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PREFACE

“Ask someone to tell you the story of the blind men and the elephant, and they'll tell you a tale of six men, each of whom touched a different part of an elephant, unable to see what their hands were resting on. Asked to describe what they had touched, the man who felt the side of the elephant said, "I touched a wall," and the man who felt the elephant's tusk said, "I touched a spear." The six men argued among themselves--was it a snake, a cow, a piece of rope? Only when they worked together, sharing their different ideas and experiences, were they able to discover the truth.

National Academies defines interdisciplinary research as “a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.” The fields of business and economics are very suitable for interdisciplinary research. For this reason, we decided to create a global conference that feature research that spans to more than one discipline. We are very happy to report that the third International Interdisciplinary Business-Economics Advancement conference attracted 72 very interesting papers from a diverse variety of fields within the areas of Business and Economics from 18 different countries. We thank our contributors and reviewers for making IIBA a truly global conference. The USB-stick also includes the abstracts and full papers with the program. IIBA 2014 aimed to bring together researchers, scientists, scholar and scholar students to exchange and share their experiences, new ideas, and research results about all aspects of Business and Economics, and discuss the practical challenges encountered and the solutions adopted. University of South Florida Sarasota-Manatee, USA is proud to sponsor IIBA conference.
Conference.

Once again, we would like to thank all of our authors and reviewers for their contribution to IIBA 2015.

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Segmenting Travelers Based on the Use of Travel Social Media

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Abstract

The popularity of social media among travelers has been highly recognized by research addressing this issue. Research has mainly focused on the role and impact of social media on travelers' travel planning process and there is consensus that travel decisions are highly influenced by social media websites. Yet, little attention has been paid to the differences among travelers regarding their use of social media for travel purposes. Based on the use of travel social media websites, cluster analysis was employed to identify different segments among travelers. Furthermore, the study profiles the clusters based on demographic and other travel related characteristics. The findings of this study are important to online marketers to better understand traveler's use of social media and their characteristics, in order to adapt online marketing strategies according to the profile of each segment. Given the popularity of social media among travelers, it is imperative that researchers and practitioners continue to deepen the understanding of social media users. The study provides practical and theoretical contributions. Future research is also suggested in order to further develop the contributions and take in account the limitations of this study.

Keywords: market segmentation, online content creators, online content users, social media

Introduction

In the past 15 years, the Internet has revolutionized the way travellers search for information (Arsal, Backman, & Baldwin, 2008). Because of the Internet's virtual capabilities, it can include many different physical sources of information, such as mass media, word-of-mouth communication and expert reports and opinions (Kim, Lehto, & Morrison, 2007) and it can provide timely and accurate information relevant to travellers. This information can be provided not only by pictures but also by videos and sounds, with the advantage of being more inexpensive than traditional means (Buhalis, 1998). The Internet provides nearly limitless amounts of information with relatively minimal expenditures of effort or money (Kim et al., 2007). These advantages paved the way for Social Media to become the most powerful force driving travel planning and decision making, playing a crucial role in travellers' overall travel experience. Travellers now have access to almost unlimited travel information created by other travellers. In fact, travel content created online is considered to be more credible and trustworthy than reviews from



professionals or marketer information (Fotis, Buhalis, & Rossides, 2012; Gretzel & Yoo, 2008). Travellers also have the opportunity to share their travel experiences with others.

Different sources evidence social media's importance in the travel context. For instance, in the United Kingdom, social media websites are the main resource when planning their holiday (World Travel Market, 2013) and in the Asia-Pacific region, 44% of leisure travelers use social media platforms for advice and inspiration regarding travel destinations (eMarketer, 2013). According to Tripadvisor's TripBarometer (2014b), 89% of global travellers are influenced by online travel reviews when choosing their accommodation. In fact, more than 50% of travellers actually change their original travel plans after using social media websites (Mediabistro, 2012).

On the supplier side, according to Tripadvisor (2014b), 96% of hoteliers say reviews are influential in generating bookings. Fifty per cent of travel companies claim that direct bookings have been generated from social media (Mediabistro, 2012). In terms of money, Compete Incorporated (2007) estimates that consumer generated content influences 10 billion dollars in online travel bookings.

Given Social Media's importance in the travel industry, it has been an emerging research topic. A recent literature review found 270 publications addressing the use of social media in the travel context, with the first four publications in 2007 (Zeng & Gerritsen, 2014). Research has focused on social media's impact on travel decisions (e.g. Sparks & Browning, 2011; Ye, Law, & Gu, 2009; Ye, Law, Gu, & Chen, 2011), factors that influence travellers to write online reviews (e.g. Ribeiro, Amaro, Seabra, & Abrantes, 2014; Yoo & Gretzel, 2008), motivations to use social media (e.g. Chung & Buhalis, 2008b; Parra-López, Gutiérrez-Taño, Díaz-Armas, & Bulchand-Gidumal, 2012) and social media's adoption and use by tourism and hospitality firms (e.g. Hotels) and destination marketing organizations (e.g. Hays, Page, & Buhalis, 2013; Hee, Lee, & Law, 2012). However, studies focusing on social media users' demographic characteristics and behaviours are scarce. Travellers have different behaviours regarding the use of social media for travel planning (Zeng & Gerritsen, 2014). Therefore, the main purpose of this paper is to identify different segments of social media users for travel purposes and identify the significant differences between the segments. Such knowledge is useful to hospitality and tourism managers, as well as travel social media marketers, in order to better understand the needs and characteristics of each segment and decide marketing strategies accordingly.

Literature Review

Motivations to Use Social Media

As many other products and services, travellers need to search for information to make decisions, such as which destination, airline company or hotel to choose. Furthermore, compared to other services or products, travel normally requires more information processing before making a decision, because the purchase of travel products is considered to be highly risky (Huang, Chou, & Lin, 2010). Indeed, to consume tourism products, individuals must leave their daily environment and move to a geographical different place (Werthner & Ricci, 2004) and when making travel decisions, only descriptions are

available (Werthner & Klein, 1999). On the other hand, consumers cannot try travel products/services before purchasing, making it difficult to evaluate the value for money before the actual experience (Kim, Qu, & Kim, 2009). In this context, information search decreases uncertainty associated with travel, enhancing the quality of tourists' trips (Fodness & Murray, 1997).

Travellers find motivation to use social media for travel purposes in the perceived functional (informational) benefits that social media provide (e.g. "social media tools enable me to keep up to date with the tourist sites" and "social media tools give me the possibility to exchange information about tourist sites") (Parra-López et al., 2012). In fact, Chung and Buhalis (2008a) report that information acquisition was the most important factor influencing travellers to participate in online travel communities.

Besides the informational benefits of social media, a significant number of studies have shown that reading travel reviews added fun to the trip planning process, made travel planning more enjoyable and made travellers feel more excited about travelling (Gretzel & Yoo, 2008; Gretzel, Yoo, & Purifoy, 2007; Parra-López et al., 2012). Chung and Buhalis (2008b) found that users of online travel communities (e.g. Tripadvisor.com, VirtualTourist.com) participated in the online community activities not only for the informational benefits, but also for the hedonic benefits (i.e. "Having fun with contents", "Entertainment" and "To be amused by members"). In a different study, hedonic needs were pointed as an important predictor for the level of participation in an online travel community (Wang & Fesenmaier, 2004). More recently, the positive relationship between the perceived hedonic benefits and intention to use social media for travel planning was confirmed by Ayeh, Au, and Law (2013). Perceived enjoyment not only seems to affect the use of social media for travel planning, but is also considered a determinant of creating travel content online. Indeed, Yoo and Gretzel (2011) found that enjoyment is a driver of travel content generated media creation. This conclusion was echoed in a more recent study that found that perceived enjoyment not only had a positive relationship with the use of social media for travel planning, but also affected the actual creation of travel content online (Kang & Schuett, 2013). The empirical evidence from all of these studies shows that individuals use travel related social media not only for information purposes but also because they consider its use enjoyable. Web 2.0 has made information search more personalized, active and interactive, which contributes to its hedonic value (Gretzel, 2012).

Another factor that seems to affect social media use is travellers' level of involvement. According to Rothschild (1984), involvement is "a state of interest, motivation or arousal" and "its consequents are types of searching, processing and decision making" (p. 217). In the context of travel, Leung and Bai (2013) found that travellers' involvement with a hotel social media page had a significant impact on their intention to revisit hotels social media pages in the future. Ribeiro et al. (2014) study provides evidence of the positive association between travel involvement and travel content creation. These findings suggest that travellers more involved with social media are more likely to share their travel experiences online and have higher levels of consumption of social media.

Travellers Use of Social Media

Typically, travellers' use of social media is divided in three phases: before, during and after the trip. It is not surprising that Cox, Burgess, Sellitto, and Buultjens (2009) found that social media are predominantly used before travelling. During this phase, travellers search for ideas on where to go, information on accommodation options, excursions and other leisure activities (Cox et al., 2009; Fotis et al., 2012). Social Media play an important role before travelling, by providing ideas, reducing risk and making it easier to imagine what places will be like (Gretzel & Yoo, 2008). Interestingly, a higher percentage of travellers turn to user generated content (UGC) when visiting a destination for the first time, as well as visiting an international destination (Simms, 2012), supporting the important role social media plays in reducing risk. Before the trip, travellers are essentially consuming social media, i.e., they are reading and viewing UGC but are not actively participating by creating content.

During the trip, travellers' use of social media for travel purposes has been found to be much lower than before the trip (Cox et al., 2009; Fotis et al., 2012). In Fotis et al. (2012) study, 30% of the respondents searched for travel related information on their holiday, while in Cox et al. (2009) the percentage dropped to 6%. It should be noted that during this phase, travellers not only consume social media to find holiday related information, but also begin to share their travel experiences, by producing comments and reviews. A popular activity during this phase is sharing videos and photos (Text100, 2013). However, producing social media content is much lower than consuming (Fotis et al., 2012). Social Media geo-location sites, such as Foursquare, can help tourism and hospitality businesses by encouraging travellers to use social media during this phase in exchange for discounts or coupons (Hudson & Thal, 2013).

After the trip, travellers use social media to post information regarding their trip through comments, reviews, photos or pictures (Fotis et al., 2012; Parra-López et al., 2012). It is during this phase that social media producing takes place. Producing encompasses creation and publication of one's personal contents, such as text, images, audio, and video (Shao, 2009). Curiously, contrary to Cox et al. (2009) findings, Fotis et al. (2012) claim that social media are predominantly used after the trip. However, one should interpret these results cautiously. First of all, the statements used to evaluate social media use after the trips are considerably different. On the other hand, the differences may be due to cultural differences. Fotis et al. (2012) study was conducted with travellers residing in Former Soviet Union Republics, while Cox et al. (2009) respondents were from Australia.

Even though Tripadvisor receives more than 115 contributions every minute (Tripadvisor, 2014a), different sources indicate that there are far more travelers consuming social media than producing. For instance, Yoo and Gretzel (2011) found that half of the respondents used travel related social media, but only 17 percent have ever posted travel materials online. According to Forrester Research, 75 percent of Internet users use social media, but less than half actively participate (Osborn, 2009).

Furthermore, there are differences between those who consume and produce social media regarding certain behaviours. For example, Gretzel et al. (2007) found that, in comparison

to non-writers, travel review writers are more involved in trip planning and are more influenced by reviews. More, travellers that read travel reviews more often have higher incomes and travel frequently for pleasure, representing an attractive market for travel marketers.

These results clearly reveal that travellers use social media for travel purposes differently. Thus, a cluster analysis to identify different clusters seems appropriate to enhance our understanding of travellers' use of social media, by exploring each segments demographic profile and other relevant characteristics derived from the literature review, such as enjoyment or involvement with social media. Several studies have pointed out for the lack of studies focusing on demographic profile of travellers who use social media for travel purposes and for the need to better understand travellers engagement with social media (e.g. Ip, Lee, & Law, 2012; Yoo & Gretzel, 2012). This analysis will contribute to fill this gap.

Methodology

Questionnaire and Measurements

Based on the literature review, a questionnaire was designed in order to obtain relevant information for the cluster analysis and description of the clusters. An opening paragraph was included in the questionnaire to provide participants with an overview of the study's purpose and to ensure the confidentiality of the answers. Respondents were also given an estimation of the time required to complete the questionnaire and e-mail contact in case they had any questions or doubts. These procedures are recommended to enhance the credibility of the survey (Malhotra, 2008). The questionnaire was divided into 3 main sections. The first section included questions regarding respondents' travel-related behaviours and online purchasing experience to obtain relevant background information. Respondents were asked to recall their trips taken within the last 12 months to answer these questions. The second section addressed social media use and travellers' perceptions regarding social media use, specifically perceived enjoyment and involvement. Table 1 shows the questions presented in this section and the sources. Social Media Consumption (SMC) and Social Media Creation (SMCR) were measured using a 5-point Likert scale, where 1 = Never and 5 = Always. Perceived Enjoyment (PE) was also measure using a 5-point Likert scale, where 1= Strongly Disagree and 5 = Strongly Agree. Social media involvement was measured using a 5 point differential semantic scale. The last section of the questionnaire contained questions regarding respondents' demographic characteristics, namely age, gender and education level.

Table 1. Indicators used to measure social media consumption, social media creation, perceived enjoyment and involvement

Measures	References
Before travelling...	
SMC1 - I read hotel reviews from other travellers.	
SMC2 - I searched for travel information on social media websites.	New measures
SMC3 - I looked at activity/attractions reviews of other travellers.	

SMC4 - I read other travellers' experiences and tips. While travelling...	
SMC 5 – I check in to the location I am at/update my location on social media (for example, on Facebook, Foursquare)	New measures
SMCR 5 – I search for travel information on social media websites (for example, things to do or where to eat)	
After travelling...	
SMCR 1 - I write hotel reviews on social media websites.	
SMCR2- I post photos on social media websites.	New measures
SMCR3- I write reviews of activities/attractions on social media websites.	
SMCR 4- I write reviews of the place and/or monuments I visited on social media websites.	
PE1-Using social media for travel purposes is enjoyable.	Adapted from Lee, Cheung, and Chen (2005)
PE2-Using social media websites for travel purposes is fun.	Adapted from Moon and Kim (2001)
PE-Using social media websites for travel purposes stimulates my curiosity.	
PE4- I consider the use of social media for travel purposes a big hassle. (R)	Adapted from Verhoef and Langerak (2001)
Social Media is....	
SMI1 – Unimportant...Important	McQuarrie and Munson (1992)
SMI2 – Irrelevant...Relevant	
SMI3 – Means nothing to me...means a lot to me	
SMI4 – Unexciting...Exciting	
SMI5 - Doesn't matter to me...Matters to me	
SMI6- Boring...Interesting	
SMI7- Useless...Useful	
SMI8- Superfluous... Vital	
SMI9 - Of no concern to me...of concern to me	

SMC – Social Media Consumption; SMCR – Social Media Creation; PE – Perceived Enjoyment; SMI - Social Media Involvement

Data Collection

The questionnaire was distributed online, using Surveygizmo (www.surveygizmo.com), an online survey platform, from July 28th to August 25th of 2012. A pretest was conducted with colleagues, which were asked to provide comments on the relevance and clarity of the questionnaire items and time taken to complete it. After some adjustments based on the pretest, email invitations with a link to the final questionnaire were sent to colleagues, students and other contacts. Moreover, links to the survey were placed on Facebook and LinkedIn. In both channels used to distribute the questionnaire, respondents were kindly asked to distribute the questionnaire among their contacts. The questionnaire was originally developed in English, but was also available in Portuguese (since the researchers are from Portugal). During this period, 1,759 responses were obtained, with a total of 1,732 valid for further analysis.

Data Analysis

Clusters analysis was applied to identify market segments in terms of Social Media Consumption (SMC1 to SMC5) and Social Media Creation (SMCR1 to SMCR5). The clustering was undertaken without any preprocessing data procedure. In fact, the preprocessing of data, for instance by standardization or applying factor analysis, is actually not free from serious objections (Dolnicar, 2002; Hair, Black, Babin, & Anderson, 2010). The Squared Euclidean distance was considered to measure dissimilarities. Cluster analysis encompassed two phases. First, three hierarchical algorithms were applied, namely, complete linkage, average linkage and Ward's method. Complete linkage and Ward's method are frequently applied in market segmentation (Dolnicar, 2002). Average Linkage was also considered, since, along with Ward's method, it has been found to perform relatively well (Everitt, 1993). The examination of the fusion values (or agglomeration coefficients), resulting from the three hierarchical procedures, suggested a four or five cluster solution (Hair et al., 2010). K-means was then applied with initial cluster seeds given by each of the four and five cluster solutions of the three hierarchical algorithms. This combination approach, applying a non-hierarchical algorithm after a hierarchical one, is often recommended as it gives more accurate solutions (Hair et al., 2010). Both stability and interpretation of the final clusters led to the choice of the five-cluster solution. Comparing the final five-cluster solutions, each one obtained by k-means with initial seeds given by one of the three hierarchical algorithms, less than 3% of the cases were assigned to different clusters across the three cluster solutions. This percentage is well below the 10% threshold for the percentage change in cluster memberships that would result from a very stable solution (Hair et al., 2010). To further analyze stability, the sample was randomly split into two halves and, in each half, k-means was applied with initial cluster seeds given by Ward's algorithm. Once more, less than 10% of changes in cluster memberships (5.4%) was observed, which supports the stability of the five-cluster solution. External variables (not used in the segmentation) were considered to characterize and validate the cluster structure, identifying dimensions on which the clusters differ significantly. The Chi-square test, Kruskal-Wallis test and post-hoc tests were used to compare groups based on external variables. For all the analysis, SPSS statistical software (version 22) was used and, in group comparisons, a $p < 0.05$ was considered statistically significant.

Results

Demographic Profile

The 1,732 respondents were from 54 countries with a prominence of responses from European residents, specifically Portuguese residents. This was expected, given that the researchers reside in Portugal and have more available contacts from people residing in this country. The age group with more number of responses was the age group 18-29, with 34.6% of the total of responses, while only approximately 13% are aged over 50. In terms of gender, there is a slight skew towards a higher proportion of female participants (61.5%). The sample seems to be composed by highly educated individuals, with approximately 88% of the respondents holding at least a college degree, against only 11.6% who have only completed the 12th grade or less.

Cluster Solution

Through the cluster analysis, five segments were identified (represented in Figure 1):
 Segment 1: Inactive - representing 22 % of travellers. This segment barely uses social media for travel purposes, either for consuming or creating.

Segment 2: Occasional Consumers and Apathetic Creators - representing 22% of travellers. This segment occasionally uses social media before travelling but rarely creates travel related content. Segment 3: Occasional Consumers and Creators – representing 20% of travellers. This segment occasional uses social media for travel purposes, both for consumption and creation. Yet, in general, consuming scores higher than creation.

Segment 4: Consuming Enthusiastics and Apathetic Creators – representing 21% of the travellers. This segment uses social media very often or always before and while travelling. However, they rarely share their travel experiences with others.

Segment 5 –Fully engaged – representing 15% of travellers. This segment is composed of travellers that are active consumers and creators of social media travel content, before, while and after travelling.

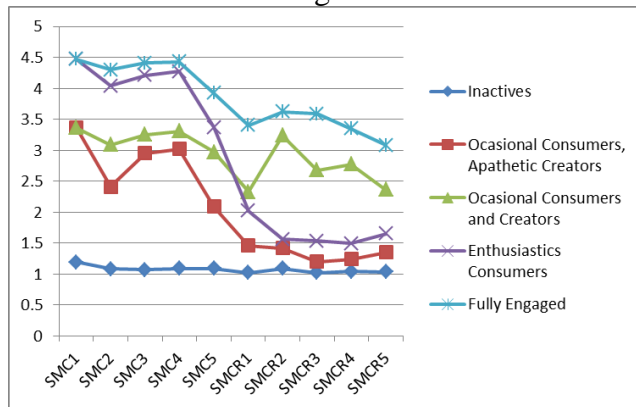


Figure 1 – Profile of the 5 Clusters

Profiling the Clusters with External Variables

In order to characterize the five clusters, they were compared using external variables (that were not used in the cluster analysis). Profiling the clusters with external variables also enables the evaluation of content validity, which, despite its importance, is often overlooked in tourism segmentation studies (Dolnicar, 2002; Hair et al., 2010). Results from this analysis are resumed in Table 2.

Segments do not differ regarding gender, which seems to contradict Gretzel et al. (2007) study that found that males are more likely to create travel content. However, significant differences were found regarding other variables. For instance, regarding education the Chi-square test identified significant differences between clusters ($p < 0.0005$). In fact, as shown in Table 2, there is a significant lower percentage of travelers with doctoral degree in the two segments characterized by having some creation activity (fully engaged and occasional consumers and creators) when compared with the less active (Inactive and Occasional Consumers and Apathetic Creators). On the other hand, comparing levels of

education, the doctoral degree has the lowest percentage of fully engaged (10.3%, while the other three lower educational levels have 14.4%, 15.9% and 17.9%) and of occasional consumers and creators (13.8%, compared with 30.8%, 23% and 17% of the three lowest educational levels). These results suggest that the higher education level, doctoral degree, is associated with less creation of travel content. To support this, educational levels were compared regarding the creation of social media contents (measured with the mean of all social media creation items – SMCR1 to SMCR5). Using Kruskal-Wallis test and post-hoc comparisons, lower levels of social media creation in the Doctoral degree level of education were found ($p < 0.005$). This is not new as Ip et al. (2012) found that travel content creation online increased with education level until university level and then decreased. However, it does contradict Yoo and Greztl’s (2012) study that found no significant differences between travel social media creators and non-creators.

The chi-square test also revealed significant differences between clusters regarding age ($p < 0.0005$), which was categorized in 5 classes (see Table 2). The fully engaged cluster is characterized by having a higher percentage of younger individuals (47% are less than 29 years old, and 81% are under 40). The same occurs with the other cluster that includes social media creators (occasional consumers and creators) for which 46 % are less than 29 years old and 74% are below 40 years old. Furthermore, the oldest age group is less likely to use social media for travel purposes (43 percent are included in the inactive cluster and only 2 per cent are fully engaged). On the other side, the two younger classes have a higher percentage of fully engaged (20.5% and 18%, respectively, in contrast with 3% and 2 % of the last two age classes) and occasional consumers and creators (26.5% and 19.6%, compared with 15.6% and 13% of the last two age classes). Summarizing, profiling the clusters according to age indicates that creation of social media contents may be associated with younger travelers while inactive social media travelers are more prevalent in older age classes. These differences are supported by comparing the mean of social media consumption and creation items between age classes. In fact, both social media creation and consumption have significantly higher values in the two youngest age classes compared with the two oldest age classes (Kruskal-Wallis and had hoc tests; $p < 0.03$ in all tests). These results are not surprising, since a higher number of younger users use social networking websites (Pew Research Center, 2013). In the travel context, Gretzel et al. (2007) also found that frequent review readers and review writers were more likely to be younger than 35 years old. Similarly, Simms (2012) reported that younger travellers were more likely to use social media. Others studies have also supported that young travelers are more likely to share their travel experiences online and share travel photos (Ip et al., 2012; Lo, McKercher, Lo, Cheung, & Law, 2011).

Table 2. Demographic profile of the clusters

		Inactive	Occasional Consumers and Apathetic Creators	Occasional Consumers and Creators	Consuming Enthusiastics and Apathetic Creators	Fully engaged	Chi-square test
Gender	M	40.9%	41.1%	35.5%	36.4%	38.2%	p=0.4
	F	59.1%	58.9%	64.5%	63.6%	61.8%	
<=12		11.8%	6.5%	18.0%	11.0%	11.1%	p<0.0005

Education Level	College degree	30.7%	29.1%	37.8%	32.2%	34.4%	
	Master degree	31.0%	33.8%	28.5%	35.3%	39.3%	
	Doctoral degree	26.5%	30.6%	15.7%	21.5%	15.3%	
Age	18-29	32.0%	20.7%	46.2%	32.0%	46.9%	p<0.0005
	30-39	24.7%	30.4%	28.2%	27.5%	34.0%	
	40-49	25.2%	29.6%	15.4%	27.0%	16.8%	
	50-59	12.1%	15.4%	8.1%	11.3%	1.9%	
	>=60	6.0%	3.9%	2.0%	2.2%	0.4%	

The current study found significant differences between all clusters regarding their sense of perceived enjoyment with the use of social media for travel purposes (Kruskal-Wallis and post-hoc tests; $p < 0.025$ for all tests). Indeed, the perceived enjoyment with the use of social media websites for travel purposes (measured by the mean of PE1 to PE4) is lower in the inactive cluster, followed by the group of occasional consumers and apathetic creators, the enthusiastic consumers, the occasional consumers and creators and, finally, with highest values, the fully engaged (see Table 3) These findings suggest that there is a positive relationship between perceived enjoyment and the use of social media for travel purposes. This is confirmed by the Pearson correlation coefficient between perceived enjoyment (mean of PE1 to PE4) and consumption of social media (mean of SMC items) which is 0.78 ($p < 0.0005$). The Pearson correlation coefficient between perceived enjoyment and social media creation (mean of SMCR items) is 0.61 ($p < 0.0005$), also a relatively strong positive correlation. These results are in accordance with other studies that have claimed that travellers use social media before travelling to add enjoyment to travel planning (Gretzel & Yoo, 2008; Gretzel et al., 2007; Parra-López et al., 2012) and that travel content creators are mostly driven by intrinsic motives, such as enjoyment (Kang & Schuett, 2013; Yoo & Gretzel, 2008, 2011).

Table 3. Mean values for perceived enjoyment and level of involvement

	Inactive	Occasional Consumers and Apathetic Creators	Occasional Consumers and Creators	Consuming Enthusiastics and Apathetic Creators	Fully engaged	Kruskal-Wallis test
Perceived enjoyment	1.35	3.05	3.61	3.43	3.92	<0.0005
Level of involvement	2.82	3.06	3.63	3.47	3.97	<0.0005

As shown in Table 3, the level of involvement with social media websites (measured by the mean of items SM1 to SM9) differs among the different segments in a similar way to perceived enjoyment. That is, involvement with social media is significantly lower in the groups that use less social media for travel purposes (segments 1 and 2) than in the clusters that uses social media more frequently (segments 3, 4 and 5). This result was confirmed with the Person (r) and Spearman (ρ) correlation coefficients which indicate a significant and positive relationship between involvement and both social media consumption ($r=0.4$; $\rho=0.41$; $p < 0.0005$) and social media creation ($r=0.43$; $\rho=0.45$; $p < 0.0005$). This result was expected, as discussed in the literature review.

The number of travel purchases online was also considered to profile the segments. No significant differences were found between segments 2, 3, 4 and 5; only the Inactives had significant lower values in this variable than the other groups (Kruskal-Wallis and post-

hoc tests; $p < 0.031$). These results suggest that social media users do not differ much in the number of online travel purchases, regardless of how much they use social media. However, travelers that do not generally use social media also tend not to purchase travel online.

Examining the percentage of travelers who usually purchase travel online, significant differences were found between segments (chi-square test, $p < 0.0005$). The percentage of travelers who use online websites to purchase travel services is smaller in the inactive segment (51%), followed by segment 2 and 3 (60% and 62%, respectively), and lastly segments 4 and 5 with 70% and 69%, respectively.

Furthermore, no significant differences were identified between clusters regarding the number of national trips in the past year. However, regarding the number of international trips, the Inactive segment differs significantly from segments 2, 4 and 5, the inactive cluster having a significantly lower number of international trips (Kruskal-Wallis and post-hoc tests; $p < 0.03$). The fact that this segment takes fewer international trips may, in part, explain why they do not use social media. Indeed, research has shown that a higher percentage of travelers turn to social media when visiting an international destination (Simms, 2012). It is worth noting that recent research has found no linear relationship between frequency of travel and frequency of social media consumption. Indeed, Gretzel et al. (2007) claimed that there is a u-shaped relationship between those two variables, that is, respondents who consume social media more are more likely to travel very little or very much.

Conclusions

Since social media is so influential on traveler's decision making, several authors have pointed out the need and importance of better understanding who uses social media and who the content creators are (e.g. Wilson, Murphy, & Fierro, 2012; Yoo & Gretzel, 2012). However, research addressing this issue is scarce. This conclusion is echoed in Ip et al. (2012) study which posits that there are a limited number of studies focusing on the demographic profile of travelers who use travel websites for planning their trips. The current study helps close this gap by segmenting travelers according to their social media use for travel purposes and providing a profile of the different segments. Segmentation has always been considered of paramount importance, as marketers will be more effective if they better understand their audience.

The current study has found five segments, which distinguish social media users according to the degree of involvement in consumption and creation of travel contents. The segments do not differ regarding gender or national travel experience, and interestingly, the number of international trips is only significantly lower in the inactive cluster. However, significant differences were found regarding other aspects, namely education, age, perceived enjoyment and social media involvement. These results provide useful insights to travel online marketers and social media websites providers that need to be aware of the different segments as they can customize websites accordingly.

The main conclusions are that fully engaged social media users, as well as occasional consumer and creators, the two segments with higher level of social media creation, are younger, few have doctoral degree, perceive higher levels of enjoyment with the use of social media for travel purposes and are also more involved with social media websites. These segments are important to online travel providers because of their participation in creating travel related content. Indeed, they have the potential to influence others and, as a result, will affect travel decisions, such as where to go, where to stay or where to eat.

The enthusiastic consumers and apathetic creators cluster represent another segment that travel marketers need to pay attention to. Indeed, since they read other travellers' reviews frequently, they are more likely to consider other travelers' reviews as providing more reliable and relevant information and are also more likely to be highly influenced by those reviews (Gretzel et al., 2007). This study revealed that that this segment is equally represented in all educational levels and all age classes (in each educational level and each age class about 20% belong to this segment), and have high levels of enjoyment and involvement with the use social media online resources.

Several studies have shown that there are far more people consuming travel information than generating it (Pan & Crotts, 2012; Yoo & Gretzel, 2011). Since this study has shown a significant positive relationship between the creation of travel related content and social media involvement and with perceived enjoyment, the creation of travel related contents could be encouraged by creating websites with features that are more interactive and appealing. Other incentives, such as points, could be offered to encourage consumers to create travel content.

One of the limitations of this study is the over represented responses of Portuguese travelers, which should be noted when considering the overall generalizability of this study. Future research would benefit with a more balanced sample. Researchers could investigate other variables to characterize the segments, such as income level, nationality, attitude towards risk and trust in online reviews.

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