congruity	SS1	.483	2.681	12.188	84.405	.930
	SS2	.737				
	SS3	.663				
	SS4	.607				
Brand Attitude	AB1	.613	4.108	18.673	40.679	.958
	AB2	.686				
	AB3	.738				
	AB4	.748				
	AB5	.728				

KMO=.966, Bartlett=19345.679, df=231, p=.000

***p < 0.001

Table 4: Confirmatory Factor Analysis Results

Constructs	Items	Estimate	Standardized Estimate	S. E.	C. R.	AVE	CR
Perceived Value-Economic Value	EV1	1	.73			.732	.915
	EV2	1.38	.78	.064	31.997***		
	EV3	1.45	.95	.055	26.325***		
	EV4	1.51	.94	.058	26.276***		
Perceived Value-Functional Value	FV1	1	.81			.777	.946
	FV2	1.10	.93	.034	31.997***		
	FV3	1.17	.94	.036	32.368***		
	FV4	1.10	.90	.036	30.368***		
	FV5	1.12	.82	.043	26.390***		
Self-Congruency Personal Self-Congruity	PS1	1	.91			.777	.946
	PS2	1.03	.87	.028	36.677***		
	PS3	1.09	.90	.026	41.923***		
	PS4	1.04	.90	.026	39.763***		
Self-Congruency Social Self-Congruity	SS1	1	.86			.771	.931
	SS2	1.06	.86	.034	30.761***		
	SS3	1.03	.87	.033	31.649***		
	SS4	1.05	.92	.030	34.964***		
Brand Attitude	AB1	1	.89			.825	.959
	AB2	1.08	.88	.030	35.410***		
	AB3	1.13	.94	.027	42.212***		
	AB4	1.17	.90	.031	37.604***		
	AB5	1.17	.93	.029	40.833***		

χ^2=1252.894, df=199, p=.000, RMSEA=.08, GFI(.864), CFI(.945), NFI(.936), TLI(.937)

After confirming the exploratory factor analysis, confirmatory factor analysis was conducted using AMOS 24.0 and the results were derived as Table 4. In this table, the model fit was confirmed by deriving all the fit of the measurement model above the standard value. Specifically, the confirmatory factor load is 0.7 or more and the AVE value of all variables is 0.5 or more. So this study has no problem with the central validity.

The discriminant validity of each variable of this study was derived as Table 5, and the proposed AVE value

should be examined to see if it was larger than the square value of each correlation coefficient. The correlation coefficient of social self-congruity and individual self-congruity was 0.828, which was slightly larger than AVE(.771), and the square of the correlation coefficient of the remaining variables was less than the AVE value, which means that there's no problem with the discriminant validity of this study.

Table 5: Correlations Among Latent Variables and AVEs

Constructs	AVE	Correlations				
		Economic Value	Functional Value	Personal Self-Co	Social Self-Congru	Attitude towards Bra
Economic Value	.732	1				
Functional Value	.777	.614	1			
Personal Self-Congr	.777	.736	.796	1		
Social Self-Congruit	.771	.722	.787	.910	1	
Brand Attitude	.825	.706	.799	.878	.881	1

Note: ( )squared Correlation

4.3. Hypotheses Testing

4.3.1. Results of Structural Equation Model

This study set up eight hypotheses to explore the influence of airlines' perceived value (economic value, functional value), self-congruity (personal self-congruity, social self-congruity), and consumer brand attitude on customers who have been on a plane in China and analyzed them with covariance structure equation. In addition, bootstrapping was used to verify the mediating effect between economic value and brand attitude, and between functional consistency and brand attitude in the model.

First, the fit index of the covariance structural equation of this study should be judged. Except for the saturation model, the fit index can be classified into three categories: absolute fit index, increment fit index and concise fit index. The absolute fit index chi-square statistic P value should be 0.05 or higher, GFI should be 0.9 or higher, and TLI should be 0.9 or higher (Joreskog & Sorbom 1993).
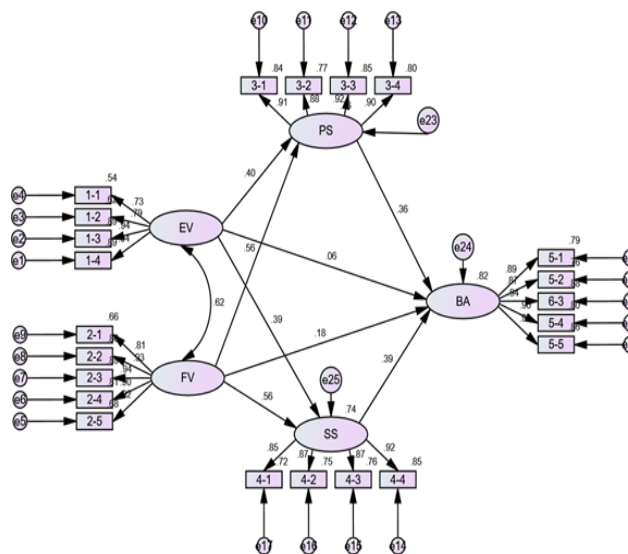

Figure 2: Results of Structural Equation Model

Table 6: Results of Structural Equation Model Analysis

Hypothesi	Path	Estimate		S. E.	C. R.	Results
		Unstandardized	Standardized			
H1	Economic Value → Personal Self-Congruity	.302***	.402***	.022	13.472	Supported
H2	Personal Self-Congruity → Brand Attitude	.336***	.359***	.046	7.367	Supported
H3	Economic Value → Brand Attitude	.042	.059	.022	1.91	Not Supporte
H4	Economic Value → Social Self-Congruity	.306***	.388***	.024	12.551	Supported
H5	Social Self-Congruity → Brand Attitude	.346***	.389***	.042	8.169	Supported
H6	Functional Value → Personal Self-Congruity	.559***	.563***	.033	17.113	Supported
H7	Functional Value → Social Self-Congruity	.586***	.562***	.035	16.635	Supported
H8	Functional Value → Brand Attitude	.168***	.181***	.035	4.832	Supported
Chi-square =1498.267, df=294 GFI=.844, CFI=.933, TLI=.933, RMSEA=.055						

The incremental fit index NNFI should be over 0.9 (Loehlin 1992; Bentler 1980). The fit index chi-square of this model was 1498.267, and it was df.294, GFI .844, CFI.933, TLI .933, and RMSEA .055. This result suggests that the model is generally suitable.

Each hypothesis of this study was verified using AMOS of H1~H8 as Table 6. The hypothesis showed that economic value had a positive effect on personal self-congruity (p<.001, standardization path coefficient=.402), and hypothesis 1 was adopted. Personal self-congruity had a positive effect on brand attitude (p<.001, standardized path coefficient=.359), and hypothesis 2 was adopted. However, the p value was .16 in the path of economic value and brand attitude, and hypothesis 3 was rejected because it was judged that there was no significance level. Economic value had a positive effect on social self-congruity (p<0.001, standardization path coefficient=.388), and hypothesis 4 was adopted. Social self-congruity had a positive effect on brand attitude (p<.001, standardization path coefficient=.389), and hypothesis 5 was adopted. Functional value had a positive effect on personal self-congruity (p<.001, standardization path coefficient=.563), and hypothesis 6 was adopted. And functional value had a positive effect on social self-congruity (p<.001, standardization path coefficient=.562), and hypothesis 7 was adopted. Functional value had a positive effect on brand attitude (p<.001, standardized path coefficient=.181), and hypothesis 8 was also adopted.

4.3.2. The Results of Multi-mediation Analysis of Model

The results of this study show that the effect of economic value on brand attitude is not significant, so it is not necessary to verify H3-1 and H3-2. Functional value, personal self-congruity, and social self-congruity have significant relationship with one another, and to confirm the multiple mediating effects of H8-1 and H8-2, the validity verification of the effect was conducted through bootstrapping verification. This method obtains the average value i.e., the bootstrap, so that the bootstrap estimates and the standard error are close to the average of the bootstrap estimates, and the confidence intervals associated determine how stable the population's parameters are (Bae, 2013). For this, the level of significance was set at 95% and 2000 times of bootstrapping. Also, there are BC method and PC method to calculate significance probability when verifying indirect effect and significance using bootstrapping (Huh, 2013). However, this structural equation was generally used by the BC method, which was corrected due to its large convenience, and multiple mediation was determined.

In the case of H8-1, the total effect was .602(p<.001), the direct effect was .082(p<.001), and the indirect effect was .202(p<.001), and the personal self-congruity had a partial mediating effect between functional congruence and brand attitude. In the case of H8-2, the total effect was .602(p<.001), the direct effect was .082(p<.001), and the indirect effect was .219(p<.001), and the social self-congruity had a partial mediating effect between functional congruence and brand attitude. The results of the verification of the hypothesis and the contents of the multiple mediating effects described above were presented as Table 7.

Table 7: Mediation Effects Analysis Results

Constructs		Estimates	BC 95% Confidence Interval		Results
			P	BC	
Indirect Effects					
H8-1	Functional Value→ Personal Self-Congruity → Brands Attitude	.202	.001	.128~.288	Partial Mediation
H8-2	Functional Value→ Social Self-Congruity → Brand Attitude	.219	.001	.135~.323	Partial Mediation
Directs Effects					
Functional Value → Brand Attitude		.082	.001	.082~.295	
Total Effects					
Functional Value → Brand Attitude		.602	.001	.507~.684	

5. Conclusion

The purpose of this study is to investigate the effect of Chinese consumers' perceived value on brand attitude of Chinese airlines through the mediating effect of self-congruity and social self-congruity among economic value and functional value of Chinese airlines. The airlines gradually strengthen the perceived value of consumers and thus recognize that they can improve the brand attitude while enhancing the self-congruity of consumers. The results of this study provide the following unique contributions.

First, among the perceived values, economic value and functional value provide positive influence relationship between personal self-congruity and social self-congruity. This confirms findings from previous research(Johar & Sirgy, 1991; Kim, Park & Han, 2014) in that the perceived value of Chinese consumers (economic and functional value) improves not only the personal self-congruity of consumers but also the social self-congruity of Chinese consumers.

Second, it was proven that personal self-congruity and social self-congruity affect Chinese airlines' brand attitude. This confirms findings from previous studies (Xu, Shin, & Lim, 2015; Han, 2017) in that the more self-congruity of Chinese consumers is improved, the better attitude of Chinese airlines to their brands.

Third, the potential value among the perceived values of the airline directly affects the brand attitude of the airline. Preceding studies such as Bae, Kim and Oh(2019), Kim et al.(2013) report that functional value has a positive influence on brand attitude, but this study shows that according to statistical results, there is no significant influence between economic value and airline brand attitude. This may be because most of the China's aviation service industry is state-owned enterprises, and customers are not sensitive to economic value such as price because there is no big difference in ticket prices and discounts.

Fourth, as a result of verifying whether the perceived value of Chinese airlines and the relationship between the brand attitude of airlines play a multi-mediation role as a parameter, personal self-congruity and social self-congruity play a multi-mediation role in the functional value of airlines and the brand attitude of airlines, but there is no significant effect on the relationship between the economic value of Chinese airlines and brand attitude. So it is not meaningful to verify the multi-mediation role. The economic value of Chinese airlines and the brand attitude of Chinese airlines have indirect effects, which shows that they have an effect on brand attitude of airlines through personal self-congruity and social self-congruity.

This study conducted a survey focusing on Chinese consumers, analyzed and arranged the questionnaires, and the major results of the study are as follows.

First, the impact of economic value and functional value on personal self-congruity in perceived value of Chinese airlines means that airline fare, mileage linked to fare, basic business of airline, such as exploration procedure, flight safety, and crew service affect consumers' perceived increase. Therefore, it is suggested that airlines should implement unscheduled price-preferential measures to improve brand attitude and strengthen airlines' internal service attitude and flight work to enhance consumer's self-congruity. According to the path analysis, the Chinese airline consumers should be more functional than economic,

so the Chinese airline should improve the internal service work based on the standards in the future.

Second, since the consumption of Chinese consumers cannot be ignored with increasing levels of national income, the result of analyzing the two dimensions of consumer's personal self-congruity and social self-congruity showed that it all affects airline brands. In terms of consumers, airlines should emphasize customer expectation management, customer recognition value management, customer satisfaction management, customer trust management, and customer loyalty management through relationship marketing.

Third, the economic value and brand attitude of airlines have no direct correlation with each other, and there is an indirect mediating effect through personal self-congruity and social self-congruity. Perceived functional value and airline brand attitude have multiple mediating effects through personal self-congruity and social self-congruity. According to the results of path analysis, the mediating effect of social self-congruity was higher than that of personal self-congruity. Therefore, as it acts as a multi-mediating variable, it is judged that Chinese airlines can increase brand attitude by linking consumers' personal self-congruity and social self-congruity through strategies to improve the basic business of airlines. According to the path analysis, the mediating effect of social self-congruity on brand attitude is more important than personal self-congruity, suggesting that management strategies that can increase the satisfaction of service work related to social status, expectation service and social safety of airline consumers are important.

In this study, the effect of economic value on brand attitude was rejected. This is presumed to be due to the special nature of the Chinese aviation service industry, which has a socialist system, and it suggests that it is necessary to diversify the distribution structure and distribution method in the distribution of airlines such as travel agencies as a way to strengthen the competitiveness of the Chinese aviation service industry in the future.

The limitations of this study are as follows: First, the subjects of this survey are mainly residents living in the Yangtze River Triangle area in China, and the target airlines are not representing the whole market in China. Second, Chinese airlines can have different results because they classify the three major state-owned airlines and private LCC airlines and represent the special consumption market environment that has a greater impact on the financial value of low-cost carriers than other values. Third, this study drew the results from consumer sentiments, and since airlines are related to various tour agencies, integrated marketing research with other tour companies is necessary.

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