

**Do We Feel Safer Today?  
The Impact of Smiling Customer Service on  
Airline Safety Perception Post 911**

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**Abstract**

The 911 attacks in 2001 were the most notorious airline safety breaches to ever occur in airline history. This attack stunned America's airline industry and government, causing both to realize how ill equipped they were to deal with the terrorist attacks that impacted New York and Washington, D.C. This tragedy triggered psychological, social, economic, and political implications that propelled various reform strategies. Responding swiftly to the 911 tragedy, the government created the Transportation Security Administration (TSA), which implemented more invasive security procedures. As a result, some travelers are less attracted to flight travel. This paper explores whether safety procedures actually make individuals feel safer. Furthermore, smiling customer service ameliorates the negative attitude that some have towards airline safety. Responses from more than 100 travelers reveal their opinions on current safety in the skies. Results indicate that smiling customer service mitigates safety perceptions about airline travel for research participants, and younger travelers feel safer than older travelers.

**Keywords:** Smiling customer service, airline passenger safety, airline passenger security, aviation security, passenger safety and securing

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## INTRODUCTION

Attention! Aircraft designers, operators, airmen, managers, anxiety never disappears in a human being in an airplane—it merely remains dormant when there is no cause to arouse it. Our challenge is to keep it forever dormant.

—Harold Harris, Vice President, Pan American World Airways,  
c. 1950, as cited by Jerome Lederer  
(Wiener and Nagel 1988, Foreword)

When Harold Harris made that statement decades ago, the airline industry was in its infancy. In 1958, the rate of fatal accidents for the airline industry was only one in 100,000 hours of flying. Now Transport operations are now approaching two million hours per fatal accident (Lederer, Foreword, in Wiener and Nagel 1988). This astounding safety accomplishment resulted largely from advances in technology, procedures and training. In addition, our infrastructure vastly improved, as has the exchange of intelligence on accident prevention under an umbrella of safety regulation.

The tragic disappearance of Malaysia Airlines Flight 370 on March 8, 2014, captured media headlines worldwide. The Malaysia airline en route from Kuala Lumpur International airport to Beijing, China, with a total of 239 passengers on board was never found. Then, on July 17, 2014, another Malaysia Airline aircraft, Flight 17, was shot down while flying over rebel-controlled eastern Ukraine territory from Amsterdam to Kuala Lumpur, taking the lives of 283 innocent passengers and 15 crew members on board the aircraft, as reported by *USA Today* on December 20, 2014. Finally, on December 28, 2014, it was announced that AirAsia Flight 8501, with 162 passengers and 7 crew members on board, flying from Surabaya, Indonesia, to Singapore, had disappeared off the radar shortly after communicating with the control center. The Malaysia aircraft crashed in bad weather, killing everyone onboard. While many of us have heard the old saying, “Three’s a charm,” in this case, three is a total disaster! History will document that in the year 2014 the airline industry recorded three major commercial air disasters involving aircraft mysteriously disappearing into thin air.

The mystery surrounding the disappearance of these aircrafts will continue to reside in the hearts and minds of the traveling public, causing us to wonder how safe airline passengers really feel today. Numerous unanswered questions still lurk in the traveling public’s mind. What caused those aircraft to vanish? Was it a terrorist attack? Who is responsible? Is it safe for me to fly? No one can deny the problems inherent when our aviation system has over 2.8 billion global airline passengers flying annually, according to IATA as reported in 2011.

The September 11, 2001, attacks had a profound effect upon the U.S. and set in motion a chain of events that resulted in the creation of a new federal agency designed to prevent similar attacks in the future. The Aviation and Transportation Security Act, passed by the 107th Congress and signed on November 19, 2001, established the

Transportation Security Administration (TSA), which was the largest single federal start-up since World War II. In March 2003, the TSA transferred from the Department of Transportation to the Department of Homeland Security, which had been created on November 25, 2002, by the Homeland Security Act of 2002 (Transportation Security Administration 2014).

In November 2010, the TSA began putting backscatter Xray scanners and millimeter wave scanner machines into airports, and a CBS telephone poll of 1,137 people published on November 15, 2010, found that 81% percent of those polled approved of TSA's use of full-body scans. However, a *PBS NewsHour* (2011) segment airing on September 8, 2011, and titled, "Drastic Changes in Airport Security After 911," revealed that many persons felt the new measures were excessive and infringed on the rights of travelers. They criticized more invasive searches and gave examples of passengers' being detained. Have more stringent security procedures, including more metal detectors, body scans, pat-downs, fortified cockpit doors, and sky marshals, assured flyers that they are safer today than they were 13 years ago?

In addition to these safety precautions, does positive reinforcement—especially airline employees' smiles and attentive customer service—contribute to travelers' psychological comfort levels? This paper explores the perceptions held by airline travelers regarding airline safety and how airline service affects their perceptions of airline safety and airline safety preparedness. First, the attitudes and perceptions of airline travelers will be reviewed. Next, a framework will be discussed that describes the impact of smiling customer service on attitudes and perceptions regarding airline safety. Hypotheses, methods, and results will be proposed before discussing the implications for the research. Strategies will be suggested for airlines to implement to reinforce passengers' safety and to create a safer flying environment.

### *High Anxiety*

Scholarly research supports that air travel by major carriers has improved substantially since airline deregulation. It also shows that, under deregulation, "more airplanes mean increased opportunities to have accidents, which lead to more accidents and fatalities" (Valk Foundation 2012). However, the Valk study, a joint project of the University of Leiden, KLM, and the Amsterdam Schiphol Airport, stated that plane accidents are actually rare. In fact, the report said that that even if people are in plane crashes, these are not necessarily fatal. The report further mentioned that among the 568 plane crashes in the U.S. between 1980 and 2000, more than 90% of crash victims lived. Moreover, the report disclosed that an average American's chances of dying in a plane crash are one in 14 million. Even in one of the major crashes, the survival rate is about 76% (Valk Foundation 2012).

Despite these reassuring statistics, customer belief is paramount in all businesses, especially so in the airline industry. Many airline passengers are displaying more air travel anxiety than ever before. Keeping it dormant, therefore, is indeed a challenge, as between 20% and 40% of people experience some anxiety about flying (Valk Foundation 2012). Most of the anxiety and fear surrounding flying stems from the perception that flying is unsafe or that chances of surviving a crash are slim.

#### *2014–2015: High-Profile Crashes*

The 21st century airline customer culture was impacted greatly by the 911 airline tragedy and is now reeling and adjusting to several unsettling airline incidents, particularly in 2014. A high-profile calamity occurred on December 28, 2014 when AirAsia Flight 8501, en route from Surabaya, Indonesia, to Singapore, disappeared from radar. The plane crashed into the Java Sea, killing all 162 people on board. Before AirAsia Flight 8501 crashed, the copilot was flying the plane as the more experienced pilot monitored the flight. And things may have gone wrong in a span of just 3 minutes and 20 seconds, triggering a stall warning that sounded until it crashed into the Java Sea (Quiano and Park 2015). Four months earlier, on July 17, 2014, Malaysia Airlines Flight 17 from Amsterdam to Kuala Lumpur was travelling over the conflict-riddled Ukraine region when it disappeared from radar. A total of 283 passengers, including 80 children and 15 crew members, were on board (McGee, 2014). Perhaps most mysteriously of all, on March 8, 2014, Malaysia Airlines Flight 370 disappeared and presumably crashed. As of March 2015, no traces of the plane have been found (McGee 2014). On March 24, 2015, Flight 4U 9525 from Barcelona to Duesseldorf ended in disaster. The Airbus, operated by Lufthansa's Germanwings budget airline, crashed into a mountainside in the French Alps, killing all 150 people on board, including 16 schoolchildren. (Rosnoblet 2015). These recent international airline disasters, coupled with the 911 tragedy, have profoundly impacted the airline customer experience. In fact, travelers are now vocalizing their concern about airline performance processes. Thirteen years later, "... the airline industry and its customers have been forced out of the silos that existed," in what Brown and Brown (2014) referred to as "[industries] acting in their own best interest above that of the customer."

The public's airline safety views and beliefs must not be addressed with indifference. The tragedy of 911 caused a public thirst for new approaches to improved confidence in airline safety. Innovations for improving airline safety began immediately after the attack. The airline industry is built on the foundation of safety, which is the number-one priority, according to spokesman Steve Lott: "Airlines never compromise on safety, and the impressive record speaks for itself. Our skills are the safest they have ever been in modern history" (as quoted in Maffly 2011).

## REVIEW OF LITERATURE: AIRLINE SAFETY PERCEPTION BASED ON SMILING CUSTOMER SERVICE

### *Good Customer Service Defined*

Johnston (1995) identified five major debates that occurred in service quality research and practice that continue to frame research on customer service quality characteristics. These debates encompassed the following:

1. The similarities and differences between the constructs of service quality and satisfaction (Anderson and Sullivan 1993; Bolton and Drew 1991; Cronin and Taylor 1992, 1994; Oliver 1993; Parasuraman, Zeithaml, and Berry 1988; Taylor 1993; Zeithaml, Berry, and Parasuraman 1993), whereby satisfaction is defined as the result of individual customer service transactions and service quality relates to the client's general impression of the associated inferiority or superiority of a business and its services (Bitner and Hubbart 1994).
2. The capability of the expectation perception gap view of service, which involves the usage of performance-based measures (Babakus and Boller 1992; Cronin and Taylor 1994).
3. The growth of models that support one's understanding of the causes of the perception gap and methods managers can employ to reduce or control its effect (Brogowicz, Delene, and Lyth 1990; Parasuraman, Zeithaml, and Berry 1985).
4. Defining and utilizing the idea of a zone of tolerance as the scope of performance that a client deems acceptable; only moving below or beyond this zone, would impact, negatively or positively, one's perception of service quality (Johnston 1995; Liljander and Strandvik 1993).
5. Targeting the determinants of service quality, which are crucial to identify, measure, control and improve customer perceived service quality. (Johnston 1995)

Service quality research conducted in the 1980s and 1990s identified reliability as the most important construct, with responsiveness (timeliness of service), assurance (consistency of quality service), and empathy (emotional congruity) as important to customer service and satisfaction (Johnston 1995). At the affective level, moods and emotions are shown to transfer between individuals in groups (Barsade 2002). This phenomenon, known as emotional contagion, can occur subconsciously and involve implicit signals from the individuals' behavior (Neumann and Strack 2000). Events that spur emotions also have an impact on how individuals form attitudes and behave (Brief and Weiss 2002). These events form an affective experience for individuals, which can affect their attitude towards other events or situations.

### *Relationships between Service Quality and Customer Satisfaction*

Numerous studies have been conducted on the relationship between service quality and customer satisfaction (Agbor and Eriksson 2011). Moreover, consensus among researchers indicates that high quality service yields an increase in customer satisfaction. As a result, clients are willing to extend their satisfaction to others; consequently, service businesses and organizations earn consumer loyalty and retention. Customer satisfaction elicits a positive affective reaction that can lead to positive emotions such as joy and pride (Shaver, Schwartz, Kirson, and O'Connor 1987; Weiss and Cropanzano 1996). On the other hand, poor customer service may trigger negative affective responses in the form of negative emotions such as anger and fear.

The SERVQUAL model (Parasuraman et al. 1988, in Snyder et al. 2014), also known as the Gap Model, is noted as the most widely used model and one of the best for measuring service quality/customer satisfaction evaluation research (Agbor and Eriksson, 2011). Parasuraman (in Snyder et al. 2014) contended that measuring service quality as the difference between perceived and expected service was indeed a credible method and would lead management to recognize gaps in their service offerings. The five dimensions are reliability, tangibility, assurance, responsiveness, and empathy (Qin 2012; Johnston 1995) .

### *Airline Service Quality and Customer Satisfaction*

“The world has turned into a global village, it has become easier for people, living in extreme corners of the world, to connect to their loved ones as well as increase their business network, without much of a hassle. Thanks to the booming civil aviation industry—it has helped people travel to the nook and corners of the world, within just few hours.” (Bhuvaneshwaran and Vijayarangam 2013, Abstract)

Until recently consumers had experienced growing frustration with the airline industry (Karp 2013). According to a report released in 2015 by the American Customer Satisfaction Index, the airline industry scored 71 out of 100 but has not yet reached its peak score of 72 set in 1994. In an environment of customer dissatisfaction, passengers' affective experience may be what distinguishes their attitudes towards one airline versus that of another. Furthermore, it may form their perceptions towards their airline experience, including perceptions regarding safety.

At the center of sustainability and survival of every airport worldwide is excellent customer service. Paternoster (2007), defined excellent customer service as the synergy created when an airport's ability to exceed its customers' needs and expectations consistently matches the customers' perception that their needs and expectations are well met. It is important that airport administration identify the specific groups of customers to gain a clearer understanding of the critical areas that have the greatest influence on meeting the goals of customer service

management. Traditionally, the customers of airports were identified as the airlines, and passengers were considered as the customers or clients of the airlines (Francis, Humphreys, and Ison 2004).

Beginning in about 1995, the model that dictated how airport management operated changed from a traditional public utility paradigm to a commercial business model. This change resulted in airport management's placing more emphasis on non-airline sources of income, such as rents, concessions, car parking, consultancy, and property development. Consequently, the older, more traditional airline-airport-passenger relationship became more complex and diversified (Francis, Humphreys and Ison 2004). Today, airport management is faced with a growing diversity of clientele with differing roles, needs, and expectations. These travelers comprise a new category of passengers who have demanded self-service processes from the start of the airport experience to its completion. In addition, it is expected that there is an ease in accessing any information wanted or needed precisely when it is needed. Airports accommodate these customers by offering unique brands to attract and maintain these travelers (Kamarudin 2014).

Currently, airports are competing in a complex business milieu that is globally impacting. The Airport Council International (ACI) *2013 Airport Economics Reports* state that the airport business industry operates in unrivaled, but evolving multi-dimensional (physical, financial and regulatory) environments. Thus, an inclusive set of performance criteria must be established to assist airport management in creating a general framework for carefully planned customer relationship management (Kamarudin 2014).

The strategic management of customer relationship is acknowledged as an intangible asset. This valuable commodity will enable a business to possess loyal existing customers, while allowing new customer markets and others to enjoy effective and efficient service. Savvy companies, such as Southwest Airlines, recognize that their ability to circulate and utilize their invisible or non-physical assets is far more critical and lucrative than pursuing more physical, tangible resources (Maxim 2012).

### *The Smile: Smiling Customer Service*

With the increase of diverse needs of travelers, families with young children, and business clients, airports have continued to scramble to meet customers' expectations. Consequently, a new demand emerged: the low-cost airline. This movement introduced another challenge to airports and the traditional, "legacy" airlines. Low-cost airlines appeared at a time when airports were undergoing deregulation and privatization. The effects of privatization resulted in more safe and secure operations at airports at a time that customers were demanding a higher quality of service at a more reasonable cost (Wittman 2014).

Over the past few decades, low-cost airlines have penetrated the markets, resulting in air travelers' gaining more options in choosing an airline. Although many people consider low cost to equal low quality, two low-cost carriers have consistently stood out as the highest ranking airlines in the area of excellent customer service: Southwest and JetBlue airlines. Both carriers have longstanding records of excellent customer service.

Southwest airlines has been a consistent example of the impact that smiles and an empathetic attitude toward customers can increase customer loyalty and revenues (McIntyre 2011; "Southwest Airlines" 2011). Hunter (2009) suggested that smiling customer service has a positive impact on the moods and emotions of airline travelers. Not only does it reflect the positive core values of the airline company, but it signals to passengers a sense of comfort through perceptions of compassion, hospitality, and resourcefulness, among other characteristics (Hunter 2011).

Smiling by airline personnel positively affects the interaction between them and airline customers (Hunter 2011). Based on affective events theory (Weiss and Cropanzano 1996), this positive interaction may be perceived as a positive event leading to other positive outcomes in behavior and attitudes. Customers who receive poor customer service will be unhappy and experience negative emotions such as anger or fear. Customers who receive smiling customer service will be happier and experience positive emotions, resulting in less anger and fear regarding flying. Hunter (2009) emphasized that how airline employees respond in their attitude and behavior is critical; "it can seriously impact the organization's image, its customers' expectations, and how they perceive mishaps and respond to them. In a review of the 2013 North American Airline Satisfaction Study by J.D. Powers and Associates, Katia Hetter (2013), of CNN News, commented, "What makes airline passengers happy? Sometimes it's as simple as a smile." Although airline passengers are increasingly using self-service options for check-in, accessing WiFi and enjoying the benefit of other technological advances, the value of a genuine smile from an airline employee makes the difference between customer loyalty and satisfaction and losing customers to the competition.

The J.D. Powers & Associates (2013) study noted that if a customer experienced a smile from the attending employee, even for a short period of time, satisfaction scores increased 105 points higher than those customers who did not experience a smile. The difference doubled (211 points) between the customers who received a consistent smile and those who never received a smile.

"Treating passengers as valued customers and guests—welcoming them with a genuine warm smile—is an important opportunity for airlines to achieve considerably higher levels of satisfaction," according to Faza, senior manager of travel practice at J.D. Powers & Associates (2013). "With the increasing use of technology reducing



some personal interactions in the reservations and check-in processes, making the most of the rest of the passenger interaction with airline staff is imperative.” (Powers & Associates, 2013).

The September 11, 2001 attack in New York sent the airline industry into a tailspin from which it has slowly recovered. In 2006, it was reported by travel expert Terry Trippler that “Airports are fighting for their lives, doing whatever they can to get and keep customers” (Bly 2006, n.p.) How safe does the public feel today, post 911? It may depend on whom you ask. Younger adults may be more adjusted to these newer security protocols. Combined with the fact that younger adults were either not born yet or are too young to remember the events of 911, they may have greater confidence in the safety of the airline industry. This is because the events of 911 are more salient and memorable for older airline travelers, who, compared to younger travelers, were more aware of the tragic event. Therefore, we propose that older travelers will feel less safe than younger travelers while traveling by air.

*H1:* Age is inversely related to perceived airline environment safety.

*H2:* Airline staff friendliness is positively related to perceived airline environmental safety.

*H3:* Airline staff’s smiling customer service is positively related to perceived airline environmental safety.

*H4:* Airline staff’s smiling customer service ameliorates the inverse effect that the age of a passenger has on perceived airline environmental safety. In other words, smiling customer service affects older passengers in a way that improves their perceptions about airline environmental safety.

## METHODOLOGY

The Airline Passenger Safety Perception Survey (APSPS), designed by the authors, was distributed via email to 133 individuals from the general public and a U.S. private Catholic university. Almost one-third of individuals who fly are between the ages of 18 and 34 (U.S. Travel Association, n.d.) which qualifies college students to also serve as a proxy for air travelers. Subjects with missing data related to the variables being investigated were removed, resulting in 125 valid responses ( $N = 125$ ). Assuming a sample size of 125 subjects and anticipating a large effect size using three predictor variables (Cohen and Cohen 1983), power level was calculated to be 0.96 for performing ANOVA and .98 for performing linear multiple regression. Most social science researchers consider a power level of 0.80 or above to be acceptable (Cohen 1988) so the minimum requirements were met. Respondents were 51.1% female and 48.9% male, with an average age of 42.46 ( $SD = 21.25$ ). The youngest respondent was 19 years old, and the oldest was 82 years of age. Most were White (55.9%), followed by Black (31.5%), and Other (12.6%). The majority of respondents (95.6%) indicated that they fly at least once per year, and approximately 37.7% fly more than three times per year.

## *Measures*

Participants rated their perception of airline environment safety using scales adapted from multiple prior studies (e.g., Shang and Lu 2009; Hughes and Gilmour 2010; O'Toole and Nalbone 2011) that examined workplace safety characteristics or developed scales for workplace safety research. A list of four questions was developed from a review of the literature on workplace safety, revised with adaptations reflecting the perspectives of airline passengers' perceptions post-911 instead of general safety perceptions of employees within an organization. Further analysis of the questions was conducted to construct a scale measuring perceived airline environment safety. Results showed the scale to include two dimensions, perceived airline flight safety and perceived airline employee safety preparedness, which served as the dependent variables.

Exploratory factor analysis was conducted on the four questions using principal components analysis and orthogonal rotation. Two factors were extracted determined by first looking at the Scree plot, which showed a change in the slope at the 2 on the x-axis; And second, using the Kaiser criterion, relating the smallest Eigen value above 1 to factor 2 with a value of 1.033. Items were then grouped by their factor loadings, resulting in two items for the first factor and two items for the second factor. The traditional cutoff value for factor loadings is 0.50 for a sample size of 120 (Hair, Anderson, Tatham, and Black 1998). Due to the sample size,  $N = 125$ , 0.50 was used when determining the factor loadings to be used. Next, the items in each factor were examined to see how well they related theoretically to form a unique construct.

Each of the factor groupings was labeled as a sub-scale. The first sub-scale was labeled *perceived airline flight safety post-911*. The second sub-scale was labeled *perceived airline employee safety preparedness*. Both sub-scales were used as two dependent variables to measure dimensions of the construct *perceived airline environment safety*. Cronbach's alpha was then conducted on each sub-scale to measure its reliability and to determine how well the items in each scale hung together. The two sub-scales, the items that define each sub-scale, and the reliability measure of each sub-scale are listed first in the following sections describing the measured variables for the current study.

**Perceived airline flight safety post-911.** The dependent variable *airline safety perception post-911* was measured using a two-item 5point Likert-like scale that measures the attitudes regarding how generally safe one perceives flying is since September 11, 2001. It is a subset from the airline environment safety perceptions scale developed for the current study. For the current study,  $\alpha = 0.88$ . Sample items included "It is safer to fly now than before September 11, 2001" and "The airline environment is safer now than before September 11, 2001."

**Perceived airline employee safety preparedness.** The dependent variable *perceived airline employee safety preparedness* was measured using a two item 5point Likert-like scale that measured the perception that passenger have regarding how airline staff members are prepared to handle violent situations since September 11, 2001. It also is a subset from the scale developed for the current study to measure perceptions of airline environment safety with  $\alpha = 0.89$ . Sample items included “Airline employees are now more competent to handle violent situations since September 11, 2001” and “Airline security is now more competent to handle violent situations since September 11, 2001.”

**Airline friendliness.** The independent variable *airline friendliness* was measured using four items (1 = very unfriendly to 7 = very friendly). For the current study,  $\alpha = 0.86$ . Sample items included “Service provided by the airline is...,” “Most of my experiences with the airlines have been...,” “The security screening personnel at airports are...,” and “The security screening process at the airport is...”

**Airline smiling customer service.** The independent variable, *airline smiling customer service*, was measured using a four item, 5point Likert-type scale adapted from the Smiling Customer Service Index (Hunter 2011). For the current study,  $\alpha = 0.80$ . Sample items included “I have experienced an airline employee that exhibited friendly, smiling customer service,” “I have experienced smiling friendly service during a flight delay,” “I have experienced smiling friendly service during a canceled flight,” and “I have experienced smiling friendly service when addressing fares.”

**Control variables.** Gender and age of the participants were used as control variables and to examine whether demographic characteristics had any effect on airline safety perceptions.

### *Procedure*

The data were collected using online surveys. Participants replied to a link sent to their email addresses, after having signed up to be a part of the research study. Upon clicking on the link, participants were redirected to an introductory Web page, where they were instructed to answer a battery of questions that included questions for the independent and dependent variables. During the final section of the survey, participants were asked to provide demographic information. They were also presented with an open-ended question asking if they had comments about the study. All responses were collected in the database, downloaded into an Excel spreadsheet, and formatted to be analyzed using SPSS software.

## RESULTS

Table 1 shows means, standard deviations, correlations, and significance levels for all variables. Responses for gender were dummy-coded (0 and 1 as male and female, respectively) and entered as a categorical variable. As common in most social science research, one-way ANOVA was used to test for any significant effect of gender on airline flight safety perceptions. Results indicate a significant effect of gender on the airline safety perceptions post-911,  $F(1, 122) = 7.20, p < .01$ , with men ( $M = 4.14$ ) perceiving airline flight safety post-911 to be safer, compared to women's perception ( $M = 3.63$ ). However, there were no statistically significant differences between how men and women perceived the safety readiness of airline staff. Consequently, the variable of gender was included in the full model. The main analysis used for testing the hypotheses was hierarchical multiple regression; see Table 1.

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Insert Table 1 about here  
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### *Statistical Analyses*

The hypotheses were tested by entering the control variables and independent variables in Step 1 and the two-way interaction term in Step 2. This procedure was conducted independently for each dimension of the dependent variable, *perceived airline flight safety* and *perceived airline employee safety preparedness*. Hypothesis 1, which proposed that age is inversely related to perceived airline environment safety, was partially supported. There was a significant main effect for age on perceived airline flight safety ( $\beta = -0.21, p < .05$ ), but not on perceived airline employee safety preparedness.

Hypothesis 2, which proposed that airline friendliness is positively related to perceived airline environment safety, was supported. Results indicate that airline friendliness has a significant effect on both perceived airline flight safety ( $\beta = 0.23, p < .05$ ) and perceived airline employee safety preparedness ( $\beta = 0.44, p < .001$ ).

Hypothesis 3, which proposed a significant relationship between airline smiling customer service and the dependent variables *perceived airline flight safety* or *perceived airline safety preparedness*, was not supported. No significant relationship existed.

However, results show that the age  $\times$  airline smiling customer service interaction term was significantly related to both dependent variables. Hence, Hypothesis 4 was supported. The interaction explained an additional 3% of the variance in perceived airline flight safety, with overall  $R^2$  improving from 15% to 18%. Perceived airline

employee safety preparedness also improved after adding the interaction term, with an overall  $R^2$  of 23%, a 3% increment in the variance explained.

To better understand the nature of the relationship, the interaction effect was graphed following Aiken and West (1991). The graph of the interaction in Figure 1 depicts that as participants' ages increase, the more positively they view airline smiling customer service and its effect on perceived airline flight safety. Figure 2 depicts the graph of the interaction effect on perceived airline employee safety preparedness. This pattern also suggests that the perception of airline employee preparedness improves among older passengers when they experience airline smiling customer service. Overall, the presence of airline smiling customer service strengthened the negative relationship between age and perceived airline environment safety; see Figures 1 and 2.

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## DISCUSSION

In this study we have begun a discussion about what effect passengers' age and customer service play on passengers' perceptions about airline flying safety. The results of this study demonstrate that as the airline industry and the U.S. government continue to develop more safety measures, flyers feel safer since the events of 911. Moreover, passengers' age and gender play a strong role in the formation of that attitude. Male participants in this study felt safer to fly than did female participants. Older passengers had greater concerns about airline safety than did younger passengers. A comment from a younger passenger collected from the open-ended responses of the survey further demonstrates this point: "I have never been on an airplane before September 11, 2001. I also have flown very few times, so I don't have a great memory of all my interactions." This lack of memory also reflects a lack of conscious affective or emotional experiences relating to this passenger's perceptions of airline safety.

Airline friendliness seems to be very important in ameliorating the fears of passengers. Perceptions of friendly airline service had a positive relationship with both perceptions of airline safety and the perception of how well prepared employees are to handle safety threats. Implications for this research should inform airline companies about how impactful customer service can be for flyers. Translated to the organizational setting, great customer

service may give airline companies a competitive advantage as consumers may be more willing to choose their airline over others. Managers should begin to focus on customer service training for their employees in order to reap any possible benefits.

Although smiling customer service did not have a direct effect on airline environment safety, this study has demonstrated how important a role smiling customer service plays on ameliorating fears associated with flight safety among older flyers. The following open-ended comments captured from older participants age 60 and 75 provide a good example of Hypothesis 4, that older passengers have an improved view of airline safety if they receive smiling customer service. One respondent, 75 years of age, was a lifelong world traveler, resided in the U.S., yet traveled two or three times a year to her native Germany and occasionally to India. Her comment was, “A friendly smile goes a long way with me. European travel service is excellent, and I especially like traveling on Lufthansa.”

Another survey participant, aged 60, is a frequent traveler for business and pleasure. In September 2014, she and her husband traveled to Italy and France for a vacation. She stated, “I feel somewhat safer due to TSA and other precautions, yet I feel that the world has grown more unsafe since 911 due to data breaches, computer hacks, and terrorism.” About airline staff’s friendliness, she added,

I fly Southwest and United mainly. The Southwest staff is by far the friendliest. I do believe a smile signifies friendly service, but words and actions are more of an indicator of a service culture. Even though Southwest does not have the frills, the attitude of their team members usually makes the flights friendlier. I am glad that there are people there who want to be flight attendants and pilots.

It is evident that this traveler mitigates her fears of airline travel by flying with an airline she perceives as being friendly.

## RECOMMENDATIONS

The primary purpose of this study was to ascertain how today’s passengers perceive airline safety post 911. In a space of less than 18 months, four major international airline tragedies occurred that shook air travelers across the globe regarding air travel safety. In all four cases, there were no survivors. In at least two of the cases, air rage was suspected. In one of the cases, it was strongly suspected that the copilot was mentally ill and planned the crashing of the plane (Levs, Smith-Spark, and Yan 2015). What can be learned about customer service from these horrible tragedies that did not occur on U.S. soil or in U.S. airspace, nor with U.S. airplanes? Hunter (2009) suggested a paradigm shift in the way humans as passengers, employees, CEOs, and potential air travelers view the commercial airline industry and the air transport experience—by the creation of a community-building mindset. “Expert Angela Dahlberg puts it in stark terms. ‘Each time the aircraft doors close, it opens the curtain for a high-

risk experiment in group dynamics.’ The aircraft contains an instant global village or... a global prison camp.” (Weiner and Nagel 1988). Drs. Leon James and Diane Nahl, air rage experts, explained that community building can reduce one’s sense of isolation and anonymity. Furthermore, community building exercises can help travelers become acquainted and release possible frustration. James and Dahl referred to this strategy as “compassionate crowd management” (Hunter 2009, pp. 170–171).

A recent example of the community building mindset occurred at the Lufthansa Germanwings Airline crash site in the French Alps. Relatives of those who had died in the crash flew in on flights specially arranged by Lufthansa, and Lufthansa also provided financial support to them. Further, villagers in a small nearby town opened their homes to these relatives of those who had died (Levs, Smith-Spark, and Yan 2015).

In the U.S., in 2005, JetBlue Airlines flight 292 from Burbank, California, headed for New York City, encountered damaged nose landing gear, and had to make an emergency landing at Los Angeles International Airport (LAX). This nationally televised event was shown to the passengers, blow by blow. Three hours passed before the plane burned off enough fuel and was able to land. When flight 292 landed safely, the whole country breathed a sigh of relief and applauded the pilots, crew, and passengers for their communal effort. The passengers and crew were met by emergency workers and camera crew. Spectators gathered to get a glimpse of the passengers as they emerged from the stricken plane. A firefighter put his helmet on a boy’s head as he carried him to a waiting bus (Associated Press 2005). Passengers and crew slapped high fives as they disembarked the plane (Pfeifer, Garvey and Morin 2005).

Hunter emphasizes that enormous power is encased in the fostering of a positive customer experience. The *Los Angeles Times* version of the JetBlue incident highlights the importance of community building dynamics and skilled crew leadership in a crisis situation:

To shift as much weight as possible to the rear of the plane—helping to keep the nose of the plane high during the emergency landing—crew members asked passengers to move to different seats. Flight attendants instructed passengers on how to brace themselves by bending forward.

“Stewardesses were terrific,” said passenger David Laventhol, a former publisher of *The Times*. “No one panicked, everyone was calm.... We didn’t know if we were going to reach the ground.”

Passenger Diane Hamilton, 32, of New Jersey said the pilot and attendants tried to prepare passengers for what was in store, and what the landing would be like.

They were told that the back of the plane would hit first, then the front, and that they might hear a loud boom. Despite their growing anxiety, passengers tried to keep the mood light, Hamilton said. They took pictures and joked. They said Burke’s calm demeanor did much to allay their fears. At one point, the pilot joked with a mechanic about what would happen after they landed. (Pfeifer, Garvey, and Morin 2005)

JetBlue and Southwest Airlines are identified as the top rated commercial air carriers for 2015 (ASCI 2015, Levine-Weinberg 2014). Both airlines have the concept of community embedded in their company philosophies and

beliefs. It is certainly a delicate balance to maintain, but there is a science to this mindset. Both Southwest and JetBlue invest their profits into improving their aircrafts, by buying new planes or, as in the case of JetBlue, increasing the comfort of their passenger seating and offering a snack bar where customers are free to select their snacks while in flight. Southwest ordered new, larger airplanes to expand their fleet, provide better service to their customers, and stay competitive. Both airlines are financially stable, savvy, and flexible. Southwest and JetBlue survived 9/11 and the financial meltdown of 2008, through excellent money management and wise investments, including maintaining low fares. (Levine-Weinberg 2014)

Southwest Airlines and JetBlue Airways rose to prominence and became serious rivals of the legacy airlines Delta, American, and United, by offering friendlier customer service and lower fares. However, the legacy airlines, particularly Delta and United, have fought back through a variety of strategic moves, such as bankruptcy restructuring and catering to business travelers, who are often seen as loyal customers and willing to pay a premium price for better service (Levine-Weinberg 2014). For their efforts, these seasoned carriers are on the upswing in both employee job satisfaction and customer satisfaction (Baker 2014).

It is interesting to note however, that in their struggles to hold onto a share of the air traveler market, Delta, American, and United (the three legacy airlines) as well as Southwest Airlines, have put a hefty price tag on friendly smiling customer service. As a consequence, friendly smiling customer service has been propelled to another level of sophistication. Southwest has excelled in this area of customer service by sending its customers “Happy Birthday” cards containing free drink coupons for their next flight and depositing points into their Southwest accounts for Rapid Reward credit card holders on their credit-card anniversary dates.

The “elders” of the airlines, Delta, United, and American, use the power of their control over domestic and international airline destination points and major city airports, as well as their historically established posh elite services for loyal and well-heeled customers, who are usually celebrities and corporate travelers. JetBlue and other smaller carriers struggle to compete at this level; Southwest Airlines is forging ahead to wrestle its way into this attractive market, despite its lack of explicit first-class seating; it created a virtual form of first class seating, Business Class Select, which entitles, for a higher ticket price, priority seating and a free drink (Levine-Weinberg 2014).

As if the competition weren’t stiff enough, a newcomer to the commercial airline fray is Virgin America. According to *Consumer Reports* magazine (“Best and Worst Airlines” 2013), a survey of 16,000 readers who represented about 31,732 flights, identified Virgin America airlines at the top of the list for passenger satisfaction. For example, one of the responders stated, “The leather seat cushions are so nice in coach, there’s no reason to fly



first class.” Virgin America also shined in the in-flight entertainment arena. The 2015 Airline Quality Rating (Bowen and Headley 2015) survey also cited Virgin America Airlines as leading the pack and indicated Virgin was one of only two airlines that showed improvement.

Legacy airlines and lower-cost, fewer-frills airlines have dramatically intensified their courting of travelers, especially business travelers in the highly lucrative transcontinental flights between New York City and Los Angeles. This route is the busiest of all long-haul domestic flights, hosting about 3.2 million passengers and yielding approximately \$1.43 billion in annual revenue, according to the Bureau of Transportation Statistics (Credeur and Schlagenstein 2013). Since the recession of 2008, airline travel has risen from a crawl to a vibrant hum because businesses—small, medium, and large—have realized the need to “get back on the road,” as described by Delta Air Lines Chief Executive Richard Anderson. A corporate travel manager for a California technology firm, Mark Ziegler, recognized that “There is a pent-up need for people to meet face to face again” (Mouawad 2011).

As a result of increased business and corporate travel, a race ensued to capture the itineraries, accounts, and loyalty of first class and business class customers who flew between New York (Wall Street) and Los Angeles (Hollywood). Credeur and Schlagenstein (2013) suggested that this contest heavily pits against one another American Airlines, which has 32% of the business class travel class market, Virgin America, at 21%, Delta, with 19%, United Airlines, at 16%, and JetBlue Airways, at 11%. Who are these persons and entities the airlines so fiercely battle over? They are investment bankers, celebrities, and other customers who can afford to spend more than \$6,500 for an airline ticket. While coach travelers comprise the bulk of passengers on most flights, Michael Boyd, chairman of Boyd Group International consultants, projected that premium-class air travelers account for an estimated 75% of the revenue generated from this transcontinental flight route. He further explained, “Pandering to business traffic is a lot more important than getting volume” (Hunter 2009, pp. 170–171).

Business travelers’ perceptions of their air travel needs appear to be different from those of leisure travelers or coach customers. Gould (2014) suggested that the business traveler wants consistency in quality and friendly customer service, which for many translates into first-class seating (Mouawad 2011), privacy (Credeur and Schlagenstein 2013), and connectivity—access to wi-fi (Gould 2014) and other forms of personal technology (Garcia 2014). Gould went on to say that business travelers prefer to find one airline to which they can be loyal, over hopping around from airline to airline, although they don’t feel that way about hotels. Airlines are eagerly responding by pulling out all of the stops: providing their business cabins with more comfortable seats, beds, tastier food, and wines. United is placing flat-bed seats on many of its international routes; Delta is spending \$2 billion to upgrade its cabins with fully reclining seats in the business class and creating a separate first-class cabin on its

regional jets; American Airlines is revamping all of its business lounges in its Admiral Clubs. In addition, to assist these ultra-busy customers, some of the airlines, such as Delta and United, have plans to use smartphone applications to enable passengers to manage their own respective trek. American Airlines has implemented a personalized meet-and-greet service called Five Star. This now popular amenity, for \$125, will expedite a customer from the curb through security, through the airport, and onto the plane.

Amidst all of the airlines' fervor and rush to gain the loyalty of the most valued customers and their most valued customers' hustling to claim their favorite seat on their favorite airline, face-to-face friendly smiling customer service cannot be replicated. Bob Somers, vice president of global sales at Delta, said it like this: "So many things can be replicated in our industry, but not customer service, and we always have had incredible relationships with our accounts." (Baker 2014). Delta Air Lines was rated first place by *Business Travel News* for the fourth year in a row. Survey results revealed that only two of the five qualifying airlines showed improvement in all areas. To qualify, corporations must have spent at least \$500,000 in annual spending on U.S. flights. Delta was lavishly praised for its customer service and flexibility. Telling comments included "extreme interest in providing optimum customer service," "supportive, knows our account," "communicating proactively," "most partnership friendly of the U.S. based airlines," and "service that has been superior... friendliness, customer service and the willingness to serve at least pretzels." Somers also noted, "We spend a tremendous amount of time with our customers, through advisory boards and town halls, and we're always looking to get better, as we did more than 10,000 hours of training this year" (Baker 2014). One can infer a community-building mindset in the plans and actions of Delta Air Lines.

Southwest Airlines received the second highest rating on the survey. Southwest's vice president and chief marketing manager Kevin Krone reflected, "There's a perception that people on business travel don't check luggage—but they do... with change fees, things are always changing in business travel, so letting the customer travel without additional change fees will drive the score." He went on to say, "The low-fare component is so critical to people, so to get business done, we have to be nontraditional. We cover 75 to 80 percent of the market, not to mention all of the corporate distribution tools, and we think that's evidenced by overall growth in corporate relationships and corporate travel" (Baker 2014).

## CONCLUSION

Building a culture of community, as reflected in both business and coach class, could be the elixir the commercial airline industry needs to pull itself from the bottom rung of consumer satisfaction indices. However, it seems that airline safety environment work becomes more complex as technology becomes more sophisticated. The

recent failure of the Transportation Security Agency (TSA) to pass the test of the “Red Team” screenings have reset the alarm for the entry of elements for an unsafe environment once again. The Red Team is a quality control process of the TSA, where employees are disguised as passengers who attempt to thwart the system and carry illegal or disallowed materials through the security system. This team was able to fool the TSA agents 67 of 70 tries, that is, about 96% of the time. Is there too much reliance on technology and not enough on human intelligence and common sense? The TSA is part of the airport security system. More and more, however, the disclosure of incidents of rage and intrusion are taking place on airport grounds—on runways and outside of terminals and even grounded airplanes, not in the air or in the terminals. Millions of dollars have been spent on fences, high-tech cameras and software designed to assist in identifying trespassers, but no technology is impenetrable. Airports will have to continue to weigh cost against potential harm—which is why, according to experts, it is so difficult for airlines and airports to change their policies and practices (Pegues 2015).

The results of this study emphasize the importance of human interaction. People are fundamentally social creatures. Technology does not and cannot replace basic attributes of being human. The airline industry is a critical aspect of 21st century life and has been for decades. Standards and models of excellent customer service do exist in the airline industry. Airline companies are pulling out all stops and continually implementing new ideas and practices for employees and customers. However, the CEO of Carlson Wagonlit Travel, Doug Anderson, posited this cautionary statement: “Technology has taken the front seat, and in many cases, I believe, at the expense of and taking attention away from the service heart for many companies” (Davis 2014). It’s a delicate balancing act.

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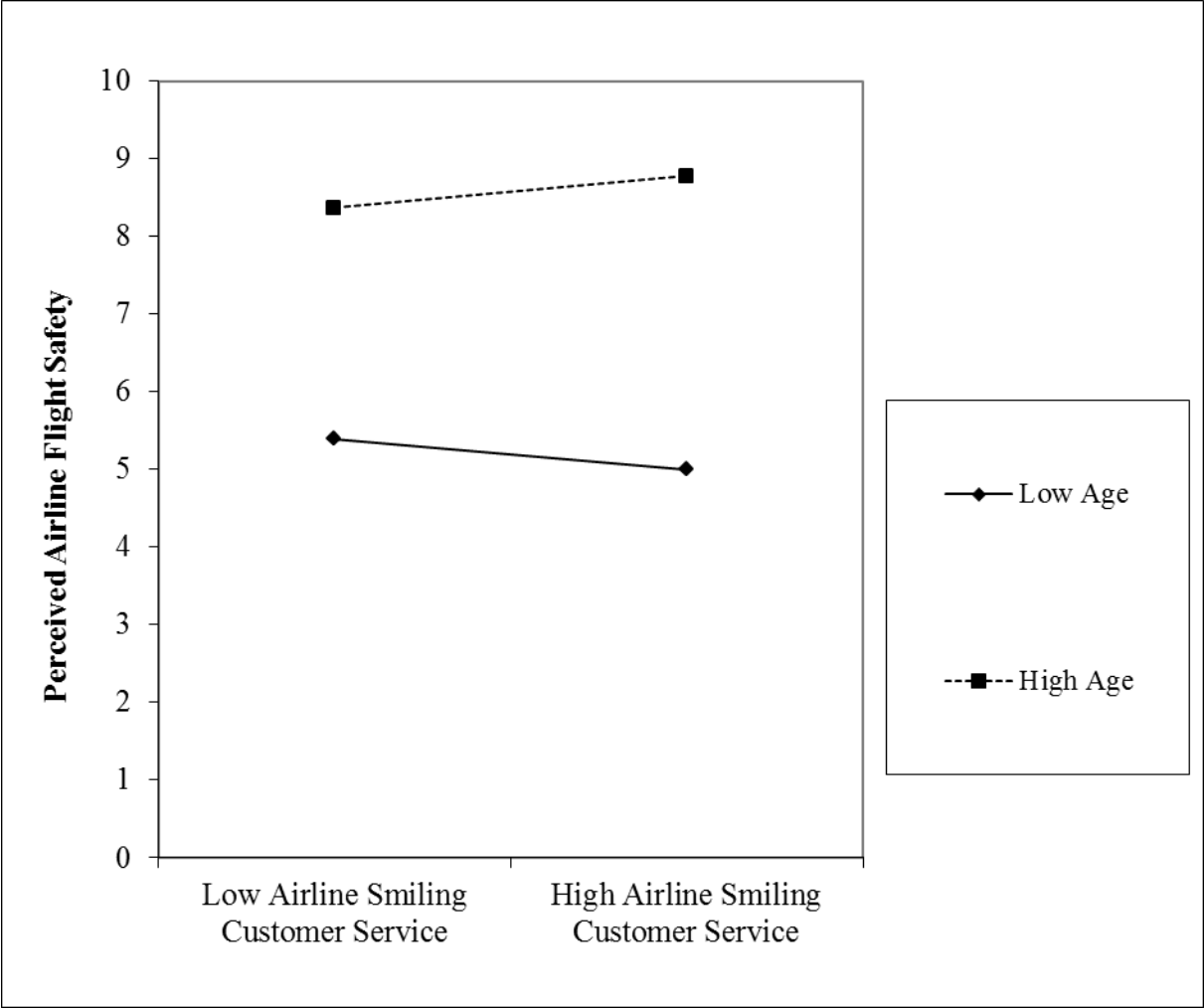
**Table 1**  
**Descriptive Statistics and Correlations**

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Age	42.46	21.25					
2. Gender <sup>a</sup>	0.55	0.50	0.14				
3. Perceived Airline flight Safety Post- 911	3.86	1.06	-0.24**	-0.24**			
4. Perceived airline employee safety preparedness	3.96	0.92	-0.11	0.04	0.43**		
5. Airline friendliness	4.93	1.03	0.03	-0.07	0.22*	0.41**	
6. Airline smiling customer service	3.82	0.68	-0.28**	-0.04	0.03	0.15	0.50**

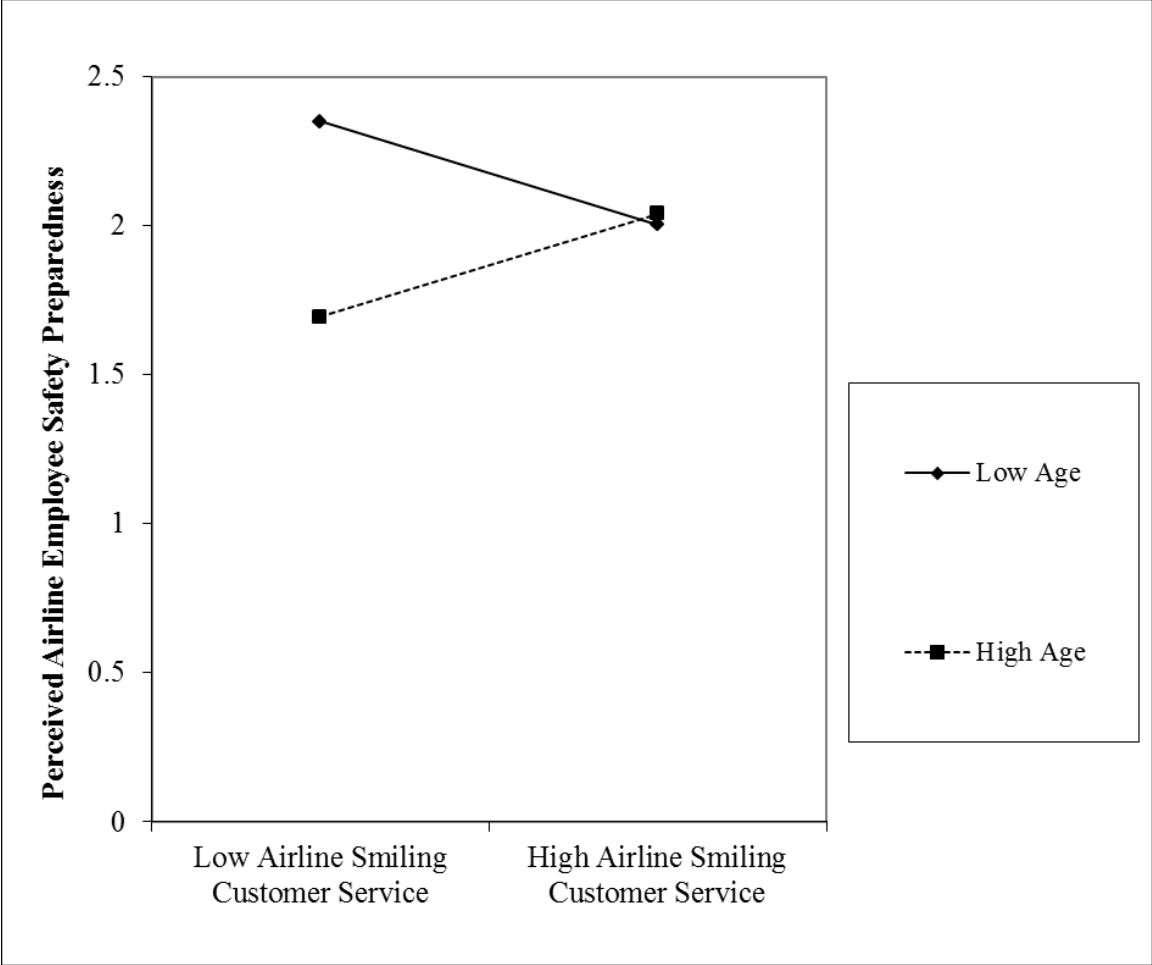
*Note:*  $N = 125$ .

<sup>a</sup>Gender was dummy-coded: 1 = male, 0 = female.

\* $p < .05$ , \*\* $p < .01$



**Fig 1** Interaction graph of age and airline smiling customer service on perceived airline flight safety



**Fig 2** Interaction graph of age and airline smiling customer service on perceived employee safety preparedness

APPENDIX

**Airline Passenger Safety Perception Survey**

**1. Rate each statement in terms of how you feel about the condition of airline safety today compared to before the events of September 11, 2001. Safety is defined as freedom from harm or risk, such as threats or assaults, and the ability to diffuse these kinds of situations.**

	Strongly disagree	Disagree a little	Neither agree nor disagree	Agree a little	Strongly agree
It is safer to fly now than before September 11, 2001.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The airline environment is safer now than before September 11, 2001.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airline employees are now more competent to handle violent situations since September 11, 2001.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airline security is now more competent to handle violent situations since September 11, 2001.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2. Please read the following statements and select the response that best describes your view.**

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
I have experienced an airline employee that exhibited friendly, smiling customer service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have experienced smiling friendly service during a flight delay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have experienced smiling friendly service during a canceled flight.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have experienced smiling friendly service when addressing fares.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**3. Please read the following statements and complete them in a way that best describes your view.**

	Very unfriendly	Unfriendly	Somewhat unfriendly	No opinion	Somewhat friendly	Friendly	Very friendly
Service provided by the airline is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of my experiences with the airlines have been:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The security screening personnel at airports are:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The security screening process at the airport is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>