Journal of Air Transport Management 57 (2016) 19–25

Contents lists available at ScienceDirect

Journal of Air Transport Management

journal homepage: www.elsevier.com/locate/jairtraman

A study on the impact of airline service delays on emotional reactions and customer behavior

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ARTICLE INFO

Article history:
Received 25 January 2016
Received in revised form
8 July 2016
Accepted 9 July 2016

Keywords:
Service delay
Emotional response
Behavioral intention

ABSTRACT

This study is intended to identify the influence of service delays on emotional responses and customer behavior. For this research, a survey was conducted on airline passengers that experienced service delays. A total of 395 respondents were analyzed using structural equation modeling. According to the analysis results, service delays positively influenced negative emotions and negatively influenced repurchase intention. In addition, service delays positively influenced negative word-of-mouth. This study provides a basic knowledge on how airlines can develop their service strategies to make good use of the motivating effect of service delays on emotional responses and behavioral intentions.

1. Introduction

Service delays are very common experiences for customers. Today, many people consider these delays to be a waste of time, and no customers enjoy waiting for long periods due to delays (Casado Diaz and Más Ruíz, 2002). If customers perceive their waiting time as long due to a service delay, they will deem the quality of service to be low, leading the customer dissatisfaction and negative behavioral intentions (Taylor, 1994; Tom and Lucey, 1995; Van Vaerenbergh et al., 2014). Therefore, service delays negatively affect service quality perceptions as well as satisfaction levels and behavioral intentions. Accordingly, many service-based companies endeavor to decrease service delays (Bielen and Demoulin, 2007).

Service delays are also common in the airline industry. Airline services cannot be reserved; they are provided on a real-time basis. As such, a variety of problems can lead to service delays, and customers have grown used to waiting for the required services to become available (Sarel and Marmorstein, 1998). However, despite being commonplace in the airline industry, these delays negatively affect the emotional responses and behavioral intentions of customers. It is important for companies within the airline industry to improve customer satisfaction and loyalty, and hence, it is essential to understand the impact that service delays have on passengers.

Although many preceding studies have been conducted in traditional service areas, most have focused on how service delays have affected customer satisfaction and loyalty (Anderson, 1994; Fornell et al., 1996; Hui and Tse, 1996; Pruyn and Smidts, 1998; Mittal and Kamakura, 2001). Some studies on service failures and service delays have been performed in airline industry areas, but these studies have mainly focused on diversified factors – e.g. stability, controllability, and customer inoculation – related to service failures (Folkes et al., 1987; Mikolon et al., 2015; Van Vaerenbergh et al., 2014). Emotional reactions to service failures have not been adequately studied. In general, there has been a tendency to conduct studies under the assumption that a variety of factors representing emotional responses can be represented as a single factor (Price et al., 1995; Taylor and Claxton, 1994; Casado Diaz and Más Ruíz, 2002). Emotional responses to service failures can be categorized as anger and uncertainty (i.e. simple dissatisfaction), but affirmative responses are also possible and should be included to garner a more balanced understanding (Weiner, 2000; Casado Diaz and Más Ruíz, 2002). However, the role and the impact of acceptability, which is the positive emotional reaction, has been ignored in the preceding studies, and such positive emotional reaction is attracting the special attention from the studies related to the service failure. Nevertheless, to the best of the authors' knowledge, no studies have yet been performed on the effects of service delays and affirmative responses on the behavioral intentions of passengers with a focus on service delays as waiting

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http://dx.doi.org/10.1016/j.jairtraman.2016.07.005
0969-6997/

time.

The purpose of this study is to analyze what impact the service delay has on the airline passengers' behavioral intentions through the positive and negative emotional reaction. More specifically, the affirmative purpose of this study is to analyze the impact of service delays on the anger, uncertainty, acceptability, repurchase intentions, and negative word-of-mouth. The important contribution of this study is to suggest the model to understand the impact of service delay in the airline industry by including the acceptability, which is the positive emotional reaction ignored in the preceding studies, well. In addition, another contribution of this study compared to preceding studies is to highlight the importance of positive emotional reaction by the service delay as a measure to draw the positive behavioral intentions from the passengers.

2. Theoretical background

2.1. Service delay and emotional responses

This study defines a service delay as the amount of time that customers are required to wait through when airlines provide an air transport service. This definition is intended to limit the concept of waiting time to the amount of time that customers are required to wait for an airline service while also leaving room for an analysis of the waiting time that incorporates each step of the air service process that might cause the waiting time to increase. Taylor (1994) defined waiting time as the time from when customers are ready to have a service to the time when the service actually starts being provided. Hence, the customers are in a state of readiness as they wait for the service. This is not a pleasurable wait for customers. However, there are many reasons for delays. Waiting times can occur when all types of services are about to be provided. A series of procedures is required for customers to have a certain service. Airline passengers tend to experience waiting times when encountering a series of service procedures. For example, a certain amount of time is needed for customers to wait when they try to book a flight. In addition, they need to stand by when being issued a flight ticket at the airport, or when checking in luggage after receiving tickets, or even when about to board the flight. Furthermore, they tend to experience waiting times when they request in-flight services, pick up their luggage after arriving at a destination, and accumulate flight mileage. Hereupon, they interact with a number of service suppliers in diverse service encounters, and they experience numerous stand-by moments. Waiting times are inevitable according to the characteristics of the services being offered. Accordingly, service providers find it difficult to solve these issues.

When experiencing a service failure, people tend to have an immediate emotional response. For example, precedence factors such as a flight arrival delay, an unfair product payment charge, boredom during a wait, and the conceiving of discount prices for customers all cause immediate negative emotions for customers. Negative emotions are configuring concepts that have received a great deal of attention from numerous researchers in marketing-related fields. Recent studies dealing with the satisfaction or dissatisfaction of consumers have emphasized the role of emotional responses with respect to consumption experiences. An increasing number of studies have striven to demonstrate that negative emotions serve to influence satisfaction and/or dissatisfaction (Sohn, 2005; Van Vaerenbergh et al., 2014). Waiting times have diversely been described by terms such as displeasure, uncertainty, disappointment, disgust, the chilling effect, pain, and desire (Katz et al., 1991). In addition, many studies have revealed that waiting times were closely related to negative emotions (Houston et al., 1998; Baker and Cameron, 1996; Hui and Tse, 1996).

A longer waiting time in the middle of a service delay tends to form a negative emotion on customers experiencing the delay. Waiting for any reason makes customers angry or encourages them to form negative emotions due to the associated uncertainty (Hui and Tse, 1996; Taylor, 1994; Houston et al., 1998). Customers tend to evaluate stimuli after going through emotional responses or behaving according to stimuli. An emotion is a general mental state one subjectively recognizes in a given situation. In addition, an emotion is a mental state in which one is ready to have a cognitive evaluation of his/her personal thoughts or an experienced incident. Alternatively, the emotion is indicated as either a pleasurable or unpleasurable mood, or it may also include thoughts coming up either consciously or subconsciously (Bagozzi et al., 1999; Bruner, 1990). Taylor (1994) classified the emotional responses from waiting times into anger and uncertainty after confirming how delays directly influenced these two responses. He demonstrated them via different concepts and showed how such emotional responses influenced the overall service evaluations. As such, this study also uses anger and uncertainty as representative emotional responses to waiting times from service delays. These will be the configuring concepts behind the negative emotions, as based on the previous study by Taylor (1994).

Park (1999) insisted that perceived waiting time causes the service quality to be evaluated less favorably because it encourages negative emotions. In addition, Casado Diaz and Más Ruíz (2002) noted that a service delay influenced the negative emotional state of being angry. These previous studies can be summarized as follows. If waiting time increases in length, consumers are more likely to produce negative emotions. This study intends to establish the following research hypotheses to identify how a service delay (according to perceived waiting time) influences negative emotions.

H1. A service delay has a positive impact on anger.

H2. A service delay has a positive impact on uncertainty.

The acceptance of a waiting time after experiencing a service delay can be defined as the degree to which a customer can accept that waiting time, as well as whether or not the wait for the service is appropriate based on the customer's own criteria (Hui and Tse, 1996). Park (1999) insisted that acceptability was formed through cognitive re-evaluation courses that resulted from external and internal information exploration. For Park (1999), this made it necessary to consider the influence of internal exploration with respect to the causes of a wait. As such, he concluded that it was possible for acceptability to directly affect an evaluation of quality. Acceptability information leads customers to greater tolerance with respect to waiting times by allowing a cognitive re-evaluation to take place (Maister, 1984). According to social evaluation theories, given stimuli belong to one of three domains – acceptance, denial, and non-commitment. The acceptance domain refers to the cognitive space in which a category of opinions exists. These opinions allow customers to conclude that a waiting time is to be accepted. The denial domain is the space reserved for opinions in which the customers cannot accept waiting, and the non-commitment domain holds opinions in which the customer is undecided as to whether or not a wait should be accepted or denied. If stimuli reach the acceptance domain, they trigger assimilation phenomena, which increase the chances of acceptance. However, if they reach the denial domain, they trigger contrast biases, which decrease the chances of acceptance. In this paradigm, when waiting times increase in length, the chances of acceptance will decrease because the stimuli will shift from the acceptance domain toward the denial domain. A perceived wait directly influences acceptability. In addition, when the benefits that can be obtained from the service are greater, customers tend to have a greater tolerance for delays. Conversely, the higher the psychological and physical

expenses, the more customers are inclined to avoid acceptance. People tend to find reasons to predict or control their environment (Harvey and Weary, 1984; Van Vaerenbergh et al., 2014; Weiner, 1986). Therefore, a delay that occurs when receiving a service influences acceptability on behalf of customers. As such, the following research hypothesis can be used.

H3. A service delay has a negative impact on acceptability.

2.2. Emotional responses and behavioral intentions

Recent consumer behavior researchers have recognized that emotion-related variables play a very important role in the consumption behaviors of consumers. Early studies dealing with customers' behavioral intentions saw how customer behavior was determined by cognitive elements and cognitive evaluations. However, many felt that customer behavior was determined by emotional responses. One such study indicated that customer behavior was formed through a combination of cognitive elements and emotional factors (Holbrook and Batra, 1987; Westbrook and Oliver, 1991). In addition, it was thought that the degree of satisfaction influenced the loyalty of consumers and customer behavior responses, including switching behaviors (Van Dolen et al., 2001). In other words, the emotional responses of consumers were directly related to the intention to purchase. In particular, it was revealed that emotional elements of consumers influenced customer behaviors such as purchase satisfaction, repurchase intention, and recommendation intention (Westbrook and Oliver, 1991). Among the related negative emotions, anger and uncertainty experienced by flight passengers due to a service delay had a significant influence on service quality evaluations (Taylor, 1994). There existed an emotional response on the part of consumers that was based on positive or negative emotions, and emotional responses were directly related to the determination of satisfaction, complaints, and word-of-mouth activities (Folkes et al., 1987; Westbrook, 1980). Therefore, it is reasonable to say that there is value in studying the influence of emotional elements as they lead to the formation of satisfaction or behavioral intentions with respect to consumer service evaluations. The following hypotheses have been established based these previous studies.

H4. Anger resulting from a service delay has a negative impact on repurchase intention.

H5. Anger resulting from a service delay has a positive impact on negative word-of-mouth.

H6. Uncertainty resulting from a service delay has a negative impact on repurchase intention.

H7. Uncertainty resulting from a service delay has a positive impact on negative word-of-mouth.

Acceptability refers to the extent to which customers are willing to accept a delay. Thus, it can be said that acceptibility and behavioral intentions are able to influence one another. Yet, acceptability has a higher probability of becoming a preceding variable of this behavioral intention (Hui and Tse, 1996; Pruyn and Smidts, 1998). Repurchase intention will be higher with a higher degree of acceptability for waiting time, whereas negative word-of-mouth will be lower. Thus, the following hypotheses have been established.

H8. Accessibility resulting from a service delay has a positive impact on repurchase intention.

H9. Accessibility resulting from a service delay has a negative impact on negative word-of-mouth.

2.3. Research model

This study aims to investigate the impact of service delays on the emotional responses of customers in order to determine the link between service delays and behavioral intention. Waiting time was set as the measurement variable for service delays. Negative emotions (anger and uncertainty) and acceptability were set as mediators. It was assumed that service delays would have an impact on the negative emotions (anger and uncertainty) as well as the acceptability of customers. This study took into account the point that emotional responses would have an impact on repurchase intention and negative word-of-mouth. To achieve the purpose of this study, a research model was established, as shown in Fig. 1. Furthermore, this study conducted an empirical analysis by establishing hypotheses based thereon.

3. Methodology

The design of the survey questionnaire was created based on multiple-item measurement scales adopted from previous research. This study conducted a pre-test in order to secure the validity of measurement scales with various individuals, who had experienced using air services from May 8 to 14, 2012. This study reviewed the questionnaires collected from the pre-test to determine whether or not the intended contents were properly conveyed to the respondents, whether or not the terms used in the questionnaire were difficult or unfamiliar, and whether or not there were any errors in terms of phrase composition and arrangement. The final questionnaire was confirmed based on the findings of the pre-test after removing or correcting those questions that might be difficult to understand or that might cause confusion in understanding. The measurement items are measured on a five-point Likert scale. The six constructs that were included in the hypotheses were tested. They included service delay, anger, uncertainty, acceptability, repurchase intention, and negative word-of-mouth.

Service delay was defined as the perceived waiting time for a customer to receive all of the services that are being provided by an airline for flight travel. This study configured the four questions regarding service delay to the five-point Likert scale with five points being given for "Most likely" and one point for "Least likely." This study classifies negative emotions into anger and uncertainty. To measure the tolerance of a service delay, this study selected acceptability. Anger in this study was defined as an angry and irritated emotional reaction due to an airline service delay. Uncertainty in this study refers to an uncertain and/or concerned feeling that results from being unaware of when the airplane will take off in case of airplane service delay. This study defines acceptability as an emotional state in which one can accept a perceived airline service delay. Anger and uncertainty were each configured with the two questions, whereas acceptability consisted of four questions. All of these factors were measured based on a five-point Likert scale with five points being given for "Most likely" and one point being given for "Least likely."

Behavioral intention was defined with repurchase intention having a positive effect and negative word-of-mouth having a negative effect. Customers express these intentions after experiencing an airline service delay, as shown in a study conducted by Casado Diaz and Más Ruíz (2002). Repurchase intention and negative word-of-mouth were then configured with three questions each. They were measured based on a five-point Likert scale with five points being given for "Very likely" and one point being given for "Least likely." The measurement questions of this study are as shown in Table 1.

The survey was conducted with airline passengers waiting to board after finishing their check-in at Gimpo International Airport

and Incheon International Airport for three weeks between May 19 and June 8, 2012. The survey researchers confirmed that these airline passengers had experienced airline service delays. Subsequently, the respondents were asked to fill out the questionnaire. A total of 420 copies were distributed. A total of 395 copies were selected for the final data analysis after excluding 25 incomplete questionnaires. The general characteristics of the samples are shown in Table 2.

4. Empirical results

In order to verify the reliability and validity of the measurement items utilized in this study, a confirmatory factor analysis was conducted. The measurement model showed an acceptable fit (CMIN/DF = 2.495, p = 0.000; RMR = 0.040; GFI = 0.925; AGFI = 0.889; IFI = 0.925; TLI = 0.939; CFI = 0.953). As a result of the reliability analysis, squared multiple correlation (SMC) values were found as follows: acceptability 1 = 0.373, acceptability 3 = 0.385, and negative word-of-mouth 1 = 0.226. All of these values were lower than the reference value of 0.4. In addition, an individual observation variable can only be deemed reliable when the standardization regression coefficient is 0.7 or more. The standardization regression coefficient values were determined as follows: waiting time 2 = 0.644, acceptability 1 = 0.611, acceptability 3 = 0.621, and negative word-of-mouth 1 = 0.476. There was a slight problem associated with reliability because all of these values were lower than the reference value of 0.7 (Table 3). Thus, this study eliminated acceptability 1 and negative word-of-mouth 1, whose SMC and standardization regression coefficients were lower than the reference values. Acceptability 3 had an SMC of 0.385, which was close to 0.4. Accordingly, it was not eliminated because it was believed to have a certain degree of explanatory power.

As a result of analyzing the structural equation, the χ^2 value showed a significant difference (p = 0.000). Among the absolute fit indices, GFI = 0.904, AGFI = 0.861, NFI = 0.898, IFI = 0.924, CFI = 0.923 and RMSEA = 0.081. Therefore, it was determined that the overall goodness of fit of the model was acceptable. As a result, this study conducted a hypothesis verification as to the structural equation model. The results of the hypothesis verification are shown in Table 4.

As a result of the hypothesis verification, all of the hypotheses were statistically significant with the exception of two hypotheses. First, service delay was found to have a statistically significant impact on anger, uncertainty, and acceptability. That is to say, the perceived waiting time resulting from the service delay could be deemed to have influenced the negative emotions of airline passengers, including anger and uncertainty. This conclusion is consistent with the findings provided by Taylor (1994). This also coincides with results of a study by Casado Diaz and Más Ruíz (2002) stating that perceived waiting time had a direct impact on anger.

Anger, a negative emotion, was found to have a statistically significant impact on repurchase intention and negative word-of-mouth. Anger was also found to have a negative impact on repurchase intention and to have a positive impact on negative word-of-mouth. This indicates that passengers experiencing anger after a service delay might file a complaint to the corresponding airline and might also talk negatively to their acquaintances about the corresponding airline. Moreover, this also indicates that such passengers may not use the corresponding airline again.

Uncertainty was not found to have a statistically significant impact on repurchase intention and negative word-of-mouth. In other words, anger resulting from the perceived waiting time would have a negative impact on repurchase intention, whereas it would have a positive impact on negative word-of-mouth. However, uncertainty cannot be deemed to have significantly influenced behavioral intention because the airline companies actively informed passengers of the reasons for the service delay. This is also evidenced from the fact that the same people who are prone to utilizing negative word-of-mouth as a method of complaining about an airline with which a delay was experienced are the same people that would demonstrate the behavioral intention to avoid using that airline after becoming angry due to the perceived waiting time.

Acceptability was found to have a statistically significant impact on repurchase intention and negative word-of-mouth. This finding allows us to conclude that those passengers determining they could wait for the perceived waiting time would reuse the airlines with which they experienced the service delay. Furthermore, these individuals will most likely not conduct any behavior associated with negative word-of-mouth.

5. Conclusions and implications

This study has analyzed how service delays influence the negative emotions of airline passengers as well as acceptability. It also shows how such negative emotions and acceptability are able to influence behavioral intention. As such, this study is of value with respect to providing support for the establishment of airline marketing strategies, particularly for the purpose of reducing customer complaints that stem from airline service delays. The results are summarized as follows. First, the waiting time resulting from a service delay influenced the formation of negative emotions and positively influenced anger and uncertainty. In particular, it was shown that a service delay had a significant influence on anger. Service delays turned out to negatively influence acceptability. As the service delay increased in time and the perceived waiting time subsequently increased, customers became angry and uncertain as to whether the flight might not depart or might not be provided. Second, according to the relationship between negative emotions and behavioral intention, anger turned out to negatively influence repurchase intention and positively influence negative word-of-mouth. On the other hand, uncertainty turned out not to represent a statistically significant influence on repurchase intention or negative word-of-mouth. Customers experiencing anger due to a service delay tried not to use the airline that caused the service delay. They also conveyed negative word-of-mouth to others. However, uncertainty did not significantly influence the behavioral intention of customers experiencing a service delay. Third, the relationship between acceptability and behavioral intention turned out to positively influence repurchase intention and negatively influence negative word-of-mouth. In other words, passengers who were able to accept the waiting time turned out to use the airline that caused the service delay again. Due to the characteristics of air

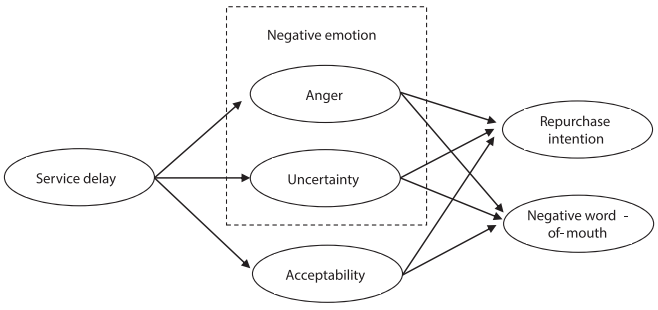

Fig. 1. Conceptual model.

Table 1
Measurement items.

Measures	Variables*	Previous studies
Service Delay	The actual waiting time for an airline service was longer than forecasted.	Taylor (1994)
	The airline that I used had a longer waiting time than other airlines.	Casado Diaz and Más Ruíz (2002)
	The actual waiting time for an airline service was longer than expected.	
	The waiting time for an airline service was long.	
Anger	I feel angry when an airline service is delayed.	Maister (1984)
	I feel irritated when an airline service is delayed.	Taylor (1994)
Uncertainty	I feel uncertain when an airline service is delayed because I do not know when it will take off.	Casado Diaz and Más Ruíz (2002)
	I feel concern when an airline service is delayed.	Hui and Tse (1996)
Acceptability	It is inevitable to wait for an airline service.	Park (1999)
	I can wait again to receive an airline service.	
	Airlines may inevitably have to make customers wait.	
	I can wait again to receive an airline service next time.	
Repurchase intention	I will continue to use the airline that I used previously even if I experience a service delay from this airline.	Casado Diaz and Más Ruíz (2002)
	I will recommend the corresponding airline even if I experience a service delay.	
	I will talk positively about the corresponding airline even if I experience a service delay.	
Negative word-of-mouth	I will file a complaint to the corresponding airline if I experience a service delay.	
	I will not use the corresponding airline again if I experience a service delay.	
	I will talk negatively to my acquaintances about the corresponding airline if I experience a service delay.	

*Note: a five-point Likert scale.

travel, there is a high chance that service delays will be inevitable, at least to some extent. Customers tend to be familiar with waiting. However, as a service delay increases in time, customers begin complaining and expressing negative emotions. Therefore, it is in the best interest of airlines to actively manage service delays and minimize waiting times by proactively reducing service delays in advance. Airlines need to seek various strategies to prevent latent service delays, reduce waiting times when encountering services, reduce the negative emotions of flight passengers, and enhance repurchase intention.

The contribution of this study is that the results of this study help the clear understanding on what emotional reaction the airline passengers generate against the service delay and what impact such emotional reaction has on behavioral intentions academically. The study model tested in this study explains the relations among the service failure, emotional reaction and behavioral intentions, and this study has following contributions compared to preceding studies on the service failure. First, this study focused on the service delays stemming from various service failure elements that can occur when airline services are provided. Most previous studies focused on elements of service failures such as stability and controllability, while this study focused on the waiting time caused by service delays. This enabled the present study to achieve similar results to other studies on service delays in a variety of industry-areas. Namely, service delays were verified to have a direct impact on the emotional reactions of passengers. In particular, anger stood out among the negative emotional reactions to service delays. This matches well with the results of studies by Weiner (2000) and Casado Diaz and Más Ruíz (2002). Further, anger appeared to be an important variable having a direct impact on the behavioral intention of passengers, which reflects the results offered by Westbrook (1987) and Weiner (2000). It is clear that the role and impact of anger here are similar to those identified in studies on other service areas.

Second, the major contribution of this study is to verify the impact of service delay on the passengers' behavioral intentions

Table 2
Sample characteristics.

	Classification	Frequency (people)	Composition ratio (%)
Gender	Male	192	48.6
	Female	203	51.4
Age	20 years old or less	14	3.5
	21 to 30 years old	180	45.6
	31 to 40 years old	117	29.6
	41 to 50 years old	58	14.7
	51 to 60 years old	22	5.6
	61 years old or older	4	1.0
Number of trips	1	17	4.3
	2 to 4	132	33.4
	5 to 10	102	25.8
	11 to 20	58	14.7
	21 or more	86	21.8
Airline with which I experienced the service delay	Korean Air	129	32.7
	Asiana Airlines	47	11.9
	A non-Korean airline	109	27.6
	A domestic low-cost airline	63	15.9
	A non-Korean low-cost airline	47	11.9
Acceptable waiting time	10 min	40	10.1
	20 min	87	22.0
	30 min	192	48.6
	40 min	39	9.9
	50 min or longer	37	9.4
Total number of respondents		395	100

Table 3
Result of the confirmatory factor analysis.

Configuration concept		Measurement index	Reliability analysis	
			SMC	Standardization regression coefficient
Service delay	Waiting time	Waiting time 1	0.643	0.802
		Waiting time 2	0.415	0.644
		Waiting time 3	0.782	0.884
		Waiting time 4	0.750	0.866
Emotional reaction	Anger	Anger 1	0.842	0.918
		Anger 2	0.720	0.849
	Uncertainty	Uncertainty 1	0.737	0.858
		Uncertainty 2	0.579	0.761
	Acceptability	Acceptability 1	0.373	0.611
		Acceptability 2	0.533	0.730
		Acceptability 3	0.385	0.621
		Acceptability 4	0.575	0.759
Behavioral intention	Repurchase intention	Repurchase intention 1	0.605	0.778
		Repurchase intention 2	0.769	0.877
		Repurchase intention 3	0.649	0.806
	Negative word-of-mouth	Negative word-of-mouth 1	0.226	0.476
		Negative word-of-mouth 2	0.597	0.772
		Negative word-of-mouth 3	0.680	0.825

through the negative and positive emotions by including the acceptability. In this study, an in-depth analysis was conducted on the role and impact of acceptability, an affirmative emotion, in order to predict the emotional reaction of passengers to service delays and behavioral intentions with emotional reactions. This study is meaningful because it confirmed the impact that service delays had on the behavioral intentions of passengers through acceptability. In particular, the relative impact that acceptability had on repurchase intention and negative word-of −mouth appeared to be bigger than the impact of anger. This highlighted the importance of acceptability as an affirmative reaction in the impact that service delays have on the behavioral intentions of passengers. Research on the impact generated by acceptability has thus far been neglected, and the importance of affirmative emotional reactions to service delays is therefore an important contribution of this study.

Third, service delays were confirmed as the preceding variables that negatively affected emotion and acceptability among passengers negatively. Hence, the impact on the dependent variables were analyzed while including negative transmission by word-of-mouth and the intention to use the service again. Anger and acceptability were confirmed as the variables directly affecting behavioral intentions. Accordingly, decision makers within airline companies would do well to seek measures to effectively control the emotional responses of passengers to minimize negative transmission via word-of-mouth, as well as to discourage passengers from developing negative repurchasing intentions due to service delays.

This study has empirically analyzed content in which airline service delays influenced emotional responses and behavioral intention. However, limitations existed. Therefore, follow-up studies would be useful. First, this study has regarded waiting time as a variable of airline service delays. This decision was based on previous studies. There were many variables related to service delays, including stability and controllability. However, it was difficult to apply these concepts since they were limited to studies. Therefore, it would be beneficial for a follow-up study to deal with the conceptual definitions of stability and controllability as a variable of service delays. In addition, survey items as a variable of service delays could be developed to be more conducive to study environments.

Second, the emotional responses and behavioral intentions of passengers regarding service delays can differ in accordance with airlines and passenger characteristics. Therefore, there is a need for a study to be conducted regarding the effects of service delays on the emotional responses and behavioral intentions of passengers in accordance with key differences between passengers. These differences could include those passengers using full service carriers as opposed to low-cost carriers, frequent fliers as opposed to non-frequent flier, and passengers with high levels of acceptability as opposed to passengers with low levels of acceptability.

Third, one method of attempting to mitigate the negative emotions and negative behavioral intentions of passengers drived from service delays is to actively promote service recovery activities. Thus, further research should be conducted on service recovery techniques with respect to their potential to mitigate service failures.

Lastly, a survey could also be conducted on airline employees to further investigate all aspects of service delays. This is because airline employees are well aware of customer reactions, more so

Table 4
Results of the hypothesis verification.

Hypothesis path (direction)	Standardization path coefficient	Non-standardization path coefficient	C.R.	Verification result
H1: Service Delay → Anger	0.461	0.482	8.333***	Accepted
H2: Service Delay → Uncertainty	0.263	0.272	4.470***	Accepted
H3: Service Delay → Acceptability	−0.196	−0.162	−3.204***	Accepted
H4: Anger → Repurchase intention	−0.264	−0.227	−3.908***	Accepted
H5: Anger → Negative word-of-mouth	0.345	0.318	4.523***	Accepted
H6: Uncertainty → Repurchase intention	−0.033	−0.029	−0.493	Rejected
H7: Uncertainty → Negative word-of-mouth	0.102	0.096	1.357	Rejected
H8: Acceptability → Repurchase intention	0.594	0.649	8.374***	Accepted
H9: Acceptability → Negative word-of-mouth	−0.461	−0.539	−6.613***	Accepted

Note: ***P < 0.005.

than any other related individuals, and they are accordingly able to suggest solutions for customers in the event of service delays. They can suggest actions to be taken, offer ideas to resolve customer complains, and suggest methods to reduce service delays. Adding questionnaires on the survey to be conducted on airline employees as well as flight passengers with respect to service delays would make it feasible to further craft processes or correspondence regarding service delays in an attempt to expand the study model.

Acknowledgments

The authors of this study would like to convey sincere gratitude to the survey researchers enrolled in Korea Aerospace University. They helped distribute and collect the questionnaires at Incheon International Airport and Gimpo International Airport. Moreover, the authors of this study would also like to thank Incheon International Airport and Gimpo International Airport for allowing this survey to be conducted.

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