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# User-generated-content versus marketing-generated-content: personality and content influence on traveler's behavior

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## ABSTRACT

The role of the personality in the travelers' decision-making was investigated, in relation to the usage of the content generated in social media. Based on the EBM decision-making model and the Big Five trait model of personality, the study examined travelers/social media users. In total, 582 questionnaires were collected and analyzed. Results revealed that personality influences all the travel decision-making phases. Additionally, the survey showed that user-generated-content influences travelers' behavior more than marketing-generated-content. The findings have added significant contributions to the traveler's decision-making theory, as well as to the marketing practices that should be implemented on social media.

## KEYWORDS

User-generated-content; personality; big five; travel decision-making; marketing-generated-content

## 摘要

研究了人格在旅游者决策中的作用, 以及在社交媒体中使用的内容的使用。基于EBM决策模型和人格的五大特征模型, 研究考察了旅行者/社交媒体用户。共收集问卷582份, 并进行分析。结果表明, 人格影响了所有的旅游决策阶段。此外, 调查表明, 用户生成的内容影响旅游者的行为多于营销生成的内容。研究结果为旅行者的决策理论和社会实践中应该实施的营销实践提供了重要的贡献。

## Introduction

The newly established tourism information source, this of social media, is primarily based on users' contribution. Social media provide a range of opportunities for recording and sharing travel experiences, engendering what is called the user-generated-content (Pang et al., 2011). The user-generated-content (UGC) has a key role in the tourist decision-making and often competes with the traditional travel content providers, such as classic media, tourism companies, and news agencies (Manap & Adzharudin, 2013). Numerous studies emphasize the role of the UGC in the consumer behavior and decision-making (Decker & Trusov, 2010; Kim, Gupta, & Koh, 2011; Liu, Karahanna, & Watson, 2011; Pookulangara & Koesler, 2011; Sin, Nor, & Al-Agaga, 2012), travelers behavior and trip planning (Cox, Burgess, Sellitto, & Buultjens, 2009; Fotis, Buhalis, & Rossides, 2011; Gretzel, 2007; Kyoo Kim, Mattila, & Baloglu, 2011; Mäntymäki & Salo, 2013; Parra-Lopez, Bulchand-Gidumal, Gutierrez-Tano, & Diaz-Armas, 2011; Sparks & Browning, 2011; Vermeulen & Seegers, 2009; Ye, Law, & Gu, 2009), as well as the business practices (Hvass & Munar, 2012; Parent, Plangger, & Bal, 2011). Travel suppliers exploit UGC

advantages (learn new consumer trends, opinions, etc.) but they also produce content for marketing purposes, aiming to influence the consumers decisions. Tourism marketers gradually have integrated social media into their marketing communication strategies to come closer to tourists and engage them with their products, services, and activities (Christou, 2012; Hvass & Munar, 2012; Parent et al., 2011; Sigala, 2012).

On the other hand, the traveler's behavior is influenced not only by external factors, such as social media but also by internal factors, such as the individual's personality. Personality is considered to be one of the main internal factors that affect the travelers decisions (Moutinho, 1987). Moreover, personality is an important factor in understanding how the individuals behave on the web (Amichai-Hamburger & Vinitzky, 2010). Furthermore, several studies have shown the relationship between users' personality (Big Five traits) and social network sites (SNSs) use and activities. Wehrli (2008) found that personality affects the user's behavior with regards to the level of participation, adoption, and number of friends people hold in SNSs. It has also been suggested that personality is related to the number of friends and time-spent on Facebook (Quercia, Lambiottez, Stillwell, Kosinskiy, & Crowcroft, 2012; Schrammel, Köffel, & Tscheligi, 2009). Ross et al. (2009) reported that personality traits influence the use of Facebook features, such as timeline, photos posting, participation in groups, status changes, comments, etc. Ryan and Xenos (2011) supported that personality can explain the use or nonuse of Facebook. Many researchers have argued that personality is also related to the intensive and frequent use of Facebook and social media (Correa, Hinsley, & De Zuniga, 2010; Harbaugh, 2010; Moore & McElroy, 2012).

According to Kalmus, Realo, and Siibak (2011) personality is associated with the social media use for both entertainment and work/information reasons. Hughes, Rowe, Batey, and Lee (2012) also support that Big Five traits affect Twitter and Facebook use for social and informational reasons. Rosen and Kluemper (2008) maintained that personality affects the perceived ease of use and perceived usefulness of Facebook. Guadagno, Okdie, and Eno (2008) reported that personality influences the blogging intentions. Yarkoni (2010) claimed that personality can be predicted by the language bloggers use. Correlations have also been found between personality traits and the users' behavior in Virtual Worlds (Dunn & Guadagno, 2012; Lee & Saharia, 2012; Yee, Harris, Jabon, & Bailenson, 2011). Nov and Kuk (2008) supported that personality affects open source content contribution, such as Wikipedia content. Finally, Yoo and Gretzel (2011) concluded that personality influences the perceived barriers and motivation in travel UGC creation. Recent evidence corroborates that the personality influences Facebook usage behavior, such as number of friends, likes, messages, comments, posts, number of groups, etc. Tsai, Chang, Chang, & Chang, 2017). Liu and Campbell (2017) in their meta-analysis of personality association with SNS use have shown that personality and especially, extraversion and openness are the strongest predictors related to the SNSs activities, such as status updates, interactions, number of photos, information seeking, SNS gaming, and number of SNS friends.

A series of studies also indicate that impressions of SNSs profiles express the user's personality. Gosling, Gaddis, and Vazire (2007) suggested that the impressions others get from a user's profile on Facebook can predict his personality. Back et al. (2010) also confirmed that personality can be predicted by the way individuals present themselves on SNS profiles. Golbeck, Robles, and Turner (2011) examined the personality of users

according to their published personal information on Facebook. They concluded that personality can be predicted through user's online interfaces. Quercia, Kosinskiy, Stillwell, and Crowcroft (2011) researched how personality is reflected and can be predicted from Twitter accounts. Their results showed that personality can be easily and effectively predicted through the published data of: following, followers, and listed counts (number of times the user has been listed in others reading lists) on the user profile.

Lower facets of the personality, as well as several self-concepts, have also been studied with respect to their impact on social media use. Orr et al. (2009) argued that the trait of shyness affects positively the attitudes toward Facebook, as a communication tool, and increases the time spent on this SNS. The trait of narcissism influences the number of friends someone holds in SNSs, the frequency in which the status is updated, the posting of pictures, and checking friends' profiles (Bergman, Fearington, Davenport, & Bergman, 2011; Buffardi & Campbell, 2008). Krämer and Winter (2008) found that self-efficacy influences the level of profile details in SNSs, the extent of the contact list, and the style of the profile picture. Moreover, Lee and Saharia (2012) found that self-efficacy affects the perceived social value of the online communities of Second Life and Facebook. Gangadharbatla (2008) reported that self-efficacy and self-esteem influence the willingness to join SNSs. According to Zywica and Danowski (2008) self-esteem determines users' behavior on Facebook. Zhao, Grasmuck, and Martin (2008) found that self-presentation on Facebook is related to the users desirable identity, which they hadn't yet fulfilled in their offline social interactions. However, the online presentation was not so different from the one offline, to support that users did not present themselves on Facebook as they really are. Recently, Jin, Tang, and Zhou (2017) have shown the mediating effect of the personality traits of impulsiveness and novelty seeking, on the users' willingness to update their status in microblogs.

However, previous research refers more to the relationship of the personality with the social media aspects and features and less with the content generated on social media. Much attention has been drawn to the way personality influences aspects, such as how people present themselves online, the number of the connections (friends) they have in SNSs, the amount of time they spent on social media, how frequently they use social media, etc. The personality has been mostly studied according to the ways people use social media, as well as their activities in them (status updates, number of comments, number of posts, etc.). Little seems to be known about the way personality affects the influence of the content generated in social media, as well as the usage of the content and utilization in the tourism context. Moreover, even though the role of the UGC impact on the travelers' behavior has been broadly studied, the study of the marketing-generated-content (MGC) influences is very limited. Furthermore, although several works have investigated the role of the personality and its concepts in the tourist's decision-making process, in regards to the social media frame the research is limited. The current study was focused on travel content regardless of its source (e.g. blogs, SNSs, etc.). In this vein, the study was interested in:

- Exploring the personality's role in the travel decision-making process, when tourists read User-Generated-Content on the social media.
- Exploring the personality's role in the travel decision-making process when tourists read Marketing-Generated-Content on the social media.

- Exploring the differences/similarities between the impact of User-Generated-Content and Marketing-Generated-Content in the travel decision-making process, when tourists read content on social media.

## Literature review

### Personality

Personality is among the factors that influences the consumer's behavior (P. Kumar, 2010). More specifically, personality, along with motivations, perceptions, attitudes, and learning lies in the first level of influences that shape the behavior of the consumer (Moutinho, 1987). Personality is defined by Cloninger (2000) as "*the underlying causes within a person of individual behavior and experience*" (p. 3). Moreover, J. Feist and Feist (2006) define personality as "*a pattern of relatively permanent traits and unique characteristics that give both consistency and individuality to a person's behavior*" (p. 4). The later definition incorporates the term of traits. Traits are the determinants of behavior, described as "*what a person will do when faced with a defined situation*" (Cattell, 1979, p. 14). Traits refer to thoughts, feelings, actions or behavior and distinguish people from one another (Hogan, Johnson, & Briggs, 1997). Gordon Allport, Raymond Cattell and Hans Eysenck are considered the fathers of the trait psychology (Boyle, Matthews, & Saklofske, 2008). The Five-Factor Model (FFM) of personality, widely known as Big Five, has its roots to Allport's and Cattell's theories (Dumont, 2010). However, those who put it on the map are McCrae and Costa (McCrae & Costa, 2003). The concept behind the FFM or Big Five Model is that the basic structure of personality incorporates five superordinate factors: (1) neuroticism or emotional stability, (2) extraversion, (3) openness-to-experience, (4) agreeableness and (5) conscientiousness (Scheier, 2008). These factors are often referred to by the acronym OCEAN (Kowalski & Westen, 2009). OCEAN traits are described as follows (Comer & Gould, 2011; Kumar & Bakhshi, 2010; Zopiatis & Constanti, 2012):

- **Neuroticism** (versus emotional stability): refers to the individuals' ability to handle stressful situations and sustain their emotional stability. This trait measures differences in a person's tendencies to withstand stress and negative emotions. High neuroticism implies insecure, worried and depressed individuals, while low neuroticism calm, self-confident and secure individuals.
- **Extraversion** (versus introversion): refers to the individual's predisposition of experiencing positive emotions and convenience in building relations. Those high in extraversion are more sociable, talkative, assertive, active and gregarious, while those high in introversion are quiet, reserved and timid.
- **Openness-to-experience** (or imaginativeness versus unimaginativeness): is related to fascination, novelty, creativity, divergent thinking, curiosity, sensitivity in artistic topics and political liberalism. Individuals who are open-to-experience are broad-minded, intelligent, imaginative, original, foresighted and cultured. Low openness-to-experience individuals are conventional and find comfort in the familiar.
- **Agreeableness** (versus disagreeableness): refers to individuals who easily trusts others and usually assumes the best about anyone they meets. In general agreeableness

identifies an individual's propensity to defer to others. High agreeableness individuals are compassionate, cooperative, warm, trusting, generous, forgiving and helpful, while those low in agreeableness are cold, disagreeable and antagonistic.

- **Conscientiousness** (or dependability versus irresponsibility): individuals show tendencies of self-discipline and dutifully act. Conscientiousness is related to reliable, organized, persevering, hard-working, responsible and careful individuals, whereby a low conscientious person is easily distracted, disorganized, and unreliable.

The Big Five Model has received in recent years considerable empirical support and is now the most widely accepted taxonomy of human personality and the most well-researched, well-regarded and used model of measuring personality dimensions (Booker, Kitchens, & Rebman, 2007; Golbeck et al., 2011; Wehrli, 2008; Whelan & Davies, 2006). In the tourism field, the review of Leung and Law (2010) describes the Big Five as the most popular method applied by researchers in the disposal domain, the domain that approaches personality via individuals' traits.

### ***Social media content***

The social media content was classified into two main categories: The User-Generated-Content and the Marketing-Generated-Content.

**User-Generated-Content (UGC)** - User-generated-content (UGC) refers to the content published on social media by the internet users. In the UGC activities, the internet users have the central role; users are both the producers and the consumers of the content (Mendes-Filho & Tan, 2009). Nevertheless, companies are also consuming UGC for their own purposes, such as market research. Given that tourism is an information-intensive industry, UGC is changing its dynamics due to the global eWOM that engenders, or "word of mouse" as Dinçer and Alrawadieh (2017) describe it. According to Litvin, Goldsmith, and Pan (2008) when a consumer faces a travel purchase decision, word-of-mouth is the most important information source. UGC empowers traveler's decision-making and adds value to travel planning process (Mendes-Filho, Mills, Tan, & Milne, 2018).

UGC can be found on the internet in many different forms. Such forms include the text exchange (discussion boards, blogs, etc.), photos, videos, music, audios, wikis, customer review sites, and any other means that gives the users an opportunity to create content, to interact with each other, and to share. This sharing of information contains users' knowledge, experiences, as well as opinions/reviews about a product, a service or an experience (Oum & Han, 2011). Liu et al. (2011) state that online reviews can help consumers to (a) form an unbiased understanding of a product, (b) construct a set of criteria for evaluating a product, (c) make an accurate choice, (d) reduce the cognitive costs of making such a choice. Sparks and Browning (2011) strongly support that when consumers are facing product decisions, they rely more on online search, including review sites. Kim, Maslowska, and Malthouse (2017) argue that negative reviews decrease the purchasing possibility. Consumers search for online reviews posted by other travelers in order to reduce the risk, to assure quality (included value-for-money and price elements), because it is convenient, and in order to find out what is new in the market (Kyoo Kyoo Kim et al., 2011). In addition, travelers are

motivated to provide online travel reviews by self-directed purposes, social benefits, for consumer empowerment, but mainly by the need to help other vacationers (Bronner & De Hoog, 2011).

Kaplan and Haenlein (2010) describe UGC as “*the sum of all ways in which people make use of Social Media*” (p. 61). According to Shim and Lee (2009) the UGC is the term describing the content created or copied from other sources by users and then, more importantly, publicly distributed on the web; it is the content that is submitted by the “digital common” rather than the web publishers. According to the OECD (2007) definition, UGC is identified by three characteristics: publication requirement, creative effort (original content), creation outside of professional routines and practices. In this vein, the current study defines UGC as “*all the travel content that is produced and posted on social media by users and out of professional purposes*”.

**Marketing-Generated-Content (MGC)** - In the UGC era consumers are able to directly communicate with others of similar interests and use travel consumer-generated content to support their travel-related decisions (Hills & Cairncross, 2011; Mendes-Filho & Tan, 2009). Consequently, hospitality producers are highly affected by UGC. Social media and UGC provide a range of promotional mix strategies for travel producers: products and services promotion, publicity building, brand name enhancement, online reputation, relationships with customers, new customers, brand loyalty enhancement, effective market research, advertising, etc. (Assaad & Gómez, 2011; Huang, Yung, & Yang, 2011; Illum, Ivanov, & Liang, 2010). However, apart from users, travel and tourism companies also produce and release content on the social media. The ultimate goal here is for this content to reach the community of consumers and attract their interest for the product or service (Parent et al., 2011). Consumer’s participation and interaction with the companies content on social media give direct feedback to marketers about customer’s needs and beliefs, with the consumers being able to take, comment, modify, diffuse, adapt or reject this content. Chin (2006) separates user-generated-content from the engineered content. He describes UGC as the content created by the users themselves, while he states that engineered content is created by established knowledge experts and content owners. Along those lines, the current research describes travel companies content as Marketing Generated Content and defines it as “*all the information and content that is produced and published on social media by travel producers for marketing reasons*”.

### ***The EBM model: personality and social media implications***

The information-processing EBM model (Engel, Blackwell, & Miniard, 1995) supports that the traveler goes through five stages, when considering purchasing decisions: (1) Need Recognition, (2) Information Search, (3) Evaluation of Alternatives, (4) Purchase Decision, and (5) Post-purchase Behavior (Chaffey, Ellis-Chadwick, Mayer, & Johnston, 2009). The current research takes into consideration only the first four stages since in social media the post-purchase behavior stage refers to the willingness of individuals to share their travel experiences on the internet by contributing to the production of travel UGC.

**Need Recognition** - The need recognition occurs when a person senses a difference between his desired state (where he wants to be) and his actual state (where he is) (Hawkins, Best, Coney, & Koch, 2004; Schiffman, Kanuk, & Hansen, 2008). Once the



need is identified the consumer is motivated to satisfy the new need (Wilkie, 1994). The consumer's decision-making process starts. The need to travel is described in the tourism literature as the motives inspiring and stimulating people to take a vacation. The travel motives are referred to as the set of needs that incite a person to participate in a tourist activity (Pizam, Neumann, & Reichel, 1979). In other words, in the tourism field, the need recognition is all about why people travel (Fodness, 1994). Travel motives have been studied by Jang, Bai, Hu, and Wu (2009) with respect to the psychological aspects of affect (emotions, moods, and feelings) and tourists' travel intentions to undertake a trip. Psychographics have been also utilized in order to segment travel markets. Keng and Cheng (1999) segmented the tourist market according to the novelty-seeking of tourists. Mehmetoglu, Hines, Graumann, and Greibrokk (2010) segmented the travel market according to the tourists' personal values. Novelty has been also examined according to the destination's choice (Lee & Crompton, 1992). Moreover, Thrane (1997) used travelers' values to estimate travel motivations. Research on how personality traits affect the recognition of the travel need is limited. An early work of Dann (1977) focused on the push motivations of anomie and ego-enhancement. A research by Jani (2014) found that the Big Five traits are related to several travel motives such as cultural, historical, shopping, and other. Abbate and Di Nuovo (2013) demonstrated that the Big Five traits can inspire people to travel according to 3 categories of motives: "curiosity and discovery", "out-of-routine", and "self and sociality". Furthermore, personality is linked to human motivation in studies beyond those of tourism, such as these of the students' academic motives (Clark & Schroth, 2010; Komarraju & Karau, 2005; Parks & Guay, 2009). To investigate whether personality affects the travel motives generated by the social media content the following hypotheses were proposed:

**H1:** *Personality influences the UGC impact on travel need recognition*

**H2:** *Personality influences the MGC impact on travel need recognition*

**Information Search** - Once the recognition of a need is identified the consumer requires information about the service/product in order to proceed to a decision. This stage refers to the search of the information relative to the identified need. Information search can be either internal (memory, past experience) or external (environment). Verplanken, Hazenberg, and Palenbwen (1992) found that the "Need for Cognition" (the individual's tendency to engage in and enjoy activities that require effort) is associated with the external information search. Bosnjak (2010) argued that the "undesired congruity" with a destination is negatively related to the users' willingness to search on the internet information about the destination. In addition, Jani, Jang, and Hwang (2014) demonstrated that Big Five can also predict the type of travel information sought and the channels used by the tourists. Openness and neuroticism were the most influential traits, also related to the blogs utilization in information search. A study by Heinström (2003) researched the role of personality in the way university students search information for academic purposes. He found that neuroticism is related to search constraints, extraversion with information sources and thought-provoking information, openness with broader searches and critical judgment, and conscientiousness with search effort (more time, money and hard work). Another study by Halder, Roy, and Chakraborty (2010) found



that neuroticism sets obstacles in the successful information search of university students during their studies. On the contrary, extraversion decreases the level of obstacles related to information search. Extraversion is also linked to the purposeful and wider search, while openness is with active information. Tan and Tang (2013) showed that when consumers search for travel information agreeableness, openness, introversion, and non-neuroticism affect the pre-trip search, while agreeableness, openness, and conscientiousness the on-site search. The research of Jani et al. (2014) has shown that personality has implications in the information search for travel purposes both on the type of travel information and the internet channels utilized by consumers. More precisely, openness and neuroticism appear to be the most relevant in explaining consumer behavior. Therefore, the following hypotheses were proposed:

**H3:** *Personality influences the UGC impact on travel information search*

**H4:** *Personality influences the MGC impact on travel information search*

**Evaluation of Alternatives** - In order for the consumer to make a purchase decision he needs to evaluate the information gathered during his internal and external information search. This evaluation is assessed according to several criteria. At first, the consumer determines his criteria and his choice alternatives (choice/consideration sets). Once he has formulated them he continues with the evaluation of the alternatives performance. A personality variable that has been broadly studied in the travel evaluation stage is this of self-congruity. Self-congruity has been studied according to the destination personality, image and choice (Kastenholz, 2004; Beerli, Meneses, & Gil, 2007; Kiliç & Sop, 2012; Ahn, Ekinci & Li, 2013; V. Kumar, 2016). A study by Ranjbarian and Kia (2010) investigated the role of personality traits (Big Five) on the evaluation of a commercial product (shampoo). Findings didn't reveal any significant relations between personality and shampoo choice set. Vermeulen and Seegers (2009) showed that the consumers' reviews can increase consumer's awareness about hotels and, consequently, the likelihood to include them in their accommodation choice sets; consumer reviews affect the attitudes towards the hotels, while the professional reviews affect the size of the consumers' consideration sets. Tuominen (2011) demonstrated consumer reviews can raise a hotel's popularity, as well as its inclusion likelihood in the consumer consideration/choice sets. However, little is known about the personality associations with the evaluation of travel products within the social media context. For this matter, the following hypotheses were proposed:

**H5:** *Personality influences the UGC impact on travel evaluation of alternatives*

**H6:** *Personality influences the MGC impact on travel evaluation of alternatives*

**Purchase Decision** - In this stage, consumers are facing the question of when and where to buy and how to pay (Lindquist & Sirgy, 2006). Apart from products or services the consumer must also select retail outlets to realize a purchase. In the social media world, individuals examine content not only to decide about travel suppliers but also about what to do, eat or see at the destination. Personality has been studied according to the innovativeness trait, which has been found to have positive implications on the

purchasing behavior on the web (San Martin & Herrero, 2012; Zhou, Dai, & Zhang, 2007). Barkhi and Wallace (2007) examined, according to the Jung's personality theory, the ways that the personality traits affect the decision to buy online. Results indicated that personality influences consumer's decision to purchase online. Bosnjak, Galesic, and Tuten (2007) analyzed how Big Five traits influence the purchases on the web. In this study, openness affected positively the consumers' intention to shop online, while agreeableness and neuroticism negatively. Tsao and Chang (2010) studied the personality implications on the hedonic and utilitarian online shopping motivation. Utilitarian motivation was affected by neuroticism, agreeableness, openness-to-experience, and conscientiousness. Hedonic motivation was affected by extraversion and openness. Sahney, Ghost, and Shrivastava (2010) also found that the extroversion/introversion trait affects the way that people decide to book online railway tickets. Chen (2011) found that openness-to-experience and conscientiousness affect the purchasing intentions on the web. Overall, previous research focuses on the shopping intentions on the internet. The current research is concentrated on how personality affects the purchase behavior specifically on social media, as follows:

**H7:** *Personality influences the UGC impact on travel purchase decision*

**H8:** *Personality influences the MGC impact on travel purchase decision*

## Methodology

### *Personality and EBM measurements*

The personality measurement was adopted by Yoo and Gretzel (2011). In their work, the Five Personality Factors were adopted from the International Personality Item Pool (IPIP), while the resulting personality scale model showed strong validity in the social media. The personality items are presented in Table 1 and were measured on a 5-point Likert scale ranging, from 1-Strongly Disagree to 5-Strongly Agree. The EBM Decision-Making Process was measured according to a series of statements, designed for the study's needs. These statements are given in Tables 3 and 4 and were measured on a 5-point Likert scale. Respondents were asked to reply to each statement twice: a) for the Users' travel posts (UGC), and b) for the Sponsored/commercial travel posts (MGC).

### *Data collection*

The questionnaire was emailed to 5375 subscribers of two travel newsletter databases. From the returned questionnaires 582 were fully completed and used in the study. The databases belong to two hotels, operating in Greece, registered to the HotelFeedback: Real-Time Review System ([www.hotelfeedback.com.cy](http://www.hotelfeedback.com.cy)). HotelFeedback currently holds more than 161000 subscribers. The fact that the respondents had a personal email account and had subscribed to a travel newsletter database ensured that they were internet users who are interested in travel products. A pilot test was conducted, previous to the main

**Table 1.** Factor loadings and reliability for Personality.

Personality items	Factor loading				
	1	2	3	4	5
<b>Neuroticism</b>					
I get stressed out easily	.816				
I worry about things	.788				
I fear for the worst	.831				
I am filled with doubts about things	.761				
I panic easily	.731				
<b>Extraversion</b>					
I talk a lot to different people at parties		.783			
I feel comfortable around people		.820			
I start conversations		.873			
I make friends easily		.841			
I don't mind being the center of attention		.725			
<b>Openness-to-experience</b>					
I get excited by new ideas			.791		
I enjoy thinking about things			.736		
I enjoy hearing new ideas			.835		
I enjoy looking for a deeper meaning in things			.646		
I have a vivid imagination			.663		
<b>Agreeableness</b>					
I sympathize with others' feelings				.676	
I am concerned about others				.740	
I respect others				.687	
I believe that others have good intentions				.844	
I trust what people say				.741	
<b>Conscientiousness</b>					
I carry out my plans					.633
I pay attention to details					.692
I am always prepared					.789
I make plans and stick to them					.757
I am exacting in my work					.688
<b>Eigenvalue</b>	3.090	2.953	2.721	2.281	2.515
<b>% of Variance – 56,8%</b>	61.791	59.056	54.430	45.624	50.303
<b>Cronbach's Alpha</b>	.844	.784	.812	.812.	.758

research, in order to detect if there were any obscure points. Twenty hardcopy questionnaires were distributed to students, with the prerequisite that they were users of social media for travel purposes. As a result, only brief modifications had been required, such as the rewording of some statements in order to clarify questionnaire's content.

### Study variables

Exploratory factor analysis with principal components and varimax rotation was applied to the personality questions since this is the recommended method for personality measurement (Laher, 2010; Tsao & Chang, 2010). The value of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (0.88) and significance of Bartlett's test of Sphericity (.000) indicate that the items were appropriate for factor analysis. Reliability analysis was conducted to test the robustness of personality constructs. All the Alpha values were above the required score of 0.7, which confirms the internal consistency of each construct. The results generated from the factor analysis have constituted the five components of the Big Five Model. The five factors explained 56.8 percent of the total variance (Table 1). Next, the five statements of each personality item were added and formed the corresponding personality constructs. This

**Table 2.** Personality variables transformation.

Personality items	Mean	Frequency	%
<b>Neuroticism</b>	2.91		
Low (non-neurotic)		275	47,3
High (neurotic)		307	52,7
<b>Extraversion</b>	3.46		
Low (introvert)		275	47,3
High (extravert)		307	52,7
<b>Openness-to-experience</b>	4.26		
Low (non-open)		295	50,7
High (open)		287	49,3
<b>Agreeableness</b>	3.82		
Low (non-agreeable)		316	54,3
High (agreeable)		266	45,7
<b>Conscientiousness</b>	3.63		
Low (non-conscientious)		320	55
High (conscientious)		262	45

procedure transformed the ordinal variables of Neuroticism, Extraversion, Openness-to-experience, Agreeableness, and Conscientiousness into scale variables. The mean values of these variables were used as the cut-off values of each variable, and the constructs divided into two groups that represent the low and high value for each trait. Table 2 reports the mean values and frequencies for each personality trait. High and low values for each trait are the personality variables that used in the data analysis. Exploratory factor analysis was also performed for the EBM statements. Tables 3 and 4 present the factor analysis of the corresponding questions of the UGC/MGC impact. The final EBM variables were computed by taking the average values of the respective statements in each decision-making stage.

**Table 3.** Factor loadings and reliability for travel planning (UGC).

Users' travel posts – UGC	Factor loading			
	1	2	3	4
<b>Travel Need Recognition (Need UGC)</b>				
Inspires me to travel				.834
Makes me seriously consider to go on a vacation even though I had no intention before				.837
<b>Information Search (Info UGC)</b>				
Helps me find travel information when I need it			.759	
Reduces my effort to find travel information			.813	
Increases the quality of travel information			.639	
<b>Evaluation of Alternatives (Evaluation UGC)</b>				
Helps me to evaluate/compare travel destinations/services/suppliers	.646			
Leads me to expand my consideration set (destination/accommodation options)	.825			
Helps me to reconfirm my travel selections	.605			
<b>Purchase Decision (Purchase UGC)</b>				
Helps me to book travel services/suppliers		.660		
Influences what to do/see at destinations		.675		
Helps me purchase complementary destinations/services/suppliers to enrich my tourist experience		.799		
<b>KMO – 0.896</b>				
<b>Eigenvalue</b>	2.260	2.045	1.850	1.810
<b>% of Variance – 72,4%</b>	20.542	18.592	16.818	16.455
<b>Cronbach's Alpha</b>	.795	.749	.720	.767

**Table 4.** Factor loadings and reliability for travel planning (MGC).

Sponsored/commercial travel posts – MGC	Factor loading			
	1	2	3	4
<b>Travel Need Recognition (Need MGC)</b>				
Inspires me to travel				.852
Makes me seriously consider to go on a vacation even though I had no intention before				.816
<b>Information Search (Info MGC)</b>				
Helps me find travel information when I need it		.728		
Reduces my effort to find travel information		.867		
Increases the quality of travel information		.611		
<b>Evaluation of Alternatives (Evaluation MGC)</b>				
Helps me to evaluate/compare travel destinations/services/suppliers	.534			
Leads me to expand my consideration set (destination/accommodation options)	.740			
Helps me to reconfirm my travel selections	.767			
<b>Purchase Decision (Purchase MGC)</b>				
Helps me to book travel services/suppliers			.556	
Influences what to do/see at destinations			.696	
Helps me purchase complementary destinations/services/suppliers to enrich my tourist experience			.870	
<b>KMO – 0.891</b>				
<b>Eigenvalue</b>	2.326	1.971	1.930	1.728
<b>% of Variance – 72,3%</b>	21.144	17.921	17.544	15.711
<b>Cronbach's Alpha</b>	.729	.722	.796	.744

## Results

### Participants

Table 5 presents the demographic characteristics of the participants. The majority of the respondents were women, and young people (between 18–44 years old). Most of the respondents hold an undergraduate degree and income up to 50000€. Their origin is mainly European. Moreover, participants travel up to 3 times per year, while the 88.3% of them had traveled within the last 12 months, and they spend at least one hour per day on social media (74.4%). According to the “2012 Social Network Analysis” Report by Chappell (2012) and the “Social Media Usage: 2005–2015” Report by the Pew Research Center (2015), social media are mainly used by women and younger people. In addition, those with higher education levels and income are more likely to use social media, while notable differences were not reported for the ethnicity of the social media users. Hence, social media use did not seem to be influenced by the origin of users and the sample was considered as representative of the population.

### Travel need recognition

Independent-sample t-tests were performed to detect the differences between the low and high personality traits values. In the case of the UGC, high neuroticism, high extraversion, high openness and high agreeableness affected the travel need recognition (Table 7). Hence, the *H1* was supported. For the MGC, high neuroticism and high conscientiousness impacted on the need recognition (Table 7). The *H2* was also supported. Paired sample t-tests were conducted to examine whether a statistically significant difference exists between the UGC and MGC impact. Results showed that

**Table 5.** Respondents profile.

Origin		Time spend in social media per day	
Asia Pacific	6,7	<1 hour	25,6
Europe	73,7	1 hour	15,5
Latin America	5,2	>1 hour	19,4
Middle East and Africa	1,9	>2 hours	18,9
North America	12,5	>3 hours	20,6
<b>Gender</b>		<b>Traveled within the last 12 months</b>	
Men	41,6	Yes	88,3
Women	58,4	No	11,7
<b>Age</b>		<b>How many times do you travel per year?</b>	
18–24	21	0–3	75,8
25–34	44,8	4–6	15,6
35–44	29,9	7>	8,6
45–54	3,6		
55>	0,7		
<b>Marital Status</b>		<b>Education</b>	
Single	60,7	High School	39
Married	37,3	Undergraduate	52,2
Widow	3	Post-graduate	8,8
Divorced	1,7		
<b>Employment Status</b>		<b>Household income</b>	
Employee	53,4	0–10.000€	21,3
Self-employed	29,4	10.001–20.000€	35,7
Retired	0,3	20.001–30.000€	19,9
Student	12,9	30.001–40.000€	12,9
Unemployed	3,6	40.001–50.000€	4,6
Other	0,3	>50.000€	5,5

the User-Generated-Content motivates people to travel more than Marketing-Generated-Content [ $t(581) = 17.854$ ,  $p < .00$ ] (Table 6). More precisely, the mean value of the Need UGC ( $M = 3.4$ ,  $SD = .86$ ,  $N = 582$ ) was higher than the mean value of the Need MGC ( $M = 2.73$ ,  $SD = .85$ ,  $N = 582$ ). The mean increase was 0.67, with 95% confidence interval, while the difference between the means ranged from 0.59 to 0.74.

**Table 6.** Results of t-tests for UGC & MGC.

Outcome	Need UGC		Need MGC		95% CI for Mean Difference				
	M	SD	M	SD	n		r	t	df
	3.40	.86	2.73	.85	582	.59 .74	.45*	17.854*	581
<b>Info UGC</b>			<b>Info MGC</b>						
	3.56	.71	3.22	.74	582	.27 .39	.50*	10.916*	581
<b>Evaluation UGC</b>			<b>Evaluation MGC</b>						
	3.70	.74	3.21	.74	582	.43 .56	.40*	14.652*	581
<b>Purchase UGC</b>			<b>Purchase MGC</b>						
	3.64	.72	3.34	.80	582	.23 .36	.44*	8.943*	581

Notes

**Need UGC:** Need recognition under UGC's influence

**Need MGC:** Need recognition under MGC's influence

**Info UGC:** Information Search under UGC's influence

**Info MGC:** Information Search under MGC's influence

**Evaluation UGC:** Evaluation of Alternatives under UGC's influence

**Evaluation MGC:** Evaluation of Alternatives under MGC's influence

**Purchase UGC:** Purchase Decision under UGC's influence

**Purchase MGC:** Purchase Decision under MGC's influence

**Table 7.** Personality t-tests & descriptive statistics of need recognition.

	Need Recognition	M	SD	n	95% CI for Mean Difference	t	df	Sig.
UGC	<i>Non-neurotic</i>	3.30	.88	275	-.329 -.049	-2.653*	580	.008
	<i>Neurotic</i>	3.49	.84	307				
	<i>Introvert</i>	3.26	.88	275	-.400 -.122	-3.690*	580	.000
	<i>Extravert</i>	3.52	.83	307				
	<i>Non-open</i>	3.33	.82	295	-.266 .014	-1.966	580	.048
	<i>Open</i>	3.46	.91	287				
	<i>Non-agreeable</i>	3.32	.81	316	-.307 -.027	-2.340*	580	.020
	<i>Agreeable</i>	3.49	.91	266				
	<i>Non-conscientious</i>	3.40	.82	320	-.136 .147	.074	580	.941
	<i>Conscientious</i>	3.39	.91	262				
MGC	<i>Non-neurotic</i>	2.62	.84	275	-.351 -.074	-3.017*	580	.003
	<i>Neurotic</i>	2.83	.86	307				
	<i>Introvert</i>	2.70	.82	275	-.200 .078	-.857	580	.392
	<i>Extravert</i>	2.76	.89	307				
	<i>Non-open</i>	2.74	.82	295	-.114 .164	.347	580	.729
	<i>Open</i>	2.72	.89	287				
	<i>Non-agreeable</i>	2.71	.77	316	-.176 .103	-.512	580	.609
	<i>Agreeable</i>	2.75	.95	266				
	<i>Non-conscientious</i>	2.67	.79	320	-.279 -.001	-1.974*	580	.049
	<i>Conscientious</i>	2.81	.92	262				

**Notes****Neurotic:** High Neuroticism, **Non-neurotic:** Low Neuroticism**Extravert:** High Extraversion, **Introvert:** Low Extraversion**Open:** High Openness, **Non-open:** Low Openness**Agreeable:** High Agreeableness, **Non-agreeable:** Low Agreeableness**Conscientious:** High Conscientiousness, **Non-conscientious:** Low Conscientiousness**Information search**

The independent-sample t-tests, for the UGC, showed that the high neuroticism [ $t(580) = -3.042, p < .005$ ], high extraversion [ $t(580) = -2.205, p < .05$ ], high agreeableness [ $t(580) = -2.163, p < .05$ ], and low conscientiousness [ $t(580) = 2.312, p < .05$ ] (Table 8), influence the travel information search. Therefore, *H3* was supported. The paired sample t-tests results indicated that the influence of the UGC ( $M = 3.56, SD = .7, N = 582$ ) was higher than the influence of the MGC ( $M = 3.22, SD = .74, N = 582$ ), [ $t(581) = 10.916, p < .00$ , two-tailed]. In other words, UGC is more effective compared to the MGC, when the travelers search for travel information. When the MGC is involved in the travel information search, high neuroticism drives the consumer behavior (Table 8). Hence, *H4* was partially supported.

**Evaluation of alternatives**

For the UGC's influence, the results of the independent-sample t-tests revealed that high openness [ $t(580) = -2.137, p < .05$ ] and high agreeableness [ $t(581) = -2.411, p < .05$ ] influence consumer behavior (Table 9). Hence, *H5* was supported. On the other hand, none of the personality traits was given a significant outcome under the MGC's influence and, therefore, the *H6* was not supported (Table 9). Once more, individuals influenced more by UGC ( $M = 3.70, SD = .74$ ) compared to MGC ( $M = 3.21, SD = .74$ ), [ $t(581) = 14.652, p < .00$ ] (Table 6).



**Table 8.** Personality t-tests & descriptive statistics of information search.

	Information Search	M	SD	n	95% CI for Mean Difference	t	df	Sig.
UGC	Non-neurotic	3.46	.69	275	-.291 -.063	-3.042*	580	.002
	Neurotic	3.64	.71	307				
	Introvert	3.48	.78	275	-.243 -.014	-2.205*	580	.028
	Extravert	3.61	.63	307				
	Non-open	3.52	.66	295	-.172 .057	-.984	580	.326
	Open	3.58	.75	287				
	Non-agreeable	3.49	.61	316	-.241 -.012	-2.163*	580	.031
	Agreeable	3.62	.81	266				
	Non-conscientious	3.61	.66	320	.020 .250	2.312	580	.021
	Conscientious	3.48	.75	262				
MGC	Non-neurotic	3.12	.78	275	-.323 -.083	-3.324*	580	.001
	Neurotic	3.32	.69	307				
	Introvert	3.22	.75	275	-.135 .106	-.234	580	.815
	Extravert	3.23	.74	307				
	Non-open	3.20	.69	295	-.159 .082	-.621	580	.535
	Open	3.24	.78	287				
	Non-agreeable	3.21	.68	316	-.146 .096	-.402	580	.688
	Agreeable	3.24	.81	266				
	Non-conscientious	3.19	.71	320	-.187 -.055	1.065	580	.287
	Conscientious	3.26	.98	262				

**Notes****Neurotic:** High Neuroticism, **Non-neurotic:** Low Neuroticism**Extravert:** High Extraversion, **Introvert:** Low Extraversion**Open:** High Openness, **Non-open:** Low Openness**Agreeable:** High Agreeableness, **Non-agreeable:** Low Agreeableness**Conscientious:** High Conscientiousness, **Non-conscientious:** Low Conscientiousness**Table 9.** Personality t-tests & descriptive statistics of evaluation of alternatives.

	Evaluation of Alternatives	M	SD	n	95% CI for Mean Difference	t	df	Sig.
UGC	Non-neurotic	3.67	.71	275	-.173 .067	-.862	580	.389
	Neurotic	3.72	.76	307				
	Introvert	3.66	.77	275	-.191 .049	-1.163	580	.245
	Extravert	3.73	.71	307				
	Non-open	3.63	.70	295	-.250 -.010	-2.137	580	.033
	Open	3.76	.77	287				
	Non-agreeable	3.63	.66	316	-.267 -.027	-2.411	580	.016
	Agreeable	3.78	.82	266				
	Non-conscientious	3.70	.66	320	-.114 .127	.104	580	.917
	Conscientious	3.69	.83	262				
MGC	Non-neurotic	3.18	.73	275	-.178 .062	-.942*	580	.346
	Neurotic	3.23	.75	307				
	Introvert	3.20	.77	275	-.134 .106	-.229	580	.819
	Extravert	3.21	.71	307				
	Non-open	3.16	.72	295	-.215 .025	-1.557	580	.120
	Open	3.25	.75	287				
	Non-agreeable	3.19	.67	316	-.149 .092	-.469	580	.639
	Agreeable	3.22	.81	266				
	Non-conscientious	3.16	.68	320	-.229 .011	-1.772	580	.077
	Conscientious	3.27	.79	262				

**Notes****Neurotic:** High Neuroticism, **Non-neurotic:** Low Neuroticism**Extravert:** High Extraversion, **Introvert:** Low Extraversion**Open:** High Openness, **Non-open:** Low Openness**Agreeable:** High Agreeableness, **Non-agreeable:** Low Agreeableness**Conscientious:** High Conscientiousness, **Non-conscientious:** Low Conscientiousness

**Table 10.** Personality t-tests & descriptive statistics of purchase decision.

	Purchase Decision	M	SD	n	95% CI for Mean Difference	t	df	Sig.
UGC	<i>Non-neurotic</i>	3.57	.70	275	-.250 -.016	-2.233*	580	.026
	<i>Neurotic</i>	3.70	.73	307				
	<i>Introvert</i>	3.61	.71	275	-.163 .072	-.765	580	.445
	<i>Extravert</i>	3.66	.73	307				
	<i>Non-open</i>	3.63	.66	295	-.134 .101	-.274	580	.784
	<i>Open</i>	3.65	.77	287				
	<i>Non-agreeable</i>	3.55	.65	316	-.313 -.080	-3.315*	580	.001
	<i>Agreeable</i>	3.74	.78	266				
	<i>Non-conscientious</i>	3.68	.67	320	-.032 .203	1.430	580	.153
	<i>Conscientious</i>	3.59	.78	262				
MGC	<i>Non-neurotic</i>	3.26	.79	275	-.273 -.013	-2.158*	580	.031
	<i>Neurotic</i>	3.41	.80	307				
	<i>Introvert</i>	3.33	.83	275	-.140 .121	-.145	580	.885
	<i>Extravert</i>	3.34	.78	307				
	<i>Non-open</i>	3.36	.77	295	-.093 .168	.567	580	.571
	<i>Open</i>	3.32	.83	287				
	<i>Non-agreeable</i>	3.34	.78	316	-.119 .142	.174	580	.862
	<i>Agreeable</i>	3.33	.83	266				
	<i>Non-conscientious</i>	3.29	.74	320	-.237 .024	-1.600	580	.110
	<i>Conscientious</i>	3.40	.86	262				

**Notes****Neurotic:** High Neuroticism, **Non-neurotic:** Low Neuroticism**Extravert:** High Extraversion, **Introvert:** Low Extraversion**Open:** High Openness, **Non-open:** Low Openness**Agreeable:** High Agreeableness, **Non-agreeable:** Low Agreeableness**Conscientious:** High Conscientiousness, **Non-conscientious:** Low Conscientiousness**Purchase decision**

The paired sample t-tests gave a significant difference between the influence of UGC ( $M = 3.64$ ,  $SD = .72$ ) and MGC ( $M = 3.34$ ,  $SD = .80$ ); [ $t(581) = 8.943$ ,  $p < .00$ ] (Table 6). With respect to the personality traits for the UGC impact, high neuroticism [ $t(580) = -2.233$ ,  $p < .05$ ] and high agreeableness [ $t(580) = -3.315$ ,  $p < .05$ ] influence consumer behavior. Moreover, high neuroticism is the only trait that associates personality with the MGC's impact in the travel purchase decision (Table 10). Hence,  $H7$  was supported, while  $H8$  was only partially supported.

**Discussion**

The role of the personality (Big Five traits) in the travelers' decision-making was investigated with respect to the travel content on social media. The travelers' decision-making process was studied according to the EBM model and its stages: Need Recognition, Information Search, Evaluation of Alternatives and Purchase Decision. The travel content in the social media was classified into users' and marketing content, namely User-Generated-Content and Marketing-Generated-Content. The impact of the UGC was bigger than the impact of the MGC in all the stages of the EBM model. It seems that when travelers plan a trip they prefer to read other users' content, such as posts, reviews, etc., rather than content created by the marketers. Moreover, the dominance of the UGC influence was also supported by the personality correlations. The UGC was associated with the majority of the Big Five traits, in all the EBM stages. MGC, on the other hand,

**Table 11.** Results overview.

Big Five	UGC	MGC
Neuroticism	Need Recognition Information Search Purchase Decision	Need Recognition Information Search Purchase Decision
Extraversion	Need Recognition Information Search	
Openness	Need Recognition Evaluation of Alternatives	
Agreeableness	Need Recognition Information Search Evaluation of Alternatives Purchase Decision	
Conscientiousness	Information Search <b>(non-conscientiousness)</b>	Need Recognition

was only related to the neuroticism and conscientiousness traits, in the three out of four decision-making stages (Table 11).

Among the personality traits neuroticism was the most dominant, affecting almost all the decision-making stages, in both UGC and MGC classification. This might be explained by the fact that neuroticism actuates the use of social media more than other personality traits (Correa et al., 2010; Wehrli, 2008). Neuroticism was significant for the stages of Need Recognition, Information Search, and Purchase Behavior. The association of the neuroticism with the travel need recognition is in accordance with other studies that link personality with human incentives (Clark & Schroth, 2010; Komarraju & Karau, 2005; Parks & Guay, 2009), and travel incentives (Jani, 2014). When facing the unknown, the neurotic people feel more stress than the non-neurotic (Hirsh & Inzlicht, 2008). Since the travel activity usually encompasses the “unknown”, it is often associated with stressful situations. Nonetheless, online travel content seems to mitigate these impressions, offering a relaxing “ambience” that motivates the neurotic individuals to travel. In contrast to Heinström (2003) and Halder et al. (2010), who found that neuroticism sets obstacles in the information search, in the case of the travel content neuroticism refers positively to the information search. This suggests that social media travel content reduces the negative emotions of neurotic people and enhances their attempts when gathering travel information. Neuroticism was also linked with the online shopping behavior in accordance with the findings of several studies (Barkhi & Wallace, 2007; Bosnjak et al., 2007; Tsao & Chang, 2010). It seems that the online travel content helps the neurotics to handle their feelings when they face buying decisions. Since, neurotic individuals are those who need, more than others, to diminish their fears when making decisions; it seems that travel content restricts these uncertainties. It appears that both user and social media marketing content mitigate the worries that the neuroticism trait creates. Moreover, neuroticism drives the use of social media more than the other personality types (Correa et al., 2010; Wehrli, 2008). Additionally, neuroticism was correlated with all the types of vacation (i.e. cultural, athletic, family, etc.) in the study of (Jani, 2014). These characteristics make neurotics the best group among personality segments to be attracted by travel content. They spend more time on social media, they are influenced by the travel content and they are interested in all type of trips.

Extraversion was significant for the Need Recognition and Information Search stages in the case of the UGC impact. It can be assumed that the sociability and collaboration among users, which was generated within social media, increased travelers' willingness to undertake a trip. This finding supports the results of other studies, which show that extraversion is related to individual's motivation (Clark & Schroth, 2010; Komarraju & Karau, 2005; Parks & Guay, 2009). The associations of the extraversion trait with the need recognition stage might also be explained by the ways extravert people utilize social media. The extroverts are more likely to come in touch with UGC since they hold larger SNSs networks (Quercia et al., 2012) and more friends online (Amichai-Hamburger & Vinitzky, 2010; Golbeck et al., 2011; Harbaugh, 2010; Moore & McElroy, 2012; Tsai et al., 2017), while they participate in more groups (Ross et al., 2009) and show a heavier social media use (Harbaugh, 2010; Ryan & Xenos, 2011). Likewise, in the current study extraversion was positively attributed to the travel information search, affirming that extraversion is related to informal sources and thought-provoking information search (Heinström, 2003), as well as to purposeful and wider search with more sources to be utilized (Halder et al., 2010). The extraversion influence on the information search stage could be also explained by the study of Rosen and Kluemper (2008) who found that the extraversion is related to the SNSs perceived ease of use and perceived usefulness.

Open-to-experience individuals love novelty and originality (McCrae & Sutin, 2009). The UGC supports, by definition, both novelty and originality. Hence, it was natural that it attracted the interest of the open-to-experience people during the Need Recognition and Evaluation of Alternatives stages. Correa et al. (2010) found that high openness is correlated with more frequent use of social media. Ross et al. (2009) showed that open-to-experience people use Facebook for socializing. Hughes et al. (2012) found that openness is associated with Twitter social use. Therefore, high openness leads to a greater interaction with the social media content and supports that open-to-experience travelers are more likely to be motivated via users' content about a new trip. In contrast to Ranjbarian and Kia (2010) who found that the Big Five traits are not associated with the evaluation of commercial products, openness was associated with the evaluation of travel alternatives. This is consistent with Kyoo Kyoo Kim et al. (2011) who stated that consumers, among other reasons, utilize online consumer reviews to find out what is new in the market. Moreover, Wehrli (2008) found that openness is related to the selection of friends with a similar personality. Hence, open-to-experience people might use the UGC content to evaluate travel products because this UGC comes from people with similar needs and preferences. Rosen and Kluemper (2008) argued that openness is correlated with SNSs perceived ease of use, which also could explain the intention of the open-to-experience people to evaluate travel alternatives via UGC.

Interestingly, the trait of agreeableness was significant in all the EBM stages, for the UGC influence. Agreeableness is associated with positive interpersonal relations and the "*willingness to suspend one's individual interests for the good of one's social group*" (Koole, Jager, Van Den Berg, Vlek, & Hofstee, 2001, p. 291). The need recognition to travel was found to be affected by the agreeableness, in agreement with the findings of Clark and Schroth (2010) who argued that agreeableness is related to the human motives, and Jani (2014) who stated that agreeableness is associated with travel incentives. Halder et al. (2010) found that agreeableness eliminates information search obstacles. Correspondingly, the present study showed that subjects with high agreeableness feel that the UGC enriches

the feeling of compatibility that they are looking for in their relations with others and helps them when searching for travel information. Moreover, the evaluation of travel alternatives was associated with high agreeableness, in contrast to Ranjbarian and Kia (2010) findings. Given that UGC improves the collaboration among users, it seems that agreeable individuals find this content convenient when comparing travel products and services. Furthermore, since agreeable people tend to enjoy human interactions, UGC might be a good way to evaluate travel products via social collaboration. The agreeableness was also linked with the behavior of online shopping, like in other studies (Barkhi & Wallace, 2007; Bosnjak et al., 2007; Tsao & Chang, 2010). Wehrli (2008) found that agreeableness positively affects the social interactions within the SNSs, as well as the new friendships. It could be considered that UGC allows people to easier interact with each other when making purchasing decisions since in social media this stage is more related to decisions made at the destination (what to do/see/eat). All in all, it seems that UGC is considered by travelers as a cooperative, trustful, and helpful means during all the process of their travel decision-making. On the other side, the social media enhance the interpersonal relations in a collaborative user-oriented way that empowers the social groups. Therefore, it is natural that agreeable people are inspired more by the UGC than by the MGC.

High conscientiousness was significant for the Need Recognition stage only in the case of MGC. This finding confirms that conscientiousness is related to the individual's incitement (Clark & Schroth, 2010; Komarraju & Karau, 2005). Moore and McElroy (2012) stated that those with high conscientiousness spend less time and effort on Facebook. Wehrli (2008) found that conscientiousness drives to less frequent use of SNSs and for shorter periods of time. Hughes et al. (2012) argue that high conscientiousness is related to Twitter's informational use. On that account, it can be assumed that the marketing content is more reliable to high conscientious people due to its professional character. Finally, low conscientiousness was found to affect the information search when UGC was incorporated, implying that travelers prefer UGC for its less strict and non-professional character. This finding is the opposite to the conclusions of Heinström (2003) and Halder et al. (2010), who found that high and not low conscientiousness is related to the information search. It can be assumed that in the case of UGC the information search is more related to the leisure activities and informal use of the social media content.

## Conclusions and implications

The current research is focused on identifying the personality traits that shape traveler's decision-making within the social media framework. Findings revealed that the neuroticism is the most influential trait when travelers read social media content, both UGC and MGC. Moreover, agreeableness is the dominant trait in the case of the UGC. In addition, the UGC influence dominates the travel decisions compared to the MGC. From a theoretical point of view, the study sheds light on the MGC research. Though numerous works have studied the role of the UGC in the consumers' decision-making, little is known about the role of the MGC. Moreover, the study researched the role of the personality in the stages of travel need recognition, information search, and evaluation of alternatives where very little research has been done, so far. In contrast to the majority of the previous studies, which have focused on the role of the personality in how people use the social

media features; the present study researched the role of personality in the consumer's behavior and decision-making within social media. Furthermore, the study focused on the role of the content, which is created and distributed through social media, rather than the several characteristics of these technologies. Over and above, the study examined real tourists, while most of the previous research utilized students, in order to analyze the personality of social media users.

Findings also reveal several managerial implications. Neuroticism seems to drive consumer's travel decisions in social media. Therefore, marketers need to address consumers' need to feel "safe" about their travel decisions before, during and after their trip. In this vein, MGC must focus on detailed information about the services provided, as well as about the destination as a whole, in order to handle neurotics' stress. The real-time assistance on the social media platforms, such as quick response to the consumer inquiries on Facebook messenger, could serve to this vein. The combination of MGC with interactive maps, as well as with mash-up and AJAX technologies, could also assist the neurotic travelers, since maps serve as a virtual reality tool for a trip, showing the distances, important spots at the destination, etc. YouTube videos might also mitigate neurotics' stress. DMOs', for example, appear to use YouTube less than other social media, such as Facebook and Twitter (Uşaklı, Koç, & Sönmez, 2017). However, YouTube can serve as a major mitigation factor of fear and stress related to the destination, since "a picture is worth a thousand words". Importantly, MGC must underline the marketing character of this content since, due to the conscientiousness, one of the reasons that travelers consult this content is because of its official and professional character. Moreover, the release of UGC with real experiences of other travelers could also eliminate the worries of neurotic people. One of the major findings of the study is this of the UGC predominance over MGC. Therefore, travel suppliers must take advantage of the UGC by motivating their customers to produce content about their products and services. Travel suppliers and DMO's should enhance their customers' willingness in writing content related to their activities. The best groups for activating these incentives are the extraverts and open-to-experience travelers. Extraversion is easier to be predicted on the social media compared to the other Big Five traits (Back et al., 2010; Gosling et al., 2007). Moreover, extroverts hold larger SNSs networks and participate in more groups. Hence, content produced and released by extroverts could appeal to more people and prospective customers. On the other side, openness is also easy to be predicted in social media (Quercia et al., 2011). In addition, openness is associated with blogging (Guadagno et al., 2008), as well as peoples intention in writing online (Yarkoni, 2010). Hence, open people might be easier attracted in providing content. Due to the fact that agreeableness is the dominant personality trait when travelers read UGC, it should be stressed here that this content must be characterized by aspects such as cooperation and social harmony. In this vein, travel suppliers should not only provide incentives for UGC production but also ensure that this content is enhanced with trust, straightforwardness, altruism and other agreeable features. All in all, the rapid development of the technologies of social media has dramatically changed the way consumers make travel decisions. In the social media world, the information exchange is fast and consumer needs and attitudes might rapidly change, under the social media content influence. However, personality traits could serve as a more stable factor of segmenting and targeting of the tourist market, since the personality is constant for long periods of our life.

As with any research, limitations exist. Research has focused on whether there is an association between the personality traits and consumer decision-making. This seriously restricts the interpretation and generalization of the findings. Consequently, research should continue and include the causal relationships between personality and consumer behavior on social media. This will give a more detailed representation of how content formulates behavior of different personality types and will lead to broader assumptions. The development and empirical testing of the constructs will enhance theorists to understand the existing causalities behind the mentioned relationships. Furthermore, the study covered only the Big Five traits of personality. Nonetheless, lower personality facets might also drive consumer choices within social media. Another essential topic that the study did not address is how social media content use is combined with other sources. It is of great importance to investigate how behavior is formulating under the combined impact of all possible travel information sources. Likewise, personality is not the only internal psychological factor that affects consumer behavior. It is interesting to examine how consumers' needs and wants, perceptions, attitudes, and beliefs also affect decision-making on social media. Consequently, there is wide research area to be covered. A more in-depth understanding of how the personality and social media influence travel decision-making is important because it can lead to the development of more comprehensive theories of consumer behavior, with several benefits for travel marketers, suppliers, practitioners, theorists, and consumers.

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