



# Insights into user engagement on social media. Findings from two fashion retailers

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## Abstract

Though most studies have been conducted in the luxury electronic commerce sector, few have focused on the influence of Instagram. This study improves research by examining new dimensions of users' experiences on this social network. This study aims to provide the core elements of brand engagement on Instagram, focusing on an empirical comparison of the relationships established between two fashion retailers and their followers on Instagram. The study is based on the coding of 728 posts collected over 1 year and carries out a comparative analysis using bivariate and multivariate modelling of the interactions between brands and their followers. The results of this work show that fashion retailers still generate little interaction with Instagram users, although there is some engagement between the two parties. The empirical results are evidence of the importance of a communication strategy in generating involvement and engagement with the brand. The study thereby provides industry professionals with the patterns in those posts that can encourage greater engagement with and participation from users online.

**Keywords** Engagement · Social media · Consumer interactions · Fashion retailers · Instagram

**JEL classification** M310

## Introduction

Social networks are more popular than ever and increasingly influence consumers' purchasing decisions (Bitter et al. 2014; Guercini et al. 2018), making them an essential part of organisations' strategies in digital marketing and brand management (Felix et al. 2017). This proliferation of social networks offers various forms of engagement and interaction between consumers and brands.

Given their capacity for interaction, the voice of the consumer is increasingly important in companies' decision-

making (Bianchi and Andrews 2018), as the information they can provide is more valuable than corporate information. Therefore, these interactions can affect purchasing intention (Park et al. 2009; García-Medina et al. 2018) in addition to helping build and manage brand identity (Arvidsson and Caliandro 2015). Since consumer interactions are subject to less control and can spread rapidly, they also pose a number of challenges and must be constantly monitored (Yadav and Pavlou 2014).

This monitoring process provides information about interactions with consumers (Beverungen et al. 2019). For this reason, research carried out into the processes behind engagement has expanded over the last decade, becoming one of the main objects of study on social networks, both in the academic field and in the business world. However, the research carried out to date shows that the digital potential for interaction is not being used to its fullest (Triantafillidou et al. 2015; Vepsäläinen et al. 2017), meaning organisations continue administering their social networks mainly to disseminate information. As such, this study has focused on analysing the social interactions of the consumers of two retailers in the fashion industry. To do so, three models of classification by variables have been analysed looking at the content, format, elements

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present in the images and communication strategies, identifying and analysing those posts that generate greatest engagement.

This is a pioneering study for the volume of variables included and for the simultaneous analysis of said variables in a multi-variate analysis that offers solid results for both researchers and professionals working in the sector. Social media has generated a line of research that addresses various types of social networks: Facebook (for example, Schultz 2016), Twitter (for example, Kursuncu et al. 2019), Instagram (for example, Na and Kim 2019), YouTube (for example, Kouokam and Dirik 2019; Meseguer-Martinez et al. 2019), Pinterest (for example, Youn and Jin 2017) and combinations of different social networks (for example, Hsiao et al. 2019; Nash 2019). This study focuses on the interactions of consumers on Instagram because brands increasingly rely on this application based on photos for their marketing strategies (Na and Kim 2019).

Instagram is gaining ever greater numbers of followers among those interested in the world of fashion, beauty and lifestyle. Although there are social networks such as Facebook and YouTube with larger total numbers of followers than Instagram, the role played by Instagram in the fashion sector is a crucial one (Casaló et al. 2018). Its rate of growth in terms of registered users has been very high thanks to the rise of smartphones. In 2019, there were almost a billion users who accessed the platform on a monthly basis (Statista 2019).

Therefore, the aim of this study is to analyse the levels of behavioural engagement generated by fashion retailers on Instagram and to determine whether this social network constitutes a user-brand communication channel that enables direct communication with its audience, thereby leading to Conversation 2.0, where the users are able to only to consume, but also to share and create their content. It consists of form of conversation that is more dynamic than the traditional Conversation 1.0, in which the content is purely unidirectional. Thus, this novel approach to communication makes it easier to obtain information and carry out simple transaction (Lincoln 2009).

## Literature review

### Social networks in the fashion industry

Previous studies have addressed the use of social networks in the fashion industry, given the way fashion can spread online (Kim and Ko 2012). Thousands of luxury and urban fashion brands around the world have an online presence and communicate with their followers and potential customers (Hu et al. 2014). Clothing and fashion accessories constitute a powerful social symbol used to express oneself and communicate personal and group identities (Ahuvia 2005). Styles can therefore

determine how consumers who own a particular product are perceived by others. This has profound implications for communication among users themselves, who can choose what, when and with whom they share information, since this in turn affects their social identity (Wolny and Mueller 2013).

In much the same way as information and communication technologies (ICTs) in general, social networks allow fashion brands to promote their recognition and share trends with their audiences dynamically and directly (Sharma and Sahni 2015). For brands, social networks represent a key element in gaining popularity, particularly among younger segments (Martinez-Sala et al. 2018).

Among these users, the way they consume digital media and social networks are characterised by constant change. As such, in recent years this form of media has come to occupy the first place regarding their preferences in meeting their informational, educational and leisure needs, fundamentally in regard to entertainment and interpersonal relationships (Buckingham and Martínez 2013). Young people expect social networks to provide them entertainment, a sense of community, the opportunity to create relationships and self-expression (Igartua and Rodríguez-De-Dios 2016).

Moreover, in the fashion sector, it is common for users to employ these channels as a style guide and to follow and share trends (Phua et al. 2017; Sharma and Sahni 2015). The impact of the Internet and digital channels on society is such that they have led to the segmentation of individuals based on their online habits.

Users' interaction with brands' accounts on social networks creates emotional connection, satisfaction and loyalty towards those brands (Kim et al. 2018; Wolny and Mueller 2013). The high level of engagement of consumers with fashion and lifestyle and, consequently, the high probability of social interaction with fashion retail brands on a social network, provide the ideal conditions for a study of these interactions, which provide information on a brand's social strategy and trends (Schultz 2016).

### User engagement on social networks

Improving and deepening the research on the benefits that different brand strategies provide on social networks is one of the promising areas and great challenges of the coming years.

Behavioural, cognitive and affective engagement (Hinson et al. 2019) and the way in which a follower or consumer of a fashion product relates to and interacts with a brand is one of the non-economic benefits of the presence of brands on social networks. The analytics tools of these social networks measure the levels of engagement based on the different types of user interaction, such as likes, shares, comments (Bonilla et al. 2019). These interactions are considered manifestations of engagement (Samala and Singh 2019) and allow us to

quantify it and to carry out comparisons between different social networks. Depending on the user functionalities of each platform, it is possible to consider, for example, retweets and replies on Twitter, and likes and comments on Facebook and Instagram (Klassen et al. 2018).

Engagement has been conceptualised by several authors in different ways depending on the dimension in question. Some have described it as a multidimensional approach including three dimensions –cognitive, affective and behavioural–, while others have focused on just one or two dimensions. Some authors have also included the social dimension with the previous three when referring to engagement in the social context (Vivek et al. 2014). Table 1 presents the dimensions formulated by various authors who describe consumer engagement, and which are useful in identifying the common characteristics or the most significant differences in the way in which these dimensions are presented.

## Research questions

In this study, interactions with brand posts (like, comments and shares) are explained by the vividness, interactivity and content of these posts (Schultz 2016). Therefore, content analysis is extended to the posts of fashion retailers, where both retailers and consumers are highly engaged and there is a high probability of social interaction (Correia Loureiro et al. 2018).

Recently, different softwares using Artificial Intelligence are being developed to analyse the engagement and behaviour of customers, which could provide extremely detailed and specific information about current or potential customers, which allows brands to understand better the needs and desires of the targeted

customers (Davenport et al. 2020). However, the traditional line of research focuses on the classification of individual fashion items as “jacket” or “shirt” in images (Liu et al. 2018; Vittayakorn et al. 2015). Based on these techniques, other studies also attempt to identify general styles (Kiapour et al. 2014) and fashion trends in image data sets (Simo-Serra et al. 2015). Other studies analyse content in order to explore the marketing strategies of fashion brands (Chen and Luo 2016; Lee et al. 2018a, 2018b), while Ha et al. (2017) examine how images are “framed” in posts (for example, selfies, body snaps, etc.) and their relationship with user perception and brand marketing on Instagram.

Based on these findings and on the drivers of interactions with consumers on social network sites, this study focuses on the following question: What information do interactions between fashion retailers and consumers provide? This study adopts a comparative perspective of the social interactions of brands with consumers. Specifically, it analyses the communication strategies of the brands H&M and Primark on Instagram, the content of the posts as part of their communication strategies and the interaction of both companies on this social network. This study also analyses and compares whether these interactions indicate specific social strategies and trends.

The research framework in this study follows these findings in order to analyse social interactions based on the content of the posts, the communication strategy used through the publication of these posts, formal aspects of the posts, and the elements present in the images and product categories (Fig. 1).

## Content of posts

The importance of multimedia content is relevant across all social networks; however, on Instagram it is obviously much

**Table 1** The dimensions of engagement

Terminology used	Author	Dimensions
Consumer Brand engagement	Armstrong et al. (2018) Islam et al. (2018)	Cognitive, affection, activation
Consumer/Customer Engagement	Brodie et al. (2013) Dulabh et al. (2018)	Cognitive, emotional, behavioural
Customer engagement	Malthouse et al. (2013) Vivek et al. (2014)	Levels of engagement (high-low) Conscious attention, enthused participation, social connection
Customer brand engagement	Hollebeek et al. (2014)	Cognitive, emotional, behavioural
Engagement	Sashi (2012) Shawky et al. (2019)	Connection, interaction, satisfaction, retention, commitment, advocacy, engagement
Mobile user engagement	Kim et al. (2013)	Cognition, affection, impulse
Online Engagement	Alhabash et al. (2019) Buhalis and Mamalakis (2015) Cvijikj and Michahelles (2013) Hoffman and Fodor (2010) Peters et al. (2013)	Likes, comments, shares, interaction,

more so. Images are the main element in the content of posts and therefore have a decisive impact on the engagement of brands with consumers. Several studies address this issue, including that of Hu et al. (2014), who define five main categories (selfie, body snap, marketing, product-only and non-fashion) and seven subcategories (phase, logo, brand logo, smile, outdoor, people and items). Çukul (2015) establishes nine categories to analyse the content of posts: product, promotion, advertising, social responsibility, special days, workplace/workers, content provided by the consumer and public relations (Table 2). Lee et al. (2018a, 2018b) found that direct informative content, such as mentions of prices or ranges, is associated with lower levels of participation when included in messages in isolation, but with higher levels of participation when provided in combination with attributes related to the personality of the brand, while for Hu et al. (2014) images of fashion brands that show only the product are less effective in terms of obtaining likes and comments.

Based on the analysis of the content of posts, the following research question can be asked:

RQ1. Do the elements present in the images and product categories affect the generation of engagement for both brands?

### Communication strategy

The communication strategy also conditions the engagement of brands with consumers. Goor (2012) proposes six variables to classify posts according to the communication strategy used (Table 3). This system of categories was specifically employed for the analysis of Instagram accounts in the fashion

sector. Other studies, such as that of Lee et al. (2018a, 2018b), find that the inclusion of widely used content related to the personality of the brand, such as humour and emotion, is associated with higher levels of consumer engagement (likes, comments, actions) with a message.

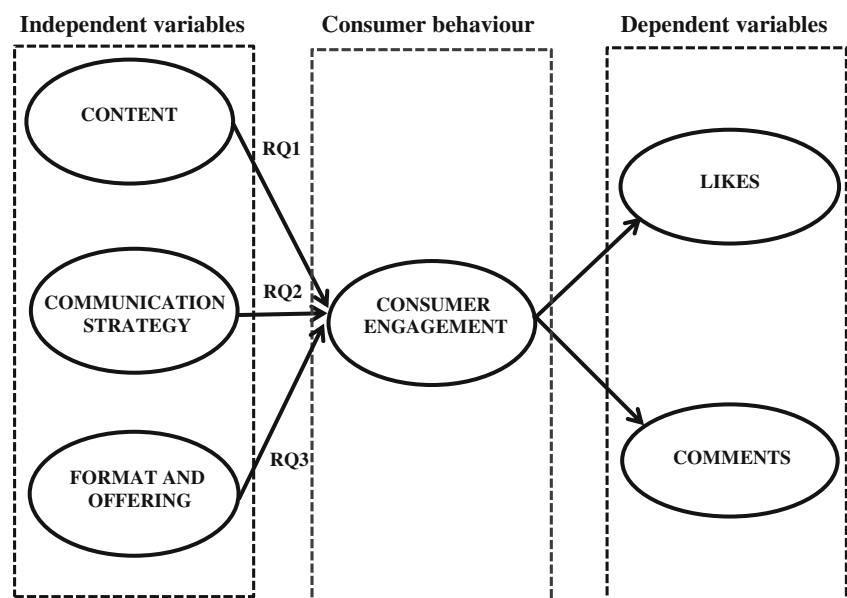
In the case of communication strategies and how they can condition brand engagement, the following research question is asked about their content:

RQ2. Which communication strategies generate the greatest engagement in each of the brands?

### Aspects of the offer and formal elements of the post

Another set of variables that condition the engagement of brands with users includes aspects of the offer and other formal elements of the post. Completing the categories established by Çukul (2015) and Goor (2012), 16 new variables, referred to as model 3, were established (Table 4). Regarding the variable *People*, a study by Bakhshi et al. (2014) highlights that faces cause a greater degree of reaction on social networks, while photos that have been edited using filters, lighting, shadows and saturation seem more attractive to the audience and, therefore, increase the number of views and comments (Jaakonmäki et al. 2017). Another study carried out by Valentini (2015) concludes that when the product is placed in the image foreground, users are more engaged; conversely, when the product is in the background, less interaction occurs. Similarly, content that includes humorous characteristics increases engagement (Syrdal and Briggs 2018), while Hu et al. (2014) show in their study that images that

Fig. 1 Suggested research model



**Table 2** Definition of the Çukul variables (2015)

Variable	Definition
Product	The product is announced, directly or indirectly, in the post.
Promotion	Product discounts are announced.
Advertising	The post has an advertising format.
Social responsibility	The post shows the brand's commitment to aspects of social, economic or environmental improvement.
Special days	Internationally recognised days, such as Valentine's Day, New Year, etc.
Workplace/workers	Workspaces and/or workers are shown in the post.
Content provided by the consumer	The brand reproduces a user's post.
Public relations	The post shows the company's own events or others in which it has participated.

include only the product are less favourable for the Instagram audience.

Regarding the specific aspects of the offer and the defined formal elements of the post, the following research question should be noted:

RQ3. Is post format relevant in generating engagement for both brands?

## Methodology

This study uses content analysis (Segarra-Saavedra and Hidalgo-Marí 2018), focusing on two brands in fashion retail, a sector in which both brands and consumers are highly engaged and show a high level of willingness to engage in social interaction (Arriaga et al. 2017). For this study, all posts published between the 1st January and the 31st December 2017 on the official Primark and H&M Instagram accounts were coded. The coding of the posts was carried out from 1st April 2018 onwards, leaving enough time to collect the maximum number of interactions for each post. With this sample, we aimed to analyse an entire year and, at the same time, ensure that the time patterns or the order of post throughout the day did not influence the observed values. The comments

were counted numerically without analysing the sentiment of the comment, since, by being an international account, these comments often referred to issues unrelated to the posts analysed and were in different languages not understood by the coder.

The study of social metrics provides a case study comparable in terms of size and the strategy followed by both brands. For the development of this research, the authors have decided to study the use Instagram specifically as the platform is the most used by opinion leaders and with the highest interaction rate compared to other social networks (Locowise 2019). Interactivity on Instagram among consumers and brand is one of its main attractions, since it allows consumers to participate in debates, send comments that brands can answer specifically (Loureiro et al. 2018). In the case of fashion, the bidirectional communication that Instagram allows makes it a vital network for this sector (Fernández and Martínez-Sanz 2019).

The posts were categorised based on the three systems of categories defined above, namely Çukul (2015), Goor (2012) and our own categorisation, which met the required levels of completeness, objectivity, reciprocal exclusion, fidelity and opportunity (Krippendorff 2004). Each post was classified as belonging to certain of the categories. In parallel, the number of reactions that each post elicited, both in the form of likes and comments, was determined, and, in the case of the latter, it

**Table 3** Definition of the Goor variables (2012)

Variable	Definition
Emotion	The post associates the product with feelings beyond its functionalities.
Persuasion	The post uses reciprocity, scarcity, authority, consistency, sympathy and/or consensus as a means of influencing users.
Relationship	Through the post, the brand aims to create, maintain and strengthen relationships between customers and the brand.
Self-efficacy	The post shows consumers the functionalities and applications of the product, trying to convince them of its reliability, quality and effectiveness.
Sales response	The post aims to generate immediate sales.
Symbolism	The brand aims to include in the post symbolisms of lifestyle, identity and/or social group to which the user aspires to belong.

**Table 4** Definition of the model 3 variables

Variable	Definition
People	People, whether full-length or partial, regardless of age or sex, are shown in the image included in the post.
Only product	Still-life style post in which only the product appears.
No product/evocative	Evocative images appealing to emotions in which the product does not appear.
Text in picture	The name of the brand or any other type of writing is included in the posts.
People's faces	The image also shows the face of a person/people.
Studio	Images taken in a photo studio with sets prepared ad-hoc.
Localisation	Images taken at parades, events or locations selected especially for the photo shoot.
Username mentioned	The people that appear in the post are labelled.
Series of pictures	The post includes several photos or videos.
Video	The format of the post is a video.
For men	Products for men are shown.
For women	Products for women are shown.
For kids	Products for children are shown.
Accessories	Accessories are shown.
Make-up	Make-up products are shown.
Other product	Other brand products not listed above are shown.

should be clarified that this count was strictly numerical, and that this study does not include an analysis of the feelings that could be derived from these posts, which would itself be the subject of a separate investigation.

The coding was carried out by a team of three people from outside the research team, for which they had been previously trained. The reliability of the coded data was then confirmed by means of an inter-coder analysis, calculating the Scott's Pi coefficient and Cohen's Kappa coefficient, which relate the coded data to the values that would be obtained randomly.

While there is no standard regarding the number of cases to be coded when applying inter-coder reliability, this was carried out on 50 analysis units, resulting in all cases with values above 0.80, with most cases reaching a value of 1, which was as expected in all descriptive categories with little or no subjective need for evaluation.

The data was analysed and treated with the R Foundation software R-3.5.1. Three levels of statistical significance for the results were established: a higher level that required a value of  $p < 0.001$  (\*\*\*) p), an intermediate level that required a value of  $p < 0.05$  (\*\*) p) and a less demanding but still relevant third level that required a value of  $p < 0.1$  (\*) p). Bivariate and multivariate analyses of the response variables (comments and likes) and each of the possible explanatory variables were performed using the Mann-Witney or Kruskal-Wallis non-parametric test, obtaining results for the summary statistics N, median and also quartiles. As for the modelling for each response variable, a multiple linear regression model was designed. The variables were transformed into logarithms such that the value used to observe comments in the period t:  $O_{Ct}$  is equal to the Napierian logarithm of the tabulated value of

comments in the period t:  $C_t$ , which is analogous for likes. Thus, the variable observed in comments and likes would be:  $O_{Ct} = \ln C_t$ ;  $O_{Lt} = \ln L_t$ .

## Results

In order to obtain the maximum information from the coded data, a bivariate analysis was carried out on the impact of each of the variables of the three proposed models on comments and likes, as well as a multivariate analysis that helps us to reinforce the solidity of the conclusions, applying this methodology to each of the three models (Alhabash et al. 2019), as detailed below. The results of model 3 make it possible to detect clearly variables whose absence or presence generate differences in engagement.

### Bivariate analysis of results

With the data from the reference period, in a primary bivariate analysis, for the Çukul model (2015), the number of interactions that H&M received was lower than that of Primark in both response variables (comments and likes), with a maximum level of statistical difference, as can be seen in Table 5. In the case of Primark comments, two variables appear that mark positive differences at the highest level of significance: *Product* and *Promotion*. The variable *Content provided by consumer* appears to be significant at the second level and negative for both Primark comments and H&M likes. The remaining variables show little significance. On the other hand, for H&M, this model does not allow us to conclude that

**Table 5** Comparative results for Primark and H&M using the Çukul model (2015)

Variable	Primark		H&M	
	Comments	Likes	Comments	Likes
Product	$p < 0.001$	$p = 0.1165$	$p = 0.5240$	$p = 0.4208$
Promotion	$p < 0.001$	$p = 0.4287$	No observations	
Advertising	$p = 0.7293$	$p = 0.7572$	$p = 0.678$	$p = 0.2148$
Social responsibility	No observations		$p = 0.2562$	$p = 0.524$
Special days	$p = 0.5893$	$p = 0.1151$	$p = 0.3629$	$p = 0.1023$
Content provided consumer	$p = 0.0071$	$p = 0.6332$	$p = 0.8056$	$p = 0.0315$
PR	$p = 0.6543$	$p = 0.3944$	$p = 0.1395$	$p = 0.4326$

the presence or absence of any of the variables generates a statistically significant difference to explain either the comments or the likes. This negative result is mainly attributable to the large asymmetries between the frequency with which any one of the variables appears or not, with a very low number of observations for some of the variables. This leads to differences in the median of comments, which, although detectable, means they do not reach statistical significance.

It should be noted that there were no observations for *Social responsibility* for Primark or for *Promotion* for H&M, and that this absence should be evaluated to see if they also correspond to a deliberate strategy by the two brands.

The application of the Goor model (2012) leads to results that, as a whole, are somewhat more statistically relevant in this initial bivariate analysis, as can be seen in Table 6. The only variable that appears as significant in all four aspects, namely comments and likes of both brands, is *Symbolism* and, strikingly, always with a negative impact: more interactions are obtained in its absence than in its presence. H&M manages to improve its comments significantly when its posts include the *Persuasion* variable, something which Primark scarcely achieves. However, with the presence of the *Sales response* variable, Primark improves both in terms of comments (at the \*\*\* p level) and likes (at the \* p level), something which does not happen for H&M, where the impacts are slightly negative for this variable on both comments and likes.

**Table 6** Comparative results for Primark and H&M using the Goor model (2012)

Variable	Primark		H&M	
	Comments	Likes	Comments	Likes
Emotions	$p = 0.4336$	$p = 0.7415$	$p = 0.011$	$p = 0.4730$
Persuasion	$p = 0.4804$	$p = 0.8998$	$p < 0.001$	$p = 0.9765$
Relationship	$p = 0.0828$	$p = 0.338$	$p = 0.1343$	$p = 0.5103$
Self-efficacy	$p = 0.4948$	$p = 0.7524$	$p = 0.5982$	$p = 0.2209$
Sales response	$p < 0.001$	$p = 0.0527$	$p = 0.9883$	$p = 0.6021$
Symbolism	$p = 0.0039$	$p = 0.0364$	$p = 0.087$	$p = 0.085$

The effects of the presence of the *Relationship* variable appear to be opposite for the two brands, for both comments and likes. In addition to *Relationship*, the opposite impact on comments and likes for the same company also occur for the *Emotions* variable for Primark, although in this case with a statistically significant positive impact at the \*\* p level, which also occurs with the same variable for H&M. For H&M, the *Emotions* variable has a negative impact on comments at a level of significance of \*\* p.

Of the three models, model 3 yields more statistically significant results. Thus, as shown in Table 7, in the case of H&M, most of the variables show differences, sometimes positive, such as *Only product*, *Studio*, *For women*, *Accessories* (in these four cases with high levels of significance for one of the dependent variables), and in other cases negative, as for the variables *Localisation*, *Username*, *For*

**Table 7** Comparative results for Primark and H&M using model 3

Variable	Primark		H&M	
	Comments	Likes	Comments	Likes
People	$p < 0.001$	$p < 0.001$	$p < 0.0011$	$p = 0.0029$
Only product	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p = 0.0166$
No product/evocative	$p < 0.001$	$p = 0.6262$	$p = 0.0171$	$p = 0.0267$
Text in picture	$p = 0.5388$	$p = 0.2918$	$p < 0.001$	$p = 0.4478$
People’s faces	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$
Studio	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p = 0.0176$
Localisation	$p = 0.001$	$p < 0.001$	$p = 0.0074$	$p = 0.0035$
Username	$p = 0.001$	$p = 0.3006$	$p = 0.0392$	$p = 0.0472$
Series of pictures	$p = 0.4973$	$p = 0.0219$	$p = 0.0196$	$p < 0.001$
Video	$p = 0.6107$	$p < 0.001$	$p < 0.001$	$p < 0.001$
For men	$p = 0.6791$	$p = 0.160$	$p < 0.001$	$p = 0.002$
For women	$p < 0.0011$	$p < 0.001$	$p < 0.001$	$p = 0.0436$
For kids	$p = 0.1387$	$p < 0.001$	$p = 0.8862$	$p = 0.1578$
Accessories	$p = 0.6218$	$p = 0.3524$	$p < 0.001$	$p = 0.2831$
Make-up	$p = 0.1660$	$p = 0.1877$	$p < 0.0011$	$p = 0.8025$
Other product	$p = 0.2244$	$p = 0.0068$	$p = 0.2271$	$p = 0.1135$

men and *Make-up*, with different levels of statistical significance.

Particular mention should be made of those variables that have different impacts on comments and likes. In this regard, one striking case is how, in the case of H&M, the presence of the variable *Video* generates fewer comments, with a significant difference at the maximum level, but a greater number of likes, also with high level of significance. This same variable also generates more likes for Primark, with a high level of significance. Something similar occurs for the *Series of pictures* variable, with a somewhat lower level of significance for both brands, and also with the *No product/Evocative* variable also for both brands, with a particular (negative) impact on Primark's comments.

Among the statistically significant impacts for which both brands obtain the same results, the negative effects on comments and likes of the variables *People*, *People's faces*, *Localisation*, and *Username* should be noted, along with the positive effects on both comments and likes of the variables *Only product*, *Studio* (as opposed to the negative effects of *Localisation*) and *For women*.

Differences between both brands are noted in dimensions such as the *Text in picture* variable, which negatively affects H&M comments, with high significance, but with (limited) positive impacts for Primark, and which positively affects H&M likes but negatively affects Primark. The negative impacts of *For men* are more significant for H&M than for Primark, while the negative impacts of *For kids* for Primark, which are especially significant for likes, are not matched in the case of H&M likes. H&M is much more affected in terms of comments by *Accessories* (positively) and by *Make-up* (negatively), while for *Other product*, Primark obtains interactions that are positive and more significant, especially for likes.

## Multivariate analysis of results

When modelling, in the multivariate analysis comparing both brands no significant variable common to both was observed in either the Çukul (2015) or the Goor (2012) model. In contrast, in the results of model 3, which generates higher  $R^2$  values, the variable *Only product* appears as significant for both brands, an observation which is repeated for the integrated modelling that takes from each of the three models those variables that were statistically significant in each following the bivariate analysis, the results of which are shown in Table 8. In the case of Primark, the presence of the variable *Only product* appears as significant at the highest level established, while in the case of H&M, its presence also generates a positive impact on comments, although with a lower level of significance.

Similarly, the positive role in generating comments of the *For women* variable in the case of Primark, and the negative

**Table 8** Results of the multivariate analysis with the integration of the three models: *Comments*. ( $R^2 = 18.5\%$ )

Brand	Variable	Estimate	Std. Error	t value	Pr (> t )
Primark	Sales response	0.6130	0.2025	3.03	0.0026
	People	1.1750	0.3284	3.58	0.0004
	Only product	1.0500	0.2490	4.22	0.0000
	People's faces	-1.0224	0.2420	-4.22	0.0000
	For women Yes	0.3385	0.1209	2.80	0.0054
H&M	Persuasion	0.1251	0.0616	2.03	0.0430
	Studio	0.3541	0.1616	2.19	0.0291
	Only product	0.1461	0.0767	1.91	0.0576
	Localisation	0.3043	0.1586	1.92	0.0559
	Video	-0.2856	0.0797	-3.58	0.0004
	For men	-0.2844	0.0686	-4.15	0.0000

effect of the presence of the variable *For men* for H&M, in all cases with a high level of statistical significance, is a notable contrast.

Other interesting results emerge from the joint analysis of the explanatory factors of likes for both brands. Again, no common variable with greater explanatory power was seen in either the Çukul (2015) or the Goor model (2012). However, as in the case of comments, in the case of model 3 and the integrated modelling of the three categorisations, whose results appear in Table 9, the *People's faces* variable did appear as a common factor, although negatively, which might seem surprising if its inclusion was intended to generate some kind of empathy, as it does not seem to have achieved that goal. The duality between the positive impact of the *For women* variable and the negative impact of the *For men* variable, which appeared in the analysis of the comments, is also repeated with the likes. Other aspects that are notable include, in the case of Primark, the opposing impacts on both comments and likes of the variables *People* and *People's faces*, and, in the case of H&M, the opposing impacts of the *Video*

**Table 9** Results of the multivariate analysis with the integration of the three models: *Likes*. ( $R^2 = 10.7\%$ )

Brand	Variable	Estimate	Std. Error	t value	Pr (> t )
Primark	Sales response	0.2068	0.1072	1.93	0.0545
	People's faces	-0.2521	0.0741	-3.40	0.0007
	For men	0.2971	0.0624	4.76	0.0000
	Other product	0.2462	0.0825	2.98	0.0031
H&M	People's faces	-0.2140	0.0779	-2.75	0.0063
	Localisation	-0.1479	0.0783	-1.89	0.0598
	Video	0.9976	0.0879	11.36	0.0000
	For men	-0.1733	0.0763	-2.27	0.0237



variable, which was negative for comments but positive for likes.

Table 10 shows a summary of the modelling results for the two brands, both for the comments and likes. Those variables that are statistically significant for H&M are shown in italics, whilst those that are statistically significant for Primark are in non-italics.

### Discussion and managerial implications

This study has analysed engagement between users and two brands of fashion retailers on their official Instagram accounts; to this end, an unusually high volume of variables was encoded. Moreover, this research offers relevant information for marketing managers, as determining which factors generate greater user engagement with the brand is now of great interest, for both academics and marketing specialists. Compared to other social networks, Instagram proves the most effective in generating user engagement (Elliot 2014).

Having seen the empirical results presented above, the answers to the research questions are considered and discussed below.

Regarding RQ1, (Do the elements present in the images and product categories presented affect the generation of engagement for both brands?), our empirical study allows us to broadly answer this question. With the exception of *Persuasion* and *Sales response*, whose roles have already been discussed above, the remaining variables showing a statistical significance belong to model 3. It should be noted how some have an asymmetric impact. Thus, for H&M, the variable *Localisation* affects comments positively but likes negatively. The negative impact on likes for both brands of the variable *People's faces*, in addition to its negative impact on comments for Primark, is striking, and casts doubt on a very common resource used as an element in Instagram images in general, a use that is often justified as humanising posts and bringing about closer proximity with the user, but which does

not seem to generate these expected responses. This result contrasts with the study by Lindell (2019), which states the opposite; and Bakhshi et al. (2014) which concludes that photos with faces are more likely to receive likes. Nevertheless, the *People* variable generates significant positive impact for Comments. In this regard, there exist several studies that try to discover the impact of images with people in them on self-esteem (Cohen et al. 2017; Tiggemann et al. 2018). Of these, it is worth highlighting in relation to our study Tiggemann et al. (2018), which found that the number of likes does not affect body dissatisfaction.

The result of the positive impact on both comments and likes of the variable *For women* for Primark, and the negative impact on both comments and likes of *For Men* for H&M, are also striking, clearly indicating a bias in favour of those posts presenting products for women, which, although expressed homogeneously and with differences in context, still leads us to the same interpretation.

In reference to RQ2 (Which communication strategy generates greatest engagement for each of the brands?), the results of the Goor model (2012), which focuses its analysis on the evaluation of the aim of the post and its ability to generate engagement, should be noted. Through the bivariate and multivariate analysis, we observed differences in the results for both companies with respect to the Goor model (2012). For H&M, the variable that shows significant differences in the generation of interaction in this model is *Persuasion*, which emerges as the most notable variable in terms of generating comments (Boerman 2020). Thus, those posts that include the intention of *Persuasion* are revealed as comparatively more efficient at generating engagement. In the case of Primark, the presence of the *Sales response* communication strategy stands out as being the variable that generates greatest interaction, both in the form of more comments and more likes (Bonilla et al. 2019).

Another notable asymmetry in the generation of comments and likes is the use of videos, which allows us to answer the third research question: RQ3 (Is the post format relevant in

**Table 10** Summary of the modelling results for comments and likes for both brands

Brand	Comments		Likes	
	+ Comments	- Comments	+ Likes	- Likes
H&M	<i>Persuasion</i> ** <i>Only product</i> * <i>Studio</i> ** <i>Localisation</i> *	<i>Video</i> **  <i>For men</i> ***	<i>Video</i> ***	<i>People's faces</i> ** <i>Localisation</i> * <i>For men</i> **
Primark	Sales response ** People *** For women **	People's faces ***	Sales response * For women *** Other product ***	People's faces ***

generating engagement for both brands?). The results do not allow us to draw any meaningful conclusions for Primark; they do, however, yield significant results for H&M. The empirical results confirm that posts in video format generate a greater number of likes while at the same time generating less interaction in the form of comments (Bug and Heene 2020). While likes can be associated with a more impulsive and emotional response (Bonilla et al. 2019), comments represent a more elaborate response. Therefore, the potential of the video format to generate the first type of response, namely likes, should be highlighted.

The findings of this study will allow marketing managers to take decisions after evaluating the engagement that the brand is pursuing and understanding the impact of its activity on social networks to improve the presence and image of the brand, in order to contribute to the economic results of the organisation. The proper management of a marketing tool as important as Instagram is an opportunity that should not be missed in the communication strategy of brands, as it can contribute very effectively to strengthening links with their users. It is possible to attract the attention of followers, through the category of product presented, as indicated by this study, prioritising those posts that present products aimed at the female audience, if what is desired is greater engagement in the form of both comments and likes. Through a communication strategy that seeks persuasion, greater engagement is also achieved in comments. And significantly, avoiding the presence of People's faces, a variable that has proved to generate less engagement. The presence of the People is positive as long as it does not focus on the people's faces, if what is desired is to generate greater interaction. These findings help digital marketing managers to develop an effective strategy for customer engagement in visual social networks (Rietveld et al. 2020).

## Conclusions

The promotion and dissemination of brands in the digital environment is a determining factor in consumer decision-making (Klostermann et al. 2018; Schultz 2016, 2017) and fashion retailers emerge as the most effective in online communication (Correia Loureiro et al. 2018).

The semantic and qualitative connection of brands with users without the direct pressure of the weight of the company or the commercial message is fundamental in social networks (Arriaga et al. 2017) and their listening resources provide value and learning in business improvement and for management and consumption decisions (Labrecque et al. 2013). This connection is also important for consumers, as it can increase trust in the company and, consequently, increase purchasing intent (Hutter et al. 2013). This gives rise to certain challenges that must be constantly monitored (Yadav and Pavlou 2014).

Given its importance, the measurement of engagement applied to market research is big business (Chan-Olmsted and Wolter 2018), but to date there is so far only poor use of the digital potential for interaction (Vepsäläinen et al. 2017) such that companies in the sector continue to manage their social networks mainly to disseminate their information.

The variables most widely used to measure the level of engagement of users with social networks are the number of likes, shares and comments (Lee et al. 2018a, 2018b).

Consumers' high level of engagement with fashion and lifestyle and, consequently, the high likelihood of social interaction with the consumer for a retail brand on a social network, provides the ideal conditions to study interactions with the consumer, and provides information on market development, social strategy and specific brand trends (Schultz 2016).

In this study we have been able to confirm that focusing on the product increases engagement. It is especially striking that on both accounts the presence of models' faces negatively impacts the generation of engagement. This is very striking and of interest to digital marketing managers.

Different communication strategies are used in social networks (Goor 2012). This study shows that the strategy of *Persuasion* has a greater influence in the case of H&M than in the case of Primark. In contrast, in the case of Primark, the strategy *Sales response* shows the greatest influence. This study also confirms that the video format in posts has a significant impact on the generation of engagement. In the case of H&M, they have a positive impact on likes but a negative one on comments. Therefore, in view of the results obtained, it is important to take into account the characteristics of the posts if the goal is to improve the engagement of users with the accounts of fashion retail brands on Instagram.

In addition, as Schultz (2016) highlights, the use of a social network as a communication channel requires the integration of business knowledge reinforced, for example, by an extensive customer relationship management system. It is possible that brand representatives may not be able to resolve all problems directly, in which case they must redirect certain problems to other channels that, from the perspective of the consumer, resolve them more satisfactorily. From an organisational perspective, this leads more to the insourcing rather than the outsourcing of social network activities. Managers must resolve the organisational challenges resulting from this.

## Limitations and future research

Although the findings of this study may be considered innovative for having been carried out in the context of fast retailers and for including an exploration through the social network Instagram, as with any study, it is not without limitations. Firstly, priority was given to the use of data accessible to

any researcher without needing to be the brand's manager/administrator. Similarly, another limitation is that of having only analysed the communication carried out by fashion brands through a single platform (Instagram). In future studies, a comparison with other social networks, such as Twitter or Facebook, could prove rewarding. It would also be of interest to expand the study with intersectoral approaches to broaden the findings. Similarly, this study recorded data from global brand sites, but no country-specific comparisons were made. Future research could expand the results of this study by analysing the differences between countries and their contribution to the social interaction strategy of fashion retail brands. Another interesting new line of research would be to analyze the meaning of the comments beyond their strict accounting.

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