

Antecedents and outcomes of digital influencer endorsement: An exploratory study

Short title: Digital influencer endorsement

Pedro Torres

CeBER and Faculty of Economics, University of Coimbra
Av. Dias da Silva, 165
3004-512 Coimbra - Portugal
Phone: +351 239 790584, Fax: +351 239 790514
E-mail: pedro.torres@uc.pt

Mário Augusto

CeBER and Faculty of Economics, University of Coimbra
Av. Dias da Silva, 165
3004-512 Coimbra - Portugal
Phone: +351 239 790537, Fax: +351 239 790514
E-mail: maugusto@fe.uc.pt

Marta Salgado Matos

Faculty of Economics, University of Coimbra
Av. Dias da Silva, 165
3004-512 Coimbra - Portugal
Phone: +351 239 790537, Fax: +351 239 790514
E-mail: marta26matos@gmail.com

Corresponding author: Pedro Torres.

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ABSTRACT

The advertising and marketing literature have established that celebrity endorsements constitute an effective way to enhance attitudes toward brands and increase purchase intents. However, there are no relevant studies on digital influencers. This study addresses this research gap by examining the effect of digital influencers' attractiveness and the effect of the congruence between a digital influencer and a brand on consumer attitudes and purchase intentions. By applying structural equation modeling to a sample of 307 followers of digital influencers, a model was tested and group analysis was performed for two categories ("entertainment & video games" and "fashion & beauty"). The results show that both brand attitudes and purchase intentions are influenced by the digital influencer's attractiveness (which includes both likeability and familiarity) and by the congruence between the digital influencer and the brand. This study makes several contributions to both theory and practice, which are highlighted in this paper.

KEYWORDS: influencer marketing, digital influencers, attractiveness, congruence, attitude towards the endorsement, brand attitude.

This paper was presented at the 2019 INEKA Annual Conference in Verona, Italy.

1. INTRODUCTION

Social media are widely used in marketing strategies, and managers increasingly allocate resources to build social presences on these online platforms. Previous research has shown that brand sales can be linked to Facebook likes (e.g., Srinivasan et al., 2016). Nevertheless, currently, the mere adoption of social media does not provide a competitive edge because everybody is on social media (Lin et al., 2018). Furthermore, it is difficult to technologically differentiate products (Choi & Rifon, 2012). Based on power theory, Kupfer et al. (2018) suggested that brands can strategically harvest the social media networks of other brands. The same applies to digital influencers who have sizeable networks.

In traditional advertising, the use of celebrity endorsements is a popular advertising strategy to enhance brand-related outcomes (e.g., Bergkvist et al., 2016; Shimp, 2000). The extant literature has found evidence that celebrity endorsements can generate favorable attitudinal and behavioral responses among consumers (e.g., Amos & Block, 2008; Atkin & Block, 1983). In social media, many companies resort to social media influencers to spread positive electronic word-of-mouth, which often takes the form of endorsements. Social media influencers (termed digital influencers hereafter) are people who have built sizeable social networks of followers and their followers represents their popularity (De Veirman et al., 2017). In this sense, they have some similarities with celebrities. Digital influencers can also be considered online opinion leaders (Casaló et al., 2018). The literature has established that opinion leaders can influence others' behaviors due to their personal appeal or connection with their audience, as well as their specialized knowledge and/or authority on a given topic (e.g., Lin et al., 2018). The same is likely to happen online. Online opinion leaders can take multiple roles, such as experts, micro-celebrities, and micro-influencers; and the term digital influencer is used to reflect these multiple roles. Digital influencers are considered to be more authentic and credible; hence, people are expected to be less resistant to the messages that

they pass (de Vries et al, 2012). While many studies on celebrity endorsement effectiveness were based on traditional source effects (e.g., Ohanian, 1991), the importance of the “match-up hypothesis” (i.e., the match between a celebrity and the product or brand being endorsed) has become widely acknowledged (e.g., Fleck et al. 2012; Choi & Rifon, 2012, Kahle & Homer, 1985; Kamins, 1990). Therefore, both the digital influencer’s attractiveness and the congruence (often termed “fit” or “match”) between the digital influencer and the brand being endorsed are likely to contribute to the endorsement’s effectiveness.

In spite of the pivotal role of digital influencers in marketing communication (e.g., Tsang & Zhou, 2005; Watts, 2007), research on the effects of digital influencers’ endorsements has been scarce. Inspired by the celebrity endorsement literature and grounded in the meaning transfer model (McCracken, 1989), this study aims to fill this research gap. The main objective of this study is to find out if the attractiveness of the digital influencer and the congruence between the digital influencer and the brand affect both attitudes (towards the endorsement and towards the brand) and purchase intents. The proposed conceptual model considers a partial dual mediation. In the conceptual model, both the attitudes toward the endorsement and the attitudes toward the brand act as mediators of the effect of the digital influencer’s attractiveness and of the effect of the congruence between the digital influencer and the brand on purchase intentions. To test the existence of differences in different categories, two product categories were examined: “entertainment & video games” and “fashion & beauty”. Previous research that focused on the match-up effects has suggested that attractive endorsers tend to be more effective than unattractive spokespersons only when the product is related to attractiveness (e.g., perfumes and cosmetics) (Kahle & Homer, 1985). In fact, some authors suggest that the attractiveness of the endorser could be irrelevant for more technology-related products (e.g., Till & Busler, 2000). Therefore, the use of the two product categories is justified.

By applying structural equation modeling to a sample of 307 followers of various digital influencers, this study makes three important contributions to both theory and practice. First, a conceptual model that uncovers the process by which digital influencers can affect both attitudes and purchase intents is tested and validated. Second, the results suggest that the affective evaluation of the digital influencer impacts the cognitive evaluation of the fit between the digital influencer and the brand being endorsed. Third, the results show that the congruence between the digital influencer and the brand facilitates a meaning transfer. Therefore, new insights on an unstudied subject were obtained, which can guide marketing managers. The findings suggest that using digital influencers to enhance consumer attitudes and increase purchase intentions can be effective. Furthermore, when selecting digital influencers to endorse their brands, marketing managers should consider the digital influencer's attractiveness and the congruence between the digital influencer and the brand.

Following this introduction, Section 2 provides the theoretical background. In Section 3, the research hypotheses are developed. The methods, measures, and data that are employed in this study are described in Section 4. Then, Section 5 presents the results of the measurement model, the hypotheses testing, and the multi-group analysis. Finally, in Section 6, the results are discussed, the theoretical and the practical implications are highlighted, the limitations are presented, and future research is suggested.

2. THEORETICAL BACKGROUND

The social influence literature has examined the phenomenon by which people are influenced by the opinions, beliefs, and attitudes of others (e.g., Cialdini and Goldstein, 2014). This stream of literature can provide insights regarding decision-making processes (Book et al., 2015). When applied to consumer behavior, the influence of others has been considered to be

the most prevalent factor in consumer decisions (Burnkrant & Cousineau, 1975). Online platforms have enabled the emergence of a new kind of influencer: the digital influencer. They are content creators who have accumulated a solid base of followers (De Veirman et al., 2017). Digital influencers' activities include blogging, vlogging or the creation of short term content that provide their followers with insights into their lives, experiences, and opinions. Digital influencers have been considered to be a kind of micro-celebrity (Senft, 2008). However, unlike celebrities, digital influencers are likely to be easy to relate to since they share their personal lives and directly interact with their followers (Schau & Gilly, 2003). Thus, digital influencers are considered to be accessible, believable, and intimate. In fact, the interactions may provide illusions of face-to-face relationships, which are likely to make consumers more susceptible to the digital influencers' posts (Knoll et al., 2015).

According to McCracken's (1989) meaning transfer model, associating a celebrity to a brand can change the brand image. Transfer theory claims that a process that translates the meaning of a celebrity to a brand occurs when consumers are exposed to advertisements with celebrities or spokespersons. Through the endorsement, the various symbolic meanings that the consumer associates with a celebrity are transferred to the brand being endorsed and then from the brand to the consumer through purchases and consumption. In the same vein, it can be hypothesized that a consumer can appropriate the meaning that is associated with the digital influencer, which is transferred to the brand. Thus, when selecting digital influencers, brand managers need to ensure that the digital influencer conveys the right meaning. The meaning transfer model has been considered to be more suitable than the source attractiveness and source credibility models because it explains the endorsement process in a more holistic way (Fleck et al., 2012). Source attractiveness models (e.g., Till & Busler, 2000) and source credibility models (e.g., Spry et al., 2011) consider the characteristics of the source without considering that they can be multifunctional. These models fail to capture the

potential contributions of a person, as a whole, to advertising effectiveness (Fleck et al., 2012); therefore, they have been criticized (e.g., Bower & Landreth, 2001).

Considering the literature, the congruence between the digital influencer and the brand is likely to facilitate meaning transfer. Past studies have found empirical support for the idea that the congruence between an endorser and the product being endorsed is key to understanding endorsement effectiveness (e.g., Choi & Rifon, 2012). A good fit between the celebrity and the brand is likely to be more effective at generating positive consumer responses to advertising than a bad fit between them (Kamins & Gupta, 1994; Kamins, 1990). Furthermore, attractive celebrities are supposed to be more effective when the products being endorsed are related to physical beauty (Kahle & Homer, 1985). Nevertheless, the consumer perception of the congruence between the celebrity and the brand being endorsed at an overall level has been considered to be more important in empirical testing because it encompasses a wide combination of factors that contribute to the consumer's assessment of the fit between them (Kamins & Gupta, 1994; Misra & Beatty, 1990). In this study, both the attractiveness of the digital influencer and the fit between the digital influencer and the brand have been considered. Moreover, to investigate if the model is applicable in more than one category, two groups of categories have been examined: "entertainment & video games" and "fashion & beauty".

According to Fleck et al. (2012), two different types of variables determine the effectiveness of a celebrity endorsement. First, the consumer can process the exposure to the advertisement in a holistic way, which can be based upon affect. Therefore, attractiveness (which is not necessarily related to the physical characteristics of the source) can lead a fan of a certain celebrity to positively view all the brands that the celebrity endorses. Second, when the celebrity talks positively about a brand, the processing could be quite analytic and grounded on cognitive inferences. The consumer that is exposed to the advertisement will try

to understand the reason why the celebrity endorses the brand. The expertise and/or the credibility of the source when he/she endorses the brand can be used to evaluate the match between the celebrity and the brand, which is the congruence. Thus, Fleck et al. (2012) suggested that an endorsement is effective when it is congruent with the brand and also when the celebrity is appreciated or popular.

3. HYPOTHESES

Past studies found evidence of a positive relation between the attitude towards the celebrity (also termed celebrity likeability or celebrity affect) and the attitude towards the brand (e.g., Amos et al., 2008; Kahle & Homer, 1985). The effectiveness of the message is also likely to depend on the source's attractiveness (Till & Busler, 2000). The source attractiveness model suggests that familiarity and likeability are two important factors that should be taken into account (McGuire, 1985). In this study, they are included in a single factor that corresponds to the attractiveness of the digital influencer. Past research in the celebrity endorsement literature used the term "attitude towards the celebrity" as a measure of attractiveness, but the latter is more understandable, which justifies the choice.

While the impact of the endorser's likableness and familiarity on purchase intentions is not always supported, it is clear that they improve the attitude towards advertising and the attitude towards the brand (Erdogan, 1999). The literature also found evidence of the impact of celebrity attractiveness on the congruence between the endorser and the brand (e.g., Fleck et al., 2012). Therefore, it has been suggested that when the celebrity is widely appreciated, the fans of that celebrity tend to find him/her congruent with any brand, implying a bias related to affect. Thus, the affective evaluation impacts the cognitive evaluation. Considering the aforementioned arguments, in a similar way, the attractiveness of the digital influencer is

likely to impact the perception of congruency, the attitude towards the endorsement, the attitude towards the brand, and even the purchase intents.

H1: The attractiveness of the digital influencer is positively related to the following:

- a) congruence between the digital influencer and the brand,
- b) attitude towards the endorsement,
- c) attitude towards the brand, and
- d) purchase intentions.

In the celebrity endorsement literature, congruency refers to the similarity or consistency between the celebrity and the brand, and it is specific to a particular endorsement situation (Bergkvist et al., 2016). Congruence between the influencer and the brand facilitates meaning and affects the transfer from one to the other (Lynch & Schuler, 1994). The absence of congruence between the endorser and the brand is likely to lead to negative attributions (Lafferty, 2009). On the contrary, the higher the congruence between the celebrity and the brand, the greater the likelihood of positive responses to the endorsement in terms of brand attitudes and even purchase intents (e.g., Fleck et al., 2012; Lynch & Schuler, 1994; Kahle & Homer, 1985; Till & Busler, 2000). Similar findings were obtained in studies that focus on other topics, such as sponsorship (e.g., Olson, 2010) and CRM (e.g., Lafferty et al., 2004). Thus, it is hypothesized that in influencer marketing, the same effect will occur.

H2: A high degree of congruence between the digital influencer and the brand being endorsed will lead to the following:

- a) more favorable attitude towards the endorsement,
- b) more favorable attitude towards the brand, and
- c) greater purchase intentions for the brand.

Reinforcing or enhancing the attitudes toward the brand is one of the major objectives in marketing (De Pelsmacker et al., 2007) because the brand attitude is likely to influence the choice of one brand instead of another (Solomon, 2014). Brand attitude corresponds to consumers' overarching evaluations of a brand (Colliander & Marder, 2018) and can be defined as "a relative enduring, unidimensional summary evaluation of a brand that presumably energizes behavior" (Spears & Sing, 2004, p. 56). When a consumer has a positive attitude toward a brand, it is likely to affect their intentions to purchase the brand (e.g., Torres & Augusto, 2019; Voester et al., 2016).

Bergkvist et al. (2016) suggested that the effect of attitude towards a celebrity and the effect of the celebrity-brand fit on brand attitude were fully mediated by the attitude toward the endorsement. Although there are arguments that support this mediation, the endorsement literature suggests that the direct effects also hold. For instance, the model that was proposed by Choi and Rifon (2012) suggests that a high degree of celebrity/product congruence will lead to the following: *i*) more favorable attitudes toward the ad, *ii*) more favorable attitudes toward the brand, and *iii*) greater purchase intentions for the brand. Following prior research (e.g., MacKenzie et al., 1986), the model that was proposed by Choi & Rifon (2012) draws a sequence of relationships among the constructs suggesting that ad attitudes affect brand attitudes, which in turn influence purchase intentions. Thus, dual mediation was considered in their model. In fact, the relationships among these constructs have been widely investigated in the marketing literature (e.g., Kawani & Silk, 1982; MacKenzie & Lutz, 1989). The attitude towards the ad has been defined as the predisposition to respond in a favorable or unfavorable way to an advertising stimulus during a particular exposure (Lutz, 1985).

The literature has established long ago that the attitude towards the ad is a mediating influence on the brand attitude and purchase intentions (e.g., Mitchell and Olson, 1981; Shimp, 1981). In the same vein, the attitude towards the endorsement was defined by

Bergkvist et al. (2016, p. 175) as “the overall positive or negative evaluation of the alliance between the celebrity and the brand in a particular celebrity endorsement relationship”. The exposure to a celebrity endorsement activates cognitive responses in consumers (Mehta, 1994), which are supposed to work in a similar way as cognitions during and following advertising exposures (Wright, 1973). Therefore, endorsement-related cognitions can influence attitudes toward the endorsement like ad-related cognitions influence attitudes towards the advertisement (MacKenzie et al., 1986). Hence, in influencer marketing, it is sensible to hypothesize that the attitudes towards the endorsement can also play a mediating role. Thus, in this study, the proposed conceptual model also considers the following relationships to better explain digital influencers’ endorsement effectiveness:

H3a: Attitude towards the endorsement is positively related to attitude toward the brand, and

H3b: Attitude towards the brand positively is related to purchase intentions.

In summary, a path model is proposed that extends the influencer marketing research using the celebrity endorsement literature. The focus of the study is digital influencer brand endorsements. There are some similarities between digital influencers and celebrities, but most digital influencers are not celebrities. Moreover, the effect of the endorsement may depend on the product/category that is being endorsed. The study simultaneously assesses the effects on attitudes toward the endorsement, attitudes toward the brand, and purchase intents from two constructs: *i*) the congruence between the digital influencer and the brand and *ii*) the digital influencer’s attractiveness. It is also hypothesized that the digital influencer’s attractiveness can influence consumers’ perceptions of the fit between the digital influencer and the brand. Based on the meaning transfer model (McCracken, 1989), the match-up effect is expected to be key for digital influencers’ endorsement effectiveness. Understanding the

nature of the process through which digital influencers' endorsements affect consumer behavior is a relevant topic, and can contribute to guiding the selection of digital influencers.

Figure 1 presents a graphic summary of the conceptual model, which used affective and cognitive theories that explain endorsement effectiveness to illustrate the proposed digital influencer endorsement process.

(Insert Figure 1 about here)

4. METHOD

The proposed model was estimated and evaluated using a structural equation model (SEM). As recommended by Anderson and Gerbing (1988), a two-step procedure was performed. First, the measurement model was formulated and evaluated. Second, the proposed structural model was estimated and evaluated. The empirical analysis was conducted using the AMOS 25.0 software and the maximum likelihood (ML) estimation method.

4.1. Measures

The measurement scales of the constructs were based on the literature and adapted to the influencer marketing context. The scale items that were used in this research for the latent variables, after purification, are presented in Table 2. The attractiveness of the digital influencer construct ("attractiveness") encompasses "likeability" and "familiarity", which were measured using scales that were adapted from Ha and Perks (2005) and Nguyen et al. (2015), respectively. The brand attitude was measured using Colliander and Dahlén's (2011) scale. The purchase intentions measures were adapted from Chai et al. (2015). The congruence between the digital influencers and the brand and the attitude toward the endorsement are observable variables. These variables were assessed using questions that

were adapted from Bergkvist et al. (2016). For the first question, respondents were asked to rate “How well do you think the [influencer X] fits with the [category Y]?” Regarding the second question, respondents were asked: “What do you think about [influencer X] appearing in advertising for [category Y]?”

4.2. Data collection and sample

An online questionnaire was used to collect the data. The questionnaire instructed respondents to rate their level of agreement with each statement. A 7-point Likert type scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”) was employed. A double translation protocol was used to convert the questions from English to Portuguese. The questionnaire was adapted for the influencer marketing context. The questionnaire was pretested on a sample of 5 respondents to track any inconsistencies that might exist. Based on the feedback from the pretest, tiny modifications were made to improve the readability of some questions. Then, the test was repeated involving 5 more respondents to check the readability of the questionnaire. The success that was obtained with the second pretest enabled the definitive launch of the questionnaire on an online platform.

The research was conducted in the context of Portuguese digital influencers. The definition of the sample took into account residence (Portugal) and the follow-up of at least one Portuguese digital influencer. The answers were received between June 12, 2018 and August 21, 2018. From the 1,000 questionnaires that were sent out, a total of 307 valid answers were collected, which corresponds to a response rate of 30.7%. This number is divided between two categories: “fashion & beauty” (159 individuals, 51.8%) and “entertainment & video games” (148 individuals, 48.2%). The sample profile is presented in Table 1.

(Insert Table 1 about here)

5. RESULTS

5.1. Measurement analysis

The multi-normality of the observed variables is a basic assumption of the ML estimation method that was used to estimate and evaluate both the measurement model and structural model. The data normality was assessed through the skewness and kurtosis, as suggested by Kline (2017). The skewness ranges from -0.994 to -0.060 for the full sample, from -0.920 to 0.032 for the “entertainment & video games” subsample, and from -1.073 to -0.053 for the “fashion & beauty” subsample. The kurtosis ranges from -0.166 to 0.383, from -0.389 to 0.137, and from -1.172 to 1.065, for the full sample, the “entertainment & video games” subsample and the “fashion & beauty” subsample, respectively. Thus, considering the thresholds (skewness < 3.0 and kurtosis < 20.0) that were proposed by Kline (2017), the departure from a multi-normality distribution of the observed variables is not a major problem in the use of the ML estimation method.

The exploratory factorial analysis was used to detect ill-fitting items. Regarding the attractiveness scale, two items that were poorly correlated with the other items; thus, these were deleted (“*This influencer is friendly*” and “*This influencer is approachable*”). The remaining scales, including all the items of the original scales, were only adapted to the context of the present study. Then, using the exploratory factor, the unidimensionality of each construct was tested and the results show that all the scales that were used to measure a particular construct were in one factor. Table 2 provides an overview of the theoretical constructs, the final items that were used to measure the unobserved variables, the *t-values*, and the R^2 , considering the full sample. The final measurement model was shown to have an adequate fit to the data considering the thresholds in the literature [chi-square (χ^2) = 126.04 with df = 69, goodness of fit index (GFI) = 0.946, incremental fit index (IFI) = 0.988, Tucker-

Lewis index (TLI) = 0.985, comparative fit index (CFI) = 0.988, and root mean square error approximation (RMSEA) = 0.052].

(Insert Table 2 about here)

Regarding the particular aspects of the model's fit, the reliability and validity of the constructs' measurement scales were analyzed. For this purpose, three aspects were considered: the individual items' reliability, the convergent validity of the items related to the individual constructs, and the discriminant validity. Regarding the individual items' reliability, the standardized factor loadings all exceeded the 0.5 threshold and were all significant ($p < 0.01$) (Bagozzi & Yi, 1988). Additionally, the R^2 values were all above the 0.20 threshold (Hooper et al., 2008); thus, the reliability of each individual item that was used is supported. The convergent validity of the items related to the individual constructs was analyzed through the Cronbach's alpha coefficients, composite reliabilities (CR), and average variances extracted (AVE). Table 3 provides these statistics and the correlation coefficients among the variables. The Cronbach's alphas and the CR were all above the 0.70 threshold and the AVE exceed the 0.50 cut-off. These results suggest that the scales that were used to measure each latent variable are internally consistent (Fornell & Larcker, 1981; Bagozzi & Yi, 1988; Hatcher, 1994). Following the procedure that was suggested by Fornell and Larcker (1981), the discriminant validity was tested by comparing the square of the correlations among the constructs with the AVE for the corresponding constructs. The discriminant validity required that the AVE of each construct must be greater than the square of the correlations among the corresponding constructs. The results that were presented in Table 3 show that the requirements for discriminant validity to be supported are met. In sum, the individual item reliability of each item that is used is supported, the constructs are unidimensional and they have acceptable convergent validity and discriminant validity.

(Insert Table 3 about here)

5.2. Hypotheses testing

Once the measurement model has been fixed, to test the hypotheses that are outlined in the conceptual model, the structural model was estimated and evaluated. Table 4 shows the standardized structural coefficient, the t -statistics, the overall fit of the model, and a summary of the hypotheses testing. Figure 2 shows a summary of the structural results. The different goodness-of-fit statistics that were used provided support that the model has a good fit with the data in our full sample. Although the chi-square is statistically significant ($\chi^2=128.33$, $df = 70$, $p < 0.01$), the remaining global fit indexes suggest that the model has a good fit (GFI = 0.945, IFI = 0.988, TLI = 0.985, CFI = 0.988, and RMSEA = 0.052). All the paths that were estimated have the anticipated signs and are statistically significant at the conventional significant levels ($\alpha=1\%$, $\alpha= 5\%$, or $\alpha=10\%$). In addition, an inspection of the modification indices revealed that no other structural path was statistically significant at the conventional significant levels, and this result supports the proposed model.

(Insert Table 4 about here)

(Insert Figure 2 about here)

5.3. Multi-group analysis

As aforementioned, the sample that was used in this study encompasses two categories (“entertainment & video games” and “fashion & beauty”); therefore, the next step was to test whether the results of the proposed model are different across the two categories. For this purpose, multi-group analysis was performed using a series of nested models to inspect group differences. Following Byrne et al. (1998), the partial invariance test procedures were employed. This test compares a nested hierarchical sequence with a less restrictive model in

which all parameters were freely estimated across the two subsamples (M_1). This last model was then compared to more restrictive models. M_2 was estimated with all the measurement loadings constrained to be equal across the two subsamples. M_3 was estimated with the measurement and structural paths constrained to be equal across the two subsamples. M_4 was estimated with the measurement loadings, structural loadings, and structural residuals constrained to be equal across the two subsamples. Finally, M_5 was estimated with all parameters (measurement loadings, structural paths, structural residuals, and measurement residuals) constrained to being equal across the “entertainment & video games” and “fashion & beauty” subsamples.

The unrestricted model (M_1) was compared to the restricted models (M_2 , M_3 , M_4 , and M_5) through the ΔCFI (Byrne, 2008; Luu, 2019). The use of ΔCFI rather than the classical $\Delta\chi^2$ test to assess the invariance across models is supported by the fact that the structural equation models only approximate reality, whereas the $\Delta\chi^2$ test is an extremely rigorous test of the invariance (Cudeck & Browne, 1983; MacCallum et al., 1992; Schivinski & Dabrowski, 2016). According to the ΔCFI test, the hypothesis of invariance is supported when the ΔCFI is less than the 0.01 threshold (Cheung & Rensvold, 2002; Byrne, 2008). As seen in Table 5, the ΔCFI are in all cases is less than 0.01; thus, it can be concluded that there are no significant differences in the proposed model between the two categories. That is, the measurement model, structural relationships, structural residuals, and measurement residuals are invariant across the “entertainment & video games” and “fashion & beauty” categories.

(Insert Table 5 about here)

6. DISCUSSION AND CONCLUSION

Digital influencers are being increasingly used in marketing campaigns. A digital influencer’s endorsement is expected to stimulate favorable attitudinal and behavioral responses toward

the brand being endorsed. Nevertheless, research on this new practice has been scarce and it is important to understand the process by which digital influencers' endorsements are effective. Thus, inspired on the celebrity endorsement literature and grounded on the meaning transfer theory, a model of digital influencers' endorsement effectiveness is proposed.

The empirical results suggest that the congruence between the digital influencer and the brand being endorsed has a stronger effect than the attractiveness of the digital influencer on attitudes toward the endorsement, given that the direct effect on the latter is significantly higher. However, the digital influencer's attractiveness also influences the perceived fit between the digital influencer and the brand. Hence, fans of a digital influencer tend to find him/her congruent with any brand, showing that there is a bias related to affect. Thus, although fans' assessments of the congruence follow a more cognitive route, the affective evaluation also impacts this cognitive evaluation. The results also show that both congruence and attractiveness are keys to endorsement effectiveness. They influence the attitudes toward the endorsement, thereby having an indirect effect on brand attitudes and purchase intentions, and they also directly and positively impact brand attitudes and purchase intentions. Furthermore, the effect of congruence between the digital influencer and the brand is at least as important as the attractiveness of the digital influencer when considering brand attitudes and purchase intentions.

All the proposed hypotheses are statistically supported. After examining the two groups of categories, "entertainment & video games" and "fashion & beauty", no significant differences were found, which suggest that the model could be applied to any category. The proposed dual mediation is therefore corroborated, showing that the attitudes toward the endorsement impact the attitudes toward the brand, which in turn impact purchase intentions.

6.1. Theoretical implications

This research makes three important contributions to the existing marketing literature. First, the sequencing process by which digital influencers can affect both attitudes and purchase intents is tested and validated. The attractiveness of the digital influencer can lead a follower to positively view all the brands that the digital influencer endorses, but when a consumer is exposed to the endorsement, he/she will try to understand the reason why the digital influencer endorses the brand. Thus, to be effective, the endorsement should come from a digital influencer that is congruent with the brand and is also appreciated or popular. Both the attractiveness and brand congruence directly and indirectly influence purchase intentions through the dual mediation of the attitudes toward the endorsement and the brand. Second, the affective evaluation impacts the cognitive evaluation. Therefore, this research suggests that when the digital influencer is widely appreciated, the followers of the digital influencer tend to find him/her congruent with any brand. Third, the results show that the congruence between the digital influencer and the brand facilitates meaning transfer. Hence, the findings of this study suggest that using digital influencers to enhance consumer attitudes and increase purchase intentions can be effective if the digital influencer is attractive and fits the endorsed brand.

6.2. Managerial implications

From the managerial perspective, this study provides strategic guidance for brand managers making digital influencer selection decisions. The findings that are presented herein provide theoretical and empirical evidence that supports the relevancy of two key elements of digital influencer endorsements. When selecting digital influencers to endorse their brands, marketing managers should consider the attractiveness of the digital influencer and the congruence between the digital influencer and the brand being endorsed. The model sheds

light on how digital influencers' endorsements can enhance brand evaluations. The results suggest that choosing digital influencers to endorse brands that are appreciated by the respective target market is not sufficient to obtain the desired outcomes. It is also important to take into account the perceived congruency between the digital influencer and the brand to maximize the effectiveness of the endorsement. Therefore, marketing managers can perform studies that guide their selection of digital influencers. They can survey their target audience about the attractiveness and congruency of combinations of digital influencers and brands.

6.3. Limitations and future research

As in any research, this study is not without limitations. The most important limitations are the sample size and the number of categories that were considered in this exploratory study. Future studies can investigate the effects of digital influencers in a larger sample using different categories. The results of the present study suggest that there are no differences in the model when considering the "entertainment & video games" and "fashion & beauty" categories, but it is necessary to test other categories to corroborate these results. Furthermore, although the proposed model is supported and provides important insights, other aspects could also be relevant for digital influencers' endorsement effectiveness, such as the execution of the endorsement. However, these other aspects are out of the scope of this study and should be addressed in future research.

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Table 1: Sample profile

Criterion	#	%
Gender		
Female	205	66,8
Male	102	33,2
<i>Total</i>	307	100,0
Age		
<18 years old	67	21,8
18 - 23 years old	121	39,4
>23 years old	119	38,8
<i>Total</i>	307	100,0
Average time spent on social networks		
Less than or equal to 1 hour	25	8,1
]1 hour, 2 hours]	94	30,6
]2 hour, 4 hours]	120	39,1
More than 4 hours	68	22,2
<i>Total</i>	307	100,0
Use of social networks		
Youtube	254	82,7
Instagram	244	79,5
Facebook	128	41,7
Twitter	69	22,5
Others	28	9,0

Note: Regarding the use of social networks, multiple answers were possible.

Table 2: Results of standardized parameter estimates, *t*-values, and R² for the measurement model

Construct	Items	Stand. loads.	<i>t</i>-value	R²
<i>Attractiveness</i>	I like this influencer.	0.905	---	0.819
	This influencer is physically attractive.	0.699	15.08	0.489
	This influencer is knowledgeable.	0.894	24.42	0.799
	I am always aware of the influencer on the web.	0.691	14.81	0.478
	This influencer has a good reputation.	0.914	25.82	0.835
	This influencer makes me feel comfortable.	0.889	24.07	0.790
<i>Source: Adapted from Ha and Perks (2005) and Nguyen et al. (2015).</i>				
<i>Brand attitude</i>	This brand is good.	0.965	---	0.930
	This brand is pleasant.	0.993	56.78	0.985
	This brand is favorable.	0.967	45.80	0.935
<i>Source: Colliander and Dahlén (2011).</i>				
<i>Purchase intentions</i>	I will probably purchase this brand again.	0.952	---	0.907
	I intend to purchase products of this brand in the future.	0.960	37.38	0.922
	It is possible that I will purchase this brand in the future.	0.905	29.72	0.820
<i>Source: Adapted from Chai et al. (2015).</i>				

Note: Stand. loads. = standardized loadings.

Model global fit: Chi-square (χ^2) = 126.04, *df* = 69; goodness of fit index (GFI) = 0.946; incremental fit index (IFI) = 0.988; Tucker-Lewis index (TLI) = 0.985; comparative fit index (CFI) = 0.988; root mean square error approximation (RMSEA) = 0.052.

Table 3: Correlation matrix of constructs, Cronbach's alpha coefficients, composite reliability, and variance extracted estimates

	X ₁	X ₂	X ₃	X ₄	X ₅	CR	AVE
Attractiveness (X ₁)	0.927					0.933	0.702
Brand congruence (X ₂)	0.451	---				---	---
Attitude toward the endorsement (X ₃)	0.485	0.731	---			---	---
Brand attitude (X ₄)	0.603	0.617	0.563	0.982		0.983	0.951
Purchase intentions (X ₅)	0.570	0.592	0.555	0.733	0.957	0.957	0.881

Notes: Diagonal entries are Cronbach's alpha coefficients; CR = Composite reliability; AVE = Average variance extracted.

Table 4: Paths, *t*-statistic coefficients and hypotheses test

Path	<i>Stand. coeff.</i>	<i>t-value</i>	Hypotheses test
Attractiveness → Brand congruence	0.451***	8.48	H _{1a} (+): S
Attractiveness → Attitude t/ endorsement	0.196***	4.45	H _{1b} (+): S
Attractiveness → Brand attitude	0.385***	7.75	H _{1c} (+): S
Attractiveness → Purchase intentions	0.177***	3.46	H _{1c} (+): S
Brand congruence → Attitude t/ endorsement	0.642***	15.06	H _{2a} (+): S
Brand congruence → Brand attitude	0.361***	5.99	H _{2b} (+): S
Brand congruence → Purchase intentions	0.203***	4.10	H _{2c} (+): S
Att. t/ endorsement → Brand attitude	0.113*	1.84	H _{3a} (+): S
Brand attitude → Purchase intentions	0.501***	8.73	H _{3b} (+): S

Notes: Stand. coeff. = standardized coefficient; *** $p \leq 0.01$; * $p \leq 0.1$; S = Supported.

Model global fit: Chi-square (χ^2) = 128.33, df = 70; goodness of fit index (GFI) = 0.945; incremental fit index (IFI) = 0.988; Tucker-Lewis index (TLI) = 0.985; comparative fit index (CFI) = 0.988; root mean square error approximation (RMSEA) = 0.052.

Table 5: Models comparisons

Model description	Comparative model	CFI	ΔCFI
Model 1(M₁): Unconstrained model (all parameters are free)		0.977	
Model 2(M₂): Restricted measurement loadings (all measurement loadings are invariant)	M ₂ vs. M ₁	0.975	0.002
Model 3 (M₃): Restricted measurement and structural loadings (all measurement loadings and structural relationships are invariant)	M ₃ vs. M ₁	0.975	0.002
Model 4 (M₄): Restricted measurement loadings, structural relationships, and structural residuals (all measurement loadings, structural relationships, and structural residuals are invariant)	M ₄ vs. M ₁	0.975	0.002
Model 5 (M₅): Restricted measurement loadings, structural relationships, structural residuals, and measurement residuals (all measurement loadings, structural relationships, structural residuals, and measurement residuals are invariant)	M ₅ vs. M ₁	0.969	0.008

FIGURE LEGENDS

Figure 1: Conceptual model

Figure 2: Summary of the structural results

Legend: *** $p \leq 0.01$; * $p \leq 0.1$.