# THE INFLUENCE OF USER-GENERATED CONTENT ON TOURISTS' CHOICES

# UTJECAJ SADRŽAJA KOJI STVARAJU KORISNICI NA ODABIRE TURISTA



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**Ključne riječi**:
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## ABSTRACT

Most research on user-generated content (UGC) has focused on readers of comments and reviews. However, very little research is aimed at profiling travelers based on the extent to which their decisions regarding the choice of hotels are influenced by UGC. This research was therefore carried out to profile tourists based on the extent to which their choices of hotels are influenced by different types of peer-to-peer applications, while also considering their socio-demographic characteristics, frequency of travel, and motivations for using the Internet and UGC when mak-

## SAŽETAK

Većina istraživanja o sadržaju koji stvaraju korisnici (*user-generated content*, UGC) usredotočena je na čitatelje komentara i recenzija. Unatoč tome, postoji malo istraživanja kojima je cilj profiliranje putnika prema mjeri u kojoj UGC utječe na njihovu odluku o odabiru hotela. Zbog toga je ovo istraživanje provedeno kako bi se profilirali turisti prema mjeri u kojoj je njihov odabir hotela pod utjecajem različitih vrsta *peer-to-peer* aplikacija. Pritom su se isto tako uzele u obzir njihove socio-demografske karakteristike, učestalost putovanja i motivacija za korištenje interneta te sadržaja

ing their travel choices. For this purpose, latent class segmentation was applied on a sample of 607 Italian tourists, and three clusters were identified: "digitally passive tourists", "focused tourists", and "social tourists". Wald and Chi-square tests revealed significant differences among the three clusters based on all the variables considered in the study. Its findings suggest that hospitality marketers should run their social media strategy by focusing their attention on Travel 2.0 applications according to the socio-demographic and behavioral characteristics of their target market. Contributions to the body of knowledge and suggestions for further research are given.

koji stvaraju korisnici pri odabiru putovanja. U tu svrhu primijenjena je vrsta klasterske analize pod nazivom *latent class segmenation anayisis* na uzorku 607 talijanskih turista, pri čemu su identificirana tri klastera, a to su: „digitalno pasivni turisti", „fokusirani turisti" i „društveni turisti". Na osnovi svih varijabli razmatranih u istraživanju Waldov i hi-kvadrat test pokazali su postojanje značajnih razlika između triju klastera. Nalazi istraživanja upućuju na to kako bi marketinški stručnjaci u turizmu i ugostiteljstvu trebali provoditi strategiju društvenih medija fokusirajući svoju pažnju na putničke 2.0 aplikacije, uzimajući u obzir socio-demografske i bihevioralne karakteristike njihovog ciljnog tržišta. Prikazan je doprinos postojećim spoznajama te su navedene preporuke za daljnja istraživanja.

# 1. INTRODUCTION

Important changes have occurred in the travelers' search for information since the advent of information and communication technologies (ICT), the Internet (Buhalis & Law, 2008) and UGC (Gretzel & Yoo, 2008). In their analysis of 107 ICT-related papers published in tourism and hospitality journals during the period 2009–2013, Law, Buhalis, and Cobanoglu (2014) concluded that social media plays a major role in online marketing and tourists' decision-making.

Some years ago, eMarketer (2007b) reported that approximately 75.2 million American online users used UGC applications. According to eMarketer (2007a), two out of every three European tourists used the Internet to upload their blogs and share reviews about their holidays with other people. The use of UGC applications has grown rapidly in the most recent years. PhoCusWright (2011) reported more than two out of 10 travelers as saying that UGC, within the scope of their social networks, is influential in their travel-related decision-making. According to the TEXT100 Digital index, 44% of Asia-Pacific leisure travelers use social media for advice and inspiration regarding their choice of accommodation, and more than one-third of them also looks to UGC to get ideas for attractions, vacation activities, and hotels (eMarketer, 2013).

Prior research sheds light on the significant influence of UGC and Travel 2.0 applications on service expectations (Mauri & Minazzi, 2013), on stimulating travel, on the actual planning process, and during the post-travel phase (Gretzel & Yoo, 2008). Sometimes, they also induce tourists to alter their decisions after obtaining further information online. Indeed, for example, eMarketer (2007b) reports that, among tourists who use peer reviews to help them make their hotel bookings, the percentage of travelers who changed their booking based on reviews posted online by other consumers are 25% and 33%, respectively, for infrequent and frequent leisure travelers. An empirical investigation on a sample of 823 Italian tourists (Del Chiappa, 2011) confirmed this figure, with respondents reporting that, after having read reviews and comments posted online, they changed their hotel accommodation sometimes (64.8%), almost always (12%), or always (0.5%). Recent research also showed that online buyers sometimes changed the accommodation suggested by a travel agency on the basis of UGC (Del Chiappa, 2013; Del Chiappa, Alarcón-del-Amo & Lorenzo-Romero, 2015; Del Chiappa, Lorenzo-Romero & Gallarza, 2014; Prayag & Del Chiappa, 2014).

Most research on UGC has focused on readers of comments and reviews. Despite this, very little research is aimed at profiling travelers based on the extent to which their choice of hotel is influenced by UGC. This is particularly true in the case of Italy, for which no article focusing on this topic has been published to date. This study is intended to address this point by presenting and discussing findings obtained by applying cluster analysis to a sample of 607 Italian consumers. Specifically, it aims at establishing a typology of tourist demand based on the extent to which their choices are influenced by UGC, their socio-demographic characteristics, frequency of travel and motivations for using UGC in their travel planning.

# 2. LITERATURE REVIEW

The online interpersonal influence exerted by UGC is referred to as electronic word-of-mouth (eWOM), which can be defined as "all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers" (Litvin, Goldsmith & Pan, 2008). eWOM is particularly important for the tourism sector because tourism and hospitality products and services are difficult to evaluate, being intangible goods and high-involvement products where behavior patterns during purchase are not routine. Furthermore, the purchasing of these products requires a mix of

emotional and rational criteria, as well as a significant amount of time, thought, energy, and other resources (Swarbrooke & Horner, 2007). These circumstances mean that UGC attracts the attention of consumers because online reviews and recommendations that tourists post online are perceived to have a higher credibility than traditional tourist information sources (Gretzel & Yoo, 2008).

Previous research has divided consumers into six segments, according to how they use social technologies; these are: spectators, inactives, joiners, critics, creators, and collectors (Li & Bernoff, 2008). Certain studies have also analyzed the main motivations that push tourists to post and to use (Wang & Fesenmaier, 2004; Yoo & Gretzel, 2008). Bronner and de Hoog (2010) set down these motivations in five main categories: self-directed, helping other vacationers, social benefits, consumer empowerment, and helping companies. Ayeh, Au and Law (2013) categorized people searching for information through social media into the following groups: "problem solvers" and those seeking fun, amusement, fantasy, arousal, sensory stimulation, and enjoyment, arguing that such a distinction in the context of UGC cannot be easily supported. Specifically, they argue that whenever consumers are using UGC, they do this as a way to obtain the information needed in an efficient and timely way (behaving as problem solvers) and to look for the fun associated with this experience (behaving as travelers in the second category).

Strielkowski, Wang and Platt (2013) discovered consumer preferences for e-services in European cultural destinations in order to elicit potential consumers' preferences for e-services related to tourism and cultural heritage. Three types of consumers were contacted: residents, visitors, and (cultural heritage) service providers. While the majority of people analyzed said they were frequent users of e-services' to plan their trips, most people attributed greater importance to "traditional" e-services, such as booking services or journey planners.

The existing literature has analyzed several factors that are capable of exerting a moderator effect on the influence that UGC can exert on tourists' choices, such as personality, gender, age, cultural background, frequency of using the Internet to search for information, frequency, type, and motivation of travelling. For example, Gretzel and Yoo (2008) reported females gaining more benefit from using reviews than male travelers. Age differences were also found. For example, those aged 65 years or over are less likely to read other travelers' reviews, whilst younger travelers find reviews more important in deciding where to stay (Gretzel & Yoo, 2008). Additionally, frequent travelers value peer reviews the most and are more likely to be influenced by them (Gretzel, Yoo & Purifoy, 2007). McCarthy, Stock and Verma (2010) showed that the influence of UGC varies with the type of travelling and argued that recommendations of friends and colleagues are less important to business travelers than they are to leisure travelers. According to Volo (2010), cultural differences exist in the way tourists use and are influenced by UGC in blogs. In her study about the blogs of 103 tourists visiting South Tyrol (written in both English and Italian), Volo (2010) showed that Italian blogs seem to have a greater potential to influence the choices of prospective visitors than do narratives uploaded on international blogs.

Yoo, Lee, Gretzel and Fesenmaier (2009) showed that trip planners with greater trust in travel-related UGC sources are more likely to perceive the impacts and benefits of UGC. Trustworthiness can be defined as "the degree of confidence in the communicator's intent to communicate the assertions he/she considers most valid" (Hovland, Janis & Kelley, 1953, p. 21). According to Willemsen, Neijens and Bronner (2011), perceived trustworthiness has the potential to influence consumers' intention and attitude toward a specific source of information. In recent research, perceived trustworthiness was found to positively impact the perception of usefulness and attitude, whereas the direct effect on intention was not significant.

Interestingly, recent research has begun to analyze the credibility and trustworthiness that tourists confer upon different Travel Social Web applications, which helps clarify the extent to which they affect tourists' attitudes and purchasing decisions. According to PhoCusWright (2009), reviews on Online Travel Agencies (OTAs) are the most trustworthy (50%), followed by traveler-generated photography/virtual tours (43%) and other pee-to-peer applications. Del Chiappa (2011) found similar findings in his study on a sample of 823 Italian tourists, with comments and reviews posted in OTA being considered the most trustworthy. Yoo and others (2009) indicated that UGC is most credible when posted on official tourism bureau websites (41.2%) and travel agency websites (36.8%), followed by other types of 2.0 applications. Del Chiappa (2011) also showed that respondents consider reviews posted online to be more trustworthy when there is the same proportion of positive and negative comments (51.2%), or when there are fewer of the latter than the former (39.9%). Similarly, Sparks and Browning (2011) reported the willingness to book online being higher when hotel reviews are predominantly positive.

All that said, it is evident that a deep analysis of the extent to which UGC is able to influence tourists' choices is relevant from both theoretical and managerial points of view. Despite this, there is currently very little research aimed at profiling travelers based on the extent to which their final choices are influenced by UGC. This is particularly true in the case of Italy; it occurs despite the importance that the Italian tourism market represents for many countries worldwide, especially in Europe (Del Chiappa et al., 2015). This study was therefore carried out to provide deeper and updated knowledge about the extent to which UGC influence Italian tourists' choices by presenting and discussing findings obtained applying cluster analysis to a sample of 607 Italian consumers. In particular, the study aims at analyzing whether the extent to which UGC uploaded in different peer-to-peer applications is currently influencing Italian tourists' choices, depending on their socio-demographic characteristics, their frequency of travel and the frequency of Internet use when searching for information and, finally, their motivations of use.

## 3. METHODOLOGY

In view of the fact that there is very little existing research aimed at profiling travelers based on the extent to which their decisions regarding the choice of hotels are influenced by different types of Travel 2.0 applications and considering their socio-demographic and behavioral characteristics, this study was carried out with an aim to explore this somewhat neglected area of tourism research.

Specifically, it aimed at answering the following research questions:

RQ1. Does the influence of UGC on tourists' choice of hotels change based on the specific Travel 2.0 application in which comments and reviews are uploaded?

RQ2. Does the influence of UGC on tourists' choice of hotels change based on their socio-demographic and behavioral characteristics?

For the purposes of this study, data were collected through an online questionnaire. A snowball sampling technique was used (Wrenn, Stevens & Loudon, 2007), allowing the study to reach people from all regions of Italy. Initial respondents were generated from 1,500 contacts of an Italian Tourism Association based in Central Italy. These individuals, residing in different regions of Italy, received an e-mail inviting them to complete an online survey by clicking on a link provided in the e-mail. At the same time, they were invited to forward the survey to their friends, relatives, and contacts (older than 18 years of age).

The survey used in the research was divided into three parts and structured on closed questions, both dichotomic and multichotomic, with sim-

ple and multiple choice answers. The first part displayed a list of different 2.0 applications and proceeded to ask respondents if they had ever used them when making hotel reservations. People giving a positive answer to this question were then asked to reply to some general demographic questions. The second part asked respondents to assess (a) their yearly frequency of travel; (b) how often they use the Internet to search for information; (c) how often UGC sources induce them to alter their decision once it has been taken; and (d) what the main motivation is that pushes them to use UGC in their search for information. The third part asked respondents to assess, from their point of view, to what extent UGC uploaded in different types of peer-to-peer applications influences their choices. To this aim, the following 2.0 applications were considered: forums on company websites, tourism-related blogs, photo-sharing, video-sharing, OTAs, tourism-related social networks, non-tourism-related social networks, and microblogging. A five-point direct rating scale (1=very low, 5=very high) was used to indicate their answers.

The questionnaire was pilot-tested to verify the validity of its content, and the comprehensibility of both the questions and the scale used to make the assessments. No concerns were reported in the pilot tests.

Allowing for a three-week survey period (November 2012), a total of 1,209 questionnaires were returned, of which 607 were complete and usable for the purpose of statistical latent segmentation analysis.

# 4. RESULTS

## 4.1. Measurement of variables

Latent segmentation methodology was adopted to profile demand by Italian tourists in dependence of whether they are more or less familiar with travel-related social web applications. This type of procedure allows assigning individuals to the segments based on the probability of their belonging, breaking with the restrictions of deterministic assignment inherent to non-hierarchical cluster analysis (Dillon & Kumar, 1994). This methodology assigns the individuals to different segments under the supposition that the data stems from a mixture of distribution probabilities, in other words, from various groups or homogenous segments that are mixed in unknown proportions (McLachlan & Basford, 1988).

The advantage of latent class models is that they allow the incorporation of variables with different measurement scales (continual, ordinal, or nominal). Furthermore, the models usually incorporate independent variables that affect belonging to the latent classes. These exogenous variables are known as covariates or grouping variables (Vermunt & Magidson, 2002).

The eight variables used as indicators for the latent cluster analysis were items (i.e. different types of travel-related social web applications) that measure the consumers' perceived influence of UGC on their choices. Different socio-demographic characteristics (gender, age, education, and occupation) were introduced as covariates in order to outline the resulting segments, as well as the yearly frequency of travel and of using the Internet to search for information. Finally, we also considered a set of motivations for consumers to use UGCs (i.e. time saving, the possibility of searching for information at any time of day, a way to spend free time, socialize and share experiences, trustworthiness of UGC) (Table 1).

**Table 1:** Indicators and covariates

| VAR. | ITEMS MEASURED | CATEGORIES |
|---|---|---|
| INDICATORS | **Influence of the following Travel Social Web applications:**<br>Forum on the company's website<br>Tourism-related blogs<br>Photo-sharing sites<br>Video-sharing sites<br>Online Travel Agencies (OTAs)<br>Tourism-related social networks<br>Non tourism-related social networks<br>Microblogging | Very low<br>Low<br>Neither low nor high<br>High<br>Very high |
| COVARIATES | Gender | Male<br>Female |
| | Age | 18–24<br>25–34<br>35–44<br>45–54<br>55–64<br>65 or older |
| | Level of education | None<br>Primary school<br>Secondary school<br>High school<br>University degree<br>Master's degree<br>Ph.D. |
| | Occupation | Student<br>Administrative/clerical worker<br>Employed<br>Manager/executive<br>Teacher or professor<br>Trader/retailer<br>Self-employed<br>Retired<br>Unemployed<br>Other |
| | Yearly frequency of travel | 1–2<br>3–5<br>6–8<br>9–11<br>More than 11 |
| | Frequency of using the Internet to search for information | Almost never<br>Sometimes<br>Almost always<br>Always |
| | Use of UGC applications | Photo-sharing sites<br>Video-sharing sites<br>Tourism-related blogs<br>Online travel agencies (OTAs)<br>Tourism-related social networks<br>Non tourism-related social networks<br>Microblogging |
| | Motivation for using UGC to make hotel reservations | Time saving<br>Possibility of searching for information whenever I want<br>To spend free time<br>To socialize and share experiences with others<br>Trustworthiness of UGC |

Based on the positioning of different individuals with regard to these variables, we tried to obtain some groupings that fulfill the principles of maximum internal coherence and maximum external differentiation. For this, we used Latent Gold 4.5 Statistical software. Additionally, the SPSS 19.0 software was used to run $\chi^2$ analysis.

## 4.2. The impact of UGC on hotel choice: profiling Italian tourists

The first estimation step consisted of choosing the optimum number of segments, with 1 indicating that no heterogeneity existed, and running up to 8. Table 2 shows the estimation summary and the adjustment indices for each one of the 8 models.

The model adjustment was evaluated using the Bayesian information criterion (BIC), which permits identification of the model with the least number of classes that is best adjusted to the data. The lowest BIC value was considered as the best model indicator (Vermunt & Magidson, 2002). In this case, the best alternative was reflected by means of dividing the sample in three different user groups, as the BIC is minimized in this case.

The $L^2$ statistics can be interpreted as the indicator of the quantity of the relationship observed between the variables that cannot be explained by a model; the higher the value, the poorer the model adjustment to the data and even worse are the observed relationships described by the specified model (Vermunt & Magidson, 2005). On the other hand, the p-value is a formal evaluation of the measurement in which the model adjusts itself to the data (the null hypothesis of this test is that the models specified are valid for the population). Therefore, in our case, we have a good adjustment. Also, the entropy statistic ($E_s$) and $R^2$ are both close to 1.

In addition to the data set shown in Table 2, we have analyzed the Wald statistic, which serves to evaluate the statistical significance within a group of estimated parameters (Table 3). For all the indicators, we obtained a significant p-value associated with the Wald statistics, as an indication that each indicator discriminates between the clusters in a significant statistical manner (Vermunt & Magidson, 2005). Table 3 also contains the profiles of each cluster – namely, "digitally passive tourists", "focused tourists", and "social tourists".

**Table 2:** Summary of the model results

| Number of conglomerates | | LL | BIC(LL) | Npar | $L^2$ | p-value | Class. Err. | $E_s$ | $R^2$ |
|---|---|---|---|---|---|---|---|---|---|
| 1-Cluster | -6872.2753 | 13949.6236 | 32 | 13707.4605 | 2.0e-2459 | 0.0000 | 1 | 1 | |
| 2-Cluster | -6305.6736 | 13098.3955 | 76 | 12574.2571 | 5.9e-2254 | 0.0442 | 0.83 | 0.85 | |
| **3-Cluster** | **-6121.9798** | **13012.9831** | **120** | **12206.8695** | **5.8e-2208** | **0.0807** | **0.81** | **0.81** | |
| 4-Cluster | -6027.7874 | 13106.5735 | 164 | 12018.4846 | 8.6e-2200 | 0.0917 | 0.82 | 0.81 | |
| 5-Cluster | -5924.7153 | 13182.4047 | 208 | 11812.3405 | 1.4e-2188 | 0.0925 | 0.83 | 0.80 | |
| 6-Cluster | -5844.5266 | 13304.0024 | 252 | 11651.9630 | 9.8e-2188 | 0.0881 | 0.85 | 0.84 | |
| 7-Cluster | -5789.6945 | 13476.3135 | 296 | 11542.2988 | 1.5e-2198 | 0.0922 | 0.86 | 0.83 | |
| 8-Cluster | -5733.2665 | 13645.4327 | 340 | 11429.4428 | 6.8e-2210 | 0.0813 | 0.87 | 0.84 | |

LL=log-likelihood; BIC=Bayesian information criterion; Npar=number of parameters; $L^2$= LL statistic (measure of performance); p-value=significance of the model; Class.Err.=classification error; $E_s$= entropy statistic; $R^2$=Standard R-squared

**Table 3:** Tourist cluster profiles (indicators)

| | Digitally passive tourists (Cluster 3) | Focused tourists (Cluster 1) | Social tourists (Cluster 2) | Wald | p-value | $R^2$ |
|---|---|---|---|---|---|---|
| **Size of cluster** | 15.26% | 51.60% | 33.15% | | | |
| **FORUM ON THE COMPANY'S WEBSITE** | | | | | | |
| Very low | 0.2549 | 0.0944 | 0.0190 | | | |
| Low | **0.3887** | 0.2625 | 0.0190 | | | |
| Neither low nor high | 0.1795 | 0.2211 | 0.1696 | 66.5656 | 3.5e-15 | 0.1756 |
| High | 0.1636 | **0.3678** | **0.5500** | | | |
| Very high | 0.0132 | 0.0542 | 0.1581 | | | |
| **TOURISM-RELATED BLOGS** | | | | | | |
| Very low | 0.2604 | 0.0373 | 0.0010 | | | |
| Low | **0.4026** | 0.1704 | 0.0167 | | | |
| Neither low nor high | 0.1961 | 0.2453 | 0.0896 | 86.9679 | 1.3e-19 | 0.3368 |
| High | 0.1372 | **0.5068** | **0.6888** | | | |
| Very high | 0.0037 | 0.0403 | 0.2039 | | | |
| **PHOTO-SHARING** | | | | | | |
| Very low | **0.5196** | 0.0434 | 0.0013 | | | |
| Low | 0.4033 | 0.2404 | 0.0267 | | | |
| Neither low nor high | 0.0638 | 0.2712 | 0.1100 | 76.8031 | 2.1e-17 | 0.4782 |
| High | 0.0130 | **0.3937** | **0.5840** | | | |
| Very high | 0.0002 | 0.0512 | 0.2780 | | | |
| **VIDEO-SHARING** | | | | | | |
| Very low | **0.5730** | 0.0437 | 0.0012 | | | |
| Low | 0.3528 | 0.2105 | 0.0219 | | | |
| Neither low nor high | 0.0630 | 0.2939 | 0.1149 | 85.5747 | 2.6e-19 | 0.4981 |
| High | 0.0110 | **0.4027** | **0.5908** | | | |
| Very high | 0.0002 | 0.0493 | 0.2712 | | | |
| **OTAs WITH BOOKING AND RATING/REVIEW FUNCTIONS** | | | | | | |
| Very low | 0.2382 | 0.0302 | 0.0024 | | | |
| Low | **0.3362** | 0.1161 | 0.0223 | | | |
| Neither low nor high | 0.1875 | 0.1767 | 0.0810 | 92.4353 | 8.5e-21 | 0.2774 |
| High | 0.2235 | **0.5747** | **0.6278** | | | |
| Very high | 0.0146 | 0.1023 | 0.2664 | | | |
| **TOURISM-RELATED SOCIAL NETWORKS** | | | | | | |
| Very low | **0.4464** | 0.0400 | 0.0007 | | | |
| Low | 0.3840 | 0.1660 | 0.0121 | | | |
| Neither low nor high | 0.1183 | 0.2471 | 0.0778 | 104.3005 | 2.2e-23 | 0.4599 |
| High | 0.0506 | **0.5101** | **0.6936** | | | |
| Very high | 0.0008 | 0.0368 | 0.2158 | | | |
| **NON-TOURISM-RELATED SOCIAL NETWORKS** | | | | | | |
| Very low | **0.6458** | 0.1477 | 0.0046 | | | |
| Low | 0.3032 | **0.3541** | 0.0498 | | | |
| Neither low nor high | 0.0433 | 0.2580 | 0.1649 | 83.0307 | 9.3e-19 | 0.4670 |
| High | 0.0076 | 0.2321 | **0.6740** | | | |
| Very high | 0.0001 | 0.0081 | 0.1067 | | | |
| **MICROBLOGGING** | | | | | | |
| Very low | **0.7691** | 0.3186 | 0.0297 | | | |
| Low | 0.2071 | **0.3923** | 0.1389 | | | |
| Neither low nor high | 0.0212 | 0.1835 | 0.2464 | 88.4617 | 6.2e-20 | 0.4371 |
| High | 0.0026 | 0.1022 | **0.5206** | | | |
| Very high | 0.0000 | 0.0033 | 0.0644 | | | |

*Boldface indicates the highest relative importance between each category in each segment

Table 4 shows the composition of each group, also considering the information from the other descriptive variables included in the analysis.

**Table 4:** Tourist profile of latent segments

| Descriptive criteria | Categories | Clusters | | | $\chi^2$ value | p-value |
|---|---|---|---|---|---|---|
| | | Digitally passive tourists | Focused tourists | Social tourists | | |
| **Gender** | Male | 60.02% | 44.12% | 36.91% | 11.547 | 0.001 |
| | Female | 39.98% | 55.88% | 63.09% | | |
| **Age** | 25–34 | 9.86% | 18.75% | 20.43% | 985.144 | 0.000 |
| | 35–44 | 55.94% | 56.18% | 61.25% | | |
| | 45–54 | 21.33% | 20.03% | 14.68% | | |
| | 55–64 | 7.45% | 4.40% | 3.14% | | |
| | 65 or older | 5.41% | 0.64% | 0.50% | | |
| **Education** | Secondary school | 8.23% | 2.96% | 3.53% | 644.051 | 0.000 |
| | High school | 22.18% | 36.04% | 42.52% | | |
| | University degree | 48.48% | 48.82% | 45.32% | | |
| | Master | 15.74% | 8.39% | 7.53% | | |
| | Ph.D. | 5.36% | 3.77% | 1.10% | | |
| **Occupation** | Administrative/clerical worker | 3.31% | 3.05% | 5.16% | 1019.327 | 0.000 |
| | Employed | 30.32% | 31.14% | 23.55% | | |
| | Manager/executive | 5.50% | 2.51% | 1.01% | | |
| | Teacher or professor | 3.40% | 2.54% | 2.43% | | |
| | Trader/retailer | 3.10% | 0.70% | 1.47% | | |
| | Self-employed | 23.91% | 11.89% | 8.76% | | |
| | Retired | 0.00% | 0.64% | 0.00% | | |
| | Unemployed | 5.17% | 6.06% | 12.54% | | |
| | Other | 25.29% | 41.47% | 45.07% | | |
| **Yearly frequency of travel** | 1–2 | 40.56% | 37.03% | 54.41% | 444.960 | 0.000 |
| | 3–5 | 26.47% | 39.12% | 30.78% | | |
| | 6–8 | 13.04% | 10.50% | 6.98% | | |
| | 9–11 | 6.89% | 5.40% | 2.34% | | |
| | More than 11 | 13.03% | 7.94% | 5.50% | | |
| **Frequency of using Internet to search for information** | Almost never | 5.47% | 4.28% | 5.73% | 164.380 | 0.000 |
| | Sometimes | 27.18% | 27.69% | 25.40% | | |
| | Almost always | 36.44% | 36.62% | 33.58% | | |
| | Always | 30.91% | 31.41% | 35.29% | | |
| **Use of UGC applications[1]** | Photo sharing | 43.75% | 47.59% | 51.41% | 2.973 | 0.085 |
| | Video sharing | 70.73% | 70.52% | 80.83% | 159.765 | 0.000 |
| | Tourism-related blogs | 4.52% | 11.00% | 10.83% | 478.810 | 0.000 |
| | Online travel agencies (OTAs) | 70.56% | 79.61% | 75.71% | 210.918 | 0.000 |
| | Tourism-related SNSs | 32.28% | 39.41% | 33.64% | 65.735 | 0.000 |
| | Non tourism-related SNSs | 75.44% | 79.50% | 82.57% | 257.164 | 0.000 |
| | Microblogging | 6.08 | 8.88% | 14.36% | 443.031 | 0.000 |

*Table 4 - Continued*

| Descriptive criteria | Categories | Clusters | | | $\chi^2$ value | p-value |
|---|---|---|---|---|---|---|
| | | Digitally passive tourists | Focused tourists | Social tourists | | |
| **Motivation for using UGC to make hotel reservations** | Time savings | 32.80% | 30.91% | 27.75% | 107.541 | 0.000 |
| | Possibility of looking information whenever I want | 46.50% | 42.09% | 33.35% | 27.648 | 0.000 |
| | To spend free time | 11.41% | 5.60% | 2.93% | 584.325 | 0.000 |
| | To socialize and share experiences with others | 6.45% | 8.95% | 9.00% | 532.565 | 0.000 |
| | Trustworthiness of UGC | 52.49% | 70.83% | 68.35% | 82.005 | 0.000 |

[1] Only positive values (yes) have been reflected in the Table.

*Digitally passive tourists* are the least influenced by UGC in their choices (e.g. OTAs: 33.62%, forum on the company's website: 38.87%). This segment is mainly made up of men (60.02%) in the 35–54 age bracket (77.27%) who hold a university (undergraduate) degree (48.48%) and are employed as administrative or clerical workers (30.32%). The majority of them travel once or twice a year (40.56%) and reported that they always (30.91%) or almost always (36.44%) use the Internet to search for information. Their main motivation for using UGC is the trustworthiness of this source of information (52.49%), followed by the possibility to search for information whenever they want (46.50%), time saving (32.80%), a wish to spend free time (11.41%), and to share experiences with others (6.45%).

*Focused tourists* represent the largest cluster and include consumers who are highly influenced by UGC in their choices, especially when tourism-related social media are concerned (e.g. OTAs: 57.47%, tourism-related social networks: 51.01%). The majority are women under 44 years of age (74.93%) who have a university degree (48.82%) or high-school qualification (36.04%) and are employed as administrative or clerical workers (31.14%). Most of them travel 3–5 times a year (39.12%) and almost always (36.62%) or always (31.41%) use the Internet to search for information. Compared to the other clusters, this segment includes a greater number of people who consult tourist blogs (11.00%) and OTAs to choose their travel (79.61%) and use tourism-related social networking sites (39.41%). Finally, focused tourists use UGC mainly because they believe that this source of information is trustworthy (70.83%), and do this more than all the other clusters.

*Social tourists* are the most socially active cluster. When compared to focused tourists, they are more influenced by all Travel 2.0 applications when making hotel reservations, especially when non-tourism related social media are concerned. The majority of social tourists are women aged 25–34 who have a university degree (45.32%) and are employed as administrative or clerical workers (23.55%), who travel once or twice a year (54.41%), and heavily use UGC and the Internet when searching for information.

The contrasts associated with statistical $\chi^2$ conclude that significant differences exist between the segments regarding gender ($\chi^2 = 11.547$, $p < 0.01$), age ($\chi^2 = 985.144$, $p < 0.01$), education ($\chi^2 = 644.051$, $p < 0.01$), occupation ($\chi^2 = 1019.327$, $p < 0.01$), yearly frequency of travel ($\chi^2 = 444.960$), and use of the Internet to search for information ($\chi^2 = 164.380$, $p < 0.01$), influence of all but one

(photo-sharing) Travel 2.0 application, and motivations for using UGC (table 4).

Figure 1 clearly allows appreciation of the profile of the respondents belonging to each cluster, according to the indicators, and in Figure 2 according to the covariates.

# 5. DISCUSSION

Marketing theory holds that market segmentation is critical in terms of effectiveness and efficiency. Based on the research questions indicated in the methodology section, this study aims

**Figure 1:** Graphic profile of tourists contained in each cluster (indicators)

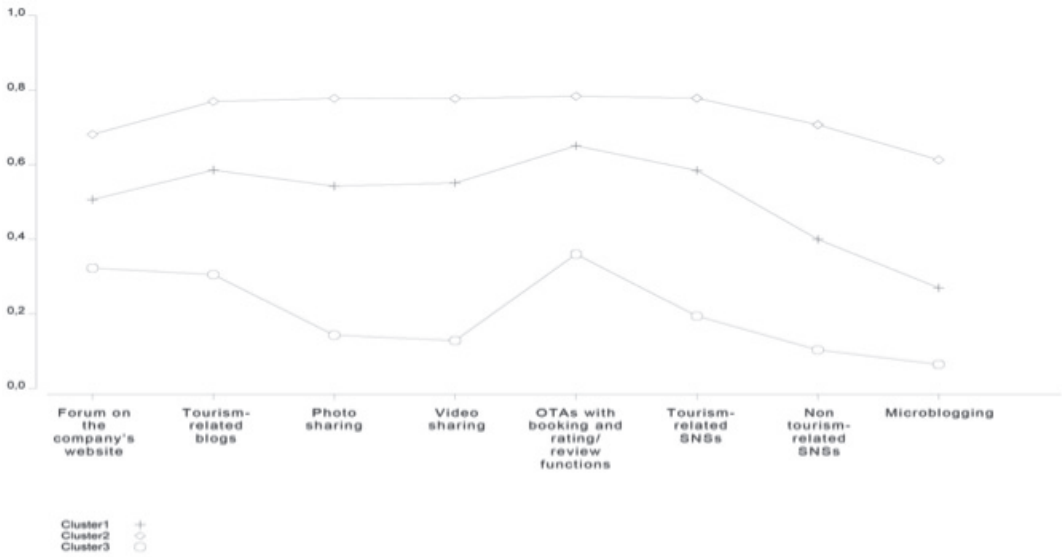
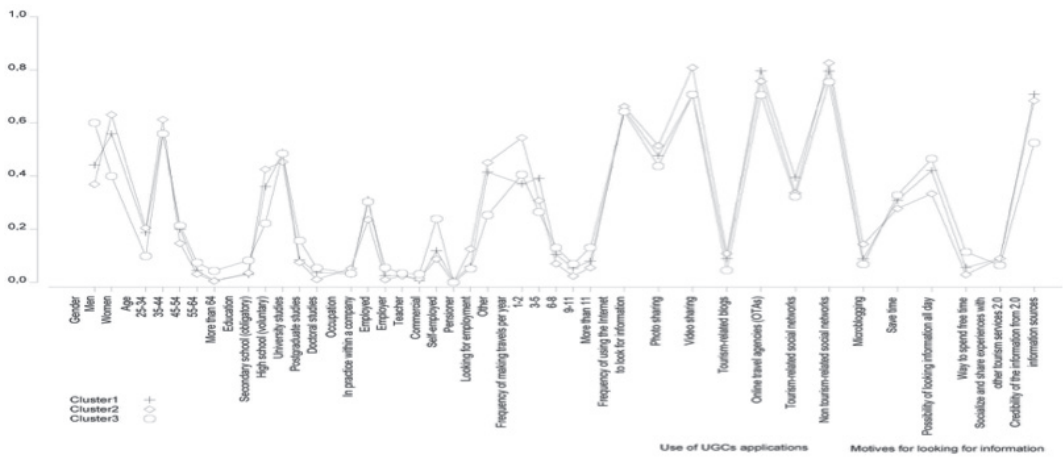



**Figure 2:** Graphic profile of tourists within each cluster (covariates)



at profiling Italian tourists in terms of the extent to which UGC influences their hotel booking. To achieve this aim, the study also considers some covariate variables in defining consumers' profiles: socio-demographic characteristics, frequency of travel, use of UGC applications, and motivations for using UGC in travel planning.

Specifically, our findings revealed that three segments can be considered (namely, "digitally passive tourists", "focused tourists", and "social tourists"). There are significant differences between them based on the extent to which UGC uploaded in all but one (photo-sharing) Travel 2.0 applications influence their choices. Further, significant differences were also reported to exist in terms of their socio-demographic characteristics, frequency of travel, frequency of using the Internet to search for information, and motivations for using UGC. For example, digitally passive tourists are characterized as being male and older compared to other clusters, and as relying less on UGC when searching for information. For the most part, they use UGC because it saves time, to search for information whenever they wish and because they enjoy doing it in their free time. On the contrary, the majority of focused tourists are female, they travel three to five times a year, and are influenced the most by tourism-related social media, which they use mainly because they are more trustworthy. Finally, social tourists are female, younger than those in all the other clusters, they travel once or twice a year, and their choices are highly influenced by all types of peer-to-peer travel applications, which they use more than others to socialize and share experiences with other people. Our findings seems to confirm that those with lower travel frequency are non-experienced travelers who rely more on the opinions of others (external sources of information), rather than on their own experiences (personal memory, internal sources of information) (Beatty & Smith, 1987). More broadly, our findings appear to corroborate previous studies, showing that the way UGC influences tourists' choices differs in dependence on their age, gender, income, and education level, with users being more likely to be female, younger, college-educated, employed full time (Yoo & Gretzel, 2011), and frequent travelers (Gretzel et al., 2007). Finally, Bronner and de Hoog's (2010) findings showed that motivations to post content influence the type of peer-to-peer application where UGC is uploaded; our findings suggest that the motivations to use Travel 2.0 applications influence the extent to which UGC is able to influence the tourists' decision-making.

## 6. CONCLUSIONS

Marketing theory agrees that market segmentation is critical for the effectiveness and efficiency of results. This study on a sample of 607 Italian travelers revealed that, when three segments are considered (namely, "digitally passive tourists", "focused tourists" , and "social tourists"), the extent to which UGC influences their final choices differs significantly in dependence on their socio-demographic characteristics, their yearly frequency of travel and their frequency of using the Internet to search for information, the types of travel-related social web applications they use, and their motivations for using UGC.

Our findings are significant for both researchers and hospitality managers. On the one hand, they provide further insight into the scientific debate on UGC and their influence on tourists' choices, revealing the existence of three clusters and the fact that several moderator factors can influence the extent to which the UGC influences tourists' choices, thus representing by themselves adequate segmentation criteria. On the other hand, and in accordance with previous studies (e.g. Yoo & Gretzel, 2011), this study suggests that hospitality marketers should run their social media strategy paying attention to the socio-demographic characteristics of the segment they are targeting, while employing a social media strategy that makes use of those Travel 2.0 applications that are most regarded by their specific target market as being influential. For example, hospitality marketers should focus on managing their social media presence/reputation predominant-

ly in relation to tourism-related social networks if they are targeting young women who travel less frequently and use the Internet intensively for these are the characteristics that most accurately describe "social tourists". On the contrary, hospitality marketers should concentrate on OTAs and tourism-related blogs when targeting middle-aged women who travel frequently; indeed, these are the characteristics that most accurately describe "focused tourists". Finally, hospitality marketers should concentrate on OTAs and the forum on the company's website when targeting middle-aged men who travel less frequently and use the internet intensively as these are the characteristics that most accurately describe "digitally passive tourists". Furthermore, our study suggests that hospitality marketers should encourage their guests to upload UGC on those peer-to-peer applications that exert a greater influence on the choices of tourists belonging to a specific market segment which they are targeting, thus rendering this information most useful to others. Finally, they might focus on sending online thank-you messages to their customers, inviting them to rate their satisfaction with the hotel services, and subsequently, if this assessment is positive, to redirect them to a link that allows their customers to post a review in certain types of social media. This should be done especially with those guests who have the characteristics most commonly found in social tourists, seeing that these consumers are more likely to use social media to share their experience with others.

Aside from the theoretical and managerial contribution of this study, there are some limitations that ought to be mentioned. First, like most online surveys, this study suffers from the coverage error; hence, the sample cannot be considered representative of Italian social media users in general. Secondly, the findings cannot be generalized because of the particular method of sampling we used (i.e., snowball sampling). Thirdly, the study was carried out exclusively in the context of Italy; further research in different countries would be needed to analyze the data through multi-group analysis in order to determine whether differences based on cultural background do exist and should be investigated via cross-cultural comparison. Finally, we carried out the segmentation taking into account only a few of the several latent variables that could have been considered for this purpose. Future research should include other types of latent variables (e.g. attitude towards the SNS, level of satisfaction, trust, and perceived risk), as well as other as covariates (e.g. personality and culture).

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