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Interactions Between Social Media Marketing and Service Quality in the Airline Industry of the United States

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Zechen Wang*

INTRODUCTION

Beginning in 1992, as all airline carriers were entangled in an endless airfare war, "service quality" arose to become a critical factor for airlines competing within the commercial airline industry. Since then, the result was a marketing mix because price was no longer the only deciding factor. Other airline attributes such as product, promotion, and distribution now began to garner attention (Ostrowski, O'Brien & Gordon, 1993). Thus, service quality became one of the main focuses of airlines because it served as a way to stand out amongst their competitors (Tsaur, Chang & Yen, 2002). The airlines with better service quality will attract more loyal customers than airlines with lesser quality (Ostrowski, O'Brien & Gordon, 1993; Chen & Hu, 2013). Several other studies have focused on service quality because of its importance to customers.

For example, the study by Zeithaml, Berry & Parasuraman (1996) proved that customers' behavioral intentions were strongly influenced by service quality. In the study, superior service quality lead to positive behavioral intentions. Also, Cronin, Brady & Hult (2000) argued that service quality not only affected perception of value and satisfaction but also directly influenced behavioral intention.

One of the major marketing tools that companies are using more and more nowadays, is social media. The appeal of social media comes as a result of: communication about brands happening spontaneously, the attention from mass media, and the ease of which people can forward information and communicate with one another (Kietzmann, Hermkens, McCarthy & Silvestre, 2011). It provides a platform for two-way direct communications between a firm and its customers. In fact, over 70% of Fortune 500 companies were active on Facebook and Twitter in 2015 (Umassd.edu, 2016).

The airline industry was no exception to this growing trend and in 2009 was involved in what has now become a well-known case. Dave Carroll posted his music video "United Breaks Guitars" on Youtube (https://www.youtube.com/watch?v=5ygc4zoqozo) after his guitar was broken by United Airlines. Although the video drew attention from mass media, United Airlines did not take any action to alleviate the situation (Kietzmann, Hermkens, McCarthy & Silvestre, 2011). Since then, Dave Carroll wrote a book, started his website (Big break solutions, n.d.), and had a TED Talk (TEDxTalks, 2013) all titled with "United Breaks Guitars", to talk about his experience of using the power of social media. Due to the inactivity of United Airlines on this case, they suffered a 10% loss of market share, which is approximately 180 million dollars (The Economist, 2009). This is an obvious example of how social media exposure (in this case bad), has the power to affect the performance of a company.

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Generally, social media has a positive impact on brands. Weber (2010) claimed that whether good or bad, social media use can have a great impact on the reputation of brands. Some studies have proven that social media has had a positive effect on different kinds of behavioral intentions. This idea was supported in a study done by Wang, Yu & Wei (2012) which showed that social media marketing has a positive effect towards customers' product attitudes and purchase decisions. This is done by reinforcing their product involvement, thus improving their purchase intention. Kim & Ko (2010) pointed out that social media marketing of a luxury brand can effectively shorten the distance between customers and brands, which stimulates their purchase intention. Another study by Laroche, Habibi & Richard (2013) proves social media positively affects brand trust, which leads to a positive result of brand loyalty. The results of the aforementioned studies support the idea that social media can be seen as a strong tool for improving behavioral intention.

Now that we have discussed both service quality and social media separately, we would like to focus on the main objective of this study: the interaction between these two independent variables. To date, few studies have been done on the interaction effect between social media marketing and service quality in the airline industry. However, a study was done on marketing behavior and service quality in the motion picture industry, and it claimed that strong marketing behavior had a positive effect on the early box office results, despite the quality of the movie; quality of the movie became a bigger factor in the long run (Hennig-Thurau, Houston & Sridhar, 2006). This study provides a good basis for our overall study because it draws on the connection we seek, which is the interaction between marketing and service quality. Unfortunately, however, we cannot fully rely on the results of this study because the industries are quite different. Although they are both part of the same overarching service industry, airline customers have a higher involvement when experiencing the service quality. For instance, going to a movie is more likely to be a one-time experience, with the movies air time being very short, whereas an airline offers services continuously year in and year out. So as previously mentioned, the study provides good support for our ideas but is not specifically geared towards the interaction we are interested in studying.

After analyzing all the aforementioned information provided by several studies, we were able to formulate the direction of our study. Specifically, this study seeks answers about whether social media marketing can be more effective on behavioral intentions for airlines with better service quality. Given that most of the studies showed that each independent variable had a positive effect, we believe there could be an effect which strong social media marketing and strong service quality will improve the behavioral intentions in superimposed way. In this study, we use brand loyalty as the representative of behavioral intentions. Therefore, we hypothesize as follows:

- H1: Social media marketing has a more positive impact on consumers' brand loyalty towards a high quality service.
- H2: Social media marketing has a less positive impact on consumers' brand loyalty towards a low quality service.

Moreover, we would like to break down the service quality into 7 dimensions according to the study of Gilbert & Wong (2003) which will be discussed in detail in the methodology section of this article. Studying the interaction effect of social media marketing

with each of the dimensions of service quality will help us discover a greater depth of information. Therefore, we hypothesize as follows:

- H3: Social media marketing has a more positive impact on consumers' brand loyalty towards an airline with service quality consisting of high levels of (a) assurance; (b) reliability; (c) responsiveness; (d) facility; (e) employee; (f) flight patterns; (g) customization.
- H4: Social media marketing has a less positive impact on consumers' brand loyalty towards an airline with service quality consisting of low levels of (a) assurance; (b) reliability; (c) responsiveness; (d) facility; (e) employee; (f) flight patterns; (g) customization.

As previously mentioned, there are few studies on the specific interaction we are researching, so we hope that the information discovered in our study will be of great importance for future researchers and managers. Given that the airline industry is one of the most active and important both domestically and internationally, we believe that the result of our study will help airlines learn and provide a better arrangement of resources to achieve a greater performance within the United States market.

This article is divided into three sections. (1) Methodology; (2) Analysis; (3) Conclusion and Discussion.

METHODOLOGY

Experimental design

The purpose of this study is to test the interactive effect between service quality and social media marketing on a representative behavioral intention, brand loyalty. To test the research hypotheses, a two (social media marketing: strong versus weak) by two (service quality, high versus low) experimental design is created. The study was conducted under the aforementioned experimental design with a fictional airline.

In this study, the two factors, service quality and social media marketing are manipulated without changing other factors. Additionally, a fictional airline company is created to reduce any preexisting impressions on any current airlines, which means the company should be viewed as totally neutral. High quality and low quality service are rated by a third party assessment organization creating an objective impression, and all other information also remains identical. Two levels of social media marketing were reflected by the different creative strategies.

As the two by two design is presented, the measurement of service quality is not yet discussed. From an academic perspective, scholars studying this issue utilize a similar but different set of evaluation criteria, called SERVQUAL. Parasuraman, Zeithaml, and Berry (1985) came up with 10 dimensions to define service quality, which are: competence, courtesy, credibility, security, access, communication, knowing the customer, tangibles, reliability, and responsiveness. In 1988, Parasuraman et al. (1988) renewed their study and called their new framework RATER, an acronym of reliability, assurance, tangibility,

empathy, and responsiveness. Generally, SERVQUAL provides a great framework for evaluating the service quality of airlines and has been proven, along with RATER, to be a proper tool to use in academic articles (Parasuraman et al., 1985; Tsaur et al., 2002; Chen & Hu, 2013; Aydin & Yildirim, 2012; Basfirinci & Mitra, 2015; Gilbert & Wong, 2003; Park et al., 2004).

The original SERVQUAL instrument uses 22 statements with a Likert Scale to evaluate the performance of service (Parasuraman et al., 1985). However, Gilbert & Wong (2003) argued that no two industries are exactly same, therefore the statements need to be modified to better fit the characteristics of the airline industry. Tsaur et al., (2002) used SERVQUAL as their study's framework and came up with 15 attributes in 5 Objectives of SERVQUAL. For their study, Gilbert & Wong (2003) rearranged the 5 dimensions and added more factors geared towards the airline industry. They came up with 26 statements in 7 dimensions, which are: Assurance, Reliability, Responsiveness, Flight patterns, Employees, Facilities, and Customization. The details of which are in Table I.

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Objective	Attribute			
Assurance	Safety			
	Behavior of employees gives confidence			
	Employees have knowledge to answer questions			
Reliability	On-time departure and arrival			
	Consistent ground/in-flight services			
	Perform service right the first time			
	Food and beverage			
Responsiveness	Employees are always willing to help			
	Prompt service by employees			
	Employees handle requests/complaints promptly			
Facilities	Clean and comfortable interior/seat			
	In-flight entertainment facilities and program			
	Availability of waiting lounge			
	In-flight internet/email/fax/phone facilities			
Employees	Courteous employees			
	Neat and tidy employees			
Flight patterns	Convenient flight schedules and enough frequency			
	Non-stop flights to various destinations			
	Availability of global alliance partners' network			
Customization	Individual attention to passengers			
	Understanding of passenger's specific needs			
	Availability of loyalty program			
	Availability of frequent flyer program			
	Availability of air/accommodation packages			
	Availability of travel related partners			

Table I The evaluation criteria for airline service quality

The manipulation check of service quality in our survey will use a 7-point likert scale. Airline service quality will be measured by the 26 airline service quality measurement items primarily based on the modified SERVQUAL developed by Gilbert & Wong (2003).

Another important issue in this study is how to define "strong social media marketing". As all the information can be perceived differently, there might not be a unified evaluation indicator of social media marketing. A more objective way to evaluate social media marketing is to focus on so-called "social media currency". Murdough (2009) provided a process to measure the performance of social media. As a firm, you come up with several main goals which you want to achieve with social media, then only focus on a few metrics on each goal. Neiger et al. (2012) used the same approach. They provided a sample set of

valuable indicators and metrics to indicate the key performance of social media use in health promotion. The four main indicators are "insights", "exposure", "reach", and "engagement". And metrics like "views", "likes", "ratings", and "retweets" all fall within these four indicators. However, the stimuli in our experiment can only be presented in an objective fashion for each of the 4 scenarios. For example, we can only create "strong social media marketing" by providing appealing content within the posts, but not by giving a high number of "likes" or "ratings" to convince the survey participants it is a strong communication.

Strong Social Media	Weak Social Media		
Functional appeal	Comparative appeal		
Resonance	Spokespeople		
Experiential appeal	Spokesperson character		
Emotional appeal			

Table II Creative Strategies Used by Strong and Weak Social media marketing

So, to conduct the study, we needed to use a different approach to measure whether social media marketing is strong or weak. One way is by using different kinds of creative strategy on social media to stimulate survey participants. Ashley (2014) provided an informative framework for acceptance of different kinds of creative strategies being used by branded content on social media, the details of which can be seen in Table II. Our survey uses the creative strategies provided by Ashley (2014), to help distinguish strong or weak social media.

In another study, De Vries, Gensler & Leeflang (2012) concluded that the determinants of brand social media post-popularity include 6 main items, which are: vividness, interactivity, informational content, entertaining content, position, and valence of comments. Vividness can be achieved by using colors, pictures, and animations (Goodrich 2011). The extent of vividness is differed by stimulating multiple senses (Coyle and Thorson 2001). Interactivity is characterized by communication between company and customer, or among customers (Goldfarb and Tucker 2011). Factors like a link, or a question in the post will increase the tendency of interaction from followers, and the post contents can be either about the company or products, or not. Information can be perceived as fun or exciting, and it determines whether the post has informational/entertaining content, or not. Position is characterized by where the post is located on the page. The valence of comments means the multiple kinds of attitude in the comments of a post.

In order to differentiate between strong and weak social media marketing, we combine the approaches of "creative strategy" and the "determinants of post popularity." In the 2 by 2 factorial design, "strong marketing" possessed the characteristics "informative", "entertaining", "high vividness", "high interactivity" and the addition of favorable creative strategies. Whereas, "weak social marketing" will have the opposite. Unfortunately, the position and valence of comment will not be used in the study, and therefore will not be differentiated in the strong or weak stimuli.

Procedure

Four versions of the survey (2 levels of social media marketing, by, 2 levels of service quality) were created and evenly distributed to participants, each of whom was shown one version only. The participants in this study were 631 undergraduate and graduate business students (284 males and 347 females) who upon completing the survey, received extra credit. The population of survey takers had an average age of 27.01 years old and a median age of 24 years old. Part of the population of participants can be seen as inactive because they may not take a single flight all year round, and in contrast, there was a segment of frequent fliers who take a flight every single week. Therefore, the number of flights taken by participants varied across the board. On average, however, the amount of flights taken per year is about 5.29

To check the manipulation, the study used a 9-item scale for social media marketing and the 26-item scale of Gilbert & Wong (2003) for service quality. Both were presented in seven-point Likert scales (1 = Strong disagree and 7 = strongly agree). The reliabilities of which were 0.884 and 0.910. Social media marketing perception was significantly different between weak (M=4.40) and strong (M=4.74) social media marketing scenarios (t = -3.598, df = 629, p < 0.001). The service quality perception was also significantly different between bad (M=4.48) and good (M=5.05) service quality scenarios (t = -6.413, df = 629, p < 0.001). See Table III for details of the manipulation check items. The effect of the two independent variables (social media marketing and service quality) on brand loyalty was evaluated closely. The reliability of brand loyalty in this study was 0.916. Social media marketing and service quality explained 71.461% of total variance in brand loyalty.

In this experiment, 2 separate studies were conducted. Study 1 was done using the composite variables for social media marketing and service quality. In study 2, service quality was broken down into 7 dimensions based upon the study of Gilbert & Wong (2003). We created a second study because we were interested in finding out the interaction between each dimension of service quality, and social media marketing.

Variables	Items for evaluation	Mean	Cronbach's alpha
Social media marketing	 The social media page is attractive. The social media page is trustworthy. The social media is entertaining. The social media is informative. The social media encourages me to interact. 	4.57	0.884
Service quality	 The airline provides good food and beverage. Employees are always willing to help. Prompt service by employees. Employees handle requests/complaints promptly. Availability of In-flight entertainment facilities and program. 	4.76	0.910
Brand Loyalty	 I consider myself loyal to Oriental Airlines. Oriental Airlines will be my first choice in the future. Oriental Airlines really attracted me over other airline companies. Oriental Airlines is trying to engage customers' lives. Oriental Airlines is quite thoughtful in every aspect. I will definitely take a flight on Oriental Airlines. 	4.35	0.916

Table III S	Study I.	Measures
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ANALYSIS

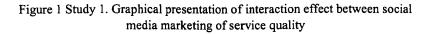
Study 1

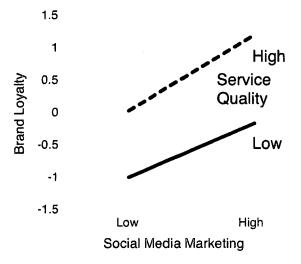
A regression was used to test both social media marketing and service quality and their interaction effect on the dependent variable, brand loyalty. The result of the regression showed that the main effect, of both social media marketing (p < 0.001) and service quality (p < 0.001) was significant. Also, the interaction effect of social media marketing and service quality was significant at the level of 0.01. Figure 1 is the plots for the interaction between social media marketing and service quality. What the figure portrays is that when social media marketing is strong for an airline with high service quality, the level of brand loyalty increases. Therefore, H1, and H2 were supported for the dependent variable. These results are very important for our research because they indicate that, separately, both social media and high service quality lead to an increase in brand loyalty. Further, the result shows that in the presence of good service quality, strong social media marketing leads to a greater increase in brand loyalty (based on the interaction effect).

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Study 2

In study 2, service quality was broken down into the 7 dimensions previously referenced from the study done by Gilbert and Wong (2003). To reiterate, those are: Assurance, Reliability, Responsiveness, Facilities, Employees, Flights Patterns, and Customization. For the purpose of the study, each separate dimension acted as its own independent variable. As was done for Study 1, Study 2 utilized a regression to test all independent variables involved. In this particular study, we looked into social media marketing and the 7 dimensions of service quality, and their interaction effect on the dependent variable, brand loyalty. Refer to Figure 2 and Table IV for details of said interaction effect.

Assurance: To evaluate the independent variable "assurance", we incorporated statements such as "The airline is safe", "Behavior of employees gives confidence", and "Employees have a good knowledge for answering questions". The result of the regression, which tested social media marketing and assurance, showed that the main effect of these variables (social media marketing, p < 0.001 and assurance, p < 0.001) was significant. However, the interaction effect of social media marketing and assurance was not significant (p = 0.219). Thus, we could not conclude that there is an interaction effect between these particular independent variables on brand loyalty, and therefore H3(a) and H4(a) were not supported.

Reliability: To evaluate the independent variable "reliability", the statements used were "The airline is always on-time with departures and arrivals", "The airline provides consistent

ground/in-flight services", "Performs services right the first time", and "The airline provides good food and beverages". The regression conducted revealed that the main effect of both variables (social media marketing, p<0.001 and reliability, p<0.001) was significant. With regard to the interaction between social media marketing and reliability, the regression showed that it was significant at the level of 0.01. Figure II demonstrates the interaction shape, and further shows that strong social media marketing leads to higher brand loyalty, in the condition of high reliability. This result is quite similar to the result found in Study 1 involving the composite variables. Therefore, hypotheses H3(b) and H4(b) were supported.

Responsiveness: To evaluate the independent variable "responsiveness", the survey utilized statements such as "Employees are always willing to help", "Prompt service by employees", and "Employees handle requests/complaints promptly". The result of the regression testing social media marketing and responsiveness, and their interaction on brand loyalty proved to be useful. The main effect of both social media marketing (p < 0.001) and responsiveness (p < 0.001) was found to be significant. Additionally, the interaction effect of social media marketing and responsiveness was significant at the level of 0.01. Figure II contains the interaction shape formed by these variables. It represents the conclusion that strong social media marketing leads to a higher brand loyalty in the condition of high responsiveness. This result is quite similar to the result of Study 1. So, a highly responsive airline with strong social media marketing can increase brand loyalty. Therefore, both H3(c) and H4(c) were supported.

Facilities: To evaluate the independent variable "facilities", we included the statements "Clean and comfortable interior/seats", "Availability of in-flight entertainment facilities and and program", "Availability of waiting lounge", "Availability of in-flight internet/email/fax/phone facilities". The result of the regression revealed that the main effect of both social media marketing (p < 0.001) and facilities (p < 0.001) was significant. Furthermore, the interaction effect of these two variables on brand loyalty was found to be significant at the level of 0.01. Figure II shows the resulting interaction shape and portrays the conclusion that strong social media marketing leads to higher brand loyalty in the presence of a high facilities condition. Similar to the previous two variables, this regression result matches the result between the composite variables for social media marketing service quality. So, if an airline has strong social media marketing and a higher level of "facilities", brand loyalty increases. Therefore, H3(d) and H4(d) were supported.

Employees: To evaluate the independent variable "employees", the survey statements included "Employees are courteous", and "Employees are neat and tidy". The result of the subsequent regression, which tested the variables social media marketing and employees, and their interaction effect on brand loyalty, proved to be useful. The main effect of both social media marketing (p < 0.001) and employees (p < 0.001) on brand loyalty was found to be significant. Additionally, the interaction effect of these independent variables was significant at the level of 0.01. This regression result is very similar to the overarching Study 1 which focused on the composite variables. Figure II shows the interaction shape and provides us with a clear conclusion. That being: strong social media marketing leads to higher brand loyalty in the presence of well-trained employees. Therefore, H3(e) and H4(e) were supported.

Flight patterns: To evaluate the independent variable "flight patterns", we incorporated the statements "The airline provides convenient flight schedules and enough frequency", "Non-stop flights to various destinations", and "Availability of global alliance partners' network" into our survey. The result of the regression, testing both flight patterns and social media marketing, showed that the main effect of both (social media marketing, p < 0.001 and flight patterns, p < 0.001) on brand loyalty was significant. The regression also revealed that the interaction effect of social media marketing and flight patterns was significant at the level of 0.1. Figure II displays the interaction shape of this regression. The conclusion made from this figure is: strong social media marketing leads to higher brand loyalty in airlines with more well-arranged flight patterns. Again, this matched what was discovered in Study 1. Therefore, H3(f) and H4(f) were supported.

Customization: The final variable to analyze was "customization". To evaluate this, we used statements like "The airline pays attention to individual passengers", "The airline understands passenger's specific needs", "Availability of loyalty program", "Availability of frequent flyer program", "Availability of air/accommodation packages", and "Availability of travel related partners". The regression, which tested social media marketing and customization and their interaction on brand loyalty provided very useful information. The main effect of both social media marketing (p < 0.001) and customization (p < 0.001) were found to be significant. Additionally, the interaction effect of social media marketing and customization was significant at the level of 0.1. Figure II provides the interaction shape, and from this we concluded that strong social media marketing leads to higher brand loyalty in airlines that provide greater customization. Therefore, H3(g) and H4(g) were supported.

Models	Intercept	X1 Social Media Marketing	X2 Service Quality	X1*X2	F-value
X2 Service Quality	-0.041	0.403****	0.525****	0.059**	274.998****
X2(a) Assurance	-0.019	0.388****	0.465****	0.024	332.920****
X2(b) Reliability	-0.036	0.392****	0.538****	0.051*	263.641****
X2(c) Responsiveness	-0.039	0.444****	0.455****	0.058**	244.400****
X2(d) Facilities	-0.038	0.389****	0.527****	0.052**	269.878****
X2(e) Employees	-0.028	0.484****	0.418****	0.051*	210.196****
X2(f) Flight Patters	-0.032	0.436****	0.476****	0.048*	244.675****
X2(g) Customization	-0.028	0.374****	0.609****	0.043*	306.457****

Table IV The Results of Multiple Regression Analysis

*p < 0.05. **p < 0.01. ***p < 0.001. ****p < 0.0001. n = 631.

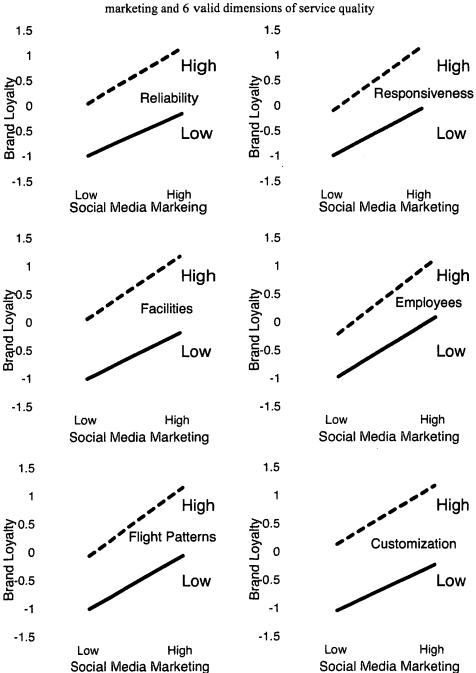


Figure 2 Study 2. Graphical presentations of interaction effect between social media

CONCLUSION AND DISCUSSION

This study was aimed at providing new information regarding the variables service quality and social media marketing, and their interaction effect on brand loyalty. Moreover, we delved deeper and analyzed service quality on a more finite level, using 7 dimensions provided by the study done by Gilbert and Wong (2003). The results of study 1(social media marketing and service quality) and most of study 2(social media marketing and 6 dimensions of service quality, excluded assurance) proved that service quality has a different effect when different levels (high or low) of social media marketing are involved. For instance, for a lowquality airline, the involvement of social media marketing certainly had a positive effect on brand loyalty, however the effect was proven to be greater for the better quality airline. This study expands the understanding of brand loyalty towards an airline when consumers are facing varying levels of social media marketing and service quality. It enhances the idea that using social media marketing is definitely a necessary tool for airlines looking to increase their customers' brand loyalty.

Managerial implications

The message conveyed by our study is quite clear: companies in the modern era need to use social media. The result of our study corresponds to what is witnessed every day in the real world. Companies are beginning to build up their social media presence, and by doing so, are able to better engage their customers and increase their performance. The airline industry is no different in its need for social media, and compared to the cost of improving service quality for the entire airline company, improving the performance of social media is much less costly. Even airlines that have a small budget allocated for improving their service quality have the power to enhance their social media marketing. And, as our study indicates, greater social media marketing helps to build brand loyalty. Further, larger airline companies often have very good service quality, however, social media marketing is still a necessity for them. This is true because as the study showed, social media marketing in the presence of good service quality increases brand loyalty. So, for larger airlines, a strong social media presence allows the company to become more competitive in the market.

From a managerial standpoint, airlines should follow the criteria of good social media marketing and good service quality provided within this study in order to enhance the behavioral intentions of their customers. Social media marketing should appeal to the functional and emotional nature of customers if it is going to be successful. A good example of this type of social media presence is provided by the airline JetBlue Airways, which uses social media in the way that is defined in our study. They introduce their services, interact with customers, inform customers of emergencies, etc (Kepes, 2015, Gianatasio, 2013). This has allowed them to become a top airline in the social media.

As for service quality, airlines now have a more detailed understanding on how to improve the factors within this umbrella term. Specifically, Gilbert & Wong (2003) supplied us with an informative framework for improving quality, which proved to be a very reliable and significant set of criteria within the study. However, since no two airlines are created equally, each individual airline will have to decipher what it is they need to improve about their service quality. That way, they can optimize their resources and hopefully enhance their

customers' behavioral intentions. The latter of which results in new customers and a more competitive airline in the market.

Limitations and future research

There are several weaknesses and limitations of this study and these can act as guidelines for future research.

First, the study lacks external validity. Study 1 and study 2 were conducted based on an experimental design focused solely on the airline industry. Future research should use real world data to evaluate social media marketing and service quality performance. Surely, there is an abundant amount of untapped data for this subject in the current world. Moreover, the experimental design of this study used an extended SERVQUAL benchmark specifically tailored for the airline industry. This limits the study because it is not applicable to other industries and the effect of social media. Given the wide acceptance and use of social media, future research should focus on social media and other service related industries.

Second, our sample lacks diversity. Our sample is made up of primarily undergraduate and graduate students, and although some participants have flight patterns equivalent to businessmen, the majority of the sample has the flight patterns of students. Furthermore, the experimental design was based on the market of the United States, of which the sample is more or less familiar with. If research was to be done in a culturally different country, this study would not be applicable because of its geographical limiter. Further research, therefore, should focus on international flights, in markets other than the United States

Third, the study only had one dependent variable. Specifically, we only focused on the interaction effect of two independent variables on brand loyalty. As a part of behavioral intentions, brand loyalty is a great start as a dependent variable but does not wholly sum up behavioral intentions. There are several other factors that make up behavioral intentions, and this is a good direction for future research. For instance, researchers can look into the relationship between social media and brand engagement.

Lastly, in addition to this study, further research on this particular topic is needed in order for it to apply to the real world. Although it provides a good direction for airlines to follow, it isn't fully suitable as the sole reference. The study paid great attention to service quality, and the result was a general guideline for airlines. However, future studies could use conceptual models to find out the optimum brand positioning regarding service quality. Then study the effect of social media marketing and each brand positioning and the effect of these variables on the factors of behavioral intention other than just brand loyalty.

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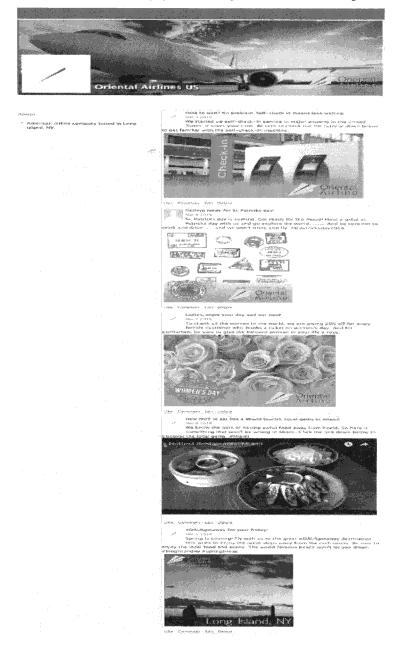
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APPENDIX 1: EXPERIMENTAL STIMULI (2 BY 2 SCENARIOS)

Scenario 1. The social media page for a strong social media marketing airline.



Wang: Interactions Between Social Media Marketing and Service Quality i

INTERACTIONS BETWEEN SOCIAL MEDIA MARKETING AND SERVICE QUALITY IN THE AIRLINE INDUSTRY OF THE US



Scenario 2. The social media page for a weak social media marketing airline.

Scenario 3. The service quality evaluation for a good service quality airline.



Rating for the service quality of Oriental Airlines is: 93/100

Highlights:

1. One of the safest airlines in the United States

 One of the biggest airlines; Their non-stop flights atmost cover all of the major airports in the United States Oriental Airlines cooperates with car rental companies and hotels to provide a seemsless travel experience for travelers.

 The employee training has done so well in Oriental Airlines. All of the employees are willing to help and provide consistently quick and precise service. The appearance of all the employees is exceptional.

4. The hardware of Oriental Airlines is outstanding, with independent waiting lounges in most airports. The fleet is equipped with an up-to-date in-flight entertainment system. The quality of food and drink on the flight is over the expectation as well.

Oriental Airlines provides a sincere loyalty program and frequent flight program to benefits customers.

Scenario 4. The service quality evaluation for a weak service quality airline.



Rating for the service quality of Oriental Airlines is: 65/100

Highlights:

1. Oriental airlines basically covers major airports in the United States, but all of the flights from coast to coast are not non-stop.

2. The employee can only provide basic service; You cannot expect high effeciency. Employees seem not quite familiar with others' jobs, traveler cannot enjoy a consistent service.

3. The hardware of Oriental Airlines is mediocre. The fleet is outdated a little bit. Business passengers may not happy about this because they do not have in-flight WI-FI service. The food on flight is minimal.

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