



INTERNATIONAL  
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effective advertising tool in the  
airlines' industry: the case of  
Aegean Airlines**

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SID: 3305170007

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A thesis submitted for the degree of

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THESSALONIKI – GREECE



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# Abstract

This dissertation was written as a part of the MSc in E-Business and Digital Marketing at the International Hellenic University. It analyzes the relationship among Facebook marketing activities, brand loyalty, and customers' purchase intention. This study is applied in the case of a Greek airline company, Aegean Airlines. A survey was conducted with a total of 200 respondents, not all of whom had prior experience with the Facebook activity of the company. The results of the analysis of the data showed that there is a correlation among social media marketing activities (SMMAs), brand loyalty and purchase intention. In addition to this, respondents with prior exposure in SMMAs had different behavior towards the brand than respondents without any exposure. These results could be fundamental evidence for the importance of SMMAs in the airlines industry.

I would like to acknowledge and thank my supervisor Mr. Christos Moridis for his valuable support and guidance. I would also like to thank my parents for their support and encouragement.

Panagiotis Giannopoulos

08/12/2019



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# 1 Introduction

At the beginning of the 21<sup>st</sup> century, social media platforms started to appear on the world wide web, trying to change the way that people communicate and interact. At those very first steps, these platforms offered only basic functionalities of content sharing and instant messaging. With the explosive rise of broadband networking, many new functionalities added to social media platforms including marketing and advertising capabilities. Furthermore, the penetration of mobile devices in combination with even faster broadband and wireless connection diversified the way businesses managed and implemented their marketing strategies. Companies obtained the opportunity to communicate their brand through social media. The rising capabilities of social media brought consumers in front of a new reality, where marketing is real-time. The mobile versions of the social media platforms launched the number of the social media users, making every person with a smartphone device a possible future customer for companies. Through social media every single customer with certain characteristics can be easily targeted and become viewer -and maybe can have the ability to interact- of personalized marketing content.

In the airline industry, social media and especially Facebook are a fundamental part of the airlines' marketing strategy. As airline ticket booking has been altered from the traditional way, which is through travel agencies, to the online ticket, the use of social media is inevitable. It is now much easier than before for customers to find information about airline products/services. Additionally, from the side of the airline companies, it is easier to promote their services in a more effective way. The effort for finding the best destination is now moved for the customer side to the airline side. The AI capabilities of social media platforms can find the perfect match for promoting airline services to the right audience. Previous studies have investigated the impact of SMMA on brand equity (brand image and brand awareness) and how brand equity can influence the customer response [1]. Nevertheless, there is no previous research in the industry of airlines to examine the role of social media marketing in customer loyalty and purchase intention. Loyal customers could be the key factor in achieving great purchasing and repurchasing levels by using the suitable social media marketing strategy. The purpose of this study is

to examine the relationship among the components of SMMA's with brand loyalty and purchase intention. Additionally, the role of SMMA's in consumer behavior towards the brand will be examined.



# 2 Literature Review

## 2.1 Social Media

Social Media are online-generated applications that are based on Web 2.0 technologies and support creation and exchange of user-generated content [2]. Some of the most commonly known social media platforms are Wikipedia, YouTube, and Facebook. Social Media takes advantage of the web and mobile technologies to create interactive applications, through which user-generated content is co-created, shared, commented and modified by individuals and communities [3]. There are different types of social media applications like weblogs, social blogs, microblogging, wikis, podcasts, pictures, videos, rating, and social bookmarking. At the beginning of social media, the main purpose of their usage was to communicate with friends and family. Apart from the individual social network users, more and more businesses and governmental organizations started to use these applications as a medium to communicate their marketing and advertising. It is much easier and less cost-effective to integrate marketing activities than before. Through social media, advertising messages and interactions with the customers are now associated with media, events, entertainment, retail, and digital services strategies [4]. These days, customers can follow the brands they like in social media and benefit from their offers and discounts. The rise of social media has revolutionized the way that the brands are communicated, and the marketing strategies are developed. Personalized brand experience has introduced new ways of informing customers about a particular brand, involving emotional engagement and parasocial experience [5].

### 2.1.1 The role of Facebook

Comparatively to all social media platforms, Facebook is by far the biggest social cyberspace. According to Internet World Stats, Facebook users in 2012 covered 12% of the world's population while at the end of 2018 this percentage has reached 27.82%, more than the  $\frac{1}{4}$  of the world's population. People from different ages are logging in daily interacting with other people and businesses. This way, Facebook has turned into a medium where products are promoted and brands are managed [6]. Taking advantage of this great coverage of Facebook, businesses can connect and interact with their

customers and implement a part of their marketing and advertising strategy. Using a suitable marketing strategy for each company, Facebook can drive from high levels of brand awareness to high levels of brand loyalty [7]. Findings of a recent study revealed that e-advertising through Facebook could have a positive effect on cognitive, affective and behavioral responses while another study showed that sharing cognitive information through Facebook could lead to positive customer attitudes from significantly increased ad-clicking to significantly influenced purchase behavior [8, 9].

## **2.2 Social Media Marketing Activities**

Various studies have classified the characteristics of the Social Media Marketing Activities (SMMAs). According to [4], SMMAs are classified into entertainment, interaction, trendiness, customization, and word-of-mouth (WOM) in the case of luxury brands. [1] classified the SMMAs into entertainment, interaction, trendiness, customization, and perceived risk and applied them in the case of the airlines' industry. As this study is applied in the case of a Greek airline company, the SMMAs are defined as entertainment, interaction, trendiness, customization, and perceived risk.

### **2.2.1 Entertainment**

According to [11] entertainment is associated with the way that social media intent to entertain the audience and help it depressurize from its daily routine. Escapism, enjoyment, emotional release and anxiety relief are the needs that are being satisfied through the entertaining power of the media. According to [12] enjoyment of sharing in online communities can play a significant factor in contributing to open content platforms like Wikipedia. Regarding the entertainment factor on social media, there are several studies on this field. [13] examined in their study the possible connection between entertainment and news sharing in social media. It was proved that entertainment is not positively influencing news sharing in social media. Another study of [14] showed that there is no correlation between the enjoyment of sharing photos in social platforms like Flickr and the level of participation in the community. On the contrary, [15] showed in his study that entertainment in social platforms urges positive emotions of the users, increases their participation and causes a continuous intention to use. Notwithstanding the foregoing, these platforms are offering a variety of entertaining features (e.g. games, videos, chatting) that satisfy the users' need for entertainment [13].

### **2.2.2 Interaction**

According to [16] the interaction between the members of an online community indicates the importance of social media. Additional to this situation, social media platforms provide immediate, interactive and low-cost communication. Online communities and social networks have become an integrated part of our lives, and they can be an alternative way of communication that supports the users' existing relationships and activities. [17] proved in their study that interaction positively affects the purchase intention of the online community for luxury fashion brands. As a result, the engagement and the casual interactions among the users of the community seem to have a crucial impact on their intention to purchase the brand. This creates a necessity for the brands to give their social community members the ability to interact, share information and express their opinion. Users are given the chance to meet in a virtual world and exchange ideas about products/brands [18]. But interaction in social media is not only among the community members but also between the community and the brand itself. [19] showed that interaction with existing and potential customers can positively influence the brand image, as companies can now easily and at any time communicate with them.

### **2.2.3 Trendiness**

[19] defines trendiness as the way that brands provide the latest information about their products/services through an online community. According to [20] social media platforms are transformed into a search tool for the most practical products as news and information are constantly updated. A recent study in the field of luxury brands showed that trust is positively influenced by trendiness as well as entertainment and customization [4]. This result confirms the enhancement of customer relationships.

### **2.2.4 Customization**

Over the last years many big brands, such as Amazon, Dell, IKEA, Adidas, and Lewis, have introduced customization in their products and services to achieve greater levels of customer satisfaction and increase their profits. Additionally, many brands use personalized customization, which is called personalization, to adapt their products or services to the special needs of their customers [21]. According to [22], the customization capabilities that are offered through social media platforms can help companies communicate the uniqueness of their brand and achieve high levels of loyalty with their customers. In social media, customization is implemented in a completely different way than in

traditional advertising. Personalized generated content from different sources can reach individual customers to create positive perceived control and increase their satisfaction [23, 24].

### **2.2.5 Perceived Risk**

[25] first defined perceived risk as a consequence of uncertainties that are related to customer behavior and may be unpleasant. Other studies have related perceived risk with the negative consequences that are experienced in buying situations [26]. As far as social media is concerned, these platforms tend to decrease the uncertainties of potential customers by allowing them to interact with the companies and check for the latest information [27]. In this study and according to [1] who defined the SMMA for the airline industry, perceived risk is selected as one of the SMMA regarding that it alleviates the anxiety or the concern which is generated by the customers.

## **2.3 Brand Loyalty**

The concept of brand loyalty was first introduced to measure the behavioral intention of repeatedly purchasing a product or service over time [28]. According to [29], when a customer shows interest in the company's advertisements a relationship between brand and consumer starts to rise which can lead to strong brand loyalty. The more regular the engagement between brand and customer is, the stronger the loyal bonds are [30]. [31] defined loyalty as the strong commitment to constantly purchase a product or service over time, regardless of marketing efforts and situational effects that may cause changes in consumer behavior. The author mentioned a sequence of four steps that lead to brand loyalty. So, the customer becomes loyal cognitively at first, then affectively, then behaviorally and finally in action, when he/she is committed to repurchasing. Although, there is a major difference between the loyalty which is based on the repurchase behavior of the consumer and the loyalty, which is connected with the positive attitude of the consumer and is interpreted to repurchase intention. A customer is not truly loyal if he/she just repurchases a product or service over time and he/she is not familiar with this behavior. Therefore, loyalty should be considered as a multidimensional variable of both behavioral and attitudinal [32, 33]. [34] mentioned that brand loyalty exists when favorable attitudes to a brand comply with its repeat purchase behavior.

Nowadays, social media applications have been transformed into a promotional hub of products and services, where companies can actively communicate with their customers. The new full-duplex communication increases customer engagement and generates a sense of equality between the brand and the customer [35]. Consumers need less effort for information searching about a brand and their satisfaction or displeasure can be easily expressed [30, 36]. Although most of the brands agree that social media are positively affecting their brand awareness, only a few of them consider web 2.0 applications as a medium to increase their brand loyalty [37, 38]. [39] mentioned customer satisfaction, trust, perceived value and commitment as the critical parts that can lead a customer from being aware of being loyal. [40] indicated in their study that customer satisfaction positively influences the repurchase intention. Trust also affects loyalty in a significant way and it also related to perceived risk and safety [41]. Perceived value is associated with the positive impact of purchase to the buyer [42]. In the context of web 2.0 platforms, the term of loyalty begins to rise. The technological advantages of these applications tend to give a boost in the way that the customer takes control over a product or service [43]. Previous studies have proved that the perceived social media marketing activities play a significant role in building loyal relationships with customers. Followers tend to be committed both in the online community and with the brand itself by networking, conversating and building relations with the community [44, 45, 46].

## **2.4 Purchase Intention**

Customers are not born with the intention to purchase a product or service. A path of sequential steps defines the final purchase intention. It starts with the unawareness of the brand's existence, follows the awareness and the information about the brand's specifications. Then a favorable positive attitude towards the brand is created where the customer prefers a specific brand among others and the desire to purchase it starts to emerge. Finally, the customer is convinced about his/her purchasing intention and performs the purchase [47]. Previously, marketers should create alluring advertising messages and purchase advertising space in mass media to obtain customer awareness toward a brand and finally the preference to purchase a brand. Nowadays with the rise of the internet, most of the internet users are also internet shoppers. There are also people searching online for products or services without making any transaction, these belong to internet browsers [48]. Apart from the users who shop in online stores, a great per-

centage of them and nearly 30% for people aged 18-34, have performed a purchase as a result of an advertisement that they viewed on Facebook [49]. The higher the exposure to the advertisement, the greater the intention to purchase. Several researchers have indicated that trust plays a significantly influential role in attracting customers to shop [50, 51]. Additionally, a well-established web site brand could eliminate customers' perceived risk regarding payment unreliability issues and product performance [52]. According to a study of [53], consumers' trust positively affects purchase intention in a specific web site, while perceived risk negatively affects purchase intention. Although trust and perceived risk are not the only parameters that influence purchase behavior. Regarding the Millennials' generation, which is intensively using social networking applications, the combination of interconnectivity and the fast pace of the technology's evolution, affect their purchase decisions [54].

Different researchers have investigated the impact of social media advertising and especially Facebook on consumers' buying intention and purchase behavior. [55] revealed that advertising messages generated by Facebook could augment consumer's attitudes towards a brand and purchase intentions. [56] found that social media experiences in Facebook and Twitter in the hotel industry, could influence customer attitudes and consequently his/her purchase intentions. Additionally, customer motives through social media marketing included information about a brand's product, entertainment, and promotions to encourage customers to purchase [57]. Another research in the online fashion brands industry resulted that social media (Facebook and Twitter) could create an awareness of needs and using these platforms as an information source to lead in purchase [58]. On the contrary, research performed in the UK found that among the respondents only a very small percent believed that Facebook advertising could generate purchasing intentions, while most of the sample agreed that there is no or only a low influence of Facebook marketing on buying intention [59].

### 3 Research Model

Different studies have proved that Social Media Marketing can positively influence different factors, which are associated with a brand, like trust, brand image, brand awareness, brand loyalty, customer relationship, and purchase intention. According to [17], social media marketing activities have a great influence on customer relationships and purchase intention. Another study of [4] proved that the SMMA's positively effect on brand equity. Additionally, [7] showed in their study that Facebook is a very suitable environment to achieve high levels of customer loyalty. Although all these cases are applied in the field of fashion brands some studies have examined the power and the effects of SMMA's in the airline industry. [60] performed a survey of 42 different airlines that used social media platforms (Facebook and Twitter). According to the results, most airlines used social media as an advertising medium, therefore, the study proposed the exploitation of the user-generated content to transform these platforms into selling channels. Furthermore, [1] proved in their study the positive influence of the SMMA's in brand awareness and brand image. Based on the previous studies, this study aims to examine the possible existence of a statistically significant relationship among the Social Media Marketing Activities, the Brand Loyalty and the Purchase Intention. Figure 1 represents the Research Model of the current study.

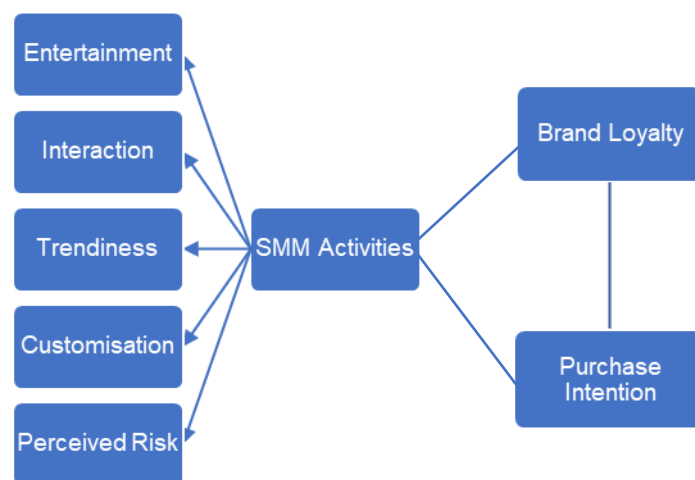


Figure 1: Research Model

According to the research model the following hypotheses will be tested.

**H1.** There is a statistically significant positive relationship between Perceived Social Media Marketing Activities and Brand Loyalty

**H2.** There is a statistically significant positive relationship between Perceived Social Media Marketing Activities and Purchase Intention

**H3.** There is a statistically significant positive relationship between Brand loyalty and Purchase Intention

**H4.** There is a statistically significant difference in consumer behavior towards a brand between people with prior exposure to SMMAAs and people without prior exposure



# 4 Data Collection

## 4.1 Questionnaire design

To test the hypotheses that were stated in the previous section, a questionnaire was designed. It contains seven different parts, each of them is explained below.

In the first part, the respondent is asked to create a unique 7-digit ID. The purpose of this unique ID is to keep the anonymity of the respondent and give him/her an option to withdraw from the survey as explained in the next part.

In the second part, the respondent is asked to give his consent for the use of his/her data. This part is very important as the respondent is informed in detail how his/her data will be used and is also given information on how to withdraw from the survey using his/her unique ID. The respondent must accept the three terms and conditions before he starts to answer the questions. These terms confirm that the respondent has understood the purpose of the study and had the opportunity to ask questions. He/she is also informed about the period when he/she can withdraw from the study and that his/her participation is voluntary.

The third part of the questionnaire is the most important step before the respondent begins to answer the questions. In this step, the respondent must answer whether he/she follows the Aegean Airlines Facebook page. This separation of the respondents will be used later in the analysis of the data. After this, the respondent is given the link of the Aegean Airlines Facebook page and he/she is kindly requested to visit it and have a careful look at least at the latest posts. This a required and crucial process that needs to be performed before the respondent is given questions about the social media of the airline. They must accept that they have visited the Aegean Airlines Facebook page before they continue to the survey.

The fourth part of the questionnaire is the demographics section. The questions that were used in this part are based on a study from [1] who investigated the effects of SMMA's on brand equity and customer response in the airline industry. The respondent must choose his/her gender and his/her age group and some information about the pur-

pose that they would choose, or they had chosen the airline and their frequency of booking/flying.

The fifth part of the survey contains questions about the perceived social media marketing activities, which are entertainment, interaction, trendiness, customization, and perceived risk. The questions for the SMMAAs were also taken from [1] and were adapted to the case of Aegean Airlines. For every activity, the respondent must give his response through a 5-point scale that ranges from strongly disagree to strongly agree including a moderate midpoint.

The sixth part of the questionnaire measures the loyalty of the brand through four questions that the respondent must answer. The questions for brand loyalty were taken from [61, 45] and adapted to the case of Aegean Airlines. The reply is given through a 5-point scale that ranges from strongly disagree to strongly agree including a moderate midpoint.

The last part of the survey measures the purchase intention through three questions that the respondent must answer. The questions for the purchase intention were taken from [62, 53] and adapted to the case of Aegean Airlines. The reply is given through a 7-point scale that ranges from strongly disagree to strongly agree including a moderate midpoint.

Table 1 shows the questions that were used in each section of the survey.

Concept	Variable	Name	Item
<b>Social Media Marketing Activity</b>	Entertainment	EN	The Social Media of Aegean Airlines is enjoyable.
			The content shared by the social media of Aegean Airlines is enjoyable.
	Interaction	IN	Information sharing is possible in the social media of Aegean Airlines.
			The discussion and exchange of opinions is possible in the social media of Aegean Airlines. The expression of opinions is easy in the social media of Aegean Airlines.
Trendiness	TR		The information shared in the social media of Aegean Airlines is up to date.
			The use of social media by Aegean Airlines is fashion-

			able.
	Customization	CU	The information that I need can be found in the social media of Aegean Airlines.  The social media of Aegean Airlines provided the information that I needed.
	Perceived Risk	PR	The social media of Aegean Airlines alleviated my concern(s) regarding the airline's service.  The social media of Aegean Airlines alleviated my concern(s) about using the airline.
<b>Brand Loyalty</b>	Brand Loyalty	BL	I prefer to book Aegean Airlines than other airlines.  I am willing to try to search for Aegean tickets. I consider myself to be loyal to Aegean Airlines. I feel confident with Aegean Airlines and I always book with this airline.
<b>Purchase Intention</b>	Purchase Intention	PI	I intend to use Aegean Airlines e-commerce platforms to conduct ticket purchases.  I expect to purchase tickets through Aegean Airlines e-commerce platforms in the future.  It is will likely transact with Aegean Airlines e-commerce platforms in the near future.

---

Table 1: Questionnaire

## 4.2 Sample design

The survey was performed from 16 September 2019 and lasted for a period of a month ending on 16 October 2019. The electronic questionnaire was distributed through emails in people of different ages regardless of the relationship they had with Aegean Airlines. It is important to be mentioned that answering the questions of the survey did not require any previous flying experience with the airline. 200 responses were collected and all of them were valid. Table 2 shows the demographic characteristics of the sample.

<b>Classification</b>		<b>Frequency (# people)</b>	<b>Composition ratio (%)</b>
<b>Gender</b>	Male	107	53.5
	Female	93	46.5
<b>Age</b>	18-20	5	2.5
	21-30	103	51.5
	31-40	40	20
	41-50	35	17.5
	51+	17	8.5
<b>Purpose using the airline</b>	Business	32	16
	Tour/Vacation	117	58.5
	Education/Meeting	20	10
	Visiting friends/family/relatives	31	15.5
<b>Frequency using the airline</b>	0-1	97	48.5
	2-3	58	29
	4-5	19	9.5
	6-7	13	6.5
	8-9	1	0.5
	10+	12	6
<b>Follow Aegean Airlines FB page</b>	Yes	110	55
	No	90	45
<b>Total number of respondents</b>		200	100%

Table 2: Sample

From 200 respondents, 107 were male and 93 were female. Regarding the age of the sample, the majority (103 respondents) were aged 21-30, following by 40 who were aged 31-40 and 35 who were aged 41-50. 17 respondents were aged over 51 and only 5 were aged 18-20. As for the purpose of using the airline, most of the respondents (117) chose Tour/Vacation, and the rest chose Business (32), Visiting family/friends/relatives (31) and Education/Meeting (20). The frequency using the airline within last 12 months shows that almost half of the respondents (97) flew with Aegean 0 or 1 time, while 58 flew 2-3 times, 19 flew 4-5 times, 13 flew 6-7 times, only one respondent flew 8-9

times and 12 flew 10 or more times the last 12 months. Last, 110 of the respondents stated that they already like and follow the Aegean Airlines Facebook page, while the rest 90 do not.



# 5 Data Analysis

The data collected from the survey were analyzed using IBM SPSS 26 program. Based on the research model that was mentioned before, the possible correlations between Social Media Marketing Activities, Brand Loyalty and Purchase Intention were examined. To ensure internal consistency and reliability of the data, the Cronbach's  $\alpha$  measurement was used. An  $\alpha$ -value higher than 0.7 shows that the data are consistent and reliable. In this sample, only one  $\alpha$ -value is between 0.7 and 0.8 and the rest are higher than 0.8 and even 0.9. Table 3 shows the  $\alpha$ -values for each concept respectively.

Configuration concept	Measurement index	Cronbach's $\alpha$
<b>Social Media Marketing Activity</b>	Entertainment 1	0.886
	Entertainment 2	
	Interaction 1	
	Interaction 2	0.847
	Interaction 3	
	Trendiness 1	0.767
	Trendiness 2	
	Customization 1	0.925
	Customization 2	
	Perceived Risk 1	0.901
Perceived Risk 2		
<b>Brand Loyalty</b>	Brand Loyalty 1	0.852
	Brand Loyalty 2	
	Brand Loyalty 3	
	Brand Loyalty 4	
<b>Purchase Intention</b>	Purchase Intention 1	0.952
	Purchase Intention 2	
	Purchase Intention 3	

Table 3: Cronbach's values

Then, the three variables were tested for their normality, linearity, and homoscedasticity. Based on the results of these tests, the suitable correlation type will be used. Because the sample size was small, only 200 elements, the Shapiro-Wilk test was used for checking the existence of normal distribution of the variables. Table 4 shows the results of the test.

	<b>Statistic</b>	<b>df</b>	<b>Sig</b>
<b>SMMAs</b>	0.917	200	0.000
<b>Brand Loyalty</b>	0.962	200	0.000
<b>Purchase Intention</b>	0.907	200	0.000

Table 4: Shapiro-Wilk test

The results showed that for all variables the Sig. value or p-value is 0.000 and is lower than 0.05, which the significance level. This means that the data significantly deviate from the normal distribution. Additionally, the results showed that there are outliers in the data meaning that the data are not normally distributed. The following charts are exported from SPSS and visualize the existence of outliers for all variables. The outliers are the dotted or starred points that are visible in the lower part of the figures.

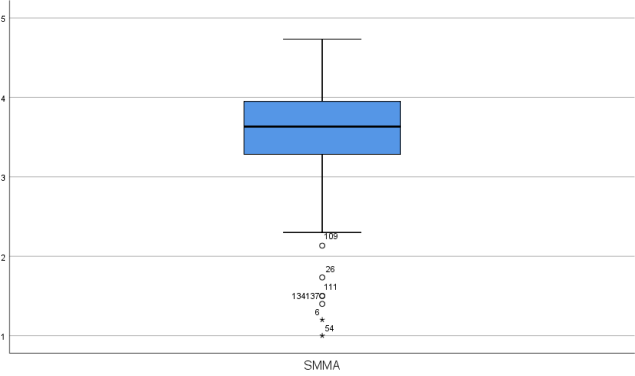


Figure 2: Outliers - SMMAs



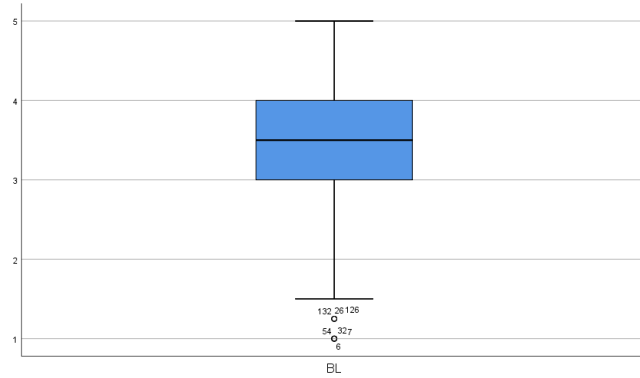


Figure 3: Outliers - Brand Loyalty

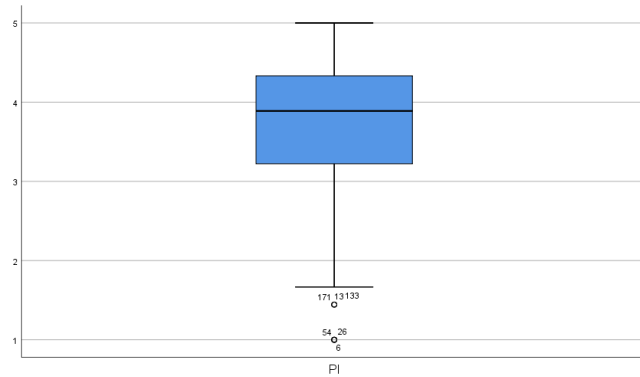


Figure 4: Outliers - Purchase Intention

The next three scatter plots show that the data are linear because, for all possible variable combinations, that were tested, the dots in the scatter plots start from the down left corner and end in the upper right corner following a straight-line path.

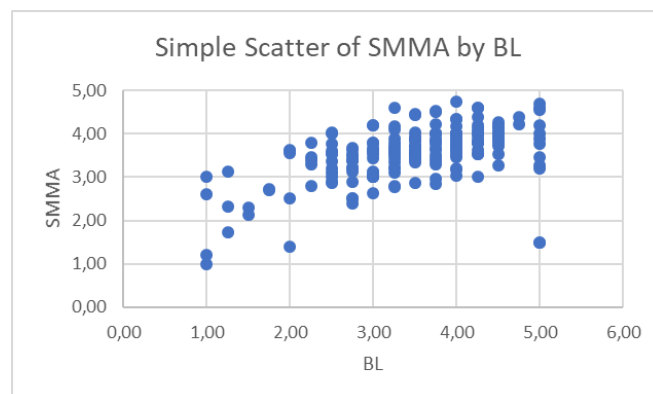


Figure 5: Linearity - SMMA, BL

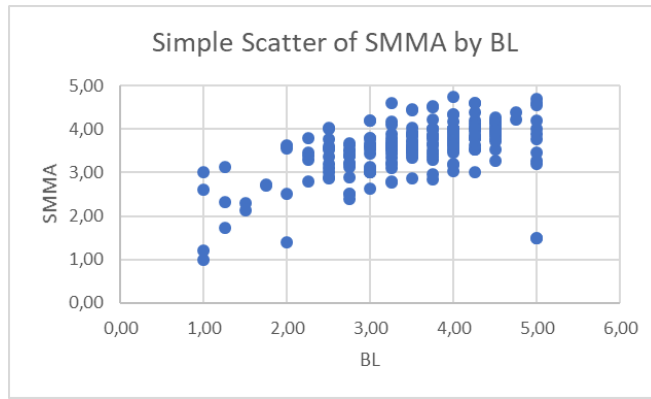


Figure 6: Linearity - SMMAs, PI

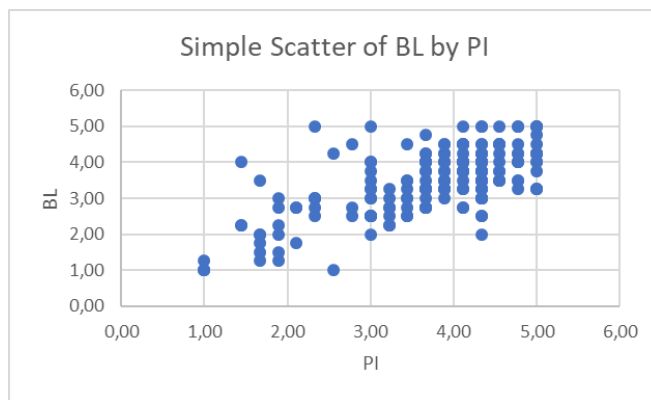


Figure 7: Linearity - BL, PI

Another parameter that was tested before choosing the appropriate type of correlation was homoscedasticity. Using the scatterplots and visual checking, it is obvious that for all variable combinations that were tested, that the points lie equally on both sides of the line of best fit, meaning that the data is homoscedastic.

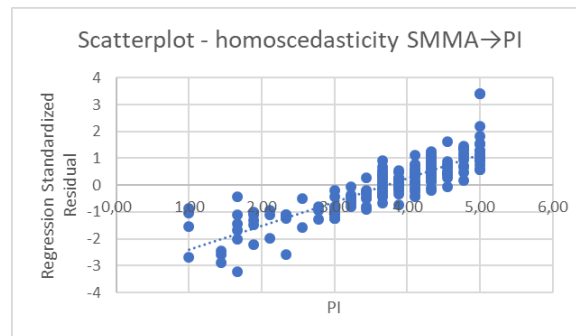


Figure 8: Homoscedasticity, SMMAs, PI

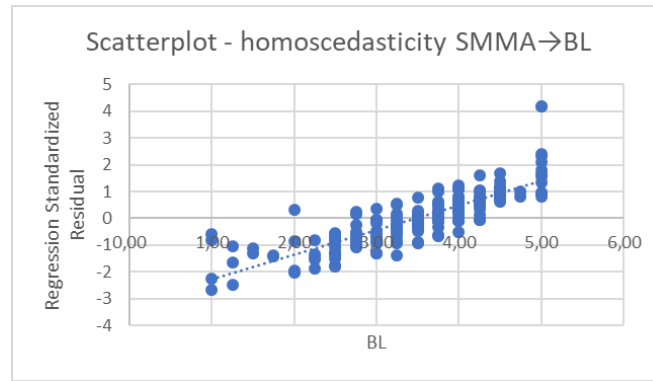


Figure 9: Homoscedasticity, SMMA, BL

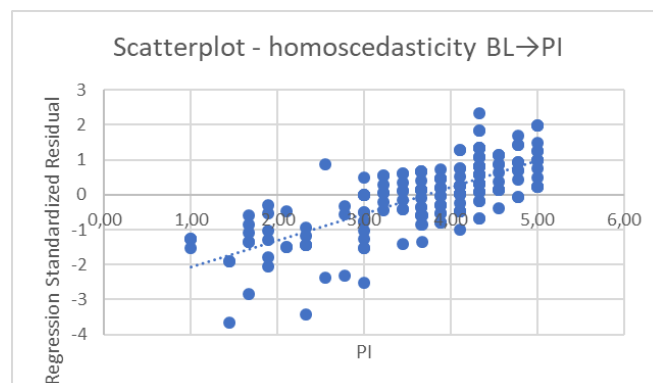


Figure 10: Homoscedasticity, BL, PI

To conclude, the previous tests showed that the data does not follow a normal distribution and there are outliers. Although, the data is following a linear path and is homoscedastic. As normality and absence of outliers are required for Pearson correlation and the data is not subject to these rules, the correlation type that was used is Spearman's Non-parametric correlation.

Table 5 shows the results of Spearman's Nonparametric correlation.

	<b>SMMA</b> s	<b>Brand Loyalty</b>	<b>Purchase Intention</b>
<b>SMMA</b> s	1.000		
<b>Brand Loyalty</b>	0.546	1.000	
<b>Purchase Intention</b>	0.423	0.588	1.000

Table 5: Spearman's correlation

The results of the Spearman correlation indicated that there is a moderate statistically significant positive correlation between the Social Media Marketing Activities and Brand Loyalty ( $R_s[200] = .546, p < .001$ ). Furthermore, there is a moderate statistically significant positive correlation between the Social Media Marketing Activities and the Purchase Intention ( $R_s[200] = .423, p < .001$ ). Additionally, there is a moderate statistically significant positive correlation between Brand Loyalty and Purchase Intention ( $R_s[200] = .588, p < .001$ ). All correlations are significant at the 0.01 level.

Apart from the correlation testing, independent samples testing was performed for the three variables, SMMAs, Brand Loyalty, and Purchase Intention. The initial sample was separated into two subsamples according to whether the respondents had been following the Facebook page of Aegean Airlines before the survey. So, The populations that were assumed to be independent were respondents with prior exposure to SMMAs and respondents without SMMAs exposure.

To proceed to the t-test for equality of means, Levene's test for equality of variances of the variables was required to be performed. The results of the test are presented in Table 6.

	<b>F</b>	<b>Sig.</b>
<b>SMMAs</b>	4.208	0.042
<b>Brand Loyalty</b>	4.785	0.030
<b>Purchase Intention</b>	10.556	0.001

Table 6: Levene's test

The results of the Levene's test for equality of variances indicated that Sig. value for all the variables is smaller than 0.05, meaning that there is statistically significant evidence that the variances of the variables for these subgroups of the sample are not equal. As the equality of variances is not assumed, the results of the t-test for equality of means is as follows in Table 7.

	<b>t</b>	<b>Sig.</b>
<b>SMMAs</b>	-3.976	0.000
<b>Brand Loyalty</b>	-5.210	0.000
<b>Purchase Intention</b>	-3.005	0.003

Table 7: t-test

The results of the t- test for equality of means indicated that Sig. value for all the variables is smaller than 0.001, meaning that there is statistically significant evidence that the means of the variables for these subgroups of the sample are not equal.



# 6 Discussion and Conclusions

This study investigated the possible relationship among the Social Media Marketing Activities of Aegean Airlines, the Loyalty of this airline brand and the intention of purchasing services of this airline brand. Aegean Airlines is one of the best airline companies in southern Europe and the biggest airline in Greece. During the last years, Aegean has performed a great expansion of its services setting customer satisfaction at its first position. Social networking sites and especially Facebook plays a crucial role in achieving these goals and that was one of the reasons that Facebook Marketing Activities of Aegean were chosen to be analyzed.

The results of this study are presented as follows in Table 8.

<b>Hypothesized relationship</b>		<b>Conclusion</b>
<b>H1</b>	SMMAs, Brand Loyalty	Supported
<b>H2</b>	SMMAs, Purchase Intention	Supported
<b>H3</b>	Brand Loyalty, Purchase Intention	Supported
<b>H4</b>	Prior SMMAs exposure	Supported

Table 8: Hypothesized relationships

First, the Facebook Marketing Activities of Aegean Airlines and the Loyalty of the brand seem to have a positive correlation. SMMAs, as described in the literature review section, are entertainment, interaction, trendiness, customization, and perceived risk. The moderate correlation that showed Spearman's correlation test, indicates that suitable social media content may increase the loyalty of the brand among customers. This content should comply with the 5 components of the SMMAs, meaning that it should entertain the audience, offer the latest information in a personalized way, make the customers react and express their thoughts and feelings, alleviating the possible fears of choosing this airline. Creating a social media strategy with these key objectives might follow to higher levels of loyalty among the customers.

Second, the Facebook Marketing Activities of Aegean Airlines and the Purchase Intention of the brand services do also have a positive correlation. For this pair of variables, a moderate correlation was observed using Spearman's nonparametric test. Facebook marketing strategy is not eliminated in achieving only one goal, e.g. brand loyalty. Using different types of content could be the key to achieving all the preferable results. Although Facebook does not offer the function to directly book flights through the platform, it offers the ability to set campaigns using call-to-actions buttons, which may lead to a final purchase on the merchant's official website.

Third, the pair of Brand Loyalty and Purchase Intention marked a positive correlation. Spearman's correlation test indicated that both variables are moderately interconnected. Achieving high levels of loyalty could lead to purchasing and repurchasing the product/service. Nevertheless, purchasing as a result of social media marketing does not mean that the loyalty of the specific brand is achieved.

Through social media, companies have the opportunity to obtain a vast amount of customer data. Customer interactions with social media content generate valuable information that could facilitate strategic and managerial activities, leading to higher profits by gaining more customer transactions. A recent study confirms that proactive decision making by analyzing customer social media interactions could predict the consumers' future behavior [63]. By predicting the customers' behavior, a very efficient social media strategy could be developed, especially on Facebook, where targeting the audience can be performed in detail.

Taking in consideration that previous research has found that the perceived social media marketing activities can positively influence brand awareness and image, the relationship between SMMAAs and purchase intention can be understood [1]. To make a purchase, a customer needs to be aware of the brand and have found all available product/service information he/she has needed. In the case of Aegean, the Facebook marketing activities of the airline should be accordingly managed, providing customers all the necessary information. Furthermore, the advertising content should alleviate any possible risk that prevents customers from transacting with the airline's e-services.

In addition to the above, researchers have already investigated the connection between SMMAAs and brand loyalty. SMMAAs positively affect not only the loyalty of the brand but also the awareness [45]. It was also found that brand awareness positively influences brand loyalty. When a customer is gaining awareness of the brand through social



media content and the content is according personalized in the needs of this customer the stronger bonds between the customer and the brand start to be created.

It seems like SMMAAs are the connecting ring between all the discussed variables in this study. So, the connection that was found among the SMMAAs, brand loyalty, and purchase intention could be interpreted. There is evidence that all the variables are interconnected affecting each other. Creating a suitable social media marketing strategy not only higher level of loyalty among the customers could be achieved but also greater profits for the company through increasing its customers' transactions. Furthermore, the connection between brand loyalty and purchase intention should be commented. Loyal consumers could be interpreted as repurchase behaviors. As this not statistically investigated in this study, there is also the possibility that loyalty could be achieved after a customer has performed a purchase of a product/service. On Facebook where marketing could be very aggressive, customers could lead to purchase even without knowing the brand. After a satisfying experience with the brand, this single purchase could lead to repurchase and finally to brand loyalty.

Last but not least, it is worth mentioning the statistically significant difference in the means of the examined variables in the two different populations, the people with prior experience in the SMMAAs of Aegean airlines and the ones without prior experience. This difference could generate evidence that SMMAAs provoke an alteration in the consumers' behavior. Customers with existing brand awareness could easier become loyal customers than others without any brand experience. So, another parameter that should be taken into consideration is the way that the social media strategy is applied to existing and not existing customers. Trendiness and personalized content could be the key success factors to better target and obtain new customers.

To summarize, social media have defined a new digital era, where marketing activities have been diversified. There have been introduced new ways, that customers are interacting with brands and making purchases. This study investigated the connections among Facebook Marketing Activities of Aegean Airlines, the Brand Loyalty and the Customers' Purchase Intention. The results that were previously discussed, indicate that Aegean Airlines should accordingly run its social media strategy to effectively communicate the brand with its customers and obtain new ones. As it was mentioned in the study, social media marketing activities have different types, each of them could be exploited.

## 6.1 Limitations and future research

The limitations of this study indicate the recommended future research and are as follows. First, the sample of the study was not well defined. The initial thought was, that the sample of the survey would only be master-degree students. Although, the response from this sample was unsatisfied and then the sample was extended to people of mixed demographic characteristics, without knowing if they choose to travel by airplane. Another limitation of this study was, that the statistical analysis was restricted to correlation testing and the results that were excluded are not indicating a clear social media strategy for the airline company. Future research should focus on defining a more precise sample that would include customers that are airline travelers. Additionally, a regression analysis is proposed to be performed to better understand how each variable influences the others. If SMMA's positively affect brand loyalty and brand loyalty positively affects purchase intention, then a profitable social media marketing strategy for Aegean Airlines and other similar airlines could be insisted. Finally, this study investigated Facebook as the main part of the SMMA's. Apart from this platform, other social media platforms that are used by airlines such as Twitter and Instagram. Analyzing the SMMA's of all the platforms that an airline includes in its strategy, the results could indicate a more precise proposed social media strategy. Finally, the airline that was chosen for this study is a regular airline. The airline industry consists not only from regular airlines but also from low cost and premium airlines. A future study could investigate among others how these different types of airlines perform in social media and how they influence their brand loyalty and their customers' purchase intention. Finally, a limitation of this study was that it only found that there is a difference in the samples of people who have prior social media experience with the brand and people who have not. It is insisted for future research to analyze the different approaches of SMMA's for these different populations.

# Bibliography

1. Seo, E. and Park, J. (2018). A study on the effects of social media marketing activities on brand equity and customer response in the airline industry. *Journal of Air Transport Management*, 66, pp.36-41.
2. Kaplan, A. and Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), pp.59-68.
3. Kietzmann, J., Hermkens, K., McCarthy, I. and Silvestre, B. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), pp.241-251.
4. Kim, A. and Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65(10), pp.1480-1486.
5. Tynan, C., McKechnie, S., & Chhuon, C. (2010). Co-creating value for luxury brands. *Journal of business research*, 63(11), 1156-1163.
6. Shen, B., & Bissell, K. (2013). Social media, social me: A content analysis of beauty companies' use of Facebook in marketing and branding. *Journal of Promotion Management*, 19(5), 629-651.
7. Gamboa, A. M., & Gonçalves, H. M. (2014). Customer loyalty through social networks: Lessons from Zara on Facebook. *Business Horizons*, 57(6), 709-717.
8. Hamidizadeh, M. R., Yazdani, N., Tabriz, A. A., & Latifi, M. M. (2012). Designing and validating a systematic model of e-advertising. *International Journal of Marketing Studies*, 4(2), 130.
9. Mir, I. A. (2012). Consumer attitudinal insights about social media advertising: A South Asian perspective. *The Romanian Economic Journal*, 15(45), 265-288.
10. McQuail, D. (2005). *McQuail's mass communication theory*. Singapore: Sage Publications Ltd.
11. Nov, O. (2007). What motivates wikipedians?. *Communications of the ACM*, 50(11), 60-64.

12. Lee, C. and Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), pp.331-339.
13. Nov, O., Naaman, M., & Ye, C. (2010). Analysis of participation in an online photo-sharing community: A multidimensional perspective. *Journal of the American Society for Information Science and Technology*, 61(3), 555-566.
14. Kang, M. J. (2005). A Study on the Effect of Features of Brand Community Using One-person Media on Consumers. *Seoul: Seoul National University*.
15. Miller, K. D., Fabian, F., & Lin, S. J. (2009). Strategies for online communities. *Strategic Management Journal*, 30(3), 305-322.
16. Kim, A. and Ko, E. (2010). Impacts of Luxury Fashion Brand's Social Media Marketing on Customer Relationship and Purchase Intention. *Journal of Global Fashion Marketing*, 1(3), pp.164-171.
17. Muntinga, D. G., Moorman, M., & Smit, E. G. (2011). Introducing COBRAs: Exploring motivations for brand-related social media use. *International Journal of advertising*, 30(1), 13-46.
18. Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., & Singh, R. (2016). Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior. *Journal of business research*, 69(12), 5833-5841.
19. Naaman, M., Becker, H., & Gravano, L. (2011). Hip and trendy: Characterizing emerging trends on Twitter. *Journal of the American Society for Information Science and Technology*, 62(5), 902-918.
20. Arora, N., Dreze, X., Ghose, A., Hess, J., Iyengar, R., Jing, B., Joshi, Y., Kumar, V., Lurie, N., Neslin, S., Sajeesh, S., Su, M., Syam, N., Thomas, J. and Zhang, Z. (2008). Putting one-to-one marketing to work: Personalization, customization, and choice. *Marketing Letters*, 19(3-4), pp.305-321.
21. Martin, K., & Todorov, I. (2010). How will digital platforms be harnessed in 2010, and how will they change the way people interact with brands?. *Journal of Interactive Advertising*, 10(2), 61-66.
22. Ding, Y., & Keh, H. T. (2016). A re-examination of service standardization versus customization from the consumer's perspective. *Journal of Services Marketing*, 30(1), 16-28.

23. Nam, K. H., & Yeo, J. S. (2011). A study on consumers' acceptance process of mobile advertising. *Journal of Consumer Studies*, 22(4), 1-28.
24. Bauer, R. A. (1960). Consumer behavior as risk taking. *Chicago, IL*, 384-398.
25. Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of marketing*, 33(1/2), 163-195.
26. Sano, K. (2014). Do social media marketing activities enhance customer satisfaction, promote positive WOM and affect behavior intention. *Doshisha Commerce Journal*, 3-4.
27. Pritchard, M. P., Howard, D. R., & Havitz, M. E. (1992). Loyalty measurement: A critical examination and theoretical extension. *Leisure Sciences*, 14(2), 155-164.
28. Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of consumer research*, 24(4), 343-373.
29. Merisavo, M., & Raulas, M. (2004). The impact of e-mail marketing on brand loyalty. *Journal of Product & Brand Management*, 13(7), 498-505.
30. Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of marketing*, 63(4\_suppl1), 33-44.
31. Dick, A. S., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113.
32. Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing*, 20(2), 153-175.
33. Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of marketing*, 57(1), 1-22.
34. Evans, D. (2010). *Social media marketing: An hour a day*. John Wiley & Sons.
35. Laroche, M., Habibi, M. R., & Richard, M. O. (2013). To be or not to be in social media: How brand loyalty is affected by social media?. *International Journal of Information Management*, 33(1), 76-82.
36. Harvard Business Review Analytic Services. (2010). The new conversation: Taking social media from talk to action. Boston: *Harvard Business School Publishing*.
37. Bughin, J., & Chui, M. (2010). The rise of the networked enterprise: Web 2.0 finds its payday. *McKinsey quarterly*, 4, 3-8.

38. Huang, R., & Sarigöllü, E. (2014). How brand awareness relates to market outcome, brand equity, and the marketing mix. In *Fashion Branding and Consumer Behaviors* (pp. 113-132). Springer, New York, NY.
39. Martins Gonçalves, H., & Sampaio, P. (2012). The customer satisfaction-customer loyalty relationship: Reassessing customer and relational characteristics moderating effects. *Management Decision*, 50(9), 1509-1526.
40. Eid, M. I. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of electronic commerce research*, 12(1), 78.
41. Luarn, P., & Lin, H. H. (2003). A customer loyalty model for e-service context. *J. Electron. Commerce Res.*, 4(4), 156-167.
42. Gommans, M., Krishnan, K. S., & Scheffold, K. B. (2001). From brand loyalty to e-loyalty: A conceptual framework. *Journal of Economic & Social Research*, 3(1).
43. Bagozzi, R. P., & Dholakia, U. M. (2006). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of research in Marketing*, 23(1), 45-61.
44. Ismail, A. (2017). The influence of perceived social media marketing activities on brand loyalty. *Asia Pacific Journal of Marketing and Logistics*, 29(1), pp.129-144.
45. Walpole, S. (2011). Creative B2B branding (no, really): Building a creative brand in a business world. *Journal of Direct, Data and Digital Marketing Practice*, 12(3), pp.303-305.
46. Lavidge, R. J., & Steiner, G. A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of marketing*, 25(6), 59-62.
47. Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, 56(11), 867-875.
48. Reuters and Ipsos (2012), "Can Facebook go beyond earned media success?", available at: [www.emarketer.com/Article/Facebook-Go-Beyond-Earned-Media-Success/1009127](http://www.emarketer.com/Article/Facebook-Go-Beyond-Earned-Media-Success/1009127) (accessed 1 July 2013).
49. Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80-85.
50. Reichheld, F. F., & Scheffer, P. (2000). E-loyalty: your secret weapon on the web. *Harvard business review*, 78(4), 105-113.

51. Lim, N. (2003). Consumers' perceived risk: sources versus consequences. *Electronic Commerce Research and Applications*, 2(3), 216-228.
52. Hsin Chang, H. and Wen Chen, S. (2008). The impact of online store environment cues on purchase intention. *Online Information Review*, 32(6), pp.818-841.
53. Noble, S. M., Haytko, D. L., & Phillips, J. (2009). What drives college-age Generation Y consumers?. *Journal of business research*, 62(6), 617-628.
54. Yang, T. (2012). The decision behavior of Facebook users. *Journal of Computer Information Systems*, 52(3), 50-59.
55. Leung, X. Y., Bai, B., & Stahura, K. A. (2015). The marketing effectiveness of social media in the hotel industry: A comparison of Facebook and Twitter. *Journal of Hospitality & Tourism Research*, 39(2), 147-169.
56. Rohm, A., D. Kaltcheva, V., & R. Milne, G. (2013). A mixed-method approach to examining brand-consumer interactions driven by social media. *Journal of Research in Interactive Marketing*, 7(4), 295-311.
57. Ruane, L., & Wallace, E. (2013). Generation Y females online: insights from brand narratives. *Qualitative Market Research: An International Journal*, 16(3), 315-335.
58. Kodjamanis, A. and Angelopoulos, S. (2013), "Consumer perception and attitude towards advertising on social networking sites: the case of Facebook", *Proceedings of International Conference on Communication, Media, Technology and Design, Famagusta, 2-4 May*, pp. 53-58.
59. Hvass, K. A., & Munar, A. M. (2012). The takeoff of social media in tourism. *Journal of Vacation Marketing*, 18(2), 93-103.
60. Ailawadi, K., Neslin, S. and Gedenk, K. (2001). Pursuing the Value-Conscious Consumer: Store Brands versus National Brand Promotions. *Journal of Marketing*, 65(1), pp.71-89.
61. Pavlou, P. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce*, 7(3), pp.101-134.
62. Yee Liau, B., & Pei Tan, P. (2014). Gaining customer knowledge in low cost airlines through text mining. *Industrial management & data systems*, 114(9), 1344-1359.