Brand strategies in social media in hospitality and tourism

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Abstract

Purpose – This paper aims to present an automated literature analysis to unveil the drivers for incorporating social media in tourism and hospitality brand strategies.

Design/methodology/approach – To gather relevant literature, Google Scholar was queried with “brand”/“branding” and “social media” for articles in ten top-ranked tourism and hospitality journals, resulting in a total of 479 collected articles. The methodology adopted for the analysis is based on text mining and topic modeling procedures. The topics discovered are characterized by terms belonging to a dictionary previously compiled and provide a segmentation of the articles in coherent sets of the literature.

Findings – Most of the 213 articles that encompass a strong relation between social media and branding are mentioning mainly brand building stages. A large research gap was found in hospitality and tourism considering that, besides advertising, no topic was discovered related to known brand strategies such as co-branding or franchising.

Practical implications – The present analysis concludes that specialized tourism and hospitality literature needs to keep pace with research that is being conducted on a wide range of industries to assess the influence of social media.

Originality/value – The automated analysis approach used has no precedent in tourism and hospitality research. By including an innovative topical concept map, it led to identifying and summarizing the topics, providing a clear picture on the findings. This study calls for research by specialized tourism and hospitality publications, eventually leading to special issues on this vibrant subject.

Keywords Social media, Brand building, Text mining, Tourism and hospitality, Literature analysis, Brand strategies

Paper type Literature review

1. Introduction

The rise of social media with the dawn of the new millennium has provided new ways for exchanging feedback on products and services. Such event has driven a huge increase in customer empowerment (Pires et al., 2006), with customers now having a vast number of instantaneous tools to influence others with their opinions, recommendations or complaints. The incorporation of social media in brands’ strategies worldwide is now mandatory for companies to thrive in a smaller world where competition can be next door or in the other side of the world (Tsimonis and Dimitriadis, 2014). Social media can appear in several formats such as social networks, blogs, online channels and online reviews (Leeflang et al., 2014).

Since the advent of social media, tourism and hospitality have been ground breaking industries for the adoption of online reviews as a mean for obtaining customer feedback.
fact, some of the most widely known online review sites are directly related to tourism and hospitality; most notably, TripAdvisor is one of the most recognizable consumer generated content sites, influencing a large number of future travelers in their decisions, thus affecting brand image and trust (Jeacle and Carter, 2011).

A large number of studies about the usage and effect of social media have proliferated in the past few years. Trenz and Berger (2013) analyzed literature on online customer reviews and confirmed the wide nature of research on online reviews, including disciplines such as information systems, marketing, operations research and management science, and tourism and hospitality management, among others. Nevertheless, the more recent work by King et al. (2014) which analyzed electronic word-of-mouth (e-word-of-mouth) literature verified that tourism and hospitality are less represented than other broader disciplines such as management and psychology. Social networks such as Facebook may influence consumer’s purchasing decisions (Di Pietro and Pantano, 2012). Therefore, brands in several industries worldwide such as tourism and hospitality invest in Facebook’s brand pages to increase customer engagement (Su et al., 2015).

A few recent literature review studies have been conducted on social media related issues and impact on hospitality. Leung et al. (2013) analyzed social media in tourism and hospitality during the 2007-2011 timeframe, covering a total of 44 articles. Their study did not specify which journals were included in the analysis, although the search was confined to hospitality literature. Cantallops and Salvi (2014) evaluated literature covering e-word-of-mouth in hotels, also during the 2007-2011 period, including 119 articles extracted from six top-rated tourism and hospitality journals, namely, International Journal of Hospitality Management, International Journal of Contemporary Hospitality Management, Cornell Hospitality Quarterly, Journal of Travel & Tourism Marketing, Journal of Travel Research and Tourism Management. Also, both studies adopted manual content analysis and considered both a consumer and supplier perspectives.

It should be noted that none of the mentioned studies analyzed the incorporation and impact of social media issues in brand strategies. Furthermore, none adopted an automated literature analysis approach based on text mining such as the one proposed in the present study which has no precedent in both tourism and hospitality research.

The main objectives of this study are as follows:

- conducting an extensive literature analysis of ten top-ranked journals in tourism and hospitality on the drivers for including social media in brand strategies;
- adopting a novel literature analysis methodology in tourism and hospitality by using text mining for gathering the most relevant terms from a collection of articles and then performing a topic modeling approach for summarizing literature; and
- identifying the main trends of research and gaps to be explored through the interpretation of the topics collected, with a special emphasis on contributing to a future enrichment of such an innovative and recent domain related to exploring social media in the tourism and hospitality industry toward brand building.

2. Literature review
2.1 Literature analysis
Onwuegbuzie et al. (2012) identified 17 methods of qualitative literature analysis, including classical content analysis, word count and text mining. Text mining has been used in a few studies published in the most recent years as a method for literature analysis in several subjects. One of the earliest of these is the research of Delen and Crossland (2008), by analyzing the titles and abstracts of a set of 1,123 articles published in three management...
information systems journals published between 1994 and 2005. The adoption of an automated analysis based approach including text mining techniques eases the burden of reviewing the textual contents of such a large display of literature. While text mining provides a quick solution for producing an organized structure that exhibits the contents of a large set of documents, the resulting document-term matrix is very sparse, especially considering all the possible words included within the documents. Such issue may demand a dimensionality reduction to focus on the relevant parts of the text for the subject being studied. Also, additional methods for summarizing the results in logical slots of information may provide guidance on evaluating the main trends in the literature. In this respect, Moro et al. (2015) proposed a methodology based on using dictionaries of relevant terms composed of n-words for feeding a topic modeling algorithm to present logical topics that encompass distinct trends of the literature. Considering the present study comprehends a large body of knowledge within the top ranked tourism and hospitality literature, the benefits of using an automated analysis overcome the limitations of such analysis, by providing a quick mean for analysis without the need of extensively reading all manuscripts, which would render unfeasible such task in a reasonable period of time. Therefore, the present study adopts this approach, enhancing it with an innovative visual presentation of the results.

2.2 Brand strategies
A brand (name, term, sign, symbol and design) is intended to identify the goods/services of sellers and to differentiate them from those of competitors (Kotler and Keller, 2016). Whereas brand management involves the analysis and planning on how a brand is perceived in the market, a branding strategy identifies which brand elements a company chooses to apply across its various products.

The internet and all the new means of communication that have risen on this worldwide spread channel have disrupted branding, shifting empowerment from managers to consumers (Christodoulides, 2009). Branding has been recognized as a theme of great relevance in the hotel industry worldwide (Forgacs, 2003). Moreover, Web 2.0 and its interactive nature boosted the relevance of capturing the right attention from consumers and responding with messages designed to enhance brand building and spur purchase behavior.

Literature in branding strategies is proficient, although it does not provide a true recipe on defining a list of all possible distinct strategies. Kam Fung So and King (2010) evaluated the impact of brand strategies on brand equity and found that customer service experience was the most influential factor determining brand meaning which in turn served as the primary contributor to brand equity.

For the present analysis, the list of branding themes identified in Table I was considered, including brand strategies (e.g. co-branding and rebranding) and also other relevant issues that affect directly brand strategy definition from the managerial perspective, such as competition, viability and growth. This compilation was first based on two referential review studies on hospitality and destination marketing research (i.e. Bowen and Sparks, 1998; Blain et al., 2005), and then complemented with terms found on the literature collected during the undertaken experimental procedure.

Branding managerial issues are an important ground for research. Nevertheless, a distinct branding perspective is brand building, which has been widely studied, with a particular emphasis on the specific case of assessing the impact of social media (Moro et al., 2016). Such remark implies that this branding perspective is also considered on the present study to assess the drivers for including social media in brand strategies.

Literature on brand building is vast; nevertheless, typically, it divides the types of interactions in three stages, as show in Figure 1. The first stage is related to cognition,
including all the terms that are associated with the perception that the general public (both consumers and potential customers) has on the brand. The second stage encompasses the relationships that the brand is generating with customers, while the third stage, conative, is related with the specific responses in terms of direct business value translated in sales.

The brand building stages are known to have direct impact on customer relationship in the hospitality industry (Back and Parks, 2003). Therefore, the three stages were included in the present study, as these denote intrinsic types of brand relationships, hence affecting brand strategies.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Definition</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>“a form of communication from an identifiable source, designed to persuade the receiver to take some action now or in the future”</td>
<td>Richards and Curran (2002)</td>
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<tr>
<td>Brand champion</td>
<td>“employees that champion the brand”</td>
<td>Davidson et al. (2011)</td>
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<tr>
<td>Brand extension</td>
<td>“use of established brand names to launch new products”</td>
<td>Volckner and Sattler (2006)</td>
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<tr>
<td>Brand program</td>
<td>“a marketing strategy to maintain customer relationships and generate return business”</td>
<td>McCall and Voorhees (2010)</td>
</tr>
<tr>
<td>Brand standard</td>
<td>“brand characteristics that are consistently and distinctively relevant to the competencies involved in each specific brand relationship”</td>
<td>McNally and Speak (2002)</td>
</tr>
<tr>
<td>Co-branding</td>
<td>“pairing two or more branded products constituent brands to form a separate and unique product composite brand)”</td>
<td>Park et al. (1996)</td>
</tr>
<tr>
<td>Competition</td>
<td>“allocating productive resources to their most highly valued use”</td>
<td>Durlauf and Blume (2008)</td>
</tr>
<tr>
<td>Equity</td>
<td>“the marketing effects that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name”</td>
<td>Ailawadi et al. (2003)</td>
</tr>
<tr>
<td>Fragmentation</td>
<td>“emergence of new segments which have their own distinct requirements”</td>
<td>Durlauf and Blume (2008)</td>
</tr>
<tr>
<td>Franchising</td>
<td>“the brand owner (franchisor) seeks to enlist partnership with independent service entities (franchisees) for rapid distribution of the brand concept”</td>
<td>King et al. (2013)</td>
</tr>
<tr>
<td>Growth</td>
<td>“results from current customers increasing their spending and from new customers being attracted to the brand in the future”</td>
<td>Keller and Lehmann (2009)</td>
</tr>
<tr>
<td>Innovation</td>
<td>“aims to convey either direct or indirect experiences to consumers through every interaction of innovative concepts”</td>
<td>Chien (2013)</td>
</tr>
<tr>
<td>Performance</td>
<td>“evaluated through outcomes such as market share and relative price”</td>
<td>Chaudhuri and Holbrook (2001)</td>
</tr>
<tr>
<td>Positioning</td>
<td>“occupying a distinct position, relative to competing brands, in the mind of the customer”</td>
<td>Ries and Trout (2000)</td>
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<tr>
<td>Promotion</td>
<td>“creating differences for helping consumers organize their knowledge about products to influence their decision toward providing value”</td>
<td>Singh (2013)</td>
</tr>
<tr>
<td>Rebranding</td>
<td>“the disjunction or change between an initially formulated corporate brand and a new formulation”</td>
<td>Merrilees and Miller (2008)</td>
</tr>
<tr>
<td>Unbranded</td>
<td>“unlabeled products being sold”</td>
<td>Subhani et al. (2012)</td>
</tr>
<tr>
<td>Viability</td>
<td>“ability to have sustainable profits over a period of time”</td>
<td>Durlauf and Blume (2008)</td>
</tr>
</tbody>
</table>

Table I. Brand managerial issues
2.3 Social media

The past decade (2001-2010) observed a 180-degrees shift in the way consumers use information systems and technologies (Berthon et al., 2012). The advent of Web 2.0 is the driver that boosted such shift, turning passive users into active ones, by providing a wide spectrum of interactive technologically appealing solutions that created the conditions for leveraging customer engagement (O'Reilly, 2007). It is imperative today that business managers stay up to date on technology, customers and social media, to redirect marketing and business efforts toward customers’ needs and problems.

Social media channels emerging in the past few years, with the advent of Web 2.0, include social networks, photo and video sharing sites, wikis, blogs and online review sites. Such channels are of an exponentially growing importance within the wider range ecosystem encompassing all the social media dimensions, including traditional channels such as mass media (Hanna et al., 2011).

Kim et al. (2016) studied online reviews in TripAdvisor of 100 hotels in New York to identify both satisfiers and dissatisfiers and found “staff and their attitude” as the most critical factor. Interestingly, King and Lee (2016) investigated the role of social media as an internal communication enhancer to build social capital among hospitality employees. Furthermore, Ladkin and Buhalis (2016) looked at online and social media as a recruitment source from the perspective of both hospitality employers and prospective employees. Recently, social media has also been addressed as a mediator of travel knowledge sharing and co-production of travel information between community residents and tourists (Edwards et al., 2017).

Websites are still playing a significant role in influencing customers, especially those that have evolved toward interactive solutions, opening room for obtaining customers’ feedback and online purchases, thus benefiting from technologies that were developed with the Web 2.0 (Berthon et al., 2012). Nevertheless, new means of interaction are emerging, mobile devices and applications being among the dominant channels nowadays (Hoehle et al., 2015). Figure 2 shows a picture of the main themes encompassed in this new social media emerged from Web 2.0, drawn on the concepts described by O'Reilly (2007), one of the pioneers that introduced the Web 2.0 concept, and Hanna et al. (2011).

While traditional websites evolved to benefit from the technology that arose with Web 2.0, other types of user-generated content websites emerged afterwards, being blogs and wikis some of the most representative. Sharing opinions’ sites became regular and, more recently, social networks emerged to become one of the most iconic representative types of social media. Other types of relevant social media include sharing photos (e.g. Instagram) and videos (e.g. Youtube) and may also be considered as sites for sharing contents.

![Brand building stages](image)

**Source:** Adapted from Smith et al. (2008)
Ever since its beginnings, Web 2.0 and its emerging social media solutions have intended to be a valuable tool for user interaction (O’Reilly, 2007). Nevertheless, it has overcome the expectations in terms of customer empowerment, influencing brands worldwide. Nowadays, companies need to keep pace with all sorts of communication channels, including social media and, more specifically, those raised in the context of new interactive technologies that are ready available for generating user engagement (Tsimonis and Dimitriadis, 2014).

With such a wide range of bi-directional communication channels, marketers are not able to control the reachability of their marketing initiatives, being at the mercy of the relentlessly of user engagement and viral reach (Mangold and Faulds, 2009). Brand managers are afraid of this intrinsic lack of control regarding the messages users are exchanging through e-word-of-mouth (Kietzmann and Canhoto, 2013).

Davis et al. (2014) assessed the relevance of social media communities for managing brands. Their study identified five drivers of brand consumption in social media: functional, emotional, self-oriented, social and relational. Consumers contact brands via social media having as primary functional motivations to solve problems, to send specific inquiries, to search for information, to evaluate the service before purchasing it and to access to a brand’s specific deals and giveaways. In addition, alleviating personal problems/situations, feeling privileged/recognized/valued by a brand and escapism/satisfaction of curiosity were identified as the most common emotional motivations. The main motivators included in self-orientation were self-actualization, self-perception enhancement and self-branding. Moreover, social brand consumption considered experience exchange, community attachment, building links and social interaction. Finally, relational consumption was characterized by co-creation of service offering, the desire for personalized brand interaction and the desire to know the real people behind the brand.

Understanding consumers’ specific motivations for brand consumption is mandatory for managing brands in social media. As Fournier and Avery (2011, p. 204) stated, nowadays, brand strategies need to be adapted with the tide provided by social media:

The new brandscape not only encourages, but demands flexibility, opportunism, and adaptation on the part of brands. Web 2.0 brand strategies are more likely discovered than they are constructed, governed by serendipity versus pre-planning, uncertainty versus certainty, and a reactive versus a proactive stance.
Brand managers need to adapt each brand strategy to benefit the most from social media trends while keeping pace with each company’s strategic guidelines. Therefore, brand building is dependent on this capability of adaptation to the momentaneous e-word-of-mouth that is virally spreading through an uncontrolled network of communication users and channels (Laroche et al., 2013).

The concept of social media has been at the top of the agenda in the business world. Indeed, social media play a dynamic role in the development and maintenance of consumer–brand relationships, hence providing marketing potential for brand management. Practically, all Fortune 500 companies are already using some form of social media to connect with consumers, and these are increasingly relying on social media to learn more about brands (Naylor et al., 2012). Social media can be categorized as collaborative projects, blogs, content communities, social networking sites, virtual game worlds and virtual social worlds (Kaplan and Haenlein, 2010).

The functional building blocks of social media are put forward by Kietzmann et al. (2011) as comprising the following seven: identity, conversations, sharing, presence, relationships, reputation and groups. These are characterized in terms of the extent to which users reveal themselves (identity), communicate to each other (conversations), exchange, distribute and receive content (sharing), know if others are available (presence), relate to each other (relationships), know the social standing of others and content (reputation) and are ordered or form communities (groups).

Consumer perceptions of both value-expressive and social adjustive functions of brands impact satisfaction with a brand, attitude towards the brand, intentions to use the brand’s social media for e-shopping as well as to research online and buy offline (Annie Jin, 2012). Moreover, Kim and Ko (2012) identified five constructs of perceived social media marketing activities influencing customer equity, namely, entertainment, interaction, trendiness, customization and word of mouth. The first construct is related to having fun using the brand’s social media (entertainment); the second one is the interaction among other users accompanied by the use of the brand’s social media, including items’ information sharing and opinion exchange attributes (interaction); the third construct represented fashion forward characteristics of the brand’s social media including items explaining trendiness and newness (trendiness); the fourth represented customized property of social media, involving customized information and way of information searching (customization); the last one included customer’s intention to pass along information seen in the brand’s social media (word of mouth).

Consumer brand engagement is conceptualized as “a consumer’s positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions” (Hollebeek et al., 2014, p. 154). These authors found that, although consumer brand involvement acts as antecedent of consumer brand engagement in social media, both consumer self-brand connection and brand usage intent represent key consequences. Additionally, Labrecque (2014) investigated the role of parasocial interaction theory in fostering consumer–brand relationships in social media environments, placing it as a mediator between the antecedents’ perceived interactivity and openness in communication and outcome variables such as loyalty and willingness to provide information.

Brands can serve as legitimate relationship partners. Emotion or affect-based brand relationships are indeed developed in online social communities. These emotional relationships are developed by self-connection a consumer has toward a brand. Turri et al. (2013) found that this connection can lead to an emotionally based attachment and bond, i.e. affective commitment, as well as to loyalty in the form of purchase behavior.
Considering the social and networked nature of social media it constitutes an ideal environment for brand communities. In fact, social media-based brand communities have not only shown positive effects on community markers and value creation practices but also enhanced brand trust and brand loyalty (Laroche et al., 2012; see also a seminal article on brand loyalty by Tepeci, 1999).

Furthermore, Habibi et al. (2014) delineated five unique dimensions of brand communities, namely, social context, structure, scale, content and storytelling and affiliated brand communities. In social media brand contexts (social context), communication is richer than only text based but poorer than face-to-face offline communication (Bagozzi and Dholakia, 2002). In virtual-based communities, members are often ranked (structure) based on their number of comments and appreciations they receive from other members, thus being able to achieve status of “highly engaged consumers” and consequently being recognized certain “rights” in the community (Brodie et al., 2013). Although most of online virtual communities do not exceed more than tens of thousands of members (scale), some reach millions, hence becoming mega communities (Sicilia and Palazon, 2008). In addition, brands usually play a central role in the consumption of related stories (content and storytelling) with the purpose of transferring information (Woodside et al., 2008). Finally, it is common to find sub-brand communities (affiliated brand communities) spurred by brand enthusiasts or branches of the firm (McAlexander et al., 2002).

Engagement in social media brand communities leads to positive increase in purchase expenditures, and interestingly, user-generated content exhibits a stronger impact than marketer-generated content on consumer purchase behavior (Goh et al., 2013). Moreover, the emergence of social media has changed the consumers’ role in storytelling from that of a passive listener to a more active participant (Singh and Sonnenburg, 2012).

When developing consumer online brand-related activities, internet users interact, express, share and create content. As a consequence of the new dynamic networks of consumers and brands formed through social media and the easiness of sharing brand experiences within them, consumers are becoming important creators of brand stories that affect brand performance (Gensler et al., 2013).

Social media activities and brand-related user interactions not only affect the perception of brands but also influence consumers purchase decisions. In fact, engagement with a social network brand fan page affects positively consumers’ brand awareness, word-of-mouth activities and purchase intention (Hutter et al., 2013). Creating brand fan pages on social networking sites is a way to foster relationships with customers. Brand posts placed by companies generate likes and comments by brand fans, thus impacting brand post popularity. This metric is enhanced by positioning the brand post on top of the brand fan page and by focusing on vivid and interactive brand post characteristics (De Vries et al., 2012).

3. Research methodology

3.1 Literature selection

Scopus, ISI Web of Knowledge (WoK) and Google Scholar (GS), from Elsevier, Thomson Reuters and Google, respectively, are the three most renowned academic search engines (Harzing, 2013). GS covers a larger spectrum of publications and indexes every section of the documents, differently from WoK and Scopus, which index only the most relevant parts of articles (e.g. title, abstract and keywords).

Both Scopus and WoK produce a ranking list per subject on the journals indexed by each of them, namely, the SClmago and the Journal Citation Report, with the ranks being defined by criteria and objective metrics based on citation counting, the SClmago Journal Rank (SJR)
and the Impact Factor (IF), respectively. Although citation-based ratings are widely used, several studies criticize the growing importance attributed to them in scholarly literature, such as the short timeframe accountable and the fact that it excludes several non-indexed but relevant sources such as books (Alberts, 2013; Paulus et al., 2015). McKercher et al. (2006) accounted for such limitations and devoted their study to the definition of two comprehensive journal rankings, one for tourism and another for hospitality. Their study is considered a reference concerning tourism and hospitality, as it has been cited more than 265 times according to GS and has been used as a baseline for posterior literature analyses (Hung and Law, 2011). Recent studies suggest taking into account expert judgment for complementing citation-based ratings (Hall and Page, 2015). For the present analysis, this latter approach was adopted. Table II displays a list of ten top-rated journals according to WoK, SCImago and McKercher et al. (2006) ranking.

The present research intended to find out which of the specialized tourism and hospitality literature mentioned both branding and social media, as a basis for assessing and segmenting the relevance and relationship between brand issues and social media. Therefore, GS was adopted for assuring that articles where the main themes were neither social media nor branding, but which mentioned both keywords were also included in the present analysis. The period under scrutiny ranged from 2005 to 2015, and the query used in GS was the following:

("branding" OR “brand” OR “brands”) AND (“social media”)

The results in terms of search hits both for individual journals and their total are shown in Table III, reaching a total of 479 articles published in the ten major tourism and hospitality journals previously selected. IJCHM and CHQ dominate research published referring to both social media and branding, with 86 and 85 articles, respectively; both include almost 36 per cent from the total. Furthermore, IJCHM started to mention both terms combined in the
same paper since 2005, while the remaining journals published the first articles only after 2009.

### 3.2 Literature analysis’ procedure

Figure 3 exhibits the proposed approach, including the procedures for gathering the relevant literature for analysis described in the previous section. The present research adopted the usage of dictionaries for parsing the documents (i.e. extract the meaningful words from text) in search for relevant occurring terms, as described in Moro et al. (2015). However, the cited study based the definition of the dictionaries on the suggestions made by three experts, revealing a limitation associated with the subjectivity of this approach. To address for such limitation, the current study is based on a generic dictionary crossing branding-related concepts, including brand building stages and brand managerial strategies described in 2.2 with social media (2.3). For further deepening the analysis, a specific tourism and hospitality dictionary was also built by considering the five standard tourism industries which aggregate businesses and brands, as identified by Smith (2006), and both the three most renowned specific tourism and hospitality online websites pinpointed by Xiang et al. (2017) and a list of the ten most relevant global social media platforms listed by Zeng and Gerritsen (2014). Nevertheless, to assess that the terms gathered were frequent in the literature collected, the third step in Figure 3 was executed over the articles collected, by searching specifically for the terms used in the original query for the search engine, namely, “brand”, “branding” and “social media”. Both resulting dictionaries are displayed in Table IV.

The text mining procedure (Step 4) uses as inputs both the collection of articles and the dictionary, with the latter being used for parsing the former, i.e. the procedure searches for occurrences of the terms from the dictionary in all the articles. Also in Step 4, the topic modeling procedure develops over the result from text mining to discover the most meaningful set of topics. The main goal is to obtain a coherent list of topics that aggregate in each one its related articles, characterized by a list of relevant terms from the dictionary. A few topic modeling algorithms are available, from which the most popular is the latent Dirichlet allocation (LDA), with evidence of its usefulness in similar tasks (Moro et al., 2015; Upreti et al., 2016).

The present study adopts the approach proposed by Moro et al. (2015), enhancing it with an innovative presentation of the results in a visually appealing map of concepts to provide a clearer and easier-to-read picture of the literature. Also aligned with this method, a word
cloud is shown, for shedding additional light on the most representative terms (McNaught and Lam, 2010). This topical map is an attempt to extract the most meaningful information from the LDA resulting structure, considering the volume of this large cube characterized by three dimensions: topics, terms and articles. First, it considers only the articles that best match each topic. While reading all articles for each matching topic would deem the analysis unfeasible, a manual procedure was undertaken for validating topics by reading two randomly selected articles per topic. Thereafter, for each topic, the terms that maximize likelihood of characterizing such topic are identified and matched to a domain of interest in the dictionary. Thus, only the most relevant connections to each domain are drawn, providing a visual picture that characterizes literature.

To in-deepening the broader panorama discovered about brand issues in social media, a narrower analysis is conducted focusing specifically on understanding which social media
specific platforms are mostly being studied within the five main tourism industries. The goal is to highlight research on strategies related to each industry for promoting their brands on specific platforms.

All the experiments hereby described were conducted using the R statistical tool, which is an open source framework offering a wide variety of packages for data analysis (available at https://cran.r-project.org/). Moreover, the “tm” package was chosen for the text mining functions, and the “topicmodels” for topic modeling, with the latter benefiting from using as input the data structure resulting from text mining. Also, the “wordcloud” package was adopted for generating the word clouds.

4. Results
In this section, the results are shown and discussed. Topic modeling requires that the number of topics is provided as an input. Following the suggestion of Moro et al. (2015), this number was set to 12 for the broader analysis on branding generic concepts to social media and to seven for the specific industry and social platform based analysis. The resulting topical maps are shown on Figure 4 for the former analysis and on Figure 6 for the latter.

The map drawn on Figure 4 is organized so that in the top layer are the terms related to social media subjects, in the middle layer the terms for brand building three stages, while the bottom layer shows brand managerial issues. Each topic is represented by a rounded black square with the top digits identifying the topic for referencing purposes while the bottom number representing the total of articles that best matched the topic. The lines connect each topic with the three most relevant terms and are labeled with the \( \beta \) distribution value (computed by LDA), which measures the intensity of the relationship. A \( \beta \) value closer to zero represents a stronger relation, which is depicted with a thicker line.

The topics were divided in three groups, according to the relationships identified by the three terms that best characterize each. The first group, represented in the middle layer in Figure 4, is best related to brand building, not mentioning a single term associated with social media nor brand management issues, for the three topics included. The second group

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<table>
<thead>
<tr>
<th>Generic dictionary</th>
<th>Specific tourism and hospitality dictionary</th>
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<tbody>
<tr>
<td>Brand managerial issues</td>
<td>Brand building stages</td>
</tr>
<tr>
<td>Co-branding</td>
<td>Cognitive</td>
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<tr>
<td>Extension</td>
<td>E-word-of-mouth</td>
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<td>Viability</td>
<td>Viral</td>
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<td>Franchising</td>
<td>Online reviews</td>
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<td>Viral</td>
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<tr>
<td>Conative</td>
<td>Online reviews</td>
</tr>
<tr>
<td>Social networks</td>
<td>Websites</td>
</tr>
<tr>
<td>Brand program</td>
<td>Brand building stages</td>
</tr>
<tr>
<td>Brand champion</td>
<td>Cognitive</td>
</tr>
<tr>
<td>Advertising</td>
<td>E-word-of-mouth</td>
</tr>
<tr>
<td>Innovation</td>
<td>Viral</td>
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<tr>
<td>Conative</td>
<td>Social networks</td>
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<tr>
<td>Brand program</td>
<td>Online reviews</td>
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<td>Brand champion</td>
<td>Websites</td>
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<tr>
<td>Advertising</td>
<td>Brand building stages</td>
</tr>
<tr>
<td>Innovation</td>
<td>Cognitive</td>
</tr>
<tr>
<td>Conative</td>
<td>E-word-of-mouth</td>
</tr>
<tr>
<td>Social networks</td>
<td>Viral</td>
</tr>
<tr>
<td>Online channels</td>
<td>Online reviews</td>
</tr>
<tr>
<td>Forums</td>
<td>Websites</td>
</tr>
<tr>
<td>Mobile devices and apps</td>
<td>Brand building stages</td>
</tr>
</tbody>
</table>

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Specific tourism and hospitality dictionary

Industries
- Accommodation
- Transportation

Social media platforms
- Facebook
- YouTube
- LinkedIn
- Pinterest
- Tumblr
- Tripadvisor
- Google+
- Twitter
- Instagram
- MySpace
- Badoo

Table IV.

Dictionaries

Specific tourism and hospitality dictionary

Industries
- Accommodation
- Transportation

Social media platforms
- Facebook
- YouTube
- LinkedIn
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- Tripadvisor
- Google+
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(bottom layer) is highly related with brand managerial issues. Both these first and second groups show that while a significant part of hospitality literature mentions social media, not much of an emphasis is given to this new trend. The third group (top layer in Figure 4) represents the most interesting part for the current research, with six topics encompassing 213 articles, with all topics associated to social media themes, and also mostly with brand building stages, while only the last, with eight articles, mentions innovation.

Such innovative picture confirms that a wide number of articles are mentioning mostly brand managerial issues, with some relations with brand building stages. However, the most relevant topics for the present analysis are encompassed in a grayed box, and relate social media with branding issues. While there are several articles that analyze the influence and impact of social media in the three identified brand building stages, only one topic included a relationship to a managerial issue, innovation. In fact, none of the three most relevant terms
for each of the ten topics includes highly known and studied brand strategies such as rebranding, co-branding or franchising. Thus, one of the contributions of this study is the identification of such research gap, showing that there is clearly a long route to pave the way concerning specialized hospitality literature.

Figure 5 exhibits the word cloud drawn on all the terms from the dictionary (Table IV) for the 213 articles included in the five topics that relate social media with branding. It should be noted that while Figure 4 shows only the three brand building stages, for simplification purposes, the word cloud displays every single word characterized in each of the three stages, as defined in Table IV. Hence, it provides the full picture on the emphasis that specialized hospitality literature is giving to each of the terms in the 2005-2015 period studied. While Web 2.0 specific terms such as e-word-of-mouth, social networks and cyber communities appear in a clear font size, these dwarf in comparison with traditional websites. Also, brand building stages, namely, cognition related such as information, awareness and also conative purchasing appear in the largest font size, while managerial subjects such as advertising pale in comparison. Such result is a confirmation of the research gap identified on aligning the brand strategies benefiting from social media.

The topics exhibited on the map in Figure 6 identify direct relations between the main social media platforms mentioned in the collected body of knowledge and the five main industries in tourism and hospitality within the brands can be positioned, as classified by Smith (2006). The representation of the topics and links between concepts is similar to Figure 4, with each rounded square showing the seven identified topics and below each topic numbering appears.
the total number of articles matching the topic. However, on this figure, top layer displays the social networks with most impact on each tourism industry, shown on the bottom layer. Thus, the results highlight the most relevant social networks for each industry only. Topic #1 allows pinpointing research based on the use of YouTube for improving and sharing tourists’ experience related to tourism services such as operators and guides, given the strong relation found, characterized by $\beta$ values from the same magnitude (0.93 for YouTube and 1.26 for services industry). However, the word cloud drawn on Figure 7 shows that studies on brands within services’ tourism and hospitality industry related to social media are still scarce, given the small font of “services” within the cloud. The accommodation industry is by far the most representative from the data set of literature collected (Figure 7), being tightly linked to TripAdvisor, the most renowned specific tourism and hospitality reviews’ platform (Topic #2). Topic #3 shows also a strong relation with Facebook, although the weak $\beta$ value of 7.69 connecting it to accommodation is a reminder that Facebook is the most known and used social network platform, with tourism and hospitality researchers using it as a benchmark regarding social media in general (Su et al., 2015). Interestingly, Twitter is linked to both accommodation (Topic #4, with the largest number of articles, 197) and entertainment, presenting a very strong
relation to this latter industry (Topic #5). The ease to tweet small messages on entertainment events linked to tourist attractions makes this social network an attractive choice in e-word-of-mouth communication (Neuhofer et al., 2014). Transportation appears weakly linked to Expedia, which is devoted to trip planning (Bui et al., 2015). Finally, an interesting finding emerges through the use of Instagram for visually sharing photos of food and beverage.

5. Discussion and conclusions

5.1 Conclusions
The results unveiled that research on social media in tourism and hospitality brands went from a marginal trend in the 2005-2009 period to a main stream of studies in the past three years analyzed (2013-2015), with the number of articles increasing dramatically in the latter period. Nevertheless, a closer look to the topics computed uncovered that most of the research is not accounting the impact exerted by social media on brands; instead, research focuses on broader themes related to social media usage in tourism and hospitality, mostly from a consumer point of view. Some literature acknowledges the relevance of social media to brand building, while few research attempts to study how social media is being incorporated into brand strategies. Accommodation appears as the most mature industry in social media, as brands are aware of its relevance and the scientific literature is keeping pace accordingly. While TripAdvisor was established to answer the needs of tourists as a means of e-word-of-mouth, generalist social networks such as Twitter and Facebook are becoming more relevant to every tourism industry in general.

5.2 Theoretical implications
In the past few years, social media has proven to have a profound impact on brands worldwide. The hospitality industry is no exception for the following rule of thumb: brands need to incorporate communication through social media and consider the effect that viral e-word-of-mouth has on each individual brand. Similarly, it is expected that research keeps pace with such demand, helping to both understand phenomena and offer innovative perspectives on the subject. Notwithstanding, only 112 articles, less than half from the total of 227, effectively related social media themes with branding, mostly with brand building. A relevant finding relates to the fact that most of the articles address the influence/impact of social media issues on each of the three brand building stages (cognitive, affective and conative), while only one topic with just eight articles was related to innovation. Such discovery represents a huge research gap, as the presence of most of tourism and hospitality brands on social media platforms show brands are aware of the relevance of social media. Furthermore, by crossing brand building and social media, this study found that research focused on e-word-of-mouth, social networks and brand communities exists, but it is still minimal in comparison to traditional websites. This is indeed a major issue as it reveals academic research being largely outrun by the reality occurring in the business world where social media has been strongly adopted by firms. Moreover, this study also found advertising to be clearly under-researched in the literature, namely, if one takes into account that this has been a main business model for many social media platforms, such as Facebook and YouTube. In addition, research on branding and social media within specific tourism and hospitality industries is still on an embryonic stage. Accommodation and its relationship with TripAdvisor is the main exception.

5.3 Practical implications
The scientific literature output addressing brand-social relations in the hospitality and tourism context has still been strongly focused on traditional websites. In fact, these play a
reference role for many consumers who either directly or via Google search for company or destination information in websites. Here, the value of information content and internet advertising has been major concerns for academics.

Mobile devices and e-word-of-mouth have also emerged as relevant concerns for researchers. That is aligned with the high market penetration rates and usage of mobile devices (smartphones, tablets) coupled with the importance of building trust and generating commitment from users, and the increasing importance of other tourists’ peer communication through e-word-of-mouth.

As an expected consequence of the social media fast developments occurring in the business world, academics are also studying significantly cyber communities and social networks, as well as online reviews. Brand communities are becoming more important as well as the presence of firms in social networks not only to promote interaction between businesses and consumers but also to have an impact in how consumers interact among themselves and to monitor in real-time their opinions and reactions. Here, sites like TripAdvisor and Booking are paramount.

Our research findings also show that Twitter has been used as a key tool to foster e-word-of-mouth when it comes to entertainment and tourist attractions. Instagram as a photo sharing app is playing a relevant role in the food and beverage sector, whereas YouTube seems to be more relevant for operators and guide services. Hence, hospitality and tourism companies and organizations should formulate their brand strategies in social media differently and according to the industry they belong to, as the existing range of platforms seems to play distinct roles.

5.4 Limitations and future research
Within this study, several limitations arose. First, by using only tourism and hospitality literature, the analysis may neglect relevant findings reported in broader journals, including management, marketing and technology titles. Also, using text mining tools represents a tradeoff between being able to quickly analyze a large body of knowledge and risking in missing key findings hidden from an automated analysis through language semantics. Nevertheless, adopting specific context dictionaries minimizes the latter risk. Finally, validating the topics found raises another important tradeoff: while all the articles closely related to each topic could be read to assure topics’ coherence, adopting such procedure would imply not benefitting from the speed of a fully automated analysis.

Several important recommendations are raised from this study. The awareness of the relevance of social media as a means for brands to manage their image should drive to more fruitful research specifically focused on the subject, as it is clear that specialized tourism and hospitality journals are falling behind on the state-of-the-art. Specifically, the brand positioning within an emerging number of social networks deserves a detailed and closer look, as it is a highly dynamic subject driven by an increasingly larger percentage of world population. As an example, Instagram was founded in 2010 to quickly become a dominant player which now appears to be related to the food and beverage industry. Thus, it would be interesting to conduct future research toward understanding how brands are using Instagram to thrive their businesses. In addition, brands seem to acknowledge equally relevance to tourism and hospitality social media platforms such as TripAdvisor and to global social networks such as Twitter. Nevertheless, it is imperative to understand the differences in brand strategies among these social media, as future research on this subject may lead to an insightful vision that can guide brands to perform distinct approaches based on the specificities of each social network.


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