

# THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

## Airport-Country Satisfaction Relationship: The Case of Dalian Zhoushuizi Intl. Airport

**Ziyi Wang**

Student, Dalian Jiahui Yangguang High School, China

**Hongyao Su**

Student, Dalian American International School, China

### **Abstract:**

*China has witnessed continued growth in air transport demand in recent decades. This growth is due in part to the growing entry of tourists into China, which implies a need to examine the impression being created in the minds of foreigners based on their experience after reaching the airport, because this is expected to influence their perception of the city and country where the airport is located in. China has witnessed continued growth in air transport demand in recent decades. This growth is due in part to the growing entry of tourists into China, which implies a need to examine the impression being created in the minds of foreigners based on their experience after reaching the airport, because this is expected to influence their perception of the city and country where the airport is located in. According to results based on a survey of foreign visitors to Dalian City, the respondents generally had favorable attitudes toward the Chinese airline, with female respondents being more likely to have favorable attitudes toward the Chinese airline. The respondents generally had favorable attitudes toward the Dalian airport, with female respondents being more likely to have favorable attitudes toward the Dalian airport. The respondents generally had favorable attitudes toward Dalian City, with male respondents being more likely to have favorable attitudes toward Dalian City. The respondents emphasized "Friendliness and helpfulness of Dalian residents" as the most important factor influencing their motivation to revisit Dalian City, followed by "Dalian City infrastructure and services" and "Airline/airport facilities and services," in that order. The results have important policy and managerial implications.*

**Keywords:** Visitor Satisfaction, Impression, Airline, Airport, Dalian, China

### **1. Introduction**

China has witnessed continued growth in air transport demand in recent decades. This growth is due in part to the entry of tourists into China, which implies a need to examine the impression being created in the minds of foreigners based on their experience after reaching the airport<sup>1,2</sup>. Therefore, the aviation industry of China has focused on developing airports that can create a positive impression about the country in the minds of tourists<sup>3,4</sup>. Despite the formulation and application of policy reforms for the development of airports, China has not been able to bring about satisfactory changes in airports or air transport infrastructure<sup>5</sup>.

Studies have examined perceptions of tourists in China based on their impression on airports. In this regard, the Guangzhou Airport, one of the busiest airports in China, has not given tourists good impression regarding its services, infrastructure, or facilities<sup>6</sup>. Another busy airport in China is the Beijing Capital Airport, which generally gives a better perception about China in the minds of tourists<sup>7,8</sup>.

<sup>1</sup> M. A. Ishutkina and R. J. Hansman, "Analysis of interaction between air transportation and economic activity," International Center for Air Transportation, July 2008, pp. 1-18.

<sup>2</sup> M.A. Ishutkina, "Analysis of the interaction between air transportation and economic activity: A worldwide perspective," Massachusetts Institute of Technology, June 2009, pp. 145-152.

<sup>3</sup> S. Yao and X. Yang, "Airport development and regional economic growth in China," Research Paper, March 2008, pp. 3-33.

<sup>4</sup> M.K. Ching, "Passengers' perception on airport service and quality satisfaction," 10th International Academic Conference, June 2014, pp. 198-202.

<sup>5</sup> W. Wu and Z. Dong, "Exploring the geography of china's airport networks: A hybrid complex-network approach," Discussion Paper, March 2015, pp. 2-44.

<sup>6</sup> Skytrax. (2016). Guangzhou airport: Customer reviews [Online]. Available FTP: [http://www.airlinequality.com/airport-reviews/guangzhou-airport/?sortby=post\\_date%3ADesc&pagesize=100](http://www.airlinequality.com/airport-reviews/guangzhou-airport/?sortby=post_date%3ADesc&pagesize=100)

<sup>7</sup> Skytrax. (2016). Beijing capital airport: Customer reviews [Online]. Available FTP: <http://www.airlinequality.com/airport-reviews/beijing-capital-airport/>

<sup>8</sup> Sleeping in Airports. (2016). Guangzhou Airport Guide. [Online]. Available FTP: <http://www.sleepinginairports.net/asia/guangzhou.htm>

By contrast, the Shanghai Pudong Airport has tended to create a negative impression in their minds of tourists concerning China. Although the airport is clean and modern, its services and customer service quality have been viewed as outdated and ineffective<sup>9,10</sup>.

As in many areas of concern, gender differences may bring about differences in opinions concerning products and services at airports. For example, female visitors tend to focus on shopping amenities, whereas male visitors tend to focus on airport facilities and customer service. This implies that the level of satisfaction with airports may be linked to the level of satisfaction with the country where the airport is located<sup>11,12</sup>. In addition, male visitors are more likely to communicate with airport staff than female visitors, which implies that male visitors are more likely to solve their problems and thus be more satisfied with airport experience than female visitors<sup>13</sup>. This suggests that airports should focus more on making things more comfortable for female passengers<sup>14,15</sup>.

One of the most important aspects of airports is the physical environment<sup>16</sup>. Moreover, support facilities and airport attendants are crucial. In addition, cultural factors as well as historical experiences of visitors may influence their perceptions of the physical environment of airports<sup>17,18</sup>.

Economic as well as the environmental factors in airport are considered by visitors and have considerable influence on their perceptions. For example, an airport focusing on pollution control may be favorably perceived by visitors and thus the country may be favorably considered as a result. Similarly, economic factors may give visitors the level of development of the airport, which then may influence their perception of the development of the country as a result<sup>19,20</sup>.

For this reason, this study addresses the following research questions:

- 1) What attitudes do foreign airline users have toward the Chinese airline?
- 2) What attitudes do foreign airline users have toward the Dalian airport?
- 3) What attitudes do foreign airline users have toward Dalian City?

## 2. Methods

A total of 40 respondents participated in this survey. These respondents included 26 males and 14 females. All participants were surveyed at the International Terminal of Dalian Zhoushuizi International Airport in Dalian City, China. The survey was in the departure waiting lounge of the airport, and the respondents were approached as they waited for their flights. The questionnaire took about three minutes to complete. Standard survey techniques were employed. The survey was conducted in June 2016.

Three items were used for attitudes toward the Chinese airline: "I am satisfied with the Chinese airline's in-flight service," "The Chinese airline's service gives me a good impression on China as a whole," and "I am likely to recommend the Chinese airline to my family and friends." The responses were measured using a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Three items were used for attitudes toward the Dalian airport: "The Dalian airport gives me a good impression on China as a whole," "I am satisfied with the Dalian airport's facilities," and "I am satisfied with the Dalian airport's services." The responses were measured using a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Three items were used for attitudes toward the Chinese airline: "I like Dalian City's infrastructure and systems," "Dalian residents are friendly and helpful," and "I am likely to recommend visiting Dalian City to my family and friends." The responses were measured using a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

For respondents' perception of key factors influencing their decision to revisit Dalian City in the future, the questionnaire asked to select one of the following three factors that he/she considered to be the most important one: "Airline/airport facilities and services," "Friendliness and helpfulness of Dalian residents," and "Dalian City infrastructure and services."

<sup>9</sup> Skytrax. (2016). Shanghai Pudong Airport: Customer Reviews [Online]. Available FTP: <http://www.airlinequality.com/airport-reviews/shanghai-pudong-airport/>

<sup>10</sup> Sleeping in Airports. (2016). Shanghai Pudong Airport Guide. [Online]. Available FTP: <https://www.sleepinginairports.net/asia/shanghai.htm>

<sup>11</sup> J.-H. Lin, S.-J. Lee, C. Yeh, W.-H. Lee and J.-Y. Wong, "Identifying gender differences in destination decision making," *Journal of Tourism & Recreation*, vol 1, iss. 1, December 2013, pp. 1-11.

<sup>12</sup> H. S. Khraim, S. M. Al-Jabaly, A. S. Khraim, "The effect of perceived value and customer satisfaction on perceived price fairness of airline travelers in Jordan," *Universal Journal of Management* vol. 2, no. 5, May 2014, pp. 186-196.

<sup>13</sup> M. D. Clemes, C. Gan, T.-H.Kao and M. Choong, "An empirical analysis of customer satisfaction in international air travel," *Innovative Marketing*, vol. 4, iss. 2, August 2008, pp. 49-62.

<sup>14</sup> E. Tolpa, "Measuring customer expectations of service quality: Case airline industry," *Aalto University School of Economics*, June 2012, pp. 6-69.

<sup>15</sup> B. Campbell and D. Vigar-Ellis, "The importance of choice attributes and the positions of the airlines within the South African domestic passenger airline industry as perceived by passengers at Durban International Airport," *Southern African Business Review*, vol. 16, no. 2, August 2012, pp. 97-119.

<sup>16</sup> N. Mansor and S. A. M. S. Redhwan, "Internationalization of service quality: A case of Kuala Lumpur International Airport, Malaysia," *International Journal of Business and Behavioral Sciences* vol. 2, no.12, December 2012, pp. 11-25.

<sup>17</sup> N. Mansor, S. A. M. S. Redhwan and Z. Jusoh, "Sustaining internationalization of airport service quality in Malaysia," *African Journal of Basic & Applied Sciences*, vol. 4, no. 6, February 2012, pp. 230-241.

<sup>18</sup> J. T. Bowen and J. L. Cidell, "Mega-airports: The political, economic, and environmental implications of the world are expanding air transportation gateways," *Springer Science + Business Media B.V.*, August 2011, pp. 867-887.

<sup>19</sup> C. Weston, "What are an airport's impacts?" *Planning Guide*, February 2008, pp. 1-30.

<sup>20</sup> Avireal, "Airport economics: Understanding airports," *Total Facility Management*, October 2008, pp. 1-35.

For research questions 1 through 3, means and standard deviations for three items were used, and differences in means between male and female respondents were evaluated. Statistical significance was evaluated using the independent-samples t-test. For research question 4, the chi-square test was used.

### 3. Results

Q1) The respondents generally had favorable attitudes toward the Chinese airline. According to the results, the mean for the full sample was 3.1917 (SD=.32806). Table 1 shows the results.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Score	40	2.33	3.67	3.1917	.32806
Valid N (listwise)	40				
Group Statistics					
	gender	N	Mean	Std. Deviation	Std. Error Mean
score	male	26	3.1795	.32972	.06466
	female	14	3.2143	.33607	.08982

Table 1: Descriptive statistics

Male respondents (3.1795 (SD=.32972)) showed a lower mean than female respondents (3.2143 (SD=.33607)), indicating that females were more likely to have favorable attitudes toward the Chinese airline than their male counterparts. As shown in Table 2, the results of the independent-samples t-test indicate no significant difference between the two groups ( $t(38) = -.316, p=.754$ ).

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
score	Equal variances assumed	.032	.859	-.316	38	.754	-.03480	.11003	-.25754	.18794
	Equal variances not assumed			-.314	26.295	.756	-.03480	.11067	-.26217	.19257

Table 2: The independent-samples t-test

Q2) The respondents generally had favorable attitudes toward the Dalian airport. According to the results, the mean for the full sample was 3.4917 (SD=.29223). Table 3 shows the results.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
score	40	3.00	4.00	3.4917	.29223
Valid N (listwise)	40				
Group Statistics					
	gender	N	Mean	Std. Deviation	Std. Error Mean
score	male	26	3.4872	.31596	.06196
	female	14	3.5000	.25318	.06767

Table 3: Descriptive statistics

Male respondents (3.4872 (SD=.31596)) showed a lower mean than female respondents (3.5000 (SD=.25318)), indicating that females were more likely to have favorable attitudes toward the Dalian airport than their male counterparts. As shown in Table 4, the results of the independent-samples t-test indicate no significant difference between the two groups ( $t(38) = -.131, p=.897$ ).

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
score	Equal variances assumed	1.235	.273	-.131	38	.897	-.01282	.09812	-.21145	.18581
	Equal variances not assumed			-.140	32.178	.890	-.01282	.09175	-.19967	.17403

Table 4: The independent-samples t-test

Q3) The respondents generally had favorable attitudes toward Dalian City. According to the results, the mean for the full sample was 3.6000 (SD=.30382). Table 5 shows the results.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
score	40	3.00	4.33	3.6000	.30382
Valid N (listwise)	40				
Group Statistics					
	gender	N	Mean	Std. Deviation	Std. Error Mean
score	male	26	3.6410	.31160	.06111
	female	14	3.5238	.28388	.07587

Table 5: Descriptive statistics

Male respondents (3.6410 (SD=.31160)) showed a higher mean than female respondents (3.5238 (SD=.28388)), indicating that males were more likely to have favorable attitudes toward Dalian City than their female counterparts. As shown in Table 6, the results of the independent-samples t-test indicate no significant difference between the two groups ( $t(38) = 1.169, p=.250$ ).

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
score	Equal variances assumed	.375	.544	1.169	38	.250	.11722	.10025	-.08572	.32015
	Equal variances not assumed			1.203	28.994	.239	.11722	.09742	-.08203	.31646

Table 6: The independent-samples t-test

Q4) As shown in Table 7, the respondents emphasized "Friendliness and helpfulness of Dalian residents" (70.0%) as the most important factor influencing their motivation to revisit Dalian City, followed by "Dalian City infrastructure and services" (20.0%) and "Airline/airport facilities and services" (10.0%), in that order.

		Variables			Total	
		Airline/airport facilities and services	Friendliness and helpfulness of Dalian residents	Dalian City infrastructure and services		
gender	male	Count	2	18	6	26
		% within gender	7.7%	69.2%	23.1%	100.0%
	female	Count	2	10	2	14
		% within gender	14.3%	71.4%	14.3%	100.0%
Total		Count	4	28	8	40
		% within gender	10.0%	70.0%	20.0%	100.0%

Table 7: Factors influencing motivation to revisit Dalian City

As shown in Table 7, in terms of the most important factors influencing motivation to revisit Dalian City, male respondents identified "Friendliness and helpfulness of Dalian residents" (69.2%) as the most important factor, followed by "Dalian City infrastructure and services" (23.1%) and "Airline/airport facilities and services" (7.7%), in that order. Female respondents also identified "Friendliness and helpfulness of Dalian residents" (71.4%) as the most important factor, followed by "Dalian City infrastructure and services" (14.3%) and "Airline/airport facilities and services" (14.3%). The results of the chi-square test for the relationship between gender and these factors indicate a non-significant relationship ( $\chi^2(2) = .754, p=.686$ ).

#### 4. Conclusions

China has witnessed continued growth in air transport demand in recent decades. This growth is due in part to the growing entry of tourists into China, which implies a need to examine the impression being created in the minds of foreigners based on their experience after reaching the airport, because this is expected to influence their perception of the city and country where the airport is located in. According to the results, the respondents generally had favorable attitudes toward the Chinese airline. According to the results, the mean for the full sample was 3.1917 (SD=.32806). Male respondents (3.1795 (SD=.32972)) showed a lower mean than female respondents (3.2143 (SD=.33607)), indicating that females were more likely to have favorable attitudes toward the Chinese airline than their male counterparts. The respondents generally had favorable attitudes toward the Dalian airport. According to the results, the mean for the full sample was 3.4917 (SD=.29223). Male respondents (3.4872 (SD=.31596)) showed a lower mean than female respondents (3.5000 (SD=.25318)), indicating that females were more likely to have favorable attitudes toward the Dalian airport than their male counterparts. The respondents generally had favorable attitudes toward Dalian City. According to the results, the mean for the full sample was 3.6000 (SD=.30382). Male respondents (3.6410 (SD=.31160)) showed a higher mean than female respondents (3.5238 (SD=.28388)), indicating that males were more likely to have favorable attitudes toward Dalian City than their female counterparts. The respondents emphasized "Friendliness and helpfulness of Dalian residents" (70.0%) as the most important factor influencing their motivation to revisit Dalian City, followed by "Dalian City infrastructure and services" (20.0%) and "Airline/airport facilities and services" (10.0%), in that order. Male respondents identified "Friendliness and helpfulness of Dalian residents" (69.2%) as the most important factor, followed by "Dalian City infrastructure and services" (23.1%) and "Airline/airport facilities and services" (7.7%), in that order. Female respondents also identified "Friendliness and helpfulness of Dalian residents" (71.4%) as the most important factor, followed by "Dalian City infrastructure and services" (14.3%) and "Airline/airport facilities and services" (14.3%). The results suggest that the respondents were much more satisfied with Dalian City than the Chinese airline or the Dalian airport. On the other hand, they reported that the friendliness and helpfulness of Dalian residents were much more important than the airport, airline, or city infrastructure. This suggests that improvement in the Chinese airline and the Dalian airport may further improve visitors' satisfaction with Dalian City. Males were less likely than females to be satisfied with the Chinese airline and the Dalian airport. This suggests that improvements to the airline and airport should focus more on male visitors.

This study has an important limitation. The sample included only 40 respondents as a result of limitations in the number of hours allowed for the survey taker to be present inside the departure waiting area, which is normally allowed only for passengers. In addition, the Dalian airport is relatively a small airport, limiting the number of passengers in the waiting area. Future research should find better ways to increase the sample size and verify this study's results.

#### 5. References

- i. A. Ishutkina and R. J. Hansman, "Analysis of interaction between air transportation and economic activity," International Center for Air Transportation, July 2008, pp. 1-18.
- ii. M.A. Ishutkina, "Analysis of the interaction between air transportation and economic activity: A worldwide perspective," Massachusetts Institute of Technology, June 2009, pp. 145-152.
- iii. S. Yao and X. Yang, "Airport development and regional economic growth in China," Research Paper, March 2008, pp. 3-33.
- iv. M.K. Ching, "Passengers' perception on airport service and quality satisfaction," 10th International Academic Conference, June 2014, pp. 198-202.
- v. W.Wu and Z. Dong, "Exploring the geography of china's airport networks: A hybrid complex-network approach," Discussion Paper, March 2015, pp. 2-44.

- vi. Skytrax. (2016). Guangzhou airport: Customer reviews [Online]. Available FTP: [http://www.airlinequality.com/airport-reviews/guangzhou-airport/?sortby=post\\_date%3ADesc&pagesize=100](http://www.airlinequality.com/airport-reviews/guangzhou-airport/?sortby=post_date%3ADesc&pagesize=100)
- vii. Skytrax. (2016). Beijing capital airport: Customer reviews [Online]. Available FTP: <http://www.airlinequality.com/airport-reviews/beijing-capital-airport/>
- viii. Sleeping in Airports. (2016). Guangzhou Airport Guide. [Online]. Available FTP: <http://www.sleepinginairports.net/asia/guangzhou.htm>
- ix. Skytrax. (2016). Shanghai Pudong Airport: Customer Reviews [Online]. Available FTP: <http://www.airlinequality.com/airport-reviews/shanghai-pudong-airport/>
- x. Sleeping in Airports. (2016). Shanghai Pudong Airport Guide. [Online]. Available FTP: <https://www.sleepinginairports.net/asia/shanghai.htm>
- xi. J.-H. Lin, S.-J. Lee, C. Yeh, W.-H. Lee and J.-Y. Wong, "Identifying gender differences in destination decision making," *Journal of Tourism & Recreation*, vol 1, iss. 1, December 2013, pp. 1-11.
- xii. H. S. Khraim, S. M. Al-Jabaly, A. S. Khraim, "The effect of perceived value and customer satisfaction on perceived price fairness of airline travelers in Jordan," *Universal Journal of Management* vol. 2, no. 5, May 2014, pp. 186-196.
- xiii. M. D. Clemes, C. Gan, T.-H. Kao and M. Choong, "An empirical analysis of customer satisfaction in international air travel," *Innovative Marketing*, vol. 4, iss. 2, August 2008, pp. 49-62.
- xiv. E. Tolpa, "Measuring customer expectations of service quality: Case airline industry," *Aalto University School of Economics*, June 2012, pp. 6-69.
- xv. B. Campbell and D. Vigar-Ellis, "The importance of choice attributes and the positions of the airlines within the South African domestic passenger airline industry as perceived by passengers at Durban International Airport," *Southern African Business Review*, vol. 16, no. 2, August 2012, pp. 97-119.
- xvi. N. Mansor and S. A. M. S. Redhwan, "Internationalization of service quality: A case of Kuala Lumpur International Airport, Malaysia," *International Journal of Business and Behavioral Sciences* vol. 2, no.12, December 2012, pp. 11-25.
- xvii. N. Mansor, S. A. M. S. Redhwan and Z. Jusoh, "Sustaining internationalization of airport service quality in Malaysia," *African Journal of Basic & Applied Sciences*, vol. 4, no. 6, February 2012, pp. 230-241.
- xviii. J. T. Bowen and J. L. Cidell, "Mega-airports: The political, economic, and environmental implications of the world are expanding air transportation gateways," *Springer Science + Business Media B.V.*, August 2011, pp. 867-887.
- xix. C. Weston, "What are an airport's impacts?" *Planning Guide*, February 2008, pp. 1-30.
- xx. Avireal, "Airport economics: Understanding airports," *Total Facility Management*, October 2008, pp. 1-35.