

Social Media and Customer Engagement in Tourism: Evidence from Facebook Corporate Pages of Leading Cruise Companies

Giovanni Satta, Francesco Parola, Nicoletta Buratti, Luca Persico

Department of Economics and Business Studies and CIELI, University of Genoa, Italy,
email: *giovanni.satta@economia.unige.it* (Corresponding author), *parola@economia.unige.it*,
buratti@economia.unige.it, *persico@economia.unige.it*

Roberto Viviani

email: *roberto.viviani1992@gmail.com*
Department of Economics and Business Studies, University of Genoa, Italy

Abstract

In the last decade, an increasing number of scholars has challenged the role of Social Media Marketing (SMM) in tourism. Indeed, Social Media (SM) provide undoubted opportunities for fostering firms' relationships with their customers, and online customer engagement (CE) has become a common objective when developing communication strategies.

Although extant literature appear very rich and heterogeneous, only a limited number of scholars have explored which kind of contents, media and posting day would engage tourists on social media. Hence, a relevant literature gap still persists, as tourism companies would greatly benefit from understanding how posting strategies on major social media may foster online CE.

The paper investigates the antecedents of online CE in the tourism industry by addressing the posting activities of cruise companies on their Facebook pages. For this purpose, we scrutinize the impact of post content, format and timing on online CE, modelled as liking, commenting and sharing. In particular, we test the proposed model grounding on an empirical investigation performed on 982 Facebook posts uploaded by MSC Crociere (446), Costa Crociere (331) and Royal Caribbean Cruises (205) in a period of 12 month.

The outcomes unveil that the emotional content of the post significantly affects online CE. In this regard, findings suggest that exclusivity appeal, experiential appeal and general branding are the categories that mostly contributed to generate a positive reaction from Facebook users. The results provide tourism marketers with useful insights when assessing their posting strategies, shaping the contents posted on Facebook, the format selected for their posts, as well as post timing.

Keywords

Social media marketing; tourism; post strategies; online customer engagement, content, format

1. Introduction

Social Media (SM) provide undoubted opportunities for fostering firms' relationships with their customers, and online customer engagement (CE) has become a widespread objective when developing communication strategies for firms operating in business where customer references, word-of-mouth (WoM) and feedbacks are predictors of success.

This is the case of the travel and tourism businesses and, specifically, of the cruise industry. This business represents an ideal field for empirical investigation related to online CE, due to its intrinsic characteristics. First, the high involvement nature of the cruise service and the rate of "repeaters" make the business a fruitful context for investigating the determinants of online CE. Second, the process of service recovery is fast and customer feedbacks are relevant, thus SM marketing tools may be beneficial in managing complaints. In addition, cruise companies are scrutinizing experiential marketing as a viable strategy for improving customer satisfaction and engagement. Finally, in this business, emotions are expected to impact on customer attitude towards both WoM and feedback and, therefore, it may represent an interesting field for investigating the impact of post content, format and timing on CE.

Given the above, the paper investigates the antecedents of online CE in the tourism industry by addressing the posting activities of cruise companies on their Facebook pages. For this purpose, we scrutinize the impact of post content, post format and post timing on online CE, modelled as liking, commenting and sharing. In particular, we test the proposed model grounding on an empirical investigation performed on 982 Facebook posts uploaded by MSC Crociere (446), Costa Crociere (331) and Royal Caribbean Cruises (205) in a period of 12 month.

In particular, the emotional content of the post is found to significantly affect online CE. In this vein, findings suggest that exclusivity appeal, experiential appeal and general branding are the categories that mostly contributed to generate a positive reaction from Facebook users.

Empirical outcomes also demonstrate that long texts reduce the total number of likes, comments and shares from customers and prospectus, whereas corporate posts enriched by videos or web url obtain an higher online engagement.

When it comes to the post timing, we find a robust empirical support only with regard to the role of the posting hour. Conversely, post frequency seems to affect negatively only the total number of likes received by corporate posts

These findings provide tourism marketers with useful insights when assessing their posting strategies, shaping the contents posted on Facebook, the format selected for their posts, as well as post timing.

The reminder of the paper is structured as follows. Section 2 summarizes extant literature on social media marketing (SMM) in tourism, providing an exhaustive literature review. Section 3 suggests an ad hoc theoretical framework for assessing the impact of post strategies on online CE in the tourism domain and introduces main research hypothesis. Section 4 briefly comments on major methodological issues related to the empirical investigation performed, whereas in Section 5 the main findings are reported. Section 6 discusses the outcomes and highlights both academic and practical implications, before concluding.

2. Social media marketing in tourism: literature review

Social media marketing (SMM) grounds on the use of social media applications for marketing objectives (Tuten and Solomon, 2013). Mainstream literature in tourism industries recognized the growing importance of the most popular tools such as blogs, (content) communities, forums/bulletin boards, content aggregators and social networks. In particular, among the latter, Facebook, LinkedIn, Twitter and Instagram are the most diffused and they represent useful instruments to engage customers (Ashley and Tuten, 2015) and promote long term relationships based on trust, commitment, satisfaction and emotion (Pansari and Kumar, 2017).

Customers commitment is indeed one of the key objectives of SMM activity; in the SM context, passive participation just involves “consuming” online contents, whereas active commitment generates a wider range of behaviours such as liking, and commenting or uploading consumer-generated contents (Hutton and Fosdick, 2011). Academics agree that, among the most desirable activities by customers, a relevant place is occupied by the “*brand mention shared to the person’s network, called influence impressions*” (Ashley and Tuten, 2015). Hence, SMM strategies and their impact on online CE today assume a huge importance for those companies running a business where customer references, SM conversations and customer feedbacks profoundly influence firm’s market success, such as tourism industries (Drury 2008).

The growing practical relevance of the notion of CE within communication and social media strategies (Doorn et al., 2010) drove academics to elaborate various conceptualizations of this construct. Despite this initial effort, a broadly accepted definition of CE is still missing. In this regard, for instance, Kumar et al. (2010) state that CE refers to those customer activities that influence the company’s success, such as client purchases, incentivised referrals, social media conversations or product/service suggestions. Other scholars discuss about the degree of commitment of customers in the relationship with the provider (Vivek et al., 2012), recognizing that customer engagement reaches beyond purchase and focus on the firm (and its brand) (Doorn et al., 2010). In addition, Brodie et al. (2011) argue that CE constitutes a psychological state that materializes in specific contexts.

In the last decade, an increasing number of scholars has challenged the role of SMM in tourism. Table 1 briefly summarizes main academic contributions on the topic, reporting 27 papers published on leading international journals. This literature review provides several interesting insights on the state of the art concerning the adoption of social media marketing tools within the tourism domain.

The temporal breakdown of the papers unveils how novel and recent the topic is within extant literature: 10 out of 27 manuscripts have been published in the last two years. When it comes to the geographic dimensions of the analysis, the majority of the papers applies an international approach toward the study of the phenomenon: indeed, almost half (13) of the contributions relates to social media marketing strategies of tourism companies, worldwide. Nonetheless, also regional and country-based analyses emerge; in particular, Europe (see, for example, Bromer and Hoog, 2011; Nakara et al., 2012) and Far East (see, for example, Chung and Han, 2017; Chang et al., 2018; Xu and Pratt, 2018) are the most investigated areas.

When facing the usage and diffusion of social media within the tourism context, scholars adopt several different theoretical perspectives. Among others, the most common theories are the behavioural intention theory (e.g., Bronner and Hogg, 2001; Ben-Shaul and

Reichel, 2017, etc.), the user-generated content theory (e.g. Wozniak et al., 2017), experiential marketing (e.g., Marasco and Micera, 2013) as well as the social influence theory (Chung et al., 2017). When it comes to the paper type, most contributions are research papers (86%), being conceptual papers and literature reviews quite rare. Moreover, quantitative research papers outnumber qualitative ones. Single and multiple case studies as well as content analysis are the most applied method within qualitative research papers; conversely, in quantitative studies many scholars resort to regression model, structural equation modelling (SEM) and factor analysis.

A deeper investigation of the topics addressed by previous studies on social media in tourism highlights the existence of four main streams of literature. The first stream focuses on the impact of social media on tourists' decision process (e.g., Sotiriadis and Van Zyl, 2013). Manuscripts belonging to this group predominantly try to explain how social media are changing travellers' behaviour in searching information (Chung and Han, 2017), or how these tools influences their decision making process (Leung et al., 2017).

A second broad group of studies investigates the impact of social media on tourists' behavioural intentions and the implications in terms of customer satisfaction and loyalty. Bronner and Hoog (2011), for example, investigate the usage of social media by vacationers investigating who posts, why, where and what. They find that vacationers who post and have a self-directed motivation prefer marketer-generated sites, comment mainly on a limited number of aspects of a vacation, post more negative reviews and contribute more to sites. Zhang et al (2015) investigate the structure of customer satisfaction in the cruise industry, by performing an empirical investigation based on online WoM. Finally, Chung et al. (2017) analyse the relationship between social network sites' usage and satisfaction in tourism experience, whereas Heinze et al. (2016) argue that social media may foster cruisers' loyalty toward cruise lines.

A third avenue of contributions evaluate the efficiency of social media campaigns and try to measure their impact in terms of returns on investments. Wozniak et al. (2017), for example, address the return on tourism organizations' social media investments, while Nakara et al. (2012) question about the efficiency of social media marketing in tourism SMEs.

Finally, the last stream of literature, predominantly focuses on the role played by travellers within social media by stressing such concepts as: user-generated content (Ketter and Avraham, 2012), interactions in social media (Perez-Vega et al., 2018), brand communities (Hede and Kellett, 2012) and media influencers (Xu and Pratt, 2018).

Although extant literature on social media marketing in tourism appear very rich and heterogeneous, only a limited number of scholars have explored which kind of content, media and posting day would engage tourists on social media (Gupta et al., 2018). Therefore, a relevant literature gap that need to be addressed further, still persists, as tourism companies would greatly benefit from understanding how posting strategies on major social media may foster online CE.

Table 1. Social media in tourism: literature review (1/2)

Author	Year	Main topic	Theoretical perspective	Paper Type	Method	Social Media considered	Geographic coverage
Bronner and De Hoog	2011	Vacationers' activity on SM	Behavioral Intention Theory (eWoM)	Research paper (quantitative)	Multivariate analysis (exploratory principal component analysis)	SNS, blogs, microblogs and forums	Netherlands
Parra-López, Bulchand-Gidumal, Gutierrez-Tano and Diaz-Armas	2011	The use of social media in trip organization	Behavioral intention theory	Research paper (quantitative)	Regression model (PLS)	Blogs and microblogs	Canary Islands
Nakara, Benmoussa and Jaouen	2012	Efficiency of social media marketing in SMEs	N.A.	Research paper (qualitative)	Content analysis and descriptive statistics	Viadeo, Facebook, Twitter, LinkedIn, etc.	France
Hede and Kellett	2012	Social networking opportunities	N.A.	Research paper (qualitative)	Multiple case study	Facebook, Twitter, YouTube, Flickr, websites	Australia
Ketter and Avraham	2012	Social media in tourism campaign	Communication marketing (five W answers)	Research paper (qualitative)	Content analysis	Facebook, Twitter, YouTube, Flickr	Worldwide
Sotiriadis and Van Zyl	2013	e-WoM and social media analytics	Behavioral intention theory (interpersonal influence, eWoM); Recipient/receiver perspective	Conceptual paper Research paper (quantitative)	Conceptual framework Regression analysis and advanced/multivariate analysis	Twitter	Europe and South Africa
Marasco and Micera	2013	Virtual communities analysis	Experiential marketing	Research paper (qualitative)	Single case study	Virtual community (MSC friends)	Worldwide
Hudson and Thal	2013	Social Media in consumer decision journey	Moment of the truth theory; Consumer behaviour theory	Literature review	Systematic literature review	Facebook	Worldwide
Leung, Law, Van Hoof and Buhais	2013	Social media in travelers' decision making and in tourism operations	N.A.	Literature review Research paper (qualitative)	Systematic literature review Content analysis	All	Worldwide
Wood, Guerry, Silver and Lacayo	2013	Social media analytics	Big Data analytics	Research paper (quantitative)	Regression model	Flickr	Worldwide
Zeng and Gerritsen	2014	Usage of social media in the tourism industry	N.A.	Literature review	Systematic literature review	All	Worldwide
Chung and Koo	2015	Social media as an information tool for travelers	Value-based adoption model (VAM); Prospect theory; Mental account theory	Research paper (quantitative)	Structural equation modeling (SEM)	Facebook, Twitter, Cyworld, Blog, Café, Smartphone app	Worldwide
Zhang, Ye, Song and Liu	2015	Travelers' review analysis to find their satisfaction/dissatisfaction level	Two-factor Theory	Research paper (quantitative)	Regression model	Cruise Critic	Worldwide

Source: authors' own elaboration.

Table 1. Social media in tourism: literature review (2/2)

Author	Year	Main topic	Theoretical perspective	Paper Type	Method	Social Media considered	Geographic coverage
Cheng and Edwards	2015	Social media posts analysis	Behavioral intention theory	Research paper (quantitative)	Visual analytic approach	Sina Weibo	China
Park, Ok and Chae	2016	Social media analytics	Social networking platform theory; Social network metrics	Research paper (qualitative) Research paper (quantitative)	Content analysis Network mapping analysis and cluster analysis	Twitter	Worldwide
Heinze, Guhr and Breiter	2016	Social media analytics	N.A.	Research paper (qualitative)	Multiple case study	YouTube, Facebook, HolidayCheck, Cruise Critic and web pages	Worldwide
Ben-Shaul and Reichel	2017	Customers' participation to tourism brand pages on Facebook analysis	Behavioral intention theory (repurchase and recommendation intentions)	Research paper (quantitative)	Factor analysis	Facebook	Israel
Chung and Han	2017	Social media and tourists' behavior	Attachment theory; Reference group influence theory	Research paper (quantitative)	Structural equation modelling (SEM)	All	Korea
Chung, Tyan, and Chung	2017	Relationship between SNS use and satisfaction with tourism experience	Social influence theory; Broaden-and-build theory	Research paper (quantitative)	Regression model (PLS)	SNS	Korea
Wozniak, Stangl, Schegg and Liebrich	2017	ROI of tourism organization that use social media	User-generated-content theory	Research paper (quantitative)	Non-parametric tests and descriptive results	Facebook, Twitter, YouTube, Instagram, Google+ and Pinterest	Belgium, France and Switzerland
Litvin, Goldsmith and Pan	2018	Social media, electronic Word of Mouth and social media marketing campaign	Customer relationship marketing; Customer engagement theory	Research paper (qualitative)	Theory building	Twitter, Facebook, Instagram and Vine	Worldwide
Chang, Chou, Wu and Wu	2018	Owned social media marketing in tourism industry	Cognitive fit theory	Research paper (quantitative)	Difference-in-Difference (DID) approach	Facebook	Taiwan
Han, McCabe, Wang and Loong Ching	2018	Pro-environmental travel UGC engagement and behavioural intentions	Norm activation theory; Pro-environmental behavioral intentions	Research paper (quantitative)	Structural equation modeling (SEM)	Travel website	China
Perez-Vega, Taheri, Farrington and O'Gorman	2018	New perspective on the nature of social media interactions	Social response theory	Research paper (quantitative)	Structural equation modeling (SEM) and PLS analysis	Facebook	Worldwide
Xu, and Pratt	2018	Social Media Influencers (SMIs)	Self-congruity theory	Research paper (quantitative)	Experiment (Absolute difference model)	Wechat, Weibo, Instagram, Facebook and others	China
Gupta, Bakshi and Dogra	2018	Official tourism Facebook pages analysis	Uses and gratification theory	Research paper (quantitative)	Engagement Index calculated by the author	Facebook	India
Mariani, Mura, and Di Felice	N.A. (article in press)	NTOs' Facebook pages analysis	Destination marketing; Big Data analytics	Research paper (quantitative)	Regression model and descriptive statistics	Facebook	Worldwide

Source: authors' own elaboration.

3. Posting strategies and online CE in tourism: theoretical framework and research hypotheses

The paper investigates the implications of social media marketing on online CE in the tourism industry by addressing corporate posting strategies on Facebook pursued by leading cruise companies. Facebook has been selected as it represents the largest and most popular SM site (Buratti et al., 2018); it has over one billion registered users with more than 60 percent of them connecting to it every day (www.facebook.com).

The most relevant forms of CE through SM platforms, such as Facebook, are liking, commenting and sharing (Swani et al., 2014). Liking is the lighter form of online CE; notwithstanding, it may have a great value for tourism companies, as this action performed by online tourists increases the probability that prospects and potential leads see the brand and the services of the tourism company. An additional type of online engagement regards the comment of a post. In this way, tourists and vacationers may share opinions on the companies' brands or products, signalling the affinity respect to a brand or a service. Moreover, tourists can even get more involved by sharing the post on their profile wall (Satta et al., 2017). By this way, information can sharply flow in the network of relatives and friends, becoming available to a larger number of users. As these initiatives are a valuable type of e-WoM communication and online CE, in this study we model online CE as liking, commenting and sharing.

Prior contributions assessing the impact of companies' posting strategies on online CE (among others Chauhan and Pillai, 2013; Kabadayi and Price, 2014; Ashley and Tuten, 2015; Satta et al., 2017) suggest three main groups of antecedents, i.e., post content, post format and post timing.

As regards communication contents, the emotional vs. functional nature of communication is the most widespread dichotomous categorization adopted by scholars (Kilgour et al., 2015). Grounding on extant literature (Cvijikj and Michahelles, 2013; Kilgour et al., 2015; Yang and Kankanhalli, 2014; Ashley and Tuten, 2015), we propose a conceptual classification of post contents which include seven categories related to their emotional (4 types) or functional appeal (3 types). Emotional appeals include *experiential appeal*, *exclusivity*, *social cause* and a few posts labelled *general branding*, as they aim to stimulate customers' actions by recalling some brand's values. On the other side, functional dimensions refer to *purchase appeal*, *product description* and *repost* of customers' review (Satta et al., 2017). In this perspective, emotional posts are expected to positively influence engagement by making customers closer to the companies.

Therefore, we expect that:

H1. Emotional corporate posts obtain a higher number of likes (H1.a), comments (H1.b) and shares (H1.c).

When it comes to media type, scholars agree that post format is a valuable predictor of the impact of online communication strategy on CE (Cvijikj and Michahelles, 2013). Every minute 510,000 comments are posted and 136,000 videos are uploaded according to "The Social Skinny", i.e. a popular blog dedicated to social media marketing. As a result, although there are several engaged and active users, a number of posts from both companies and users compete for the attention of the other members of the network.

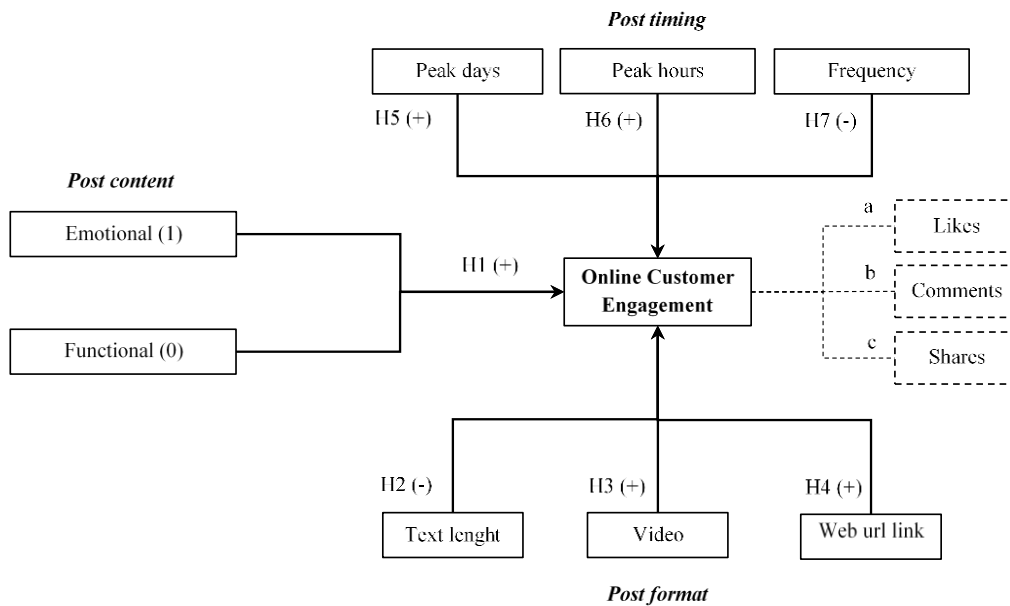
Relatedly, the quality of the posting strategy and decisions related to post format are expected to affect online CE (Kim, Spiller and Hettche 2015; Bonsón, Royo and Ratkai, 2015). Social media managers have a short time period to impress users, so they need to select and post relevant, interesting and unique contents in a smart and exciting manner. For

H6. Corporate posts shared during the peak hours (i.e. from 09:00 am to 08:00 pm) generate a higher number of likes (H6.a), comments (H6.b) and shares (H6.c).

H7. A high corporate post frequency negatively affect the number of likes (H7.a), comments (H7.b) and shares (H7.c) received.

Figure 1 summarizes our conceptual framework concerning the impact of post strategies on online CE in the tourism industry. For each group of determinants (i.e., post content, format and timing), variables, research hypotheses and predicted signs are reported.

Figure 1. Theoretical framework and research hypotheses



Source: authors' own elaboration.

4. Method

Empirical context

To test our research hypotheses, the manuscript addresses the cruise industry, i.e. one of the fastest-growing segment of the tourism industry over the last decades (Wild and Dearing, 2000; Dowling, 2006; Brida et al., 2013), by investigating the impact of SMM strategies pursued by leading cruise companies.

This business, indeed, constitutes an ideal field for empirical investigation related to online CE, due to several of its features. First, SMM tools may be beneficial in managing complaints, as the process of service recovery is faster and customer feedback become even more relevant. Second, in the cruise industry experiential marketing constitutes a valuable option for improving customer satisfaction and engagement, as well as the high involvement nature of the cruise service and the rate of “repeaters” make this sector a fruitful context for investigating the determinants of online CE. Third, due to the high level of corporate brand value and the relevance of emotions in shaping customer satisfaction in this business, SMM is expected to impact on customer influence attitude in terms of both WoM and feedback.

Data collection and variables

For the aim of the study, we scrutinized the SMM strategy of three leading cruise lines holding a top strategic position in the Mediterranean Sea (i.e. MSC Crociere, Costa Crociere and Royal Caribbean International). Table 3 reports key information related to the sample cruise lines focusing on general information, operations, market position and social media activity on Facebook. Data show their proactive approach toward Facebook and their capacity to stimulating online customer engagement.

For our purposes, the corporate verified Italian Facebook pages of the sample cruise lines have been tracked for a period of 12 months (April 2016 – May 2017), collecting data on their posting strategies. As a result, data on 982 Facebook posts uploaded by MSC Crociere (446), Costa Crociere (331) and Royal Caribbean Cruises (205) are used to operationalize the variables included in the model.

In particular, in our analyses, we employed three dependent variables (LIKE, COMM and SHAR) and seven independent variables focusing on post content (CONT), post format (TELE, VIDE, WEBU) and post timing (DAWE, HOPE, FREQ), respectively. We also introduced ad hoc control variables for taking into account bias originating from each posting firm’s (COST, MSCC) specific features, e.g. the total number of followers (which is expected to influence the overall amount of reactions received by each post), as well as post’ time exposure (TIME), as a longer exposure is demonstrated to determine higher online customer engagement.

Table 3. Sample cruise lines: key information

Corporate information	Costa Crociere	MSC Crociere	Royal Caribbean International
General information	Year of foundation	1854	1987
	Headquarters	Genoa (Italy)	Geneva (Switzerland)
	Group affiliation	Carnival Corporation (USA)	MSC S.A. (Switzerland)
Operations	No. of vessels	15	12
	Fleet capacity (lower berths)	37,220	30,174
	Orderbook (no. vessels)	4	11
	Employees	18,000	15,500
Market position	Main geographic markets	Mediterranean (core market), Northern Europe, Caribbean, South & North America, etc.	Mediterranean (core market), Northern Europe, South Africa, Caribbean, South & North America, etc.
	Market share (% passengers)	7.4%	5.2%
	Market share (% revenues)	6.7%	4.2%
	Segmentation	4 main product groups + Round-the-World cruise	4 main product groups + exclusive packages
Social media activity on Facebook*#	No. of followers	2,438,074	4,410,549
	No. of posts (textual)	330	447
	No. of likes	151,835	353,229
	No. of comments	22,342	61,495
	No. of shares	19,576	80,715
	No. of url links	172	440
	No. of images	265	386
No. of videos	69	63	

* For all the sample companies data refers to the sample timeframe (April 2016 – May 2017).

In the case of Royal Caribbean International, data refers to the Italian corporate Facebook page.

Source: authors’ own elaboration from Annual Reports and corporate websites.

Source: authors’ own elaboration from Annual Reports and corporate websites.

Table 4 reports variables’ code, name and description, providing insights on their respective operationalization.

Likes, comments and shares are operationalized as three count variables. An appropriate way to model this kind of variables is to use count models such as Poisson regression (PR) or

Negative binomial regression (NBR). NBR is preferred to PR when the outcome count variable is over-dispersed (i.e. the conditional variance exceeds the conditional mean). In our study, we find that the over-dispersion parameter is significantly different from zero suggesting that NBR model is more appropriate than PR model. Therefore, to test research hypotheses (H1.a – H7.c) we carried out three NBR models.

Table 4. Dependent, independent and control variables: description and operationalization

Code	Variable	Description
<i>Dependent variables</i>		
LIKE	Likes	Count variable operationalized as the natural logarithm of the number of likes a corporate post has received by Facebook fan/users since its publication on the corporate wall.
COMM	Comments	Count variable, operationalized as the natural logarithm of the number of comments a corporate post has received by Facebook fans/users since its publication on the corporate wall.
SHAR	Shares	Count variable, operationalized as the natural logarithm of the number of shares a corporate post has received by Facebook fans/users since its publication on the corporate wall.
<i>Independent variables</i>		
CONT	Post content	The content of each post has been coded assigning value 1 if it predominantly includes emotional content and 0 when the content relates to functional appeals. Emotional appeal includes: experiential appeal, exclusivity appeal, social cause, and general branding. Conversely functional appeal groups together purchase appeal, product description and repost of buyer review.
TELE	Text length	Count variable operationalized as the total number of characters composing the post (spaces excluded).
VIDE	Video	Dummy variable which takes value 1 if the post contains a video and 0 otherwise.
WEBU	Web url	Dummy variable which takes value 1 if the post contains a link to a web url and 0 otherwise.
DAWE	Day of the week	Dummy variable which considers the day of the week in which the content has been uploaded on the corporate Facebook page. The variable takes value 1 if the post has been created during those days which report peak traffic data according to leading empirical research conducted on Facebook (i.e., Thursday, Saturday or Sunday) as reported in Section 3, and 0 otherwise (Monday, Tuesday, Friday).
HOPE	Peak hour	Dummy variable which takes value 1 if the post has been upload during the peak hour and 0 otherwise. In line with data and references reported in Section 3, peak hours for Facebook traffic are from 09:00 am to 08:00 pm.
FREQ	Frequency	Count variable operationalized as the number of posts published by the company on its corporate Facebook page before the sample post in the previous 72 hour.
<i>Control variables</i>		
COST	Post uploaded by Costa Crociere	Dummy variable taking value 1 if the corporate post has been uploaded by Costa Crociere and 0 otherwise.
MSCC	Post uploaded by MSC Crociere	Dummy variable taking value 1 if the corporate post has been uploaded by MSC Crociere and 0 otherwise.
TIME	Time exposure	Number of day elapsed between the date of publication of the post and the day of data collection.

Source: authors' own elaboration.

5. Main findings

Table 5 reports the outcomes of negative binomial regression analysis performed to test research hypotheses (H1.a-H7.c). In particular, Model 1 tests the impact of post content, format and timing on online CE modelled as the total number of likes received by the post (H1.a - H7.a), Model 2 addresses hypotheses H1.b - H7.b, investigating the impact of post strategies on users' post comments, whereas Model 3 is dedicated to shares (H1.c - H7.c).

The LR chi-square statistic for the three models test that all of the estimated coefficients are equal to zero as a whole, while P-values suggest that all the models are statistically significant.

Model 1 is the best performing, as the coefficients of six out of the seven independent variables are statistically significant and correctly signed. In particular, CONT, VIDE, WEBU, and HOPE are found to positively affect post' likes, whereas TELE and FREQ negatively influence the total number of likes received. Conversely, the coefficient of DAWE is not statistically significant. As a result, six out seven hypotheses (H1.a, H2.a, H3.a, H5.a, H6.a, H7.a) are confirmed, while hypothesis H4.a is not supported.

Results related to Model 3 mostly fit with outcomes from Model 1. The total amount of shares obtained by the post, in fact, are positively influenced by the emotional content of the post (CONT), the upload of a video jointly with the post (VIDEO), the addition of a web url (WEBU) and depends upon the post timing, being post uploaded during peak hours more

shared than the others (HOPE). Conversely, long texts are found to negatively affect the number of shares the post receives (TEXT has negative and significant coefficient). Hence, with regard to Model 3, five out of seven hypotheses (H1.c, H2.c, H3.c, H5.c, H6.c) are supported, whereas hypotheses H4.c and H7.c are rejected.

Finally, in Model 2 only 3 out of 7 coefficients of the independent variables are statistically significant and correctly signed. In particular, Facebook users' tend to comment more on posts with an emotional content or a video. Posts uploaded during peak hours in the day, also, are demonstrated to reach a higher level of comments from users. Therefore, only H1.b, H2.b and H6.b are confirmed, whereas H3.b, H4.b, H5.b and H7.b are not statistically supported.

Table 5. Negative binomial regression analysis

	<i>Model 1</i> <i>(LIKE)</i>	<i>Model 2</i> <i>(COMM)</i>	<i>Model 3</i> <i>(SHAR)</i>
<i>Constant</i>	6.53048 *** 0.33537	2.73873 *** 0.46865	3.82007 *** 0.39548
<i>Independent variables</i>			
CONT	0.51759 *** 0.05752	0.71304 *** 0.08175	0.46590 *** 0.06998
TELE	-0.38360 *** 0.06071	-0.24164 ** 0.08874	-0.30865 *** 0.07041
VIDE	0.25674 ** 0.07885	0.18896 0.11659	0.83378 *** 0.09692
WEBU	0.13324 * 0.06318	-0.04687 0.09325	0.24403 ** 0.07529
DAWE	0.02235 0.05602	-0.10523 0.08049	0.06538 0.06821
HOPE	0.33976 * 0.13294	0.56090 ** 0.19087	0.57705 *** 0.16550
FREQ	-0.05857 * 0.02604	-0.04249 0.03698	-0.02829 0.03140
<i>Control Variables</i>			
COSTA	0.52236 *** 0.08757	1.07770 *** 0.12988	0.49571 *** 0.10749
MSC	1.08964 *** 0.09459	0.93034 *** 0.14140	0.98348 *** 0.11527
TIME	0.00064 * 0.00031	0.00169 *** 0.00048	0.00048 0.00038
LR Chi-squared	292.79 ***	161.17 ***	305.48 ***
alpha	0.65340 ***	1.31460 ***	0.96679 ***

Source: authors' own elaboration

6. Discussion and implications

Overall, 14 out of 21 hypotheses are accepted. In particular, the emotional content of the post is found to significantly impact on all the three dependent variables. Given the above, we further investigated post content by splitting statistical units in accordance with the categorization proposed in Section 3. To test differences in median among various types of content, we performed the Kruskal-Wallis test on the aforementioned categories of post content (Table 6).

Outcomes reported in Table 6 demonstrate that each variable (i.e., content categories) holds different median like, comment and share values. In particular, as concern the total number of likes received by Facebook users, findings suggest that exclusivity appeal, experiential appeal and general branding are the categories that mostly contributed to the significance of the test. When it comes to the total number of comments, repost of buyer review is found as the best contributor. These findings provide tourism marketers with useful insights when assessing their posting strategies, shaping the contents posted on Facebook. Different themes, indeed, stimulates various forms of online CE from SM users.

Table 6. Post content and online CE

<i>Post content</i>	<i>No.</i>	<i>%</i>	<i>Likes (median)</i>	<i>Comments (median)</i>	<i>Shares (median)</i>
<i>Emotional</i>					
Experiential appeal	456	46.4%	386	23	44
Exclusivity appeal	29	3.0%	511	33	50
Social Cause	11	1.1%	233	6	24
Branding	115	11.7%	361	19	35
<i>Functional</i>					
Purchase appeal	152	15.5%	226	15	33
Product description	196	20.0%	310.0	17	33
Repost of buyer review	23	2.3%	395	76	38
<i>Median</i>			329	20	38
Kruskal-Wallis chi-squared			59.978	48.255	21.598
p-value			1.00E-04	1.00E-04	1.40E-03

Source: authors' own elaboration.

As concern the post format, the three selected independent variables are demonstrated to affect the dependent variables significantly. In particular, long texts reduce heavily the total number of reactions from users: this may depend from the fact that long messages require longer engagement time, which is not coherent with common Facebook usage patterns, i.e. short usage sessions (Cvijikj and Michahelles, 2013; Satta et al., 2017). Unsurprisingly, corporate posts enriched by videos obtain a higher number of likes and shares: nonetheless, this type of format is not found to affect the number of comments to the posts, probably because this type of engagement should reasonably impose longer reaction time. Similar findings emerge for the inclusion of a web url within the post uploaded.

When it comes to the post timing, although prior studies have argued that timing is a critical dimension for the success of SMM strategy (Cvijikj and Michahelles, 2013), our findings provide robust empirical support only for the role of the posting hour. In particular, corporate posts uploaded from 09:00 am to 08:00 pm receive more likes, comments and

shares. Conversely, post frequency seems to affect negatively only the total number of likes: over a certain “threshold” too much frequent corporate posts, in fact, tend to disappoint Facebook users.

Surprisingly, the day of the week in which the post is uploaded is not found to influence tourists’ online CE. As this finding is quite unexpected we further investigate the phenomenon by splitting statistical units in accordance with the day of the week. To test differences in median among the posts uploaded in the different days of the week, we performed the Kruskal-Wallis test to check which days were actually different in distribution (Table 7). In particular, Wednesday and Friday emerge as the worst days for posting.

Table 7. Day of the week and online CE

<i>Day of the week</i>	<i>No.</i>	<i>%</i>	<i>Likes (median)</i>	<i>Comments (median)</i>	<i>Shares (median)</i>
Monday	153	15.6%	442	35	39
Tuesday	136	13.8%	348	20	40
Wednesday	154	15.7%	295	20	35
Thursday	160	16.3%	313	25	42
Friday	183	18.6%	251	14	29
Saturday	111	11.3%	330	17	41
Sunday	85	8.7%	381	20	40
<i>Median</i>			329	20	38
<i>Kruskal-Wallis chi-squared</i>			28.351	25.092	17.144
<i>p-value</i>			1.00E-04	3.00E-04	8.80E-03

Source: authors' own elaboration.

6. Limitations and conclusion

The paper by testing the impact of SMM strategies (i.e. post content, post format and post timing) on online CE in the tourism domain provides some useful insights for both academics and practitioners. Nonetheless, the manuscript is explorative in nature and still suffers some limitations.

First, the manuscript addresses SMM strategy along with a “static” perspective, so that a dynamic approach to the management of SMM tool is neglected. Hence, additional studies are invited to deepen the understanding of corporate posting activity in line with a dynamic and interactive approach, for example, by focusing on tourists’ dialogues on blogs and microblog or by monitoring users’ specific comments to corporate posts on the companies’ official Facebook pages. In addition, the study assumes a firm perspective without including in the analysis demographical and psychological attributes of the targeted audience. In this perspective, C2C interactions need to be addressed as SM hold both interactive and interpersonal aspects (Asley and Tuten, 2015).

Third, the paper focuses on leading cruise lines’ posting strategies: in this vein, to validate our findings, further tourism subsectors have to be addressed in the analysis. By this way, also main commonalities and differences among firms operating in various tourism businesses could be identified and discussed.

Four, our analysis only includes Facebook, whereas we do not provide additional information concerning the adoption of other main SMM tools, such as Twitter or LinkedIn. Future studies have to bridge the gap on the relations between the adoption of different SMM tools and integrated communication strategies by tourism companies.

Relatedly, as concern post format, the paper neglects to consider the qualitative aspects related to various post formats, such as, for example, the type or the nature of images and photos uploaded by cruise lines. In this regard, the rapid diffusion of social media platforms such as Instagram highlights the need for a deeper understanding of this post format when communicating with tourists or potential visitors.

References

- Ashley, C, and Tuten, T. (2015). Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement. *Psychology & Marketing*, 32(1), 15-27.
- Ben-Shaul, M. and Reichel, A. (2018). Motives, modes of participation, and loyalty intentions of Facebook tourism brand page consumers. *Journal of Travel Research*, 57(4), 453-471.
- Bonsón, E., Royo, S. and Ratkai, M. (2015). Citizens' engagement on local governments' Facebook sites. An empirical analysis: The impact of different media and content types in Western Europe. *Government Information Quarterly*, 32(1), 52-62.
- Brida, J., Pulina, M., Riano E. and Zapata-Aguirre S. (2013). Cruise passengers in a homeport: A market analysis. *Tourism Geographies*, 15(1), 68-87.
- Brodie, R.J., Hollebeek, L.D., Jurić, B. and Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252-271.
- Bronner, F. and De Hoog, R. (2011). Vacationers and eWOM: Who posts, and why, where, and what?. *Journal of Travel Research*, 50(1), 15-26.
- Buratti N., Parola F. and Satta G. (2018), "Insights on the adoption of social media marketing in B2B services", *Total Quality Management Journal*, DOI 10.1108/TQM-11-2017-0136.
- Chang, H.L., Chou, Y.C., Wu, D.Y. and Wu, S.C. (2018). Will firm's marketing efforts on owned social media payoff? A quasi-experimental analysis of tourism products. *Decision Support Systems*, 107, 13-25.
- Chauhan, K. and Pillai, A. (2013). Role of content strategy in social media brand communities: a case of higher education institutes in India. *Journal of Product & Brand Management*, 22(1), 40-51.
- Cheng, M. and Edwards, D. (2015). Social media in tourism: a visual analytic approach. *Current Issues in Tourism*, 18(11), 1080-1087.
- Chung, N. and Han, H. (2017). The relationship among tourists' persuasion, attachment and behavioral changes in social media. *Technological Forecasting and Social Change*, 123, 370-380.
- Chung, N. and Koo, C. (2015). The use of social media in travel information search. *Telematics and Informatics*, 32(2), 215-229.
- Chung, N., Tyan, I. and Chung, H. C. (2017). Social Support and Commitment within Social Networking Site in Tourism Experience. *Sustainability*, 9(11), 2102.
- Cvijikj, I. P. and Michahelles, F. (2013). Online engagement factors on Facebook brand pages. *Social Network Analysis and Mining*, 3(4), 843-861.

- Doorn, J. v., Lemon, K., Mittal, V., Nass, S., Pick, D., Pirner, P., et al. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13, 253–266.
- Dowling, R. K. (2006). The cruising industry. *Cruise ship tourism*, 3-17.
- Drury, G. (2008). Opinion piece: Social media: Should marketers engage and how can it be done effectively?. *Journal of Direct, Data and Digital Marketing Practice*, 9(3), 274-277.
- Gupta, A., Bakshi, S. and Dogra, N. (2018). Engaging consumers in the digital era: An analysis of official tourism Facebook pages in India. *Turizam: međunarodni znanstveno-stručni časopis*, 66(1), 63-77.
- Han, W., McCabe, S., Wang, Y. and Chong, A. Y. L. (2018). Evaluating user-generated content in social media: an effective approach to encourage greater pro-environmental behavior in tourism?. *Journal of Sustainable Tourism*, 26(4), 600-614.
- Hede, A.M. and Kellett, P. (2012). Building online brand communities: Exploring the benefits, challenges and risks in the Australian event sector. *Journal of Vacation Marketing*, 18(3), 239-250.
- Heinze, I., Guhr, N. and Breitner, M. H. (2016). Cruise Customer Loyalty Improvement with Social Media. In *Cruise Business Development* (pp. 157-174). Springer, Cham.
- Hudson, S. and Thal, K. (2013). The impact of social media on the consumer decision process: Implications for tourism marketing. *Journal of Travel & Tourism Marketing*, 30(1-2), 156-160.
- Hutton, G. and Fosdick, M. (2011). The globalization of social media: Consumer relationships with brands evolve in digital space. *Journal of Advertising Research*, 51, 564–570.
- Kabadayi, S. and Price, K. (2014). Consumer–brand engagement on Facebook: liking and commenting behaviors. *Journal of Research in Interactive Marketing*, 8(3), 203-223.
- Ketter, E. and Avraham, E. (2012). The social revolution of place marketing: The growing power of users in social media campaigns. *Place Branding and Public Diplomacy*, 8(4), 285-294.
- Kilgour, M., Sasser, S. L. and Larke, R. (2015). The social media transformation process: curating content into strategy. *Corporate Communications: An International Journal*, 20(3), 326-343.
- Kim, D. H., Spiller, L. and Hettche, M. (2015). Analyzing media types and content orientations in Facebook for global brands. *Journal of Research in Interactive Marketing*, 9(1), 4-30.
- Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T. and Tillmanns, S. (2010). Undervalued or overvalued customers: capturing total customer engagement value. *Journal of Service Research*, 13(3), 297-310.
- Leung, D., Law, R., Van Hoof, H. and Buhalis, D. (2013). Social media in tourism and hospitality: A literature review. *Journal of travel & tourism marketing*, 30(1-2), 3-22.
- Litvin, S. W., Goldsmith, R. E. and Pan, B. (2018). A retrospective view of electronic word-of-mouth in hospitality and tourism management. *International Journal of Contemporary Hospitality Management*, 30(1), 313-325.
- Marasco, A. and Micera, R. (2013). Virtual Communities and Tourism Experience Innovation: The Case of MSC Friends. *Economia dei Servizi*, 8(1), 71-90.
- Mariani, M.M., Mura, M. and Di Felice, M. (2017). The determinants of Facebook social engagement for national tourism organizations' Facebook pages: A quantitative approach. *Journal of destination marketing & management*, 8, 312-325.

- Nakara, W.A., Benmoussa, F. Z. and Jaouen, A. (2012). Entrepreneurship and social media marketing: evidence from French small business. *International Journal of Entrepreneurship and Small Business*, 16(4), 386-405.
- Pansari, A. and Kumar, V. (2017). Customer engagement: the construct, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 45(3), 294-311.
- Park, S.B., Ok, C.M. and Chae, B.K. (2016). Using twitter data for cruise tourism marketing and research. *Journal of Travel & Tourism Marketing*, 33(6), 885-898.
- Parra-López, E., Bulchand-Gidumal, J., Gutiérrez-Taño, D. and Díaz-Armas, R. (2011). Intentions to use social media in organizing and taking vacation trips. *Computers in Human Behavior*, 27(2), 640-654.
- Perez-Vega, R., Taheri, B., Farrington, T. and O'Gorman, K. (2018). On being attractive, social and visually appealing in social media: The effects of anthropomorphic tourism brands on Facebook fan pages. *Tourism Management*, 66, 339-347.
- Satta, G., Buratti, N. and Parola, F. (2017), "Social media marketing and online customer engagement in tourism", *Società Italiana Marketing Conference*, 27-28 ottobre, Bergamo (Italy), ISBN 978-88-907662-9-9.
- Sotiriadis, M.D. and Van Zyl, C. (2013). Electronic word-of-mouth and online reviews in tourism services: the use of twitter by tourists. *Electronic Commerce Research*, 13(1), 103-124.
- Swani, K., Brown, B.P. and Milne, G.R. (2014). "Should tweets differ for B2B and B2C? An analysis of Fortune 500 companies' Twitter communications", *Industrial Marketing Management*, 43(5): 873-881.
- Tuten T.L. and Solomon M.R. (2013). *Social Media Marketing*, Prentice Hall.
- Vivek, S.D., Beatty, S. E. and Morgan, R.M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, 20(2), 122-146.
- Wild, P. and Dearing, J. (2000). Development of and prospects for cruising in Europe. *Maritime Policy & Management*, 27(4), 315-333.
- Wood, S.A., Guerry, A.D., Silver, J.M. and Lacayo, M. (2013). Using social media to quantify nature-based tourism and recreation. *Scientific reports*, 3, 2976.
- Wozniak, T., Stangl, B., Schegg, R., and Liebrich, A. (2017). The return on tourism organizations' social media investments: preliminary evidence from Belgium, France, and Switzerland. *Information Technology & Tourism*, 17(1), 75-100.
- Xu, X. and Pratt, S. (2018). Social media influencers as endorsers to promote travel destinations: an application of self-congruence theory to the Chinese Generation Y. *Journal of Travel & Tourism Marketing*, 1-15.
- Yang, Y. and Kankanhalli, A. (2014). The Impact of Social Media Marketing on Online Small Business Performance. In *PACIS* (p. 63).
- Zeng, B. and Gerritsen, R. (2014). What do we know about social media in tourism? A review. *Tourism Management Perspectives*, 10, 27-36.
- Zhang, Z., Ye, Q., Song, H. and Liu, T. (2015). The structure of customer satisfaction with cruise-line services: An empirical investigation based on online word of mouth. *Current Issues in Tourism*, 18(5), 450-464.