

Instagram: Balancing Information Asymmetry of the Tourism Industry

Josué Gutiérrez-Barroso*^{ID}, Alberto Javier Báez-García**^{ID},
Francisco Flores-Muñoz***^{ID}, Diego Valentinetti[§]^{ID}

Abstract

This study focuses on the use of Instagram by tourism companies. Specifically, it aims to analyze how Instagram empowers individuals over corporations in the digital dialogue, thus balancing the information asymmetry between corporations and stakeholders. Four categories of metrics have been collected to analyze the use of Instagram by companies: presence, impact, conversation, and influence. Additionally, OLS regressions have been performed to identify potential explanatory factors to explain the different behavior of each firm and its corresponding communities. While the use of Instagram by the selected firms is still scarce, significant results are as follows: corporations are using Instagram as an additional channel in their current communication; some explanatory factors account for significant differences in countries, size, and industries; and users are somehow reactive to the stream of pictures and texts disclosed by firms. The presence and impact of companies on Instagram are a highly important source for driving stakeholders' conversation within the digital arena.

Keywords: social network sites; information asymmetry; tourism; Instagram; corporate disclosure.

JEL classification: Z1; L8; M1.

1. INTRODUCTION

The influence of communications channels in the mitigation of information asymmetries between corporations and its stakeholders has received much attention by researchers. The specific role of information intermediaries has been also explored, considering, among others, experts like auditors and financial analysts (Healy & Palepu, 2001). As the digital environment

* Faculty of Education, Universidad de La Laguna, San Cristóbal de La Laguna, Santa Cruz de Tenerife, Spain; e-mail: jgutierb@ull.edu.es.

** Faculty of Economics, Business and Tourism, Universidad La Laguna, San Cristóbal de La Laguna, Santa Cruz de Tenerife, Spain; e-mail: abaegarc@ull.edu.es.

*** Iriarte University College, Universidad de La Laguna, Puerto de la Cruz, Santa Cruz de Tenerife, Spain; e-mail: ffloremu@ull.edu.es.

§ Department of Economic studies, University "G. d'Annunzio" of Chieti-Pescara, Italy; e-mail: d.valentinetti@unich.it (corresponding author).

evolved, particularly with the rise of social media platforms, these intermediaries include now also non-experts, individuals that are able to filter information from the reporting firms and to generate opinion among stakeholders: *influencers*, as defined by Freberg, Graham, McGaughey, and Freberg (2011). It is not clear how these new intermediaries are interacting with the reporting firms and how they could be able to affect corporate transparency and, therefore, information asymmetry. Interestingly, recent digital tools like *Google Trend* are being recognized as effective online popularity performance metrics within the corporate disclosure practices - see e.g., Mora Rodríguez, Flores Muñoz, and Valentinetti (2021). Corporate digital communication between customers and companies, since the advent of Web 2.0, has been bidirectional (Grancay, 2014; Howard, Mangold, & Johnston, 2014). Social networks could empower firms to maintain frequent contact with their diverse stakeholders, influencing sales and investors' affective reactions to corporate news (Marine-Roig, Martin-Fuentes, and Daries-Ramon (2017); Farkas and Keshk (2019)). Nevertheless, "users go on social media to connect with people, whereas marketers intend to sell things" (Zhu & Chen, 2015, p. 335), and this type of erroneous position could reduce effectiveness (Grancay, 2014). This is why corporate behavior in this context is also evolving to a more comprehensive corporate dialogue, combining presence with conversation (Bonson Ponte, Torres, Royo, & Flores Muñoz, 2012).

Instagram is considered the fastest growing social network with high potential for brand awareness and management purposes Eagleman (Geurin-Eagleman & Burch, 2016). It is devoted to picture and video sharing, and it is currently integrated into other social networks such as Facebook or Twitter. In fact, Facebook acquired Instagram in 2012. Photographs can be directly shared from the smartphone, enabling amateur photographers to resemble the work done by professionals (Thelander & Cassinger, 2017). It is also possible to publish small videos or stories, along with the corresponding texts and hashtags "#", similar to Twitter (Schmidbauer, Rosch, & Stieler, 2018). Therefore, the rapid rise of Instagram led research to uncover and understand the social and psychological factors behind the users' motives for using the new platform (E. Lee, Lee, Moon, & Sung, 2015; MacDowall & de Souza, 2018).

Instagram is specifically being used extensively in the area of tourism (Fatanti & Suyadnya, 2015), specifically by the more influential *instagrammer* who uses the social network as a tool of personal promotion showing parts of his private life. *Instagrammers* are enabled to show images that seek an authenticity far from social conventions (Liu & Suh, 2017) and it is also possible to follow a specific account without the need for reciprocity. As part of the *instagrammer* experience, in this social network it is possible to create a thread of photographs with a specific theme, like a destination or a specific corporation. It is about creating new tourism experiences (Harrigan, Evers, Miles, & Daly, 2017) in which *instagrammers* have a lot to say sharing "their travel experiences so that they help other travelers in their decision-making process" (Gretzel, Sigala, Xiang, & Koo, 2015, p. 181).

In summary, Instagram, due to its particular features, seems to empower individuals over corporations in the digital dialogue and it is still a pending task to assess the extent to which global corporations, in particular in the dynamic environment of the tourist industry, and their main *instagrammers*, are mutually evolving to overcome information asymmetries. This work contributes to this research challenge with incremental empirical evidence and the corresponding preliminary analysis, along with a proposal for relevant variable constructs based on key metrics. The next section provides a review of the studies on the use of Instagram in the context of corporate dialogue. Sections 3 and 4 explain the methodology and results of this research, respectively. Implications and conclusions are outlined in the last section.

2. PREVIOUS STUDIES

A growing number of scholars addressed the role of social media in business research in different contexts, including corporate disclosure, markets' reaction and firms' valuation assessment – see e.g., [L. F. Lee, Hutton, and Shu \(2015\)](#); [Boylan and Boylan \(2017\)](#); [Debreceeny, Wang, and Zhou \(2019\)](#); [Farkas and Keshk \(2019\)](#); [Kipp, Zhang, and Tadesse \(2019\)](#). In this context, empirical studies document how Instagram represents a powerful and fast tool to establish and maintain a long-term corporate dialogue with stakeholders (see [Annex 1](#)). An interesting topic is the intellectual capital disclosure. In this regard, [Lardo, Dumay, Trequattrini, and Russo \(2017\)](#) find that popularity metrics in social media are determinants of the value of human and relational capital in football industry. Their analysis shows how social media can be a relevant and timely tool for disclosing intellectual capital information. Another example is provided by [Ramirez and Tejada \(2019\)](#), who find that great importance to online disclosure of specific information about intellectual capital is devoted by university stakeholders. Specifically, structural and relational capital information is mainly disclosed in social media, including Instagram. Therefore, social media are recognized among the alternative tools for enhancing corporate disclosure transparency and stakeholder engagement in a timely and innovative fashion.

Another interesting issue is the role of Instagram in corporate communication compared to other social media. For example, [Romao, Moro, Rita, and Ramos \(2019, p. 21\)](#) find that while “Facebook still remains the dominant social network for any brand that wants to exhibit and generate buzz around its products and the brand itself [...] Instagram is more targeted for niche and luxury brands due to its visual characteristics”. Similarly, [Caputo, Buhnova, Evangelista, and Russo \(2017\)](#) find that Instagram is more effective than Facebook in relation to three relationships: the frequency, the instability, and the previous activities in companies' communication on social media. On the other hand, the use of Insta-stories that last for only 24 hours leads to “the need to be constantly and consistently creating content for the viewers to look at. It also means that brands who want to stay relevant (and retain and add followers) need to keep up.” ([Clair & Mandler, 2019, p. 53](#)).

Research on the use of Instagram is also pursued taking into account psychological and behavioral aspects behind the purchasing intention – see e.g., [Amornpashara, Rompho, and Phadoongsitthi \(2015\)](#); [Hosseini and Ghalamkari \(2018\)](#); [Waheed, Farrukh, Zameer, and Khan \(2019\)](#). Interesting evidence is provided by [Sembada and Koay \(2019, p. 6\)](#), i.e., “the presence of perceived control over alternate channels of purchase as a significant influencer for the trust placed on social media shops”. Specifically, they find that when consumers perceive they are in control of how they could obtain desired goods, trust becomes a function of the perceived safety and ease of use of the shops. On the other hand, [Casalo, Flavian, and Ibanez-Sanchez \(2020, p. 7\)](#) find that “perceived originality and uniqueness of the posts on an Instagram account are the key factors that lead a poster to be perceived as an opinion leader”. Therefore, their main implication for research is that an ongoing relationship between companies and influencers is needed to mitigate the information asymmetry in corporate communication.

3. METHODS AND DATA

3.1 Sample and data collection

The empirical study was conducted in October 2018, regarding the dataset comprised by the 111 global tourist corporations listed by STOXX 3000 Travel and Leisure (STOXX, 2018). Table no. 1 shows the breakdown of the sample by countries and subsectors.

Table no. 1 – Sample composition by countries and subsectors

Countries		Subsectors	
Australia	6	Accommodation	10
Canada	3	Intermediation	5
Chile	1	Other leisure	57
France	4	Transport	39
Germany	1		
Great Britain	15		
Greece	1		
Hong Kong	4		
Ireland	2		
Japan	21		
Korea	1		
Malaysia	2		
Philippines	1		
Sweden	1		
Singapore	3		
Thailand	1		
USA	44		
Total	111	Total	111

As a first step of this exploratory study, we have collected the primary metrics provided by the Instagram platform, organizing them in four categories in what implies an easily replicable model for contrast and forthcoming longitudinal studies:

- (1) *presence*, to capture if the firms maintain an official profile and how active are;
- (2) *impact*, to detect the feedback generated by these official profiles;
- (3) *conversation*, to determine the level of interaction about the corporation in Instagram in which the firm is not controlling the discussion (hashtags, influencers), and
- (4) *influence*, to measure the impact of that unofficial stream by means of the influencers.

Such categories were drawn from the literature on social media disclosure. Specifically, the first two categories of *presence* and *impact* link to Caputo et al. (2017, p. 27) concept of frequency, representing “evidence for companies’ attention to communication based on the use of social networks”. Such dimension can be framed in the signalling theory, for which companies rely on ‘signals’ to provide transparent information towards different stakeholders (Spence, 1973). Accordingly, we define several variables to measure the *presence* and *impact* categories, as shown in Table no. 2. *Presence* is mainly measured by the number of publications, along with the existence of videos and stories. These elements represent the external “signals” proving the digital presence and activity of each company in Instagram. We also consider the existence of links to the official corporate websites and network profiles

(Facebook and Twitter). On the other hand, *impact* is measured combining several proxies used in previous research: the number of followers (Lardo et al., 2017), the number of likes (Romao et al., 2019) and the number of comments (Hosseini & Ghalamkari, 2018). All these variables aim to take into account the users' "responses" in terms of feedback generated by the corporate official profiles.

The remaining categories *conversation* and *influence* are grounded on the concept of online interaction propensity, i.e., "the extent to which individuals like to get involved in online discussions" (Casalo et al., 2020, p. 4). Several studies recognize the importance of such aspect in the corporate communication processes – see e.g., Schlosser (2005); Blazevic, Wiertz, Cotte, de Ruyter, and Keeling (2014). For the purpose of our study, we consider two main crucial factors to measure the interaction between companies and stakeholders: hashtags and influencer, as shown in Table no. 3. Research is currently exploring the role of hashtags for enhancing the level of social media engagement, including the effectiveness of the existing analytics method for analyzing Instagram hashtag data – see e.g., Rosli and Husin (2019). Influencers are crucial as well, as current research recognize their role of opinion leaders in digital platforms. In summary, these variables are considered as digital proxies within the research on information asymmetry between companies and stakeholders.

Table no. 2 – Variables related to “presence” and “impact”

y_1	Instagram profile	Dichotomous
y_2	Number of publications	Publications in the last month
y_3	Videos	Existence of videos (dichotomous)
y_4	Stories	Existence of stories (dichotomous)
y_5	Link to corporate website	Existence of links to the official corporate website (dichotomous)
y_6	Link to Facebook	Links to official social network profiles (dichotomous)
y_7	Link to Twitter	
y_8	Followers	Number of followers
y_9	Likes	Average number of likes from publications collected for y_2
y_10	Comments	Average number of comments from publications collected for y_2

Table no. 3 – Variables related to “conversation” and “influence”

y2_1	Hashtags	Number of relevant hashtags related to official profiles (threshold at more than 50 publications)
y2_2	Instagrammer	Number of publications of the most influential instagrammer for a given hashtag
y2_3	Popularity	Number of publications related to all instagrammers that are using the most relevant hashtag

3.2 Econometric models

The second step of this study aimed to detect which firms' characteristics explain the metrics collected on the Instagram profiles. In this regard, country, subsectors and size were considered as potential explanatory factors to explain different behavior of each firm and its corresponding communities. The following Ordinary Least Squares regression models are defined:

$$presence: y_{ij} = \alpha_{li} + \beta_{ik}Country_{kj} + \gamma_{il}Sector_{lj} + \theta_i \text{Log}(Sales)_j + \mu_{ij} \quad (1)$$

$$impact: y_{mj} = \alpha_{2m} + \beta_{mk}Country_{kj} + \gamma_{ml}Sector_{lj} + \theta_m \text{Log}(Sales)_j + \mu_{mj} \quad (2)$$

$$conversation: y_{nj} = \alpha_{3n} + \beta_{3k}Country_{kj} + \gamma_{3l}Sector_{lj} + \theta_3 \text{Log}(Sales)_j + \mu_{nj} \quad (3)$$

$$influence: y_{2_2j} = \alpha_4 + \beta_{4k}Country_{kj} + \gamma_{4l}Sector_{lj} + \theta_4 \text{Log}(Sales)_j + \mu_{2_2j} \quad (4)$$

where:

i denotes the variables from y_1 to y_7 (see Table no. 2)

j denotes the firms

k denotes the countries

l denotes the subsectors

m denotes the variables from y_8 to y_{10} (see Table no. 2)

n denotes the variables from y_{2_1} to y_{2_3} (see Table no. 3)

α denotes the intercept of the models

β denotes the coefficient associated with the country of each company

γ denotes the coefficient associated with the subsectors of each company

θ denotes the coefficient associated with the size of each company (proxied as logarithmic scale of revenues for the fiscal year 2017)

μ denotes the standard error of the models.

4. RESULTS

4.1 Presence and impact

Results in Table no. 4 suggest that 50 over 111 corporations present an official profile on Instagram. Once they decide to be present, companies do tend to use the available mechanism like videos or stories (84% and 68% of the companies, respectively). From these 50 firms (Table no. 5), a majority offers corresponding profiles at Facebook (92%) and Twitter (96%), along with links to the official corporate site (100%). In summary, the first result of our analysis is that the use of Instagram by the selected firms is still scarce. However, corporations are using Instagram as an additional channel in their current digital communication.

Table no. 4 – “Presence” of firms at Instagram

	y_2 Publications	Y_3 Videos	y_4 Stories
Mean	1198.880	84%	68%
Maximum	6169.000		
Minimum	60.00000		
Std. Dev.	1183.764		
Obs.	50		

Table no. 5 – Coherence between social media platforms

	y_5 Link to corporate website	y_6 Link to Facebook account	y_7 Link to Twitter account
%	100%	92%	96%
Obs.	50		

Figures no. 1 and no. 2 account for the relationships between *presence* and *impact*, that is, the number of publications from these official profiles and the feedback they receive from followers. According to this, these users are somehow reactive to the stream of pictures and texts disclosed by firms. This confirms the bidirectional role of social media platform in empowering individuals over corporations in the digital dialogue.

Figure no. 1 – “Presence” vs. “impact” (likes)

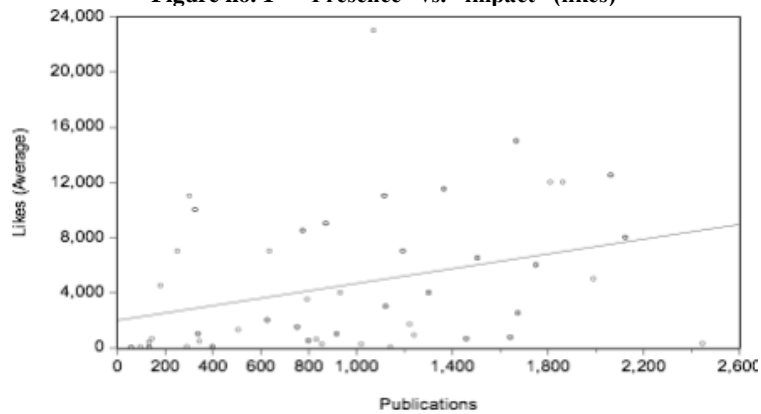
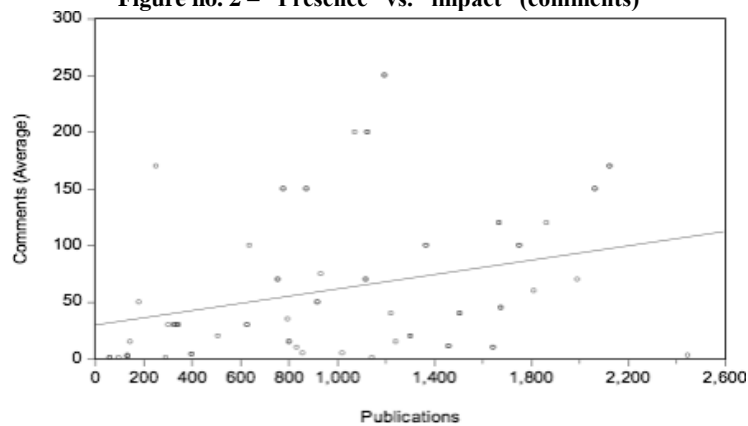


Figure no. 2 – “Presence” vs. “impact” (comments)



Based on the descriptive statistics, we ran the OLS regression models (1) and (2) to estimate the potential explanatory factors of the firms' *presence* and *impact* on Instagram. Table no. 6 shows the model's results of *presence*, being *y1 Instagram profile* the dependent variable. Two factors significantly explain such variable: US ($\beta_{ik}=0.3059$, significant at 1% level) and Log(Sales) ($\theta_i=-0.04293$, significant at 5% level). The R indicates that these two factors explain, *ceteris paribus*, 16.12% of the variation of *presence* (F-statistic significant at 1% level). We did not find any significant results for model (2) on *impact*. Therefore, the second finding of the study is that American corporations seem to be more prone to launch an Instagram profile, while large corporations are in general more reluctant to appear in it, according to the OLS estimation.

Table no. 6 – OLS regression. Explanatory factors for “presence”

Dependent Variable: y_1 Instagram profile	
Method: Least squares	
Sample: 1 111	
Variable	Coefficient
C	1.341897**
US	0.305900**
Log(Sales)	-0.042930*
R-squared	0.161209
F-statistic	10.37840**

Note: * Significant at 5%; ** Significant at 1%

4.2 Conversation and influence

When moving from official to unofficial communication, it is interesting to see that intermediation firms in tourism industry are the most likely to both maintain official profiles and to be able to generate external conversation by means of hashtags (Table no. 7). Additionally, Table no. 8 confirms how relevant is the conversation outside the official profiles, i.e., over three times on average with respect to the communication carried on at the official profile. No significant results were found for the estimation models (3) and (4) to explain the firms' *conversation* and *influence* on Instagram. Therefore, such evidence reveal that users are taking part in the digital conversation on their own, despite the influence of firms' characteristics on this behavior is not clear. However, results confirm the crucial role of the influencers (“*instagrammer*”) in fostering the corporate dialogue of tourism firms in a digital context.

Table no. 7 – “Presence” vs. “conversation”

Sector	y_1 Instagram profile	y2_1 Hashtags
	Proportion	Mean
Accommodation	50%	1.80
Intermediation	60%	2.66
Other	46%	2.08
Transport	44%	2.29
All	46%	2.16

Table no. 8 – “Presence” vs. “influence”

Sector	y_2 Number of publications	y2_3 Popularity	y2_3/y_2 Proportion
	Mean	Mean	
Accommodation	979	2781	2.8
Intermediation	1405	739	0.5
Other	981	3096	3.1
Transport	944	4151	4.3
All	994	3388	3.4

5. IMPLICATIONS, LIMITATIONS, AND FUTURE RESEARCH

The use of Instagram, compared to other social network sites like LinkedIn or even Facebook, is still in its infancy, even it is growing rapidly. For its special features, Instagram is not simply the next episode in corporate digital presence, but a new arena where users have a more substantial portion of power, audience and influence.

Even in this exploratory stage, it is possible to identify several implications for practice and research. Concerning practice, our findings suggest that the *presence* and *impact* of companies at Instagram are a highly important source for driving stakeholders' conversation within the digital arena. First, tourism companies are exploiting the powerful of this social network which allows the creation of a thread of photographs and videos with a specific theme, like a destination or a specific corporation. This helps travelers in their decision-making processes (Gretzel et al., 2015). Second, we recognize the magnitude of the opinion leaders in increasing the stakeholders' intention to interact in the Instagram account *conversation* and *influence*. Following Casalo et al. (2020, p. 7) reasoning, "followers are involved in the value-creation process – they can contribute with their knowledge if they interact with the account, and the number of followers may increase if they recommend the account to others, increasing the value of the opinion leader". This requires, in turn, that companies should take into account both the content published by opinion leaders and their own target audience. Such issue could be addressed by applying some emergent technologies, like the *Internet of Things*, which allow multiple addressability to gather stakeholders' preferences and behaviors (Valentinetti & Flores Muñoz, 2021). Additionally, our research finding show that popularity – in terms of number of publications related to all *instagrammers* that are using the most relevant hashtag – is over three times on average with respect to the communication carried on by companies with an official profile. This means that new companies' profiles would easily leverage their digital visibility thanks to the influence of the conversation that arise outside the official profiles.

Research implications of this study contribute to the literature on corporate disclosure and information asymmetry. As argued by Lardo et al. (2017, p. 76), we contend "the potential for social media managers to use disclosed information, whether voluntarily or involuntarily, to lead and influence their company's decision-making processes". Overall, the key hint is that managers may use social media to mitigate the agency problem. It is interesting to evaluate if social media disclosure may succeed the traditional communication tools, like the annual reports, to address some information asymmetry problems. Furthermore, our first evidence based on the combination of *presence*, *impact*, *conversation* and *influence* open new perspectives under the signalling approach to investigate how organizations reacts to the environment in absence of all the available information (Spence, 1973).

Future research could be inspired by the limitations of this study. First, longitudinal studies are needed to extend our cross-sectional analysis. In this regard, two metrics proposed by Caputo et al. (2017, p. 27) could be used: *instability*, to measure "the fluctuation in companies' communications via social media in the analyzed period"; and *previous activity*, to measure "the evolution in the frequency of companies' communication via social media along time". Cross-comparison between different industrial sectors is also needed. Additionally, future research may apply existing theoretical frameworks including psychological, cognitive and social factors to investigate companies' communication via Instagram. For example, the Value compatibility framework could be applied to consider structural, practical and cultural dimensions as in Flores

Muñoz, Valentinetti, Mora Rodríguez, and Mena Nieto (2018). Also, the stakeholder theory offers appropriate lens to investigate the stakeholders' information needs and awareness towards the value creation process. Incremental empirical research in this matter will be required as the conversation outside official profiles is bigger, and potentially, more significant than the traditional conversation controlled by the firms. Finally, content and sentiment analysis, as well as text mining, should be applied to properly evaluate both the quality of companies' disclosure and the users' comments.

ORCID

Josué Gutiérrez-Barroso  <http://orcid.org/0000-0001-5968-3254>

Alberto Javier Báez-García  <http://orcid.org/0000-0002-6278-8169>

Francisco Flores-Muñoz  <http://orcid.org/0000-0002-8194-9394>

Diego Valentinetti  <http://orcid.org/0000-0003-3961-9225>

References

- Amornpashara, N., Rompho, N., & Phadoongsithi, M. (2015). A study of the relationship between using Instagram and purchase intention. *Journal for Global Business Advancement*, 8(3), 354-370. <http://dx.doi.org/10.1504/JGBA.2015.071330>
- Blazevic, V., Wiertz, C., Cotte, J., de Ruyter, K., & Keeling, D. I. (2014). GOSIP in cyberspace: Conceptualization and scale development for general online social interaction propensity. *Journal of Interactive Marketing*, 28(2), 87-100. <http://dx.doi.org/10.1016/j.intmar.2013.09.003>
- Bonson Ponte, E., Torres, L., Royo, S., & Flores Muñoz, F. (2012). Local e-government 2.0: Social media and corporate transparency in municipalities. *Government Information Quarterly*, 29(2), 123-132. <http://dx.doi.org/10.1016/j.giq.2011.10.001>
- Boylan, D. H., & Boylan, C. L. (2017). Technology in Accounting: Social Media as Effective Platform for Financial Disclosures. *The International Journal of Digital Accounting Research*, 17, 93-109. http://dx.doi.org/10.4192/1577-8517-v17_4
- Caputo, F., Buhnova, B., Evangelista, F., & Russo, G. (2017). A Systems View of Companies' Communication in Online Social Environments. *Journal of Organisational Transformation & Social Change*, 14(1), 21-38. <http://dx.doi.org/10.1080/14779633.2017.1291144>
- Casalo, L. V., Flavian, C., & Ibanez-Sanchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, 117, 510-519. <http://dx.doi.org/10.1016/j.jbusres.2018.07.005>
- Clair, A., & Mandler, J. (2019). Building relationships with the new media in a cyber landscape. *The Journal of Business Strategy*, 40(6), 49-54. <http://dx.doi.org/10.1108/JBS-08-2019-0154>
- Debreceny, R. S., Wang, T., & Zhou, M. J. (2019). Research in Social Media: Data Sources and Methodologies. *Journal of Information Systems*, 33(1), 1-28. <http://dx.doi.org/10.2308/isys-51984>
- Farkas, M., & Keshk, W. (2019). How Facebook influences non-professional investors' affective reactions and judgments: The effect of disclosure platform and news valance. *Journal of Financial Reporting and Accounting*, 17(1), 80-103. <http://dx.doi.org/10.1108/JFRA-10-2017-0092>
- Fatanti, M. N., & Suyadnya, I. W. (2015). Beyond User Gaze: How Instagram Creates Tourism Destination Brand? *Procedia: Social and Behavioral Sciences*, 211, 1089-1095. <http://dx.doi.org/10.1016/j.sbspro.2015.11.145>
- Flores Muñoz, F., Valentinetti, D., Mora Rodríguez, M., & Mena Nieto, A. (2018). The Role of XBRL on EMAS Reporting: An Analysis of Organisational Value Compatibility. *Scientific Annals of Economics and Business*, 65(4), 497-514. <http://dx.doi.org/10.2478/saeb-2018-0025>

- Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*, 37(1), 90-92. <http://dx.doi.org/10.1016/j.pubrev.2010.11.001>
- Geurin-Eagleman, A. N., & Burch, L. M. (2016). Communicating via photographs: A gendered analysis of Olympic athletes' visual self-presentation on Instagram. *Sport Management Review*, 19(2), 133-145. <http://dx.doi.org/10.1016/j.smr.2015.03.002>
- Grancay, M. (2014). Airline Facebook pages-a content analysis. *European Transport Research Review*, 6(3), 213-223. <http://dx.doi.org/10.1007/s12544-013-0126-9>
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25(3), 179-188. <http://dx.doi.org/10.1007/s12525-015-0196-8>
- Harrigan, P., Evers, U., Miles, M., & Daly, T. (2017). Customer engagement with tourism social media brands. *Tourism Management*, 59, 597-609. <http://dx.doi.org/10.1016/j.tourman.2016.09.015>
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1), 405-440. [http://dx.doi.org/10.1016/S0165-4101\(01\)00018-0](http://dx.doi.org/10.1016/S0165-4101(01)00018-0)
- Hosseini, M., & Ghalamkari, A. (2018). Analysis Social Media Based Brand Communities and Consumer Behavior: A Netnographic Approach. *International Journal of E-Business Research*, 14(1), 37-53. <http://dx.doi.org/10.4018/IJEER.2018010103>
- Howard, D., Mangold, W. G., & Johnston, T. (2014). Managing your social campaign strategy using Facebook, Twitter, Instagram, YouTube & Pinterest: An interview with Dana Howard, social media marketing manager. *Business Horizons*, 5(57), 657-665. <http://dx.doi.org/10.1016/j.bushor.2014.05.001>
- Kipp, P. C., Zhang, Y., & Tadesse, A. F. (2019). Can Social Media Interaction and Message Features Influence Nonprofessional Investors' Perceptions of Firms? *Journal of Information Systems*, 33(2), 77-98. <http://dx.doi.org/10.2308/isys-52067>
- Lardo, A., Dumay, J., Trequatrini, R., & Russo, G. (2017). Social media networks as drivers for intellectual capital disclosure: Evidence from professional football clubs. *Journal of Intellectual Capital*, 18(1), 63-80. <http://dx.doi.org/10.1108/JIC-09-2016-0093>
- Lee, E., Lee, J. A., Moon, J. H., & Sung, Y. (2015). Pictures speak louder than words: Motivations for using Instagram. *Cyberpsychology, Behavior, and Social Networking*, 18(9), 552-556. <http://dx.doi.org/10.1089/cyber.2015.0157>
- Lee, L. F., Hutton, A. P., & Shu, S. (2015). The Role of Social Media in the Capital Market: Evidence from Consumer Product Recalls. *Journal of Accounting Research*, 53, 367-404. <http://dx.doi.org/10.1111/1475-679X.12074>
- Liu, R., & Suh, A. (2017). Self-Branding on Social Media: An Analysis of Style Bloggers on Instagram. *Procedia Computer Science*, 124, 12-20. <http://dx.doi.org/10.1016/j.procs.2017.12.124>
- MacDowall, L. J., & de Souza, P. (2018). 'I'd Double Tap That!!!': Street art, graffiti, and Instagram research. *Media Culture & Society*, 40(1), 3-22. <http://dx.doi.org/10.1177/0163443717703793>
- Marine-Roig, E., Martin-Fuentes, E., & Daries-Ramon, N. (2017). User-Generated Social Media Events in Tourism. *Sustainability (Basel)*, 9(12), 2250. <http://dx.doi.org/10.3390/su9122250>
- Mora Rodríguez, M., Flores Muñoz, F., & Valentinetti, D. (2021). Corporate impact of carbon disclosures: A nonlinear empirical approach. *Journal of Financial Reporting and Accounting*, 19(1), 4-27. <http://dx.doi.org/10.1108/JFRA-01-2020-0002>
- Ramirez, Y., & Tejada, A. (2019). Digital transparency and public accountability in Spanish universities in online media. *Journal of Intellectual Capital*, 20(5), 701-732. <http://dx.doi.org/10.1108/JIC-02-2019-0039>
- Romao, M. T., Moro, S., Rita, P., & Ramos, P. (2019). Leveraging a luxury fashion brand through social media. *European Research on Management and Business Economics*, 25(1), 15-22. <http://dx.doi.org/10.1016/j.iemeen.2018.10.002>

- Rosli, N. A., & Husin, M. H. (2019). Initial Exploration on an Effective Social Media Analytics Method and Algorithm for Instagram Hashtags. *International Journal of E-Business Research*, 15(3), 1-15. <http://dx.doi.org/10.4018/IJEER.2019070101>
- Schlosser, A. E. (2005). Posting versus lurking: Communicating in a multiple audience Context. *The Journal of Consumer Research*, 32(2), 260-265. <http://dx.doi.org/10.1086/432235>
- Schmidbauer, H., Rosch, A., & Stieler, F. (2018). The 2016 US presidential election and media on Instagram: Who was in the lead? *Computers in Human Behavior*, 81, 148-160. <http://dx.doi.org/10.1016/j.chb.2017.11.021>
- Sembada, A. Y., & Koay, K. Y. (2019). How perceived behavioral control affects trust to purchase in social media stores. *Journal of Business Research*, 130, 574-582. <http://dx.doi.org/10.1016/j.jbusres.2019.09.028>
- Spence, M. (1973). Job Marketing Signalling. *The Quarterly Journal of Economics*, 87(3), 355-374. <http://dx.doi.org/10.2307/1882010>
- STOXX. (2018). Retrieved from <https://www.stoxx.com/index-details?symbol=SXG57P>
- Thelander, A., & Cassinger, C. (2017). Brand new images? Implications of Instagram photography for place branding. *Media and Communication*, 5(4), 6-14. <http://dx.doi.org/10.17645/mac.v5i4.1053>
- Valentinetti, D., & Flores Muñoz, F. (2021). Internet of Things: Emerging impacts on digital reporting. *Journal of Business Research*, 131, 549-562. <http://dx.doi.org/10.1016/j.jbusres.2021.01.056>
- Waheed, A., Farrukh, M., Zameer, H., & Khan, S. Z. (2019). Understanding the Impact of Social Apps and Social Network Sites on Consumer's Online Purchase Intention. *Global Business Review*, 22(3), 1-16. <http://dx.doi.org/10.1177/0972150918816901>
- Zhu, Y. Q., & Chen, H. G. (2015). Social media and human need satisfaction: Implications for social media marketing. *Business Horizons*, 58(3), 335-345. <http://dx.doi.org/10.1016/j.bushor.2015.01.006>

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ANNEX 1

Previous empirical studies on the use of Instagram in the corporate dialogue

Paper	Objectives	Sample and period	Theoretical framework and methodology	Findings
Casalo et al. (2020)	Instagram is the most used platform by opinion leaders in the fashion industry, and this trend is expected to continue in the near future. This study aims to identify some key antecedents and consequences of opinion leadership in this context.	A fashion focused Instagram account 808 participants [n.a.]	Questionnaire Partial Least Square	Our results [...] suggest that originality and uniqueness are crucial factors if a user is to be perceived as an opinion leader on Instagram. In addition, opinion leadership influences consumer behavioral intentions toward both the influencer (intention to interact in the account and recommend it) and the fashion industry (intention to follow fashion advice posted). Finally, the perceived fit of the account with the consumer's personality strengthens the influence of opinion leadership on the intention to follow published advice.
Chair and Mandler (2019)	What industry has not changed in the past quarter century because of The Digital Age? The purpose of this paper is to discuss the effect of the digital age on media.	NYU Langone Health in USA [2014]	Author viewpoint	The Digital Age has affected practically everything that makes up our professional and personal lives – how we learn, how we inform, how we sustain and, certainly, how we interact.
Ramirez and Tejeda (2019)	The purpose of this paper is to investigate the extent and quality of online intellectual capital (IC) disclosure released via websites and social media in relation to university stakeholders' information needs in Spanish public universities. In addition, this paper examines whether there are differences in the online IC disclosure according to the type of university.	50 public universities in Spain [2019]	Public accountability theory Legitimacy theory Stakeholder theory Content analysis	The findings indicate that university stakeholders attach great importance to online disclosure of specific information about IC. However, the findings emphasize that Spanish universities' website and social media content are still in their infancy. Specifically, this study found that the quality of disclosed information on IC in public universities' websites is of low level, particularly with regard to the disclosure of relational capital. The study found that the information provided by Spanish public universities via social media mainly concerns the structural and relational capital. Likewise, the results of this paper evidence that the larger and more internationally-focused universities reveal more online information on IC.
Romano et al. (2019)	This research aims to understand how the interactions across several social networks influence the visibility of a luxury brand's most relevant social network which acts as a showcase (Instagram).	A luxury fashion brand in Portugal [2015-2016]	Data mining approach k-fold cross-validation procedure	The findings unveiled interactions on the remaining networks hold an influence on Instagram likes, particularly Facebook, with the number of video views, the positive emotions, and the number of comments and shares explaining around 40% of the model.
Sambada and Xosr (2019)	The study investigates the underlying factors influencing Indonesian consumers' intentions to purchase lifestyle goods on Instagram shops, despite the lack of financial safeguards against fraudulent	214 Indonesian social media users of lifestyle items [n.a.]	Theory of motivated reasoning Perceived behavioral control Online survey	The findings show that perceived constraints to purchase through other channels moderate the effects of key variables that influence trust and purchase intentions. Perceived ease and security of transactions on social media shops only correlate with trust for consumers who perceive they have unmet needs control over where to purchase. However, these relationships were not significant for consumers who perceive high constraints over alternate purchase channels.
Wahneed et al. (2019)	This study explores the relationships of social apps (SA) and social network sites (SNSs) on online purchase intention with moderating effect of gender (GD) and education (ED).	2000 online shoppers in Pakistan [2017]	Online survey and personal visits	The current study revealed the positive associations of SAs (e.g., Twitter, WhatsApp, WeChat, Facebook Messenger, Snapchat and Instagram) and SNSs (e.g., LinkedIn, Facebook, Tumblr, YouTube, Twitter, Weibo and Pinterest). The findings further affirmed the insignificant impact of GD and ED where such factors were treated as the moderators.
Hosseini and Ghahmazi (2018)	The first goal of this study was to examine some of the indicators of consumer behavior, that is, the consumer's brand attitude and their purchase decision making process in social media based brand communities. The second goal was to identify key marketing strategies that may lead brand followers to engage in a specific brand page on Instagram and increase their purchase intention by building on prior research in the social media marketing scope	Three smartphone brand communities [n.a.]	Grounded theory Nemography	The findings of our study indicate that the content of posts is a highly important source for driving positive attitudes within this kind of online community. The findings also suggest that brands should encourage their followers to share their knowledge or experience rather than just posting ads and brand related content by marketers.
Cajano et al. (2017)	In order to enrich previous contributions interested in the identification of possible pathways to improve companies' capabilities to better face the challenges imposed by increasing social and economic variety, this paper focuses attention on the role of companies' communications in online social environments.	50 best performing European companies in terms of return on sales (ROS) [2013-2015]	Signaling theory Capital need theory Legitimacy theory Structural equation modelling	There is a positive relationship between the frequency of companies' communication on social media and their ROS The research also shows that there is a negative relationship between the instability of companies' communication on social media and their ROS Finally, the research shows that there is a positive relationship between previous activity in companies' communication on social media and their ROS
Lardo et al. (2017)	The purpose of this paper is to investigate the relationship between popularity in a social media network and a company's revenue, expenditure and market value. Additionally, social media networks are analysed as tools for both voluntary and involuntary intellectual capital (IC) disclosure.	40 professional football strikers in the major European leagues [2015]	Ground theory Quantitative approach	The results indicate that popularity metrics in social media are determinants of the value of human and relational capital in professional football clubs. Popularity in social media positively correlates to market capitalisation, revenue and player transfer fees. Additionally, examples are provided to show how social media can be a tool for disclosing IC information in a relevant and timely manner
Amaraparkara et al. (2015)	This study has two main aims. The first is to investigate the relationship between people's purchase intentions and how they use Instagram. The second is to use the results as a guide to applying Instagram as an effective marketing tool.	400 users in Thailand [n.a.]	Theory of reasoned action Technology acceptance model Involvement theory Questionnaire	The results showed that the factors influencing people's purchase intentions are: 1) the recreational message, 2) the involvement in the recreational message, 3) commercial advertising, 4) the group to which people aspire to belong, 5) perceived ease of use.