The Effect of Online Unpaid Reviews made by Renowned Vloggers: the Case of Smartphones

Răzvan A. MOLDOVAN¹, Raluca CIORNEA¹ *
¹ Babeş-Bolyai University, Faculty of Economics and Business Administration, Romania

ABSTRACT The main aim of the study is to establish the effects of online unpaid reviews posted by internet celebrities (renowned vloggers) on audience’s purchase intention, product recommendation and engagement on the platform. The empirical research conducted for this purpose revealed that audience’s attitude towards the vlogger is positively affected by the perceived attributes of the vlogger - trustworthiness, expertise and attractiveness. Further, the attitudes towards the vlogger reflect on the attitudes towards the reviewed product, and both have positive effects on the purchase intention, product recommendations and actions on Youtube. Despite being influenced by the attitudes towards the vlogger and the product, the attitudes towards the video content don’t have a significant impact on audience’s intentions. Additional multi-group analysis showed significant differences based on audience’s gender and their familiarity with the vlogger.

KEYWORDS: Renowned vlogger; Internet celebrity; Unpaid online reviews; Attitude; Vlogger review; SmartPLS

JEL CLASSIFICATION: M31

RECEIVED: August 2019

ACCEPTED: November 2019

1. Introduction

The celebrity culture has been dramatically changed by the rise of social media’s popularity and by the adoption of the new phenomenon created via social media - the Internet or online celebrity. If traditional celebrities gained their fame because of their professional talent (acting, singing, writing, sports, etc.) popularized through TV and other types of offline media, the internet celebrities earned public recognition by displaying different abilities on social media platforms and include vloggers, bloggers, streamers, “instafamous”, etc. (Li, 2018). Albeit internet celebrities borrow some characteristics from traditional celebrities as public recognition, fame, admiration or power to attract millions of fans/followers, there are significant differences in the way they interact with their audience. More specifically, internet celebrities provide frequent, even daily, access to their personal life, activities, preferences or opinions, and the interaction can be occasionally two-sided (Chapple and Cowrie, 2017; Bayazit, Durmuş, and Yildirim, 2017). These unconventional parasocial relationships create the impression of “legitimate relationships”, consequently fans/followers get more attached and perceive the internet celebrities as being more credible and trustworthy than traditional celebrities, and therefore better opinion leaders; hence the label of “influences” (Djafarova and Trofimenko, 2019; Sokolova and Kefi, 2019; Casalo, Flavian and Ibanez-Sanchez, 2018).

The internet celebrities’ power of influence began to be exploited by companies that co-opt them for product and brand endorsement or sponsored reviews (WFA, 2018; de Veirman, Cauberghé and Hudders, 2017). If the product endorsement action is specific to both traditional and internet celebrities, making product reviews on their personal channels is specific mostly to the latter. The sponsored reviews overlap with the endorsement, because when internet celebrities engage in their creation, the paying company has a certain control on the post, providing the content or guidelines and approving the material before being posted on the celebrities’ social media channel. However, internet

* Corresponding author: Raluca Ciornea – raluca.ciornea@econ.ubbeluj.ro
celebrities also use to make unsponsored (unpaid) reviews of products or brands, an action that increases their perceived credibility and trustworthiness as source of information. In this kind of situation, the owners of the products or brands have no control over the source and the posted content, whose message can improve or affect their image. At a certain level, it is similar to the so called “accidental celebrity endorsement” (a celebrity seen wearing or using in public a branded product as a result of a personal purchase – Lea-Greenwood, 2013), yet the visibility is significantly higher and in front of a more attached and therefore more attentive audience. So, the unsponsored reviews borrow some characteristics of the sponsored ones (endorsement), as a celebrity promotes a message regarding a product or brand, on a channel of mass communication (the Internet), hoping to reach a large audience and influence their attitudes and purchase intentions. Yet, the messages can be favorable or unfavorable, based on own experience (Wei and Lu, 2013), and the internet celebrity an “uncontrolled” endorser.

A substantial body of academic research investigated the role of online reviews as type of eWOM (Ismagilova et al., 2019; Trenz and Berger, 2014; Wei and Lu, 2013; Huete-Alcocer, 2017; King, Racherla, and Bush, 2014), and often confirmed the significant role played in different stages of the decision making process (Duan et al., 2008; Cong and Zheng, 2017). As the large number of publications focused on the “ordinary” customer online reviews, posted by anonymous individuals on the company’s or others’ websites or platforms (Mudambi and Schuff, 2010; Henning-Thurau et al., 2004; Wei and Lu, 2013), the impact of celebrities’ online reviews is relatively understudied. Moreover, in case of the celebrities’ unpaid online reviews, literature is even scarcer. Celebrities are quite the opposite of the unknown customers, hence the effect of their online reviews is expected to be similar to one of endorsement, even for the unpaid situations. The effectiveness of traditional celebrities’ endorsement has been widely documented in the literature (Bergkvist and Zhou, 2016), yet the academic research investigating the internet celebrities’ endorsement is in its early stages (Schouten, Janssen and Verspaget, 2019).

Consequently, to fill the literature gap, the objective of this paper is to examine the effects of the attitudes towards the celebrity, reviewed product and video content on the purchase intention, product recommendation and future Youtube actions, in the case of an unpaid online review created and posted by an internet celebrity – a renowned vlogger. Additionally, a second goal is to identify the possible variations based on audiences’ gender and their familiarity with the vlogger.

2. Theoretical framework

Although a large number of existing studies in the broader literature have examined the characteristics needed by celebrity spokespeople in order to influence the audience’s attitudes and purchase decisions, the progress is slow (Bergkvist and Zhou, 2016). “Expertise”, “trustworthiness”, and “attractiveness”, are three dimensions widely used to evaluate the qualities of traditional celebrity endorsers (see Bergkvist and Zhou, 2016; Ohanian, 1990; Erdogan, 1999), that were subsequently adopted for internet celebrities (Choi and Lee, 2019; Chapple and Cownie, 2017; Hill, Troshani and Chandrasekar, 2017; Ku, Kao and Qin, 2019). Source “expertise” and “trustworthiness” are components of the original Source Credibility Model, which suggests that a credible source of information might influence the audience’s “beliefs, opinions, attitudes and/or behavior” (Erdogan, 1999, p. 297; Wongweeranonchai and McClelland, 2016). “Trustworthiness” is the perceived honesty, reliability and capacity of the source to provide impartial information, whereas “expertise” reflects the perceived skills, knowledge and experience of the source (Erdogan, Baker and Tagg, 2001; Ohanian, 1990; Pornpitakpan, 2003). Ohanian (1990) extended the Source Credibility Model by incorporating the “attractiveness” dimension. If some scholars associate the source “attractiveness” with the perceived physical appearance of the source (Ohanian, 1990), others claim that it encompasses also the likeability, personality and familiarity (Leung, Cheng and Tse, 2018; Amos, Holmes and Strutton, 2008). Celebrity endorser’s perceived expertise, trustworthiness and attractiveness reflects on his/her perceived credibility which affects “the receiver’s acceptance of a message” (Ohanian, 1990, p. 4; Bergkvist and Zhou, 2016; Seiler and Kucza, 2017), with direct effects on attitudes (Erdogan, 1999). Hence it can be implied that the perceived attributes of an internet celebrity who is engaged in endorsing or reviewing a product, may influence the audience’s attitude towards him/her. Hence, we propose:
H1. Vlogger’s perceived attributes positively influence the audience’s attitude towards him/her.
   H1a. Vlogger’s perceived trustworthiness positively influences the audience’s attitude towards him/her.
   H1b. Vlogger’s perceived expertise positively influences the audience’s attitude towards him/her.
   H1c. Vlogger’s perceived attractiveness positively influences the audience’s attitude towards him/her.

Fleck et al. (2012) and Goldsmith et al. (2000) showed that the attitude towards the celebrity endorser influences the attitude towards the advertisement. Since celebrity’s information and image can transfer to the product, brand or company (Amos, Holmes and Strutton, 2008), it is reasonable to expect a similar influence from the attitude towards the celebrity on the attitude towards the product. Moreover, Bekk and Spörle (2010) showed that perceived trustworthiness (a component of credibility) has a positive impact on the attitude towards celebrity endorser. Consequently, the attitude towards a source reflects to some extend the perceived credibility of that source. Thus, if a consumer has a positive attitude towards a famous vlogger reviewing or endorsing a product, most likely also perceives him/her as being credible. A significant number of researchers have evidenced that both traditional and internet celebrity’s credibility have a positive impact on the attitude towards the endorsed brand/product and the advertisement (La Ferle and Choi, 2016; Singh and Banerjee, 2018; Seiler and Kucza, 2017; Muda et al., 2014; Ong and Ong, 2015; Bhatt, Jaywal and Patel, 2013; Min et al., 2019; Ku, Kao and Qin, 2019; Choi and Lee, 2019; Abirami and Krishnan, 2018), respectively that advertisement influences the attitude towards the endorsed brand/product (La Ferle and Choi, 2016; Seiler and Kucza, 2017; Muda et al., 2014; Goldsmith, Lafferty and Newell, 2000). Considering the argumentation above, we propose:

H2. There are positive relationships between the attitudes towards the vlogger, the video content and the reviewed product.
   H2a. The attitude towards the vlogger reflects positively on the reviewed product.
   H2b. The attitude towards the vlogger reflects positively on the video content.
   H2c. The attitude towards the video content reflects positively on the reviewed product.

A plethora of studies confirmed that positive attitudes towards endorsed or reviewed products/brands lead to purchase intention, for both traditional and internet celebrities (La Ferle and Choi, 2016; Singh and Banerjee, 2018; Cuomo et al., 2019; Seiler and Kucza, 2017; Muda et al., 2014; Chapple and Cownie, 2017; Goldsmith, Lafferty and Newell, 2000; Ha and Lam, 2017; Choi and Lee, 2019). Moreover, a positive attitude towards endorsed products or brands could lead to their recommendation to family members or friends, the so-called WOM (Chapple and Cownie, 2017). In addition, the attitude towards the products/brand can persuade the audience to engage on products’ social media platforms (Barger, Peltier and Schultz, 2016). Based on the aforementioned findings we propose:

H3. The attitude towards the reviewed product positively influences the intentions of the audience.
    H3a. The attitude towards the reviewed product positively influences the purchase intention.
    H3b. The attitude towards the reviewed product positively influences the actions on Youtube.
    H3c. The attitude towards the reviewed product positively influences the recommendations of the product.

A limited number of researches tested and confirmed the effects of the attitude towards a celebrity endorser on the purchase intention (Min et al., 2019). It is justified to consider again the association between the attitude towards the source and the perceived credibility. Several studies confirmed that both traditional and internet celebrity’s credibility have a positive impact on the purchase intention of the endorsed products/brands (La Ferle and Choi, 2016; Seiler and Kucza, 2017; Ong and Ong, 2015; Hani, Marwan and Andre, 2018; Goldsmith, Lafferty and Newell, 2000; Hill, Troshani and Chandrasekar, 2017; Sertoglu, Catli and Korkmaz, 2014). In a similar manner, celebrity endorser’s credibility was identified as a predictor of positive word of mouth (Saleem, 2017). Since attitudes towards the product and attitudes towards the video were previously shown to influence the
audience’s engagement on product’s social media platform (Barger, Peltier and Schultz, 2016; Choi and Lee, 2019), the same can be expected for the attitudes towards the vlogger. These considerations give rise to the following:

**H4.** The attitude towards the vlogger positively influences the intentions of the audience  
H4a. The attitude towards the vlogger positively influences the purchase intention  
H4b. The attitude towards the vlogger positively influences the actions on YouTube  
H4c. The attitude towards the vlogger positively influences the recommendations of the product

Various papers showed that attitudes towards celebrity endorsed ads influence the purchase intention of the endorsed product/brand (Singh and Banerjee, 2018; La Ferla and Choi, 2016; Goldsmith, Lafferty and Newell, 2000; Ku, Kao and Qin, 2019). In case of internet celebrity endorsements or reviews, the video content created on their channel can be considered similar to an advertisement, therefore similar results should be expected. Interesting brand or product related contents can lead to audience’s engagement on the platform, reacting to the content with likes, commenting on the content, sharing the content, posting user-generated contend (Barger, Peltier and Schultz, 2016). Since individuals may engage in content sharing, is also plausible they will make product recommendations. Following the lines of argumentation above, we propose:

**H5.** The attitude towards the video content positively influences the intentions of the audience  
H5a. The attitude towards the video content positively influences the purchase intention  
H5b. The attitude towards the video content positively influences the actions on YouTube  
H5c. The attitude towards video content positively influences the recommendations of product

3. **Methodology**

The research employed the structured quantitative survey method, with a questionnaire as a data-gathering instrument. The statistical universe was embodied by the individuals from Romania (Transylvania region) that spend time on the Youtube platform. The research sample consists of 371 respondents.

![Figure 1. Conceptual framework](image-url)
The questionnaire included a link to a 2.45 minutes long video that respondents had to see prior to completing the data. The content of the video focused on reviewing the latest smartphone launched on the market, and was created and posted on a vloggers’ Youtube channel. The content itself has a serious note, describing only the specifications, advantages and disadvantages of the product and was not paid by the brand owner. The researchers chose a video to a smartphone, because it is a product that all the respondents can relate to in terms on familiarity, knowledge, purchase and use; therefore, they can make appropriate evaluations of the information provided by the vlogger. Regarding the profile of the Youtube channel, can be underlined that it has around 900.000 subscribers (no. 35 out of the total and no. 4 on educational domain, in the country) and the videos are mostly reviews to IT products (www.topvloguri.ro/). About the vlogger can be stated that is a 36 years old male, former journalist that transferred in online owning multiple channels used for vlogging and blogging, so it is an Internet celebrity in Romania.

Nine independent factors were taken into account in the present study (see Figure 1). The constructs vlogger’s “expertise” and “trustworthiness” were measured on the scales advanced by Ohanian (2001). For “attractiveness” was proposed a four items scale, adopting two items “attractive/unattractive” and “handsome/bad-looking” from Ohanian (2001) and adding the items “pleasant/unpleasant” and “charming/disagreeable”.

The attitude towards the reviewed product (“attitude product”) was measured on the scale advanced by Putrevu (2008) to which was added the item “interesting/not interesting”. The attitude towards the vlogger (“attitude vlogger”) was measured on the same scale, excluding the item “useful/not useful”, whilst for attitude towards the video (“attitude video content”) was adopted the scale proposed by Zhang (2014). For purchase intention towards the reviewed product (“purchase intention”) was proposed a construct with three items expressing the probability to: “to purchase the product reviewed in the video (if I was searching for a smartphone)”, “to consider the reviewed product an option (if I was searching for a smartphone)”, and “to purchase the reviewed product if I would have the financial resources (I desire the product)”. The intention to recommend the reviewed product (“product recommendation”) was determined with the item “to recommend the product reviewed in the video”. The audience’s engagement on the platform was measured with a scale that considered the possible actions on the Youtube (“actions on Youtube”): “to subscribe to the vlogger’s Youtube channel”, “to watch more reviews on the vlogger’s Youtube channel”, “to like the video on the Youtube channel”, “to share the video or the vlogger’s Youtube channel”, “to post comments on the vlogger’s Youtube channel”, “to recommend the vlogger’s Youtube channel”.

All items were measured on a seven-point Semantic Differential scale (e.g. 1 = “extremely unattractive”, 2 = “very unattractive”, 3 = “somehow unattractive”, 4 = “neutral”, 5 = “somehow attractive”, 6 = “very attractive”, 7 = “extremely attractive”), except the purchase intention, recommendation and actions on Youtube which were measured on a seven point Likert-type scale ranging from 1= “extremely improbable” to 7= “extremely probable”.

For data analysis were considered the Partial Least Squares Structural Equation Modelling (PLS-SEM) and the multi-group analysis (MGA), conducted with the SmartPLS 3 software (Ringle, Wende and Becker, 2015).

4. Results

4.1. Respondent’s profile

The sample includes 45.3% men and 54.7% women, most of them aged between 18-25 years (39.2%) or 26-35 years (30.2%). Individuals between 36-45 years comprise 19.4% of the sample, while the rest above 46 years represent 11.2%. The monthly family income distribution pinpoints that a large share of respondents fell into a lower than 4000 lei group (41.8% - 838 €) or into a group with an income ranging from 4001-8000 lei (49.6% - 838-1677€). Only a small percentage (8.6%) of respondents indicated income levels that exceed 8000 lei (1677€).

The respondents are quite familiar with the Social Media in general and Youtube in particular, as the vast majority spend at least 4-5 hours per week on Social Media (87.1%) and visit the Youtube platform at least twice a week (81.6%).
4.2. Measurement model

Table 1 shows the final results of the analysis, after excluding the “high/low quality of production CV” (loading <0.7) from the construct “attitude video content” (similar results were found by Ku, Kao and Qin, 2019). All constructs in the overall model meet the requirements for Cronbach’s alpha, composite reliability (CR), indicator’s loading and rhoA, to be higher than 0.70, so the internal consistency reliability and the indicator reliability are confirmed (Hair, Ringle and Sarstedt, 2011; Wong, 2019). The average variance extracted (AVE) values are greater than the acceptable threshold of 0.50, providing evidence of an acceptable convergent validity (Hair, Ringle and Sarstedt, 2011).

| Construct                  | Item         | Loading | AVE    | CR    | Alpha  | rhoA  |
|----------------------------|--------------|---------|--------|-------|--------|-------|
| Trustworthiness vlogger     | honestV      | 0.945   | 0.824  | 0.959 | 0.947  | 0.959 |
|                            | reliableV    | 0.865   |        |       |        |       |
|                            | sincereV     | 0.929   |        |       |        |       |
|                            | dependableV  | 0.890   |        |       |        |       |
|                            | trustworthyV | 0.907   |        |       |        |       |
| Expertise vlogger          | qualifiedV   | 0.905   | 0.788  | 0.949 | 0.932  | 0.937 |
|                            | experienced  | 0.903   |        |       |        |       |
|                            | informedV    | 0.827   |        |       |        |       |
|                            | skilledV     | 0.887   |        |       |        |       |
|                            | expertV      | 0.913   |        |       |        |       |
| Attractiveness vlogger      | attractiveV  | 0.852   | 0.664  | 0.887 | 0.831  | 0.850 |
|                            | pleasantV   | 0.893   |        |       |        |       |
|                            | charmingV    | 0.738   |        |       |        |       |
|                            | handsomeV    | 0.766   |        |       |        |       |
| Attitude vlogger           | favourableV  | 0.937   | 0.878  | 0.966 | 0.954  | 0.955 |
|                            | interestingV | 0.915   |        |       |        |       |
|                            | goodV        | 0.930   |        |       |        |       |
|                            | likeV        | 0.965   |        |       |        |       |
| Attitude product           | usableP      | 0.787   | 0.817  | 0.957 | 0.943  | 0.949 |
|                            | goodP        | 0.943   |        |       |        |       |
|                            | likeP        | 0.935   |        |       |        |       |
|                            | favourableP  | 0.923   |        |       |        |       |
|                            | interestingP | 0.921   |        |       |        |       |
| Attitude video content     | informativeCV| 0.890   | 0.802  | 0.942 | 0.919  | 0.936 |
|                            | valuableCV   | 0.867   |        |       |        |       |
|                            | helpfulCV    | 0.907   |        |       |        |       |
|                            | truthfulCV   | 0.919   |        |       |        |       |
| Purchase intention         | purchase1    | 0.955   | 0.908  | 0.967 | 0.949  | 0.951 |
|                            | purchase2    | 0.962   |        |       |        |       |
|                            | purchase3    | 0.942   |        |       |        |       |
| Actions on Youtube         | likevideoYC | 0.882   | 0.825  | 0.966 | 0.957  | 0.965 |
|                            | sharereviewYC| 0.911   |        |       |        |       |
|                            | subscribeYC  | 0.939   |        |       |        |       |
|                            | watchmoreYC | 0.851   |        |       |        |       |
|                            | postcommentYC| 0.937   |        |       |        |       |
|                            | recommendYV  | 0.928   |        |       |        |       |
| Recommend product           | recommendP   | 1.000   | 1.000  | 1.000 | 1.000  | 1.000 |

To assess the discriminant validity of the model, both Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio of Correlations (HTMT) were considered. Results in Table 2 show that all square root of AVE (on diagonal) are greater than each correlation coefficient, indicating acceptable discriminant validity (Hair, Ringle and Sarstedt, 2011). This is also confirmed by the HTMT analysis in Table 3, as each factor’s value is lower that 0.90 (Hair et al., 2019a).
Table 2. Discriminant validity – Fornell-Larcker Criterion

| Construct                          | AcY   | AtP   | AtCV  | AtV   | AtrV  | ExV   | PuI   | ReP   | TrV   |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Actions on Youtube (AcY)           | 0.908 |       |       |       |       |       |       |       |       |
| Attitude product (AtP)             | 0.437 | 0.904 |       |       |       |       |       |       |       |
| Attitude video content (AtCV)      | 0.360 | 0.443 | 0.896 |       |       |       |       |       |       |
| Attitude vlogger (AtV)             | 0.569 | 0.450 | 0.669 | 0.937 |       |       |       |       |       |
| Attractiveness vlogger (AtrV)      | 0.153 | 0.217 | 0.286 | 0.401 | 0.815 |       |       |       |       |
| Expertise vlogger (ExV)            | 0.582 | 0.453 | 0.593 | 0.620 | 0.155 | 0.887 |       |       |       |
| Purchase intention (PuI)           | 0.585 | 0.776 | 0.354 | 0.476 | 0.366 | 0.396 | 0.953 |       |       |
| Recommend product (ReP)            | 0.639 | 0.668 | 0.277 | 0.390 | 0.237 | 0.362 | 0.806 | 1.000 |       |
| Trustworthiness vlogger (TrV)      | 0.445 | 0.455 | 0.595 | 0.572 | 0.170 | 0.694 | 0.351 | 0.282 | 0.907 |

Note: diagonals square root of the AVE

Table 3. Discriminant validity - Heterotrait-Monotrait Ratio of Correlations

| Construct                          | AcY   | AtP   | AtCV  | AtV   | AtrV  | ExV   | PuI   | ReP   | TrV   |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Actions on Youtube (AcY)           | 0.456 |       |       |       |       |       |       |       |       |
| Attitude product (AtP)             | 0.359 | 0.470 |       |       |       |       |       |       |       |
| Attitude video content (AtCV)      | 0.590 | 0.469 | 0.706 |       |       |       |       |       |       |
| Attitude vlogger (AtV)             | 0.169 | 0.262 | 0.312 | 0.439 |       |       |       |       |       |
| Attractiveness vlogger (AtrV)      | 0.610 | 0.494 | 0.638 | 0.654 | 0.174 |       |       |       |       |
| Expertise vlogger (ExV)            | 0.611 | 0.815 | 0.369 | 0.500 | 0.399 | 0.423 |       |       |       |
| Purchase intention (PuI)           | 0.648 | 0.687 | 0.274 | 0.398 | 0.259 | 0.376 | 0.826 |       |       |
| Recommend product (ReP)            | 0.462 | 0.484 | 0.635 | 0.593 | 0.198 | 0.740 | 0.370 | 0.293 |       |
| Trustworthiness vlogger (TrV)      | 0.422 | 0.248 | 0.921 | 0.572 | 0.170 | 0.694 | 0.351 | 0.282 | 0.907 |

4.3. Structural model

For the estimation of the model was used the Bootstrap sub-sample technique with 5000 cases (Hair, Ringle and Sarstedt, 2011). Results in Table 4 indicate the path coefficients and the t-values for each path relationship, along with their statistical significance. Almost all the constructs have t-values that exceed the recommended limit of 1.96 and are statistical significant (p<0.05), leading to the support of the proposed hypothesis (Hair, Ringle and Sarstedt, 2011; Wong, 2019). Two exceptions are the relationships “attitude video content – actions on Youtube” and “attitude video content – recommend product”, with a t<1.96 and p>0.05. The relationship “attitude video content – purchase intention” meets the required limit to be acceptable, yet the hypothesis is not supported as the path value is negative, not positive as expected. Concluding, the hypotheses H1-H4 are supported, while the hypothesis H5 is rejected.

Table 4. Path coefficients

| Path relationship                  | β value | t-value  | Hypothesis  |
|------------------------------------|---------|----------|-------------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.238   | 3.121**  | Supported   |
| H1b Expertise vlogger – Attitude vlogger   | 0.408   | 7.495*** | Supported   |
| H1c Attractiveness vlogger – Attitude vlogger | 0.298   | 5.425*** | Supported   |
| H2a Attitude vlogger – Attitude product   | 0.280   | 2.543*   | Supported   |
| H2b Attitude vlogger – Attitude video content | 0.669   | 16.624*** | Supported   |
| H2c Attitude video content – Attitude product | 0.252   | 2.608**  | Supported   |
| H3a Attitude product – Purchase intention | 0.726   | 24.432*** | Supported   |
| H3b Attitude product – Actions on Youtube | 0.245   | 3.507*** | Supported   |
| H3c Attitude product – Recommend product   | 0.643   | 9.089*** | Supported   |
| H4a Attitude vlogger – Purchase intention | 0.233   | 4.605*** | Supported   |
| H4b Attitude vlogger – Actions on Youtube | 0.528   | 6.426*** | Supported   |
| H4c Attitude vlogger – Recommend product | 0.195   | 3.103**  | Supported   |
| H5a Attitude video content – Purchase intention | -0.123  | 2.405*   | Not Supported|
| H5b Attitude video content – Actions on Youtube | -0.104  | 1.314    | Not supported|
| H5c Attitude video content – Recommend product | -0.140  | 1.685    | Not supported|

Note: * p<0.05, ** p<0.01, *** p<0.005
Table 5 shows the effect sizes of each exogenous latent variable on the endogenous construct, divided according to Hair et al. (2019a) into small (0.02-0.15), medium (0.15-0.35) and large effects (>0.35). Most of the effect sizes are small and medium, while for the constructs without statistical significant relationship, the effects are missing.

Table 5. $f^2$ effect sizes

| Path relationship                  | $f^2$   | effect sizes |
|------------------------------------|---------|--------------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.059   | small        |
| H1b Expertise vlogger – Attitude vlogger | 0.176   | medium       |
| H1c Attractiveness vlogger – Attitude vlogger | 0.175   | medium       |
| H2a Attitude vlogger – Attitude product | 0.253   | medium       |
| H2b Attitude vlogger – Attitude video content | 0.533   | large        |
| H2c Attitude video content – Attitude product | 0.046   | small        |
| H3a Attitude product – Purchase intention | 1.086   | large        |
| H3b Attitude product – Actions on Youtube | 0.073   | small        |
| H3c Attitude product – Recommend product | 0.591   | large        |
| H4a Attitude vlogger– Purchase intention | 0.077   | small        |
| H4b Attitude vlogger – Actions on Youtube | 0.230   | medium       |
| H4c Attitude vlogger – Recommend product | 0.037   | small        |
| H5a Attitude video content – Purchase intention | 0.022   | small        |
| H5b Attitude video content – Actions on Youtube | 0.009   | no effect    |
| H5c Attitude video content – Recommend product | 0.018   | no effect    |

Note: 0.02 - small, 0.15 - medium, 0.35 - high

R² values (Table 6) used to assess the model’s in-sample explanatory power, point out weak (0.25) and moderate (0.50) results for the latent variables (Hair, Ringle and Sarstedt, 2011). As Hair Ringle and Sarstedt (2019b) mention, R² doesn’t show the model’s out of sample predictive power. With $Q^2$ values larger than 0, the PLS path model has a predictive relevance for the constructs (Hair et al., 2017).

Table 6. $R^2$ and $Q^2$

| Construct                | $R^2$ | $Q^2$ |
|--------------------------|-------|-------|
| Attitude vlogger         | 0.509 | 0.415 |
| Attitude product         | 0.237 | 0.188 |
| Attitude video content   | 0.448 | 0.349 |
| Purchase intention       | 0.630 | 0.558 |
| Actions on Youtube       | 0.371 | 0.286 |
| Recommend product        | 0.467 | 0.433 |

A visual synthesis of the final results, considering the path coefficients and the statistical significance, is provided in Figure 2 (the red arrows indicate the rejection of the hypotheses).
4.4. Multi-group comparisons

Case 1. Gender

Prior to performing the multi-group analysis (MGA) for gender, convergent validity and discriminant validity were tested for each group.

Data in Table 7 shows that for both groups, the average variance extracted (AVE > 0.50), composite reliability (CR > 0.70) and Cronbach’s alpha (> 0.70) values satisfy the requirements for convergent validity and reliability (Hair, Ringle and Sarstedt, 2011).

| Construct                  | Male AVE | Male CR | Male alpha | Male R² | Male Q² | Female AVE | Female CR | Female alpha | Female R² | Female Q² |
|----------------------------|----------|---------|------------|---------|---------|------------|-----------|--------------|-----------|-----------|
| Trustworthiness vlogger     | 0.782    | 0.947   | 0.930      | -       | -       | 0.849      | 0.966     | 0.956        | -         | -         |
| Expertise vlogger           | 0.789    | 0.949   | 0.933      | -       | -       | 0.791      | 0.950     | 0.934        | -         | -         |
| Attractiveness vlogger      | 0.647    | 0.878   | 0.831      | -       | -       | 0.661      | 0.886     | 0.829        | -         | -         |
| Attitude vlogger            | 0.903    | 0.974   | 0.964      | 0.500   | 0.372   | 0.865      | 0.962     | 0.948        | 0.562     | 0.468     |
| Attitude product            | 0.779    | 0.946   | 0.926      | 0.287   | 0.191   | 0.846      | 0.965     | 0.954        | 0.206     | 0.171     |
| Attitude video content      | 0.798    | 0.941   | 0.916      | 0.409   | 0.304   | 0.808      | 0.944     | 0.922        | 0.482     | 0.369     |
| Purchase intention          | 0.939    | 0.979   | 0.967      | 0.736   | 0.670   | 0.883      | 0.958     | 0.934        | 0.565     | 0.484     |
| Actions on Youtube          | 0.853    | 0.972   | 0.965      | 0.461   | 0.348   | 0.807      | 0.962     | 0.952        | 0.345     | 0.267     |
| Recommend product           | 1.000    | 1.000   | 1.000      | 0.685   | 0.656   | 1.000      | 1.000     | 1.000        | 0.337     | 0.302     |
In Table 8 can be seen that all square root of AVE (on diagonal) are greater than each correlation coefficient, for both groups of individuals, indicating acceptable discriminant validity (Hair, Ringle and Sarstedt, 2011).

R² values (Table 7), used to assess both models’ in-sample explanatory power, record weak (0.25) or moderate (0.50) results for the latent variables (Hair, Ringle and Sarstedt, 2011). Q² values are larger than 0, therefore the PLS path models of both groups have a predictive relevance for the constructs (Hair et al., 2017).

Table 8. Discriminant validity (Fornell-Larcker Criterion) - gender groups

|                | AcY | AtP | AtCV | AtV  | AtrV | ExV | PuI | ReP  | TrV |
|----------------|-----|-----|------|------|------|-----|-----|------|-----|
| **Male**       |     |     |      |      |      |     |     |      |     |
| Actions on Youtube (AcY) | 0.924 |     |     |      |      |     |     |      |     |
| Attitude product (AtP)     | 0.580 | 0.883 |     |      |      |     |     |      |     |
| Attitude video content (AtCV) | 0.363 | 0.482 | 0.894 |     |      |     |     |      |     |
| Attitude vlogger (AtV)     | 0.578 | 0.487 | 0.639 | 0.950 |     |     |     |      |     |
| Attractiveness vlogger (AtrV) | 0.112 | 0.213 | 0.260 | 0.301 | 0.804 |     |     |      |     |
| Expertise vlogger (ExV)     | 0.597 | 0.467 | 0.567 | 0.672 | 0.123 | 0.888 |     |      |     |
| Purchase intention (PuI)   | 0.605 | 0.846 | 0.385 | 0.503 | 0.352 | 0.404 | 0.969 |      |     |
| Recommend product (ReP)    | 0.618 | 0.812 | 0.305 | 0.442 | 0.299 | 0.379 | 0.904 | 1.000 |     |
| Trustworthiness vlogger (TrV) | 0.512 | 0.483 | 0.533 | 0.530 | 0.218 | 0.740 | 0.447 | 0.351 | 0.884 |

|                | AcY | AtP | AtCV | AtV  | AtrV | ExV | PuI | ReP  | TrV |
|----------------|-----|-----|------|------|------|-----|-----|------|-----|
| **Female**     |     |     |      |      |      |     |     |      |     |
| Actions on Youtube (AcY) | 0.898 |     |     |      |      |     |     |      |     |
| Attitude product (AtP)     | 0.345 | 0.920 |     |      |      |     |     |      |     |
| Attitude video content (AtCV) | 0.368 | 0.415 | 0.899 |     |      |     |     |      |     |
| Attitude vlogger (AtV)     | 0.572 | 0.422 | 0.694 | 0.930 |     |     |     |      |     |
| Attractiveness vlogger (AtrV) | 0.187 | 0.215 | 0.329 | 0.489 | 0.813 |     |     |      |     |
| Expertise vlogger (ExV)     | 0.572 | 0.456 | 0.620 | 0.599 | 0.210 | 0.889 |     |      |     |
| Purchase intention (PuI)   | 0.573 | 0.727 | 0.334 | 0.458 | 0.359 | 0.398 | 0.940 |     |     |
| Recommend product (ReP)    | 0.666 | 0.561 | 0.253 | 0.352 | 0.177 | 0.364 | 0.723 | 1.000 |     |
| Trustworthiness vlogger (TrV) | 0.411 | 0.436 | 0.627 | 0.602 | 0.165 | 0.677 | 0.286 | 0.239 | 0.921 |

Note: diagonals square root of the AVE

Table 9. Path coefficients PLS – Gender groups

| Path relationship                  | β value Males | t-value | β value Female | t-value |
|------------------------------------|--------------|---------|---------------|---------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.011 | 0.065 | 0.348 | 4.321*** |
| H1b Expertise vlogger – Attitude vlogger | 0.636 | 6.035*** | 0.285 | 4.211*** |
| H1c Attractiveness vlogger – Attitude vlogger | 0.220 | 2.208* | 0.372 | 5.011*** |
| H2a Attitude vlogger – Attitude product | 0.303 | 2.205* | 0.258 | 1.518 |
| H2b Attitude vlogger – Attitude video content | 0.639 | 7.653*** | 0.694 | 18.488*** |
| H2c Attitude video content – Attitude product | 0.289 | 1.951 | 0.235 | 1.631 |
| H2a Attitude product – Purchase intention | 0.818 | 21.596*** | 0.668 | 13.945*** |
| H2b Attitude product – Actions on Youtube | 0.421 | 4.800*** | 0.140 | 1.390 |
| H2c Attitude product – Recommend product | 0.828 | 18.991*** | 0.518 | 4.472*** |
| H4a Attitude vlogger – Purchase intention | 0.186 | 2.510* | 0.265 | 3.598*** |
| H4b Attitude vlogger – Actions on Youtube | 0.458 | 3.864*** | 0.575 | 5.263*** |
| H4c Attitude vlogger – Recommend product | 0.167 | 2.510* | 0.205 | 1.906 |
| H5a Attitude video content – Purchase intention | -0.132 | 1.939 | -0.127 | 1.755 |
| H5b Attitude video content – Actions on Youtube | -0.0129 | 1.286 | -0.089 | 0.798 |
| H5c Attitude video content – Recommend product | -0.201 | 2.287* | -0.104 | 0.806 |

Note: * p<0.05, ** p<0.01, *** p<0.005

Table 9 shows the path coefficients for the PLS analysis of each group. As evidenced, the values for some the path coefficients are quite different between groups (e.g. “expertise vlogger-attitude vlogger”). In addition, some relationships are statistical significant for one group, but not for the other.
Can be mentioned that “trustworthiness vlogger-attitude vlogger” is statistical significant only for women, while “attitude vlogger-attitude product”, “attitude product-actions on Youtube”, “attitude vlogger – recommend product” and “attitude video content – recommend product” are statistical significant just for men.

The comparison between women and men, made with PLS-MGA, is summarized in Table 10. As t-values show, five of the relationships are statistical significant different between the genders (t>1.96, p<0.05): “trustworthiness vlogger – attitude vlogger”, “expertise vlogger – attitude vlogger”, “attitude product – purchase intention”, “attitude product – actions on Youtube” and “attitude product – recommend product”.

Table 10. Path coefficients (PLS-MGA) – multi-group comparison between women and men

| Path relationship                              | β value Males | β value Female | t-value |
|------------------------------------------------|---------------|---------------|---------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.011         | 0.348         | 2.008*  |
| H1b Expertise vlogger – Attitude vlogger        | 0.636         | 0.285         | 2.990** |
| H1c Attractiveness vlogger – Attitude vlogger   | 0.220         | 0.372         | 1.240   |
| H2a Attitude vlogger – Attitude product         | 0.303         | 0.258         | 0.196   |
| H2b Attitude vlogger – Attitude video content   | 0.639         | 0.694         | 0.616   |
| H2c Attitude video content – Attitude product   | 0.289         | 0.235         | 0.268   |
| H3a Attitude product – Purchase intention       | 0.818         | 0.668         | 2.358*  |
| H3b Attitude product – Actions on Youtube       | 0.421         | 0.140         | 2.230*  |
| H3c Attitude product – Recommend product        | 0.828         | 0.518         | 2.399*  |
| H4a Attitude vlogger – Purchase intention       | 0.186         | 0.265         | 0.732   |
| H4b Attitude vlogger – Actions on Youtube       | 0.458         | 0.575         | 0.705   |
| H4c Attitude vlogger – Recommend product        | 0.167         | 0.205         | 0.282   |
| H5a Attitude video content – Purchase intention | -0.129        | -0.127        | 0.012   |
| H5b Attitude video content – Actions on Youtube | -0.132        | -0.089        | 0.279   |
| H5c Attitude video content – Recommend product  | -0.201        | -0.104        | 0.600   |

Note: * p<0.05, ** p<0.01, *** p<0.005

Case 2. Vlogger’s previously seen reviews

The second group analysis focuses on a comparison between individuals that have previously seen reviews made by the vlogger (group called “seen”) and the ones that haven’t (group called “not seen”). Seeing other reviews before and remembering about it, is an indicator of familiarity with the vlogger. Analysis started by testing the convergent and discriminant validity for each group. According to data in Table 11, the criteria pertaining to average variance extracted (AVE>0.50), composite reliability (CR >0.70) and Cronbach’s alpha (>0.70) are met for both groups, confirming the convergent validity and reliability.

Table 11. Convergent validity and reliability, R² and Q² – reviews groups

| Construct                  | Seen AVE | Seen CR | Seen alpha | Seen R² | Seen Q² | Not seen AVE | Not seen CR | Not seen alpha | Not seen R² | Not seen Q² |
|----------------------------|----------|---------|------------|---------|---------|--------------|-------------|----------------|-------------|-------------|
| Trustworthiness vlogger    | 0.864    | 0.973   | 0.961      | -       | -       | 0.569        | 0.865       | 0.832          | -           | -           |
| Expertise vlogger          | 0.832    | 0.961   | 0.949      | -       | -       | 0.757        | 0.939       | 0.922          | -           | -           |
| Attractiveness vlogger     | 0.664    | 0.887   | 0.835      | -       | -       | 0.661        | 0.885       | 0.831          | -           | -           |
| Attitude vlogger           | 0.914    | 0.977   | 0.969      | 0.591   | 0.525   | 0.773        | 0.931       | 0.900          | 0.581       | 0.380       |
| Attitude product           | 0.806    | 0.954   | 0.937      | 0.187   | 0.149   | 0.845        | 0.964       | 0.954          | 0.343       | 0.212       |
| Attitude video content     | 0.835    | 0.953   | 0.934      | 0.546   | 0.439   | 0.667        | 0.888       | 0.865          | 0.084       | 0.010       |
| Purchase intention         | 0.908    | 0.968   | 0.950      | 0.657   | 0.581   | 0.581        | 0.971       | 0.990          | 0.655       | 0.617       |
| Actions on Youtube         | 0.838    | 0.969   | 0.961      | 0.395   | 0.318   | 0.835        | 0.968       | 0.959          | 0.561       | 0.451       |
| Recommend product          | 1.000    | 1.000   | 1.000      | 0.411   | 0.378   | 1.000        | 1.000       | 1.000          | 0.674       | 0.644       |
Discriminant validity is also met for both groups of individuals, since all square root of AVE on the diagonals in Table 12, are greater than each correlation coefficient (Hair, Ringle and Sarstedt, 2011).

R² values in Table 11 display moderate and weak results for the latent variables (Hair, Ringle and Sarstedt, 2011), while Q² values (> 0), show that the path models have predictive relevance for the constructs (Hair et al., 2017).

Table 12. Discriminant validity (Fornell-Larcker Criterion) - reviews groups

|                | AcY   | AtP   | AtCV  | AtV   | AtrV  | ExV   | Pul   | ReP   | TrV   |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Seen           |       |       |       |       |       |       |       |       |       |
| Actions on Youtube (AcY) | 0.916 |       |       |       |       |       |       |       |       |
| Attitude product (AtP)    | 0.345 | 0.898 |       |       |       |       |       |       |       |
| Attitude video content (AtCV) | 0.474 | 0.423 | 0.914 |       |       |       |       |       |       |
| Attitude vlogger (AtV)    | 0.617 | 0.378 | 0.738 | 0.956 |       |       |       |       |       |
| Attractiveness vlogger (AtrV) | 0.184 | 0.279 | 0.369 | 0.545 | 0.815 |       |       |       |       |
| Expertise vlogger (ExV)   | 0.679 | 0.448 | 0.644 | 0.632 | 0.179 | 0.912 |       |       |       |
| Purchase intention (Pul)  | 0.464 | 0.783 | 0.345 | 0.445 | 0.420 | 0.389 | 0.953 |       |       |
| Recommend product (ReP)   | 0.585 | 0.622 | 0.245 | 0.325 | 0.337 | 0.335 | 0.729 | 1.000 |       |
| Trustworthiness vlogger (TrV) | 0.522 | 0.394 | 0.615 | 0.550 | 0.241 | 0.787 | 0.310 | 0.225 | 0.929 |
| Not seen                 |       |       |       |       |       |       |       |       |       |
| Actions on Youtube (AcY) | 0.914 |       |       |       |       |       |       |       |       |
| Attitude product (AtP)    | 0.737 | 0.919 |       |       |       |       |       |       |       |
| Attitude video content (AtCV) | 0.132 | 0.350 | 0.821 |       |       |       |       |       |       |
| Attitude vlogger (AtV)    | 0.373 | 0.551 | 0.290 | 0.879 |       |       |       |       |       |
| Attractiveness vlogger (AtrV) | -0.125 | 0.163 | 0.320 | 0.485 | 0.813 |       |       |       |       |
| Expertise vlogger (ExV)   | 0.293 | 0.531 | 0.392 | 0.670 | 0.225 | 0.870 |       |       |       |
| Purchase intention (Pul)  | 0.835 | 0.794 | 0.408 | 0.417 | 0.251 | 0.409 | 0.986 |       |       |
| Recommend product (ReP)   | 0.868 | 0.816 | 0.359 | 0.428 | 0.180 | 0.452 | 0.985 | 1.000 |       |
| Trustworthiness vlogger (TrV) | 0.052 | 0.355 | 0.237 | 0.612 | 0.548 | 0.570 | 0.379 | 0.296 | 0.754 |

Note: diagonals square root of the AVE

Table 13. Path coefficients PLS – reviews groups

| Path relationship                              | β value Seen | t-value | β value Not seen | t-value |
|------------------------------------------------|--------------|---------|-----------------|---------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.022        | 0.245   | 0.167           | 1.376   |
| H1b Expertise vlogger – Attitude vlogger       | 0.534        | 9.721*** | 0.512           | 4.273*** |
| H1c Attractiveness vlogger – Attitude vlogger  | 0.444        | 7.910*** | 0.279           | 3.280*** |
| H2a Attitude vlogger – Attitude product        | 0.146        | 0.872   | 0.491           | 3.151*** |
| H2b Attitude vlogger – Attitude video content  | 0.739        | 24.811*** | 0.290          | 1.563   |
| H2c Attitude video content – Attitude product  | 0.313        | 1.991*  | 0.208           | 1.276   |
| H3a Attitude product – Purchase intention      | 0.751        | 23.598*** | 0.768         | 10.128*** |
| H3b Attitude product – Actions on Youtube      | 0.132        | 1.406   | 0.800           | 8.833*** |
| H3c Attitude product – Recommend product       | 0.613        | 6.610*** | 0.809          | 11.738*** |
| H4a Attitude vlogger– Purchase intention       | 0.309        | 4.849*** | -0.050         | 0.487   |
| H4b Attitude vlogger – Actions on Youtube      | 0.569        | 5.043*** | -0.027         | 0.290   |
| H4c Attitude vlogger – Recommend product       | 0.231        | 2.244*  | -0.044          | 0.466   |
| H5a Attitude video content – Purchase intention| -0.200       | 3.239*** | 0.154          | 0.903   |
| H5b Attitude video content – Actions on Youtube| -0.003       | 0.031   | -0.140         | 0.716   |
| H5c Attitude video content – Recommend product | -0.186       | 1.465   | 0.089           | 0.530   |

Note: * p<0.05, ** p<0.01, *** p<0.005

The individual PLS analysis (Table 13) shows in some cases quite different path values between the groups (e.g. “attractiveness vlogger – attitude vlogger”). Additionally, the relationships “attitude vlogger – attitude video content”, “attitude video content – attitude product”, “attitude vlogger–
purchase intention,” “attitude vlogger – actions on Youtube”, “attitude vlogger – recommend product”, “attitude video content – purchase intention” are statistical significant only for the group of individuals that have previously seen reviews made by the vlogger, while “attitude product – actions on Youtube” and “attitude vlogger- attitude product” are statistical significant just for those who haven’t seen any reviews (t>1.96, p<0.05, Hair, Ringle and Sarstedt, 2011; Wong, 2019).

Table 14 shows the results of the PLS-MGA comparison between individuals that have previously seen reviews made by the vlogger and those who have not seen. There are five statistical significant differences between the analyzed groups (t>1.96, p<0.05): “attitude vlogger – attitude video content”, “attitude product – actions on Youtube”, “attitude vlogger– purchase intention”, “attitude vlogger – actions on Youtube” and “attitude video content – purchase intention”.

Table 14. Path coefficients (PLS-MGA)– multi-group comparison between individuals that have previously seen reviews of the vlogger and those who haven’t

| Path relationship                      | β value Seen | β value Not seen | t-value |
|----------------------------------------|--------------|-----------------|---------|
| H1a Trustworthiness vlogger – Attitude vlogger | 0.022        | 0.167           | 0.818   |
| H1b Expertise vlogger – Attitude vlogger  | 0.534        | 0.512           | 0.187   |
| H1c Attractiveness vlogger – Attitude vlogger | 0.444       | 0.278           | 1.516   |
| H2a Attitude vlogger – Attitude product | 0.146        | 0.491           | 1.123   |
| H2b Attitude vlogger – Attitude video content | 0.739      | 0.290           | 4.126***|
| H2c Attitude video content – Attitude product | 0.313     | 0.208           | 0.355   |
| H3a Attitude product – Purchase intention | 0.751       | 0.768           | 0.220   |
| H3b Attitude product – Actions on Youtube | 0.132      | 0.800           | 3.779***|
| H3c Attitude product – Recommend product | 0.613       | 0.809           | 1.127   |
| H4a Attitude vlogger– Purchase intention | 0.309       | -0.050          | 2.719** |
| H4b Attitude vlogger– Actions on Youtube | 0.569      | -0.027          | 2.894** |
| H4c Attitude vlogger– Recommend product | 0.231       | -0.044          | 1.391   |
| H5a Attitude video content – Purchase intention | -0.200    | 0.154           | 2.369*  |
| H5b Attitude video content – Actions on Youtube | -0.003     | -0.140          | 0.620   |
| H5c Attitude video content – Recommend product | -0.186   | 0.089           | 1.104   |

Note: * p<0.05, ** p<0.01, *** p<0.005

5. Discussions and conclusions

The general model shows that four out of five hypotheses are supported.

The attitudes towards the renowned vlogger are influenced by how individuals perceive his level of trustworthiness, expertise and attractiveness. Out of these, expertise seems to have the highest effect. The authors have not found previous studies which test the relationship between the perceived attributes of an internet/traditional celebrity endorser or reviewer and the attitudes towards him/her.

The purchase intention is positively influenced by audience’s attitude towards the product (highest impact) and the vlogger, yet the relationship is reversed for the attitude towards the video content. The findings are in line with previous research confirming the effects of attitudes towards the celebrity endorser (Min et al., 2019) and the endorsed or reviewed products/brands (La Ferle and Choi, 2016; Singh and Banerjee, 2018; Cuomo et al., 2019; Seiler and Kucza, 2017; Muda et al., 2014; Chapple and Cownie, 2017), but not in case of the attitude towards the video content. Nonetheless, the literature provides contradictory results, as several studies indicated a positive effect of the endorsed ads on the purchase intention (Singh and Banerjee, 2018; La Ferla and Choi, 2016), while others found no significant relationship (Muda et al., 2014). In addition, the online reviews don’t have the quality of a professional advertisement (as it was in this specific case), therefore can lead to different outcomes than studies made on ads. Further research is necessary to better understand the resulted relationship.

The attitude towards the vlogger reflects positively on the attitude towards the product and video content. This is in line with Fleck et al.’s (2012) findings on advertisement, and in agreement with the widely held view that celebrity’s image can transfer to the product/ brand (Amos, Holmes and
Strutton, 2008). Results also showed that the attitude towards the video content reflects on the attitude towards the product, which is consistent with other studies (La Ferle and Choi, 2016; Seiler and Kucza, 2017; Muda et al., 2014).

The attitude towards the product and the vlogger positively influence the recommendation of the product and actions on Youtube. Certain relationships are in agreement with prior research, while others haven’t been investigated before. Thus, previous studies found that celebrity endorsers are predictors of positive WOM (Saleem, 2017), and that favorable attitudes towards the product positively influence the engagement on the platforms (Barger, Peltier and Schultz, 2016). On the contrary, the attitude towards the video content doesn’t have a significant impact on the product recommendation and actions on Youtube, which contradicts Barger, Peltier and Schultz (2016) findings.

In the case of multi-group analysis by gender, there are statistical significant differences for the effects of the attitude towards the vlogger’s expertise and trustworthiness on the attitude towards the vlogger, respectively the effect of attitude towards the product on purchase intention, product recommendation and actions on Youtube. Similar to other studies, both women and men are influenced by celebrity endorsement and differ in responses (Premeaux, 2009; Saramasinghe 2018). The relationship “trustworthiness vlogger – attitude vlogger” has a higher value for women, while the rest have higher values for men. The results imply that for women the perceived trust plays a more important role in forming the attitudes towards the vlogger, while for men is more important the perceived expertise. On the other hand, the endorsement effect reflected from the product seems to be higher on men, as compared to women.

In the case of multi-group analysis by previously seen reviews, the statistical relationships are: the effect of the attitude towards the vlogger on the attitude towards the video content, purchase intention and actions on Youtube, the effect of the attitude towards the product on the attitude towards the Youtube, respectively the effect of the attitude towards video content on purchase intention. Only the relationship “attitude product – actions on Youtube” is stronger for those who have not seen any other reviews, while the rest have higher values for individuals familiar with the vlogger. Otherwise stated, results show that for the audience which is more familiar with the vlogger, the attitude towards the vlogger (which is more favourable), reflects higher in their future actions. Cuomo et al. (2019) states that the perceived celebrity endorser attractiveness is influenced by the familiarity with the celebrity, while Fleck et al.(2012) claims that individual’s familiarity with the source influences the effectiveness and acceptance of the message delivered. Thus, familiarity leads to favourable attitudes towards the vlogger which transfer to the content created and further on the purchase intention. This is also in line with Zajonc (1986) “mere exposure” effect, according to which individuals exposed to stimulus (in our case exposed to a celebrity and becoming more familiar) enhance their attitude towards it. On contrary, the individuals unfamiliar with the vlogger, don’t perceive him as a celebrity, and therefore less credible, so their attitude reflects directly on the product and their purchase intention is strictly based on the trust in the brand. More, Fleck, Korchia and Le Roy (2012) state that when they are unfamiliar with the source delivering the message, they can look for external information. The high purchase intend in this specific situation is not surprising, because the reviewed product belongs to one of the most famous brands in the world.

The main limit of the study is the fact that it considers only the case of one renowned vlogger and one review. Future research should consider deepening the relationship between source’s credibility and the attitude towards the source, identifying possible direct and indirect effects. Various studies mention the concept of source credibility, but few actually measure it as a construct (e.g. La Ferle and Choi, 2016; Muda et al., 2014), while the rest only test direct effects of “expertise”, “attractiveness” and “trustworthiness” (e.g. Schouten, Janssen and Verspaget, 2019; Tsoumaka, Tsio-tsou and Siomkos, 2014; Aziz, Omar and Ariffin, 2019; Samarasinghe, 2018; Ohanian, 2001). Also, future research should explore the effects of the review’s content (message or video), as the results of the existing study contradict the expectations.
References

[1] Abirami, U. and Krishnan, J. (2018). Attitude towards celebrity endorsement – a case study of adolescent students using personal care products. *International Journal of Business Excellence*, 14(1), pp. 1-17.

[2] Amos, C., Holmes, G. and Strutton, D. (2008). Exploring the relationship between celebrity endorser effects and advertising effectiveness A quantitative synthesis of effect size. *International Journal of Advertising*, 27(2), pp. 209-234.

[3] Aziz, Z., Omar, M. and Ariffin, A. (2019). The Effects of Celebrity Endorsement towards Purchase Intention among Students in One Public University in Malaysia. *International Journal of Academic Research Business and Social Sciences*, 9(5), pp. 498-507.

[4] Bayazit, Z., Durmuş, B. and Yıldırım, F. (2017). Can Vloggers Characteristics Change Online-Shopping Intentions? The Role of Word of Mouth Effect as A Communication Tool. *Online Academic Journal of Information Technology*, 8(26), pp. 1-18.

[5] Barger, V., Peliter, J. and Schultz, D. (2016). Social media and consumer engagement: A review and research agenda. *Journal of Research in Interactive Marketing*, 19(2), pp. 139-152.

[6] Bekk, M. and Spörle, M. (2010). The Influence of Perceived Personality Characteristics on Positive Attitude Towards and Suitability of a Celebrity as a Marketing Campaign Endorser. *The Open Psychology Journal*, 3, pp. 54-66.

[7] Bergkvist, L. and Zhou, K.Q. (2016). Celebrity endorsements: a literature review and research agenda. *International Journal of Engineering Modelling (IJEM)*, 35(4), pp. 642-663.

[8] Bhatt, N., Jaywal, R. and Patel, J. (2013). Impact of Celebrity Endorser’s Source Credibility on Attitude Towards Advertisements and Brands. *South Asian Journal of Management*, 20(4), pp. 74-95.

[9] Casalo, L.V., Flavian, C. and Ibáñez-Sánchez, S. (2018). Influencers on Instagram: Antecedents and consequences of opinion. *Journal of Business Research*. [online] Available at: <https://doi.org/10.1016/j.jbusres.2018.07.005> [Accessed 10 March 2019].

[10] Chapple, C. and Cownie, F. (2017). An investigation into viewers’ trust in and response towards disclosed paid-for endorsements by YouTube lifestyle vloggers. *Journal of promotional communications*, 5(2), pp. 110-136.

[11] Choi, W. and Lee, Y. (2019). Effects of fashion vlogger attributes on product attitude and content sharing. *Fashion and Textiles*, 6(6), pp. 1-18.

[12] Cong, Y. and Zheng, Y. (2017). A Literature Review of the Influence of Electronic Word-Of-Mouth on Consumer Purchase Intention. *Open Journal of Business and Management*, 5, pp. 543-549.

[13] Cuomo, T., Foroudi, P., Tortora, D., Hussain, S. and Melewar, T. (2019). Celebrity Endorsement and the Attitude Towards Luxury Brands for Sustainable Consumption. *Sustainability*, 11(23), pp. 67-91.

[14] De Veirman, M., Cauberghe, V. and Hudders, L. (2017). Marketing through Instagram influencers: impact of number of followers and product divergence on brand attitude. *International Journal of Advertising – The review of marketing communications*, 36(5), pp. 798-828.

[15] Djafarova, E. and Trofimenko, O. (2019). ‘Instafamous’ – credibility and self-presentation of micro-celebrities on social media. *Information, communication & society*, 22(10), pp. 1432-1446.

[16] Duan, W., Gu, B. and Whinston, A. (2008). The dynamics of online word-of-mouth and product sales—An empirical investigation of the movie industry. *Journal of Retailing*, 84 (2), pp. 233–242.

[17] Erdogan, Z.B. (1999). Celebrity Endorsement: A Literature Review. *Journal of Marketing Management*, 15(4), pp. 291-314.

[18] Erdogan, B.Z., Baker, M.J. and Tagg, S. (2001). Selecting Celebrity Endorsers: The Practitioner’s Perspective, *Journal of Advertising Research*, 41(3), pp. 39-48.

[19] Fleck, N., Korchia, M. and Le Roy, I. (2012). Celebrities in Advertising: Looking for Congruence or Likability?. *Psychology & Marketing*, 29(9), pp. 651-662.

[20] Goldsmith, R.E., Lafferty, B.A. and Newell S.J. (2000). The impact of corporate credibility and celebrity credibility on consumer reactions to advertisements and brands. *Journal of Advertising*, 29(3), pp. 43-54.

[21] Ha, N.M. and Lam, N.H. (2017). The Effects of Celebrity Endorsement on Customers Attitude toward Brand and Purchase Intention. *International Journal of Economics and Finance*, 9(1), pp. 64-77.

[22] Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The International Journal of e-Business Research*, 7(2), pp. 190-196.

[23] Hair, J. F., Hult, G. T. M., Ringle, C. M. and Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM). 2nd Edition, Thousand Oaks, CA: Sage.

[24] Hair, J. F., Risher, J.S., J., Sarstedt, M. and Ringle, C. M. (2019a). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.

[25] Hair, J. F., Ringle, C. M. and Sarstedt, M. (2019b). Rethinking some of the rethinking of partial least squares. *European Journal of Marketing*, 53(4), pp. 566-584.

[26] Hani, S., Marwan, A. and Andre, A. (2018). The effect of celebrity endorsement on consumer behavior: Case of the Lebanese jewelry industry. *Arab Economic and Business Journal*, 13(2), pp. 190-196.

[27] Henning-Thurau, T., Gwinner, K., Walsh, G. and Gremler, D. (2004), Electronic word-of-mouth via consumer opinion platforms: what motivates consumers to articulate themselves on the Internet?. *Journal of Interactive Marketing*, 18(1), pp. 38-52.

[28] Hill, R.R., Troshani, I. and Chandrasekar, D. (2017). Signalling Effects of Vlogger Popularity on Online Consumers. *Journal of Computer Information Systems*, [online] Available at: <https://www.tandfonline.com/doi/abs/10.1080/08874417.2017.1400929> [Accessed 15 May 2019].
Huete-Alcocer, N. (2017). A Literature Review of Word of Mouth and Electronic Word of Mouth: Implications for Consumer Behavior. *Frontiers in Psychology*, 8 (July), pp. 1-4.

Ismagilova, E., Slade, E.L., Rana, N.P. and Dwivedi, Y.K. (2019). The Effect of Electronic Word of Mouth Communications on Intention to Buy: A Meta-Analysis. *Information Systems Frontiers*, [online]. Available at: <https://link.springer.com/article/10.1007/s10796-019-09924-y> [Accessed 13 October 2019].

King, R.A., Racherla, P. and Bush V. (2014). What We Know and Don’t Know About Online Word-of-Mouth: A Review and Synthesis of the Literature. *Journal of Interactive Marketing*, 28(3), pp. 167–183.

Ku, Y.G., Kao, Y.F. and Qin, M.J. (2019). The Effect of Internet Celebrity’s Endorsement on Consumer Purchase Intention. In: Nah, F.H. and Siau, K. (eds). *HCI in Business, Government and Organizations. eCommerce and Consumer Behavior*. HCI 2019. Lecture Notes in Computer Science, Cham, 11588(Springer), pp. 274-287.

La Ferle, C. and Choi, S.M. (2016). The Importance of Perceived Endorser Credibility in South Korean Advertising. *Journal of Current Issues and Research in Advertising*, 27(2), pp. 67-81.

Lea-Greenwood, G. (2013). Fashion marketing communications, UK: Wiley.

Leung, V., Cheng, K. and Tse, T. (2018). Insiders’ Views: The Current Practice of Using Celebrities in Marketing Communications in Greater China. Intercultural communication studies, XXVII(1), pp.96-113.

Li, R. (2018). The Impact of Internet Celebrities: A Qualitative Study of Online Opinion Leaders on Weibo. In *Proceedings of the 51th Hawaii International Conference on System Sciences*, US, Honolulu, 3-6 January, 2018, pp. 533-542. [online] Available at: <https://scholars.cityu.edu.hk/epublications/secret-of-the-internet-celebrities?da4d3f7-72c7-4cb7-8e7c-ec2e56b7dif.html> [Accessed 15 May 2019].

Min, J., Chang, H., Jai, T.C. and Ziegler, M. (2019). The effects of celebrity-brand congruence and publicity on consumer attitudes and buying behavior, *Fashion and Textiles*, 6(10), pp. 1-19.

Muda, M., Musa, R., Mohamed, R.N. and Borhan, H. (2014). Celebrity Entrepreneur Endorsement and Advertising Effectiveness. *Procedia - Social and Behavioral Sciences*, 130 (May), pp.11 – 20.

Mudambi, S. and Schuff, D. (2010). What makes a helpful online review? A study of customer reviews on amazon.com. *MIS Quarterly*, 34(1), pp. 185-200.

Ohanian, R. (1990). Construction and Validation of a Scale to Measure Celebrity Endorsers’ Perceived Expertise, Trustworthiness, and Attractiveness. *Journal of advertising*, 19(3), pp. 39-52.

Ong, Z.Q. and Ong, D.L. (2015). The Impact of Celebrity Credibility on Consumers’ Purchase Intention toward the Footwear Industry in Malaysia: The Mediating Effect of Attitude toward Advertisement. *Information Management and Business Review*, 7(4), pp. 55-63.

Porpitakpan, C. (2003). Validation of the Celebrity Endorsers’ Credibility Scale: Evidence from Asians. *Journal of Marketing Management*, 19(1-2), pp. 179-195.

Premeaux, S.R. (2009). The Attitudes of Middle Class versus Upper Class Male and Female Consumers Regarding the Effectiveness of Celebrity Endorsers. *Journal of Promotion Management*, 15(1-2), pp. 2-21.

Putrevu, S. (2008). Consumer Responses Toward Sexual and Nonsexual Appeals: The Influence of Involvement, Need for Cognition (NFC), and Gender. *Journal of Advertising*, 37(2), pp. 57-70.

Ringler, C., Wende, S. and Becker, J.M. (2015). SmartPLS 3. Böningstedt: SmartPLS. [online] Available at: <http://www.smartpls.com> [Accessed 2 November 2019].

Saleem, F. (2017). The Impact of Celebrity Endorsement on Brand Affection and Purchase Intention: The Mediating Role of Word of Mouth, *The Lahore Journal of Business*, 5(2), pp. 45–66.

Samarastinghe, H.M.U.S.R. (2018). Moderating Role of Consumer’s Gender on Effectiveness of Celebrity Endorsement towards Consumer’s Purchasing Intention. *Global Journal of Marketing and Business Research: EMarketing*, 18(1), pp. 1-11.

Schouten, A.P., Janssen, L. and Verspaget, M. (2019) Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit. *International Journal of Advertising*, 39(2), pp. 258-281.

Seiler, R. and Kucza, G. (2017). Source credibility model, source attractiveness model and matchup-hypothesis–An Integrated Model. *Journal of International Scientific Publications*, 11(1), pp. 1-15.

Sertoglu, A.E., Courti, O.and Korkmaz, S. (2014). Examining the Effect of Endorser Credibility on the Consumers’ Buying Intentions: An Empirical Study in Turkey. *International Review of Management and Marketing*, 4(1), pp. 66-77.

Singh, R. and Banerjee, N. (2018). Exploring the Influence of Celebrity Credibility on Brand Attitude, Advertisement Attitude and Purchase Intention. *Global Business Review*, 19(6), pp. 1–18.

Sokolova, K. and Kefi, H. (2019). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services*, [online] Available at: <https://www.sciencedirect.com/science/article/pii/S0969698918307963> [Accessed 13 October 2019].

Strez, M. and Berger, B. (2014). Analyzing Online Customer Reviews – An Interdisciplinary Literature Review And Research Agenda. In *Proceedings of the 21st European Conference on Information Systems*, [online] Available: <https://link.springer.com/article/10.1007/s10796-019-09924-y> [Accessed 13 October 2019].
Please cite the article as it follows

Moldovan, R. and Ciornea, R. (2019). The Effect of Online Unpaid Reviews made by Renowned Vloggers: the Case of Smartphones, *Marketing from Information to Decision Journal*, Volume 2, Issue 2, pp. 18-34.