Micro, macro and mega-influencers on instagram: The power of persuasion via the parasocial relationship

Rita Conde [a], Beatriz Casais [b,*]

[a] *University of Porto, Faculty of Economics, Portugal*
[b] *University of Minho, School of Economics and Management, CICS.NOVA.Uminho, Campus de Gualtar, 4710-057 Braga, Portugal*

A B S T R A C T

This study analyzes the effect of the parasocial relationship on the audience's intention to adopt the recommendations of micro, macro and mega-influencers, considering the number of followers, perceived popularity and opinion leadership. A sample of 140 Portuguese social media influencers (SMIs) was classified into micro, macro or mega-influencers. 577 valid responses to a questionnaire were analyzed using Andrew Hayes' macro PROCESS for SPSS. The findings suggest that the indirect effect between the number of followers and the intention to adopt SMIs' recommendations is mediated by the perceived popularity and opinion leadership, and are moderated by the parasocial relationship. Significant differences are found between micro, macro and mega-influencers in terms of credibility, attractiveness and established relationship. The categorization into micro, macro and mega-influencers is adapted to the context of a small country. This paper provides relevant information on the process of SMI selection.

1. Introduction

The literature on influencer marketing is divided into three main areas of research: (1) the influence maximization and influencer identification problem (Li & Du, 2017; More & Lingam, 2019; Roelens et al., 2016; Sheikhahmadi et al., 2017); (2) the study of practices associated with managing online presence and influence (Audrezet et al., 2020; Delisle & Parmentier, 2016; García-Rapp, 2017); and (3) the impact of social media influencers (SMIs) on consumer attitudes and behaviors (Lim et al., 2017; Magno & Cassia, 2018; Torres et al., 2019; Uribe et al., 2016; Vrontis et al., 2021).

Previous research considers the importance of popularity and opinion leadership in influence marketing (de Veirman et al., 2017). Such influence can be enhanced by influencer-product congruence (D. Y. Kim & Kim, 2021; Torres et al., 2019), although it is reduced in terms of perceived uniqueness of expertise and trust when the influencers enjoy high popularity and are associated with divergent products (Casaló et al., 2020). However, there is a tension between these insights and the recognition that genuine relationships between followers and influencers (Audrezet et al., 2020; Belanche et al., 2021) are also important as emotional dimensions that lead to perceived credibility (Reinikainen et al., 2020). The role of the parasocial relationship established with the

SMIs, based on feelings of friendliness and a sense of identification, is evidenced in the literature (M. Kim & Kim, 2020; Vrontis et al., 2021); moreover, the study of this effect on purchase intention has already been explored, which demonstrates a stronger impact of the parasocial relationship in comparison with influencer-brand fit (Breves et al., 2019) and source credibility (Leite & Baptista, 2022). However, the congruence between influencers and consumers, which is argued under the assumptions of the theory of parasocial interaction, deserves further research (Belanche et al., 2021; Ferchaud et al., 2018; Reinikainen et al., 2020; Sokolova & Kefi, 2020). While the parasocial interaction has been tested in several studies as an antecedent of consumer attitudes and purchase behavior and as an outcome of certain source characteristics (Vrontis et al., 2021), to the best of our knowledge there is a dearth of research on the effect of the parasocial relationship between different types of SMIs when considering their popularity level.

The existing literature recognizes the interest in studying the effects created by different types of SMIs (de Veirman et al., 2017; Vrontis et al., 2021), particularly micro-influencers (Casaló et al., 2020; Taylor, 2020), since the discussion about the value of influencers with smaller audiences has been growing (Borges-Tiago et al., 2023; Haenlein & Libai, 2017). Arguments in favor of this type of SMI include the possibility of focused communication and the considerable trust they build with their

followers (Bernazzani, 2021). While previous literature might suggest that SMIs with a low number of followers can have a higher engagement effect, and that SMIs with a high number of followers can enjoy higher perceived popularity and opinion leadership (Borges-Tiago et al., 2023; Marques et al., 2021), the state of the art is omitted regarding the effect of the parasocial relationship on consumer intentions, depending on the number of followers, although the concept of the parasocial relation is associated with feelings of friendliness and a sense of identification with the audience (Yuan & Lou, 2020). However, the topic of parasocial relationship is reported in studies on celebrity endorsement, regardless of the level of popularity (Aw & Labrecque, 2020, 2022; Chen et al., 2021). This paper analyzes the perceptions built with the audience on the persuasive power of SMIs according to the number of followers by focusing on the influence of parasocial relationships.

This study developed a conceptual model based on the existing literature, which frames the relationships between the number of SMIs followers and their persuasive power — measured by the followers' buying intention. The study identifies differences between micro, macro and mega-influencers in terms of the perceptions and relationships they create with their audiences, which is suggested as a relevant research opportunity to achieve a more refined understanding of SMIs and how the different types of SMIs lead to different consumer responses (Vrontis et al., 2021).

2. Conceptual framework

2.1. Social media influencers

SMIs are defined as ordinary Internet users that have a substantial number of followers in social media (de Veirman et al., 2017) and a recognized above-average ability (Haenlein & Libai, 2017) to influence behaviors and attitudes (Freberg et al., 2011; Liu et al., 2015). These individuals are described as particularly opinionative (Trammell & Keshelashvili, 2005), trustworthy and often sought out by their peers – whether online or offline – for their advice (Freberg et al., 2011). People also consider them as creators of trends in one or more niches (de Veirman et al., 2017), and they are particularly influential on individuals with whom they share specific interests (Uzunoğlu & Kip, 2014). In most cases, this influence is triggered by narrating – textually and visually – their personal lives, lifestyles and choices as consumers via user-generated content or by sharing electronic word-of-mouth, thus meeting consumers' desire to mimic (Ki & Kim, 2019).

SMIs are divided into categories, usually according to their number of followers. Haenlein & Libai (2017) propose the following division: mega-influencers, who are perceived as experts in their field and are widely known – for example, popular bloggers; and micro-influencers, who are ordinary people that have a relative influence on a smaller circle. There is an intermediate category, the macro-influencers (Borges-Tiago et al., 2023; Kay et al., 2020). Campbell and Farrell (2020) also propose the category of celebrities for those who enjoy global/national recognition beyond social media context, and the category of nano-influencers for those who exert advocacy in local context or in proximity to niche audiences. An increasing trend is also the phenomenon of virtual influencers, who are nonhumans created by artificial intelligence (Vrontis et al., 2021).

This paper focuses on mega, macro and micro-influencers that are associated with a set of characteristics, advantages and disadvantages, all summarized in Table 1. Both the academic literature and industry reports classify SMIs based on their number of followers, although with slight variations, depending on the source and the context.

2.2. SMIs capacity to maintain and capitalize on their influence

The antecedents and outcomes of digital influence have been widely researched (Torres et al., 2019; Vrontis et al., 2021). Besides popularity (Ladhari et al., 2020), the literature also emphasizes attractiveness,

Table 1
Definition and characteristics of micro, macro and mega-influencers.

	Micro-influencers	Macro-influencers	Mega-influencers
Followers	1,000 – 100,000	100,000 – 1,000,000	> 1,000,000
Characteristics	Strong voice in one community or niche; local authority Uniform audience with whom they establish a close relationship Perceived as highly credible by their audience	Substantial number of loyal followers A more diverse audience in comparison with micro-influencers	More famous on the Internet Globally recognized Their status is similar to traditional celebrities
Advantages	Loyal audience; higher levels of trust Excellent engagement rates Authenticity; their recommendations are similar to Word-Of-Mouth Lower cost	Higher reach in specific markets Better Return On Investment in comparison with micro-influencers Accessibility; easier to contact compared to micro or mega-influencers	Able to reach masses High visibility and recognition Halo effect; they create global trends Professionalism Easier to measure Return On Investment
Disadvantages	Lower reach and visibility Large-scale activation is harder Less control over output; volatile and harder to measure Return On Investment	Engagement rates around 5 to 25 % – smaller than micro-influencers They charge more than micro-influencers	Charge premium rates The audience may be tired of commercials Less engagement

Source: Authors' creation, based on previous literature and industry reports (Campbell & Farrell, 2020; Moffitt & Azarfar, 2021; Porteous, 2018; Sinkwitz, 2020).

expertise and reliability (Chen et al., 2021; Torres et al., 2019; Trivedi & Sama, 2020) as antecedents of digital influence. In fact, the classification of nano, micro, macro, mega and celebrity influencers proposed by Campbell and Farrell (2020) considers not only the number of followers, but also their perceived expertise, cultural capital, accessibility and authenticity. The aforementioned authors found, on the one hand, that the larger the number of followers, the greater is the SMIs' perceived expertise and cultural capital; and, on the other hand, the smaller the number of followers, the greater is SMIs' accessibility and authenticity.

However, authenticity also supports the influence of SMIs (Abhishek & Srivastava, 2021; Audrezet et al., 2020; Khamis et al., 2017). The term SMI refers to an honest, consistent and genuine narration of their personal life, as well as an open and caring relationship with their audience. In fact, the persuasive power of SMIs is strongly associated with the affective relationships they establish with their audiences (Berryman & Kavka, 2017). These relationships are based on self-branding practices that aim to increase their audience base and maintain an image of authenticity, accessibility and intimacy (Khamis et al., 2017). SMIs are actively committed to persuade their followers that they are able to access their personal lives (Trammell & Keshelashvili, 2005) by sharing genuine or ordinary moments of their daily lives (Duffy & Hund, 2015). The features of social media reinforce this perception of intimacy by allowing several forms of individual interaction (Berryman & Kavka, 2017), which lead to the development of parasocial relationships with the influencer (Audrezet et al., 2020).

Parasocial relations derive from the theory of parasocial interaction and considers the perceived connectedness between audiences and celebrities (Lou & Kim, 2019), based on the perception of self-congruity, language and interest similarity, interaction frequency and friendship (Hu et al., 2020; M. Kim & Kim, 2020), as well as physical attractiveness and credibility (Sakib et al., 2020). The parasocial relationship is

fostered by posts that promote perceptions of intimacy, access to the SMIs' personal life and the existence of a dialogue, thus validating the notion that, in the context of social networks, the parasocial relationship can be seen as a vehicle for advertising (Lueck, 2015). Among other factors pointed out as explanatory of these relations are the following: (1) practices of self-disclosure, which contribute to perceptions of greater authenticity (Ferchaud et al., 2018; J. Kim & Song, 2016); (2) feelings of social presence (Lee & Jang, 2013); and (3) social identification (Jin, 2018). Although credibility is an antecedent of parasocial interaction (Breves et al., 2019; Sakib et al., 2020), the reverse effect also occurs, and influencers are considered credible sources due to parasocial interaction with their audiences (Munnukka et al., 2019; Rasmussen, 2018; Reinikainen et al., 2020). This concept has integrated the perspective of a *trans*-parasocial relation, which involves reciprocities between consumer communities, their interaction and co-created relations between influencers and their followers (Lou, 2022; Munnukka et al., 2019).

That parasocial interaction considers a trust transfer by similarity, attractiveness and fairness, which affect the intention to buy the recommended product (Aw & Labrecque, 2020; Fu et al., 2019; Yuan & Lou, 2020). The literature has shown the influence of social presence on purchase intention mediated by the parasocial interaction and attachment to the influencer (Aw & Labrecque, 2020; Chen et al., 2021), and moderated by the advertising recognition (H. Kim, 2022). SMIs produce contents that inspire their audiences (Duffy & Hund, 2015). Followers often see SMIs' lifestyle as aspirational and make consumer decisions to replicate that lifestyle as much as possible (Djafarova & Rushworth, 2017). This creates a relationship, not only with the SMIs, but also with the products and brands they mention (Berryman & Kavka, 2017).

Followers become true fans (Khamis et al., 2017) and have the power to create micro-celebrities – individuals who are particularly significant in a given niche or subculture in which they have a substantial number of followers, but who are practically unknown in terms of traditional media (Marwick, 2015). However, the value of SMIs as celebrities is partially based on their capacity to attract attention and opinion leadership (Casaló et al., 2020). When SMI are associated with brands, it is possible to study such phenomenon as an instance of celebrity endorsement (Carter, 2016) – these individuals benefit from public recognition and capitalize on their popularity to promote goods and services.

In fact, the current tension in SMI research of regards the level of influence of both those with high numbers of followers and those who achieve interesting engagement rates (Khamis et al., 2017; Marques et al., 2021; Marwick, 2015). The study of SMIs as endorsers has limitations and it is important to address the emerging discussion around the comparative effect of micro, macro and mega-influencers (Vrontis et al., 2021), specifically the argument that the advantage of micro-influencers derives from the relationship with their audience (Casaló et al., 2020; Taylor, 2020). By considering the effect of popularity on opinion leadership (de Veirman et al., 2017), this rationale involves the discussion around the mediation or moderation effect of the parasocial relationship (Aw & Labrecque, 2020; Chen et al., 2021; Yuan & Lou, 2020). The literature has found different effects on consumer-brand engagement, but both micro and macro-influencers are important in the process of influence marketing (Marques et al., 2021). In this sense, this study aims to understand the effect of the parasocial relation on consumer intention to follow SMIs, comparing micro, macro and mega-influencers in the context of a small country.

3. Conceptual model and hypotheses

This paper aims to study SMIs' fashion and lifestyle from the perspective of their followers, in order to understand the parasocial phenomenon in the relationship between the number of SMIs' followers and the intentions to adopt SMIs' recommendations. The paper analyzes the differences between the types of SMIs in terms of both their

perceived popularity and opinion leadership and the parasocial relationship that audiences establish with them.

The formulated hypotheses can be represented graphically in the form of a conceptual model, shown in Fig. 1.

The model argues that the number of followers in social media positively affects both the attitude towards the influencer (de Veirman et al., 2017) and purchase intention (Ladhari et al., 2020). The proposed model considers the constructs popularity and opinion leadership (Casaló et al., 2020; de Veirman et al., 2017; Scott, 2014). Previous studies established the intention to adopt SMIs' recommendations as a consequence of opinion leadership (Casaló et al., 2020), and Scott (2014) demonstrates the positive effect of perceived popularity on behavior. However, the literature on SMI considers the source characteristics, psychological and content attributes as influential factors (Vrontis et al., 2021). The research model seeks to address a gap in knowledge regarding the non-consideration until recently of the parasocial relationship between popularity or opinion leadership and the intention to follow SMIs' recommendations.

Based on the study by de Veirman et al. (2017), we formulate hypotheses 1a and 1b to replicate the test of the effect of the number of followers on perceived popularity and opinion leadership.

H1a: SMI size (number of followers) has a direct and positive effect on their perceived popularity by the audience;

H1b: SMI size e (number of followers) has a direct and positive effect on the opinion leadership attributed to them by the audience;

Based on the previous hypotheses replicated from the literature, we formulate another hypothesis based on the relationship between perceived popularity and opinion leadership by considering that both are mediators of the effect of the number of followers and influencer likeability (de Veirman et al., 2017).

H1c: SMIs' perceived popularity has a direct and positive effect on the opinion leadership attributed to them by the audience.

Based on the study by Ladhari et al. (2020), we formulate hypothesis 2a to replicate the test of the effect of SMIs' perceived popularity on purchase intention.

H2a: Perceived Popularity has a direct and positive effect on the audience's intention to adopt SMIs' recommendations;

Based on the study by Casaló et al. (2020), we formulate hypothesis 2b to replicate the test of the effect of SMIs' opinion leadership on purchase intention.

H2b: The attributed Opinion Leadership has a direct and positive effect on the audience's intention to adopt SMIs' recommendations.

The perceived intimacy created by the SMI leads to the development of parasocial relationships (Colliander & Dahlén, 2011). These relationships increase persuasiveness in recommending products (Hartmann & Goldhoorn, 2011), as the audience's trust will result in a greater tendency to replicate SMIs' consumption behavior (Audrezet et al., 2020; Reinikainen et al., 2020). Thus, the literature suggests that the parasocial relationship has a direct effect on the intention to adopt recommendations (Hu et al., 2020; Sokolova & Kefi, 2020). Moreover, since micro-influencers are associated with higher levels of trust (Casaló et al., 2020; Taylor, 2020) –assuming that this will be reflected in a stronger parasocial relationship (Breves et al., 2019) —, the presence of this variable can reduce the predictive effect of popularity and opinion leadership on the formation of intention, since previous hypotheses propose the number of followers as an antecedent for these variables – i. e., the moderating effect will be negative. Therefore, we advance the following hypotheses:

H3a: The Parasocial Relationship moderates the relationship between perceived Popularity and the audience's intention to adopt SMIs' recommendations;

H3b: The Parasocial Relationship negatively moderates the relationship between the Attributed Opinion Leadership and the audience's intention to adopt SMIs' recommendations.
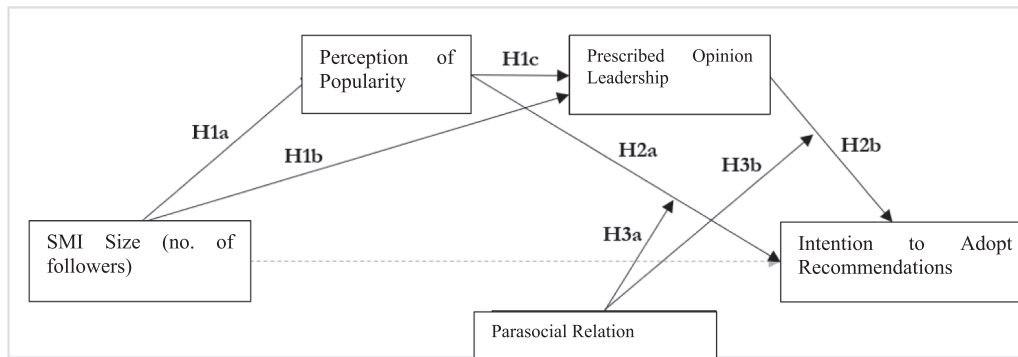
Fig. 1. Conceptual Model Source: Own Elaboration.

4. Methodology

This research aims to study the effect of the parasocial relationship on the persuasive power of different-sized SMIs on their audiences. For that purpose, the authors classified SMIs in the categories of micro, macro and mega-influencers, and then analyzed the cultivated perceptions and relationships from the perspective of the followers.

4.1. Smis categorization by number of followers in a small country context

Eligible SMIs for the study were identified based on the following conditions: (1) they meet the definition of Social Media Influencer, i.e., an ordinary internet user who has cultivated a substantial audience in an organic way (Ki & Kim, 2019), thus excluding traditional celebrities who would fit into a more comprehensive definition of influencers (Campbell & Farrell, 2020); (2) they are female, because of the stronger parasocial interaction between women and female SMIs (Hudders & de Jans, 2022), because of the existence of a higher number of female SMIs and due to the convenience of a sample of participants mainly constituted by women: 97.2 % of the dataset; (3) they have an active profile on Instagram; (4) they are mainly focused on the Portuguese market; and (5) they belong to the fashion and lifestyle community, creating content mostly associated with this topic. These conditions were created to allow comparison of results, excluding a variables that could affect the results, such as country, market, industry and gender.

The authors identified 140 Portuguese SMIs. The analyzed profiles vary regarding their size of followers: between 1,500 and 384,500. A small set of popular SMIs was observed to have very disparate numbers in comparison with the majority, with an average of 52,200 followers and a median of only 27,000. In turn, their engagement rates range from 1 % to 31.2 %, with an average of 6.3 %.

By recognizing that the division into SMI types suggested on a global scale does not occur at the national level, this research recognized the need to adapt to the Portuguese market to be able to make further comparisons between SMI types. This process is also a contribution to other studies carried out in a small country context.

Starting the categorization with mega-influencers, their minimum audience size tends to be over 1 million followers (Campbell & Farrell, 2020; Moffitt & Azarfar, 2021; Porteous, 2018; Sinkwitz, 2020). This type of influencer tends to be grouped in the same category as traditional celebrities with high online exposure (Campbell & Farrell, 2020), so this research started by analyzing the number of followers of over a hundred traditional celebrities, and then comparing them with the most popular Portuguese SMIs' audience numbers at the national level.

The differentiation between micro and macro-influencers was carried out taking into account the minimum audience limits indicated for macro-influencers, which vary between 10,000 (#Hashoff, 2017), 50,000 (Sinkwitz, 2020) or 100,000 followers (Campbell & Farrell, 2020; Moffitt & Azarfar, 2021; Porteous, 2018). Our analysis started

with the observation of the scatterplot for the total involvement rate as a function of the number of followers, ranging from 10,000 to 50,000 followers (see Fig. 2). This analysis observed a visible change in the scattering of the data from 20,000 followers on.

This observation was subsequently validated using the Mann-Whitney nonparametric test to compare two independent samples, which demonstrates that SMIs with audiences ranging from 1,000 to 20,000 followers have a greater and statistically different engagement distribution compared to SMIs with audiences ranging from 20,000 to 100,000 followers. Thus, audience size of 20,000 followers is proposed as the upper limit for the category of micro-influencers. To sum up, this study will use the proposal presented in Table 2 as a division between SMI types according to the number of followers.

4.2. Procedures for the main study

This research used a structured questionnaire to collect primary data. The questionnaire consisted of three different steps. First, respondents were asked to select, from the existing list of 140 SMIs identified by the authors, one SMI that they followed in order to answer the questions that would be put to them. The second step asked the respondents to select the social networks on which they followed their selected SMI. Instagram ranked as first option and was defined as a qualifying condition for the study. The third step comprised measuring the perceived popularity and attributed opinion leadership, as well as the relationship established by the follower with their selected SMI. To measure these constructs, the authors used scales previously validated by academic literature (Auter & Palmgreen, 2000; Casaló et al., 2020; de Veirman et al., 2017), as summarized in Table 3.

Some scales were adapted by adding or eliminating items to better suit the research objectives. The scale proposed by Casaló et al. (2020), which was originally used to study fashion profiles on Instagram, was adapted to refer to products associated with lifestyle. Thus, in the case of Opinion Leadership, a similar item was added to the fourth item of the original scale ("The content creator persuades followers to dress in a similar way") in order to include influences related to lifestyle choices ("The content creator persuades followers to have similar consumption patterns"). On the other hand, regarding measuring intention to follow recommendations, the first item of the original scale ("I would feel comfortable dressing like this person in published photographs") was also broken down into two items, with the second referring to lifestyle ("I would feel comfortable using products promoted by this person"). The questionnaire concluded with a set of questions related to the respondent, namely gender and age group. Data was also collected regarding factors that could potentially interfere with perceptions on SMIs, and the respondents were asked to indicate their own number of followers on Instagram and the total number of SMIs for fashion and lifestyle that they followed.

The questionnaire was pretested with 12 participants who were active followers of the fashion and lifestyle community on Instagram.
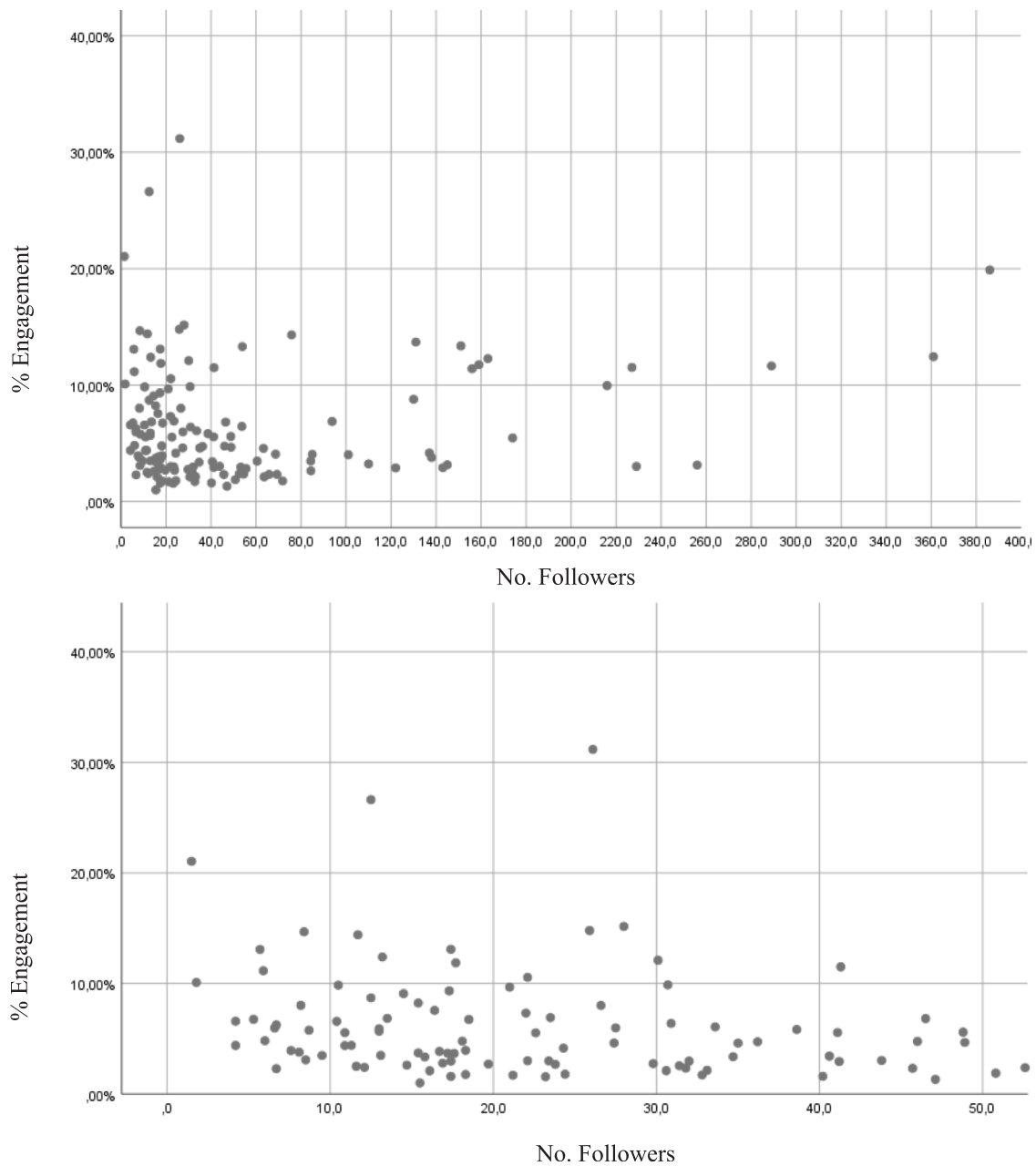
Fig. 2. Engagement Dispersion as a Function of the Number of Followers of the Portuguese Fashion and Lifestyle SMIs and detail of the range from 0 to 50 thousand followers Values in thousands. Data collected on January 15, 2018. Source: Instagram, Triberr.

Table 2
Proposed SMI categorization for smaller markets (e.g., Portugal).

	Total Engagement	Engagement Likes	Engagement Comments
Mann-Whitney U test	1358,500	1354,000	860,500
Wilcoxon W test	3438,500	3434,000	2940,500
Z	−2,140	−2,164	−4,795
Significance Sig. (bilateral)	,032	,030	,000

	Micro-influencers	Macro-influencers	Mega-influencers
No. Followers	1,000 – 20,000	20,000 – 100,000	> 100,000

Group Variable: Type of SMI (1 = *Micro-influencer*, 2 = *Macro-influencer*). Significance Level =,05.
Source: Authors' creation.

Table 3
Questionnaire measurement scales.

Construct	Rating Scale	Author(s)
Popularity	Semantic differential (5 levels, 3 items)	De Veirman et al. (2017)
Opinion Leadership	Likert scale (5 points, 7 items)	Adapted from Casaló et al. (2020)
Parasocial Relationship	Likert scale (5 points, 22 items)	Auter and Palmgreen (2000)
Intention to Adopt SMI Recommendations	Likert scale (5 points, 5 items)	Adapted from Casaló et al. (2020)

Data collection took place between 17 January and 18 February 2019, and its analysis was subsequently carried out using the PROCESS macro (version 3.3) for SPSS by Andrew Hayes.

4.3. Sample

577 valid questionnaires were obtained: 97.2 % female and 2.8 % male. 74.5 % were aged between 18 and 24 years, followed by 18.2 % of respondents aged between 25 and 34 years. 29.1 % reported having over 1,000 followers on Instagram, followed by 23.7 % having between 500 and 1,000. Regarding following other fashion and lifestyle SMIs, a substantial proportion of respondents claimed to follow a moderate to high number of SMIs on Instagram, with 23.7 % responding to follow between 6 and 10, and 29.1 % between 11 and 20. Furthermore, 30.7 % claimed to follow>20 SMIs, while 2.4 % followed only the SMI, about whom they provided the required information. 56.5 % of respondents claimed to follow SMIs also on YouTube, and 20.3 % on Facebook.

4.4. Data analysis

The Mahalanobis distance was calculated and the distances were subsequently compared using a chi-square distribution with the same degree of freedom and identification of cases in which they had a p-value below 0.001. This process resulted in the removal of 8 outliers. Then, given that the PROCESS macro of Hayes (2022) produces a regression based on the Least Squares Method, assumptions regarding normality, linearity and homoscedasticity were verified.

The Cronbach's alpha was calculated, an exploratory factor analysis (EFA) was performed, and a principal component analysis was carried out for the items on the different scales. The Kaiser-Meyer-Olkins test enables assessing the adequacy of the sampling for analysis, assuming values considered good (>0.7) regarding popularity; excellent (>0.8) regarding opinion leadership and intention to adopt recommendations; and superb (>0.9) regarding the measurement of the parasocial relationship. The corresponding Barlett's test of sphericity presented p-values below 0.001, which indicates that the correlations between the items of each scale are sufficiently high to perform the principal component analysis.

There were also satisfactory commonalities regarding all measures, with the exception of the Parasocial Relationship, in which the 8th and 9th items presented values of 0.497 and 0.430, respectively. It was decided to exclude these items and repeat the analysis. The analysis extracted three components, whose the combination accounted for approximately 67 % of the total variance.

Finally, based on the adjustments made to the scales, the internal consistency of the measurement model was assessed by calculating the Cronbach's alpha for each of the measurements. The results suggested moderate to high consistency ($\alpha > 0.8$) for the measurement of popularity, and high ($\alpha > 0.9$) for the remaining measurements.

5. Results

5.1. Study of the differences between Micro, Mega and Macro-influencers

The presentation of the results begins with the identification of the differences between SMI types in terms of the relationship established from the followers' perspective. For this purpose, the Kruskal-Wallis nonparametric test was applied to independent samples, using a type I error probability of 0.05 and, as a clustering variable, the SMI typology previously developed for this research. For a 95 % significance level, the obtained results allow us to conclude that at least one of the SMI types leads to different perceptions of Popularity (H(2) = 208.141; p =.000), Attributed Opinion Leadership p(H(2) = 29.154; p =.000), and Parasocial Relationship (H(2) = 6.090; p =.048). The analysis was subsequently further developed for each of the factors of importance that were considered significant by using multiple comparison of the average

of the orders. Peer comparison showed that mega-influencers differently mobilize perceptions of popularity and opinion leadership in a significant and higher level compared to micro (p =.000; p =.000) and macro-influencers (p =.000; p =.002).

5.2. Hypotheses testing

Firstly, in order to test hypotheses sets H1 and H2, a serial mediation analysis (model 6, 95 % confidence interval, 5,000 bootstrap samples) was performed with SMI Size as an independent variable, Intention to Adopt Recommendations as a dependent variable, and Popularity and Attributed Opinion Leadership as serial mediators. Hayes (2022) also advises the inclusion of covariables in the model to ensure greater persistence of relationship between X and Y when other constant variables are maintained; this reduces the probability of alternative explanations for the observed relationship by disregarding relevant variables. The obtained results show a positive effect of SMI Size on Perceived Popularity (a 1 = 0.0040; SE = 0.0002; p <.01), thus validating H1a. It is also possible to ascertain a direct and positive effect of Perceived Popularity on Attributed Opinion Leadership (d21 = 0.2935; SE = 0.0393; p <.01), which in turn positively affects Behavioral Intention to Adopt Recommendations (b2 = 0.4322; SE = 0.0460; p <.01), therefore validating H1c and H2b, respectively. The bootstrapping sampling also shows a positive and significant indirect effect of the number of followers on the Intention to Adopt Recommendations through serial mediators (Ind 3 = 0.0005; SE = 0.0001; 95 % CI = [0.0003; 0.0007]). On the other hand, the results do not support the existence of a significant effect between SMI Size and Attributed Opinion Leadership (a2 = -0.0003; SE = 0.0003; p >.01), nor between Perceived Popularity and Intention to Adopt Recommendations (b1 = 0.0051; SE = 0.0449; p >.01). Thus, H1b and H2a are discarded. Finally, the direct effect between X and Y is not significant (c'=-0.0002; SE = 0.0003; p >.01). Together with the existence of a significant indirect effect, this result suggests a typology called Exclusively Indirect Mediation (Zhao et al., 2010).

In order to address the H3 hypothesis set, a moderate mediation analysis was performed (model 88, 95 % confidence interval, 5,000 bootstrap samples) using SMI size as an independent variable, Intention to Adopt Recommendations as a dependent variable, Perceived Popularity and Attributed Opinion Leadership as serial mediators, and Parasocial Relationship as a moderating variable. The obtained results indicate that the Parasocial Relationship has a direct, positive and significant effect on the Intention to Adopt Recommendations (b3 = 1.0472; SE = 0.1856; p < 0.01), thus validating H3a. The analysis also confirms the existence of the moderating effect of the Parasocial Relationship on the impact of the Attributed Opinion Leadership on the Intention to Adopt Recommendations (b5 = -0.1916; SE = 0.0380; p < 0.01), resulting in a negative moderation of the indirect relationship between the number of followers and the Intention to Adopt Recommendations (Table 4), which validates H3c. There is no evidence of a significant interaction between Perceived Popularity and Parasocial Relationship (b4 = 0.0317; SE = 0.0436; p =.4671), which led us to reject H3a.

In summary, in addition to the mediated indirect effect identified in the previous literature, our results support the presumption of a moderate mediated relationship, by demonstrating a significant indirect effect of the number of followers on the SMI power of persuasion, negatively moderated by the Parasocial Relationship (Table 5).

Moderation analyses were also carried out separately (model 84, 95 % confidence interval, 5,000 bootstrap samples) for other potential moderators of the observed relationships, associated with the followers themselves, namely their own number of followers, the total number of fashion and lifestyle SMIs that they follow on Instagram, and respondent age group. The moderating role of the total number of SMIs followed by the user was then tested; these coefficients are shown in Table 6. The obtained results show a positive and significant interaction between SMI

Table 4
Coefficients of the dependent variable (Model 88).

		Coef.	SE	p	LLCI	ULCI
	Intention to Adopt SMI Recommendations (R–sq = 0.5538; p =.0000*)**					
	Constant	−1.2633	0.5801	0.0298	−2.4028	-0.1238
c'	SMI size	0.0000	0.0003	0.8860	-0.0006	0.0005
b_1	Popularity	-0.1014	0.1527	0.5067	-0.4013	0.1985
b_2	Opinion Leadership	1.0884	0.1222	0.0000***	0.8484	1.3284
b_3	Parasocial Relationship	1.0472	0.1856	0.0000***	0.6827	1.4117
b_4	Interaction 1 [POP × PR]	0.0317	0.0436	0.4671	-0.0539	0.1174
b_5	Interaction 2 [POL × PR]	-0.1916	0.0380	0.0000***	-0.2662	-0.1171

N = 569. SE = standard error; p = p-value; LLCI = lower limit of the 95 % confidence interval; UCLI = upper limit of the 95 % confidence interval. POP = Perceived Popularity; POL = Opinion Leadership; PR = Parasocial Relationship. *p <.1; *** P <.01.

Table 5
Moderated Mediation Index.

	Effect	BootSE	BootLLCI	BootULCI
Parasocial Relationship	-0.0003	0.0001	-0.0005	-0.0002

N = 569. Indirect effect of X (SMI Size) on Y (Intention to Adopt SMI Recommendations) through Perceived Popularity and Opinion Leadership, moderated by Parasocial Relationship.

Table 6
Coefficients of mediating variables (Model 84).

		Coef.	SE	p	LLCI	ULCI
	Perceived Popularity (R–sq = 0.4284; p =.0000*)**					
	Constant	3.2747	0.2050	0.0000***	2.8720	3.6773
a_1	SMI size	0.0001	0.0007	0.8587	-0.0013	0.0015
a_4	No. SMI Followed	-0.1450	0.0338	0.0000***	-0.2115	-0.0786
a_3	Interaction 1 (SIZ × NSMI)	0.0011	0.0002	0.0000***	0.0007	0.0015
	Opinion Leadership (R–sq = 0.4728; p =.0000*)**					
	Constant	0.3498	0.2369	0.1404	-0.1155	0.8151
a_2	SMI size	0.0002	0.0007	0.7952	-0.0012	0.0015
d_{21}	Perceived Popularity	0.2911	0.0405	0.0000	0.2116	0.3705
a_6	No. SMI Followed	0.0044	0.0329	0.8928	-0.0603	0.0691
a_5	Interaction 2 (SIZ × NSMI)	0.0000	0.0002	0.8037	-0.0003	0.0004

N = 569. SE = standard error; p = p-value; LLCI = lower limit of the 95 % confidence interval; UCLI = upper limit of the 95 % confidence interval. NSEG = Number of User Followers on Instagram; NSMI = Number of SMI Followed by the User on Instagram. **p <. 05; *** P <. 01.

Size and the total number of SMIs followed by the users, with an effect on Perceived Popularity (a_3 = 0.0011; SE = 0.0002; p <. 01), but not on Attributed Opinion Leadership (a_5 = 0.0000; SE = 0.0002; p =.8037). Thus, it is possible to state that the total number of influencers followed by a user affects their perception of individual SMIs, and this positively moderates the indirect relationship between the number of SMI

Table 7
Moderated Mediation Index.

	Effect	BootSE	BootLLCI	BootULCI
No. SMI Followed	0.0001	0.0000	0.0001	0.0002

N = 569. BootSE = standard error; BootLLCI = lower limit of the 95 % confidence interval; BootUCLI = upper limit of the 95 % confidence interval. NSMI = Number of SMI Followed.

followers and the audience's intention to adopt their recommendations (Table 7).

The obtained results demonstrate the existence of significant differences between the proposed types of SMI – micro, macro and mega-influencers. While micro-influencers are associated with stronger parasocial relationships, macro-influencers obtain higher values regarding Perceived Popularity and Attributed Opinion Leadership. In fact, as shown in Table 8, the results of the formulated hypotheses provide empirical evidence of a positive effect between SMI Size and Perceived Popularity (H1a), as well as the direct and positive effect of Perceived Popularity on Attributed Opinion Leadership (H1c), which in turn positively affects the Intention to Adopt SMI Recommendations (H2b). Moreover, there was a direct and positive effect of the Parasocial Relationship on the Intention to Adopt Recommendations (H3a), as well as the existence of an interaction between this variable and Attributed Opinion Leadership, resulting in a negative moderating effect (H3c).

6. Discussion

The study aimed to identify differences between macro, micro and mega-influencers. The results show the existence of significant and particularly important differences between micro and mega-influencers. Firstly, at the most superficial level –as expected –, it is concluded that mega-influencers differentiate themselves from the other groups in terms of popularity and attributed opinion leadership, thus mobilizing a greater level of perceptions. These observations are in line with the literature, which stipulates that individuals who benefit from greater opinion leadership are also those who attract the largest audiences (Campbell & Farrell, 2020; Uzunoğlu & Kip, 2014). In this sense, popularity can be understood as a consequence of both attributes. Moreover, significant differences were identified regarding the parasocial relationship established with micro-influencers and macro-influencers; this represents an original and valuable contribution to the literature, as this aspect had not yet been demonstrated.

This research concludes that the larger the number of followers, the greater is the followers' intention to adopt SMIs' recommendations.

Table 8
Summary of results for the research hypotheses.

	Hypothesis	Empirical Validation
H1a	SMI size (number of followers) has a direct and positive effect on their perceived popularity by the audience. *Based on* de Veirman et al. (2017)	Supported
H1b	SMI size (number of followers) has a direct and positive effect on the opinion leadership attributed to them by the audience *Based on* de Veirman et al. (2017)	Not supported
H1c	SMI perceived popularity has a direct and positive effect on the opinion leadership attributed to them by the audience *Based on* de Veirman et al. (2017)	Supported
H2a	The perceived Popularity has a direct and positive effect on the intention of the audience to adopt SMI recommendations *Based on* Ladhari et al. (2020)	Not supported
H2b	The Opinion Leadership has a direct and positive effect on the intention of the audience to adopt SMI recommendations *Based on* Casaló et al. (2020)	Supported
H3a	The Parasocial Relationship moderates the relationship between the Perceived Popularity and the intention of the audience to adopt SMI recommendations *New Hypothesis*	Not supported
H3b	The Parasocial Relationship negatively moderates the relationship between the Opinion Leadership and the intention of the audience to adopt SMI recommendations *New Hypothesis*	Supported

Source: Authors' creation.

Furthermore, it is shown that this effect occurs indirectly through the perceived popularity and the attributed opinion leadership, which consolidates previous evidence from the literature (de Veirman et al., 2017) – i.e., the larger the audience, the greater the perceived popularity, and, consequently, the higher the opinion leadership attributed to the SMI. In fact, the size of the audience can be interpreted not only as a product of the SMI opinion leadership (Uzunoğlu & Kip, 2014), but also as a catalyst of SMI opinion leadership – i.e., these attributes affect each other.

The initial mediation analysis used in this study results from the adaptation of the model proposed by De Veirman et al. (2017) for their study on the relationship between the number of followers and the affection cultivated regarding the influencer. The obtained results validate the assumption that the effects observed by the aforementioned authors could also occur on a more direct measurement of influence – in this case, the intention to adopt SMI recommendations. In fact, our research verified a positive effect of the number of followers on perceived popularity, as well as the effect of this latter variable on the attributed opinion leadership. The results also support the lack of a direct effect between the number of followers and the attributed opinion leadership. It should also be noted that the positive effect found between opinion leadership and the persuasive power of the SMI is congruent with the conclusions obtained by Casaló et al. (2020).

At the same time, the direct relationship between the number of followers and intention to adopt SMI recommendations was not significant. This result, which is indicative of the existence of an exclusively mediated relationship, enables us to assume that important mediators were not omitted (Zhao et al., 2010); together with the fact that the effect of other explanatory variables on the influence of the SMI was controlled, this contributes to greater confidence in the observed relationships and consequent conclusions.

In turn, the conditional analysis demonstrates the significant moderating effect of the parasocial relationship. In the presence of strong parasocial relations, sensitivity to opinion leadership in determining the intention to adopt SMI recommendations – reflected by the slope of the lines – decreases. Therefore, it is concluded the following: when considering the strength of the parasocial relationship established between followers and SMIs, the number of followers of the influencer loses importance in determining their influence, since this decreases the predictive effect of opinion leadership on the formation of intention. Additionally, the parasocial relationship has a direct effect on the intention to adopt SMI recommendations, and this of such importance that its impact is similar to that of attributed opinion leadership. It appears, therefore, that the SMI influence strongly depends on emotional aspects. Furthermore, these results are in line with Hartmann and Goldhoorn's (2011) considerations regarding the impact of this type of relationship on the recommendation of products, which may also explain the positive effect of the parasocial relationship on purchase intention found in Sokolova and Kefi's (2020) study on SMI on Instagram and YouTube.

These results contribute to the argument that micro-influencers, because they benefit from stronger relationships with their audiences, hold persuasive power capable of competing with larger SMIs, whose influence is mostly dependent on perceived opinion leadership. The increased trust cultivated by micro-influencers with their followers, as indicated by industry reports (Bernazzani, 2021; Sinkwitz, 2020) and the literature (Kay et al., 2020), may lie at the base of this phenomenon, since the level of trust resulting from the relationship established between SMIs and their followers may explain both the decrease in the emphasis attributed to perceived opinion leadership and the effect of the parasocial relationship on the intention to adopt SMI recommendations.

Furthermore, as regards conditional effects, the existence of an interaction by the total number of SMIs followed by the followers themselves has also been demonstrated, which affects the perceived popularity of individual SMIs. The analysis of the relationship between the number of followers and perceived SMI popularity, regarding different levels of the total number of followers followed, suggests that users who follow a low number of SMIs tend to be less sensitive to SMI size when formulating their perception of SMI popularity, which results in the attribution of higher popularity levels to individuals with smaller audiences. Moreover, users who follow a large number of SMIs are more sensitive to the number of followers and tend to make assessments closer to reality, attributing lower levels to SMIs with a lower audience, and vice versa. Thus, it can be argued that susceptibility to SMI recommendations is dependent on the exposure of users to other influencers in the same industry.

In summary, our research results validate the existence of significant differences between micro and mega-influencers from the perspective of their respective followers. Our results not only support the positive impact of the number of followers on the persuasive power of SMIs, but also emphasize the importance of the followers' perceptions and the emotional relationship they establish with the SMIs in their susceptibility to product or brand recommendations.

7. Conclusions

The obtained results validate the existence of a positive relationship between the number of followers and the intention to adopt SMI recommendations through both proposed mediators – perceived popularity and attributed opinion leadership. The moderating effect of the parasocial relationship established with the SMI is thus evidenced, which overall reduces the impact of the number of followers on the influencer's power of persuasion, by reducing the predictive effect of opinion leadership. At the same time, it was shown that the parasocial relationship has a direct and positive effect on the intention to adopt SMI recommendations.

This study contributes to extending the study on SMIs beyond the realm of bloggers by including Instagram. This study is also the first one to test the effect of parasocial relations on the relationship between the number of followers of an SMI and consumer behavior – in this case, the intention to adopt SMI recommendations. Finally, the distinction between micro, macro and mega-influencers adapted to the context of a small country is also an important contribution of this research, since it may guide future studies in similar-sized markets.

This study provides important information to support the process of selecting influencers by marketing and communication strategists, by identifying the differences between micro, macro and mega-influencers from the perspective of the audience and the most adequate choice to fit a brand's purpose. This paper also produces important considerations for the SMIs themselves, who should redirect their focus from developing their audiences to strengthening their relationship with their current followers via a parasocial relationship, with the outcome of attracting the attention of brands that seek to influence specific market segments.

8. Limitations and future research

The study was exclusively focused on fashion and lifestyle SMIs, and only female influencers were analyzed. The sample is non-probabilistic for convenience, in the Portuguese context. Future studies could consider greater diversity of measuring the impact on consumer behavior. Since it is not possible to establish a direct relationship between the number of followers and typical measures of advertising effectiveness – particularly attitudes towards the product or brand and purchase intention (Muda et al., 2014) –, this research operationalizes the persuasive power of a SMI as the intention to adopt recommendations. Behavioral intentions are seen as reliable indicators of future behavior, as they are their main antecedent and have been previously used as a measure of the ability of SMIs to influence their audiences (Casaló et al., 2020; J. Kim & Song, 2016; Magno, 2017).

The perceived audience size was not measured, but only the real audience size and perceived popularity. In this sense, it is possible that

the differences regarding perceived popularity, perceived opinion leadership or the parasocial relationship may not occur due to audience size.

The findings on the lack of differences between micro and macro-influencers regarding perceived popularity, perceived opinion leadership and parasocial interactions could be addressed in future research by comparing mega-influencers with other types of influencers.

Future research could consider specific cases of brands promoted by multiple SMIs. It is also be advisable to replicate this study with matched samples, with users who simultaneously follow different-sized influencers in order to ascertain whether the validity of the observed relationships holds. An analysis of real cases of partnerships with various SMI types would benefit the research.

The data were collected in pre-pandemic context. Given the emergence of new social media networks, the evolution of digital consumption and SMI interaction (Vrontis et al., 2021), future research could replicate this study to reinforce the research.

CRediT authorship contribution statement

Rita Conde: Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Beatriz Casais:** Writing – review & editing, Validation, Supervision, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

References

Abhishek, & Srivastava, M. (2021). Mapping the influence of influencer marketing: a bibliometric analysis. *Marketing Intelligence & Planning, 39*(7), 979–1003. 10.1108/MIP-03-2021-0085.

Audrezet, A., de Kerviler, G., & Guidry Moulard, J. (2020). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research, 117*, 557–569. https://doi.org/10.1016/j.jbusres.2018.07.008

Auter, P. J., & Palmgreen, P. (2000). Development and validation of a parasocial interaction measure: The audience-persona interaction scale. *Communication Research Reports, 17*(1), 79–89. https://doi.org/10.1080/08824090009388753

Aw, E.-C.-X., & Labrecque, L. I. (2020). Celebrity endorsement in social media contexts: Understanding the role of parasocial interactions and the need to belong. *Journal of Consumer Marketing, 37*(7), 895–908. https://doi.org/10.1108/JCM-10-2019-3474

Aw, E.-C.-X., & Labrecque, L. I. (2022). Celebrities As Brand Shields: The Role of Parasocial Relationships in Dampening Negative Consequences from Brand Transgressions. *Journal of Advertising, 1–19.* https://doi.org/10.1080/00913367.2022.2066034

Belanche, D., Casaló, L. v., Flavián, M., & Ibáñez-Sánchez, S. (2021). Understanding influencer marketing: The role of congruence between influencers, products and consumers. *Journal of Business Research, 132*, 186–195. 10.1016/j.jbusres.2021.03.067.

Bernazzani, S. (2021). *Micro-Influencer Marketing: A Comprehensive Guide.* Https://Blog.Hubspot.Com/Marketing/Micro-Influencer-Marketing.

Berryman, R., & Kavka, M. (2017). 'I Guess A Lot of People See Me as a Big Sister or a Friend': The role of intimacy in the celebrification of beauty vloggers. *Journal of Gender Studies, 26*(3), 307–320. https://doi.org/10.1080/09589236.2017.1288611

Borges-Tiago, M. T., Santiago, J., & Tiago, F. (2023). Mega or macro social media influencers: Who endorses brands better? *Journal of Business Research, 157*, Article 113606. https://doi.org/10.1016/j.jbusres.2022.113606

Breves, P. L., Liebers, N., Abt, M., & Kunze, A. (2019). The Perceived Fit between Instagram Influencers and the Endorsed Brand. *Journal of Advertising Research, 59*(4), 440–454. https://doi.org/10.2501/JAR-2019-030

Campbell, C., & Farrell, J. R. (2020). More than meets the eye: The functional components underlying influencer marketing. *Business Horizons, 63*(4), 469–479. https://doi.org/10.1016/j.bushor.2020.03.003

Carter, D. (2016). Hustle and Brand: The Sociotechnical Shaping of Influence. *Social Media + Society, 2*(3), 205630511666630. 10.1177/2056305116666305.

Casaló, L. v., Flavián, C., & Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research, 117*, 510–519. 10.1016/j.jbusres.2018.07.005.

Chen, T. Y., Yeh, T. L., & Lee, F. Y. (2021). The impact of Internet celebrity characteristics on followers' impulse purchase behavior: The mediation of attachment and parasocial interaction. *Journal of Research in Interactive Marketing, 15*(3), 483–501. https://doi.org/10.1108/JRIM-09-2020-0183

Colliander, J., & Dahlén, M. (2011). Following the Fashionable Friend: The Power of Social Media. *Journal of Advertising Research, 51*(1), 313–320. https://doi.org/10.2501/JAR-51-1-313-320

de Veirman, M., Cauberghe, V., & Hudders, L. (2017). Marketing through Instagram influencers: The impact of number of followers and product divergence on brand attitude. *International Journal of Advertising, 36*(5), 798–828. https://doi.org/10.1080/02650487.2017.1348035

Delisle, M.-P., & Parmentier, M.-A. (2016). Navigating person-branding in the fashion blogosphere. *Journal of Global Fashion Marketing, 7*(3), 211–224. https://doi.org/10.1080/20932685.2016.1167619

Djafarova, E., & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in Human Behavior, 68*, 1–7. https://doi.org/10.1016/j.chb.2016.11.009

Duffy, B. E., & Hund, E. (2015). "Having it All" on Social Media: Entrepreneurial Femininity and Self-Branding Among Fashion Bloggers. *Social Media + Society, 1*(2), 205630511560433. 10.1177/2056305115604337.

Ferchaud, A., Grzeslo, J., Orme, S., & LaGroue, J. (2018). Parasocial attributes and YouTube personalities: Exploring content trends across the most subscribed YouTube channels. *Computers in Human Behavior, 80*, 88–96. https://doi.org/10.1016/j.chb.2017.10.041

Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review, 37*(1), 90–92. https://doi.org/10.1016/j.pubrev.2010.11.001

Fu, S., Xu, Y., & Yan, Q. (2019). Enhancing the parasocial interaction relationship between consumers through similarity effects in the context of social commerce. *Journal of Strategic Marketing, 27*(2), 100–118. https://doi.org/10.1080/0965254X.2017.1384045

García-Rapp, F. (2017). 'Come join and let's BOND': Authenticity and legitimacy building on YouTube's beauty community. *Journal of Media Practice, 18*(2–3), 120–137. https://doi.org/10.1080/14682753.2017.1374693

Haenlein, M., & Libai, B. (2017). Seeding, Referral, and Recommendation. *California Management Review, 59*(2), 68–91. https://doi.org/10.1177/0008125617697943

Hartmann, T., & Goldhoorn, C. (2011). Horton and Wohl Revisited: Exploring Viewers' Experience of Parasocial Interaction. *Journal of Communication, 61*(6), 1104–1121. https://doi.org/10.1111/j.1460-2466.2011.01595.x

#Hashoff. (2017). *Influencer Marketer - A #HASHOFF State of the Union.* http://www.hashoff.com/wp-content/uploads/2017/04/A-HASHOFF-State-of-the-Union-Report.pdf.

Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd ed.). Guilford Publications.

Hu, L., Min, Q., Han, S., & Liu, Z. (2020). Understanding followers' stickiness to digital influencers: The effect of psychological responses. *International Journal of Information Management, 54*, Article 102169. https://doi.org/10.1016/j.ijinfomgt.2020.102169

Hudders, L., & de Jans, S. (2022). Gender effects in influencer marketing: An experimental study on the efficacy of endorsements by same- vs. other-gender social media influencers on Instagram. *International Journal of Advertising, 41*(1), 128–149. https://doi.org/10.1080/02650487.2021.1997455

Jin, S. V. (2018). "Celebrity 2.0 and beyond!" Effects of Facebook profile sources on social networking advertising. *Computers in Human Behavior, 79*, 154–168. https://doi.org/10.1016/j.chb.2017.10.033

Kay, S., Mulcahy, R., & Parkinson, J. (2020). When less is more: The impact of macro and micro social media influencers' disclosure. *Journal of Marketing Management, 36*(3–4), 248–278. https://doi.org/10.1080/0267257X.2020.1718740

Khamis, S., Ang, L., & Welling, R. (2017). Self-branding, 'micro-celebrity' and the rise of Social Media Influencers. *Celebrity Studies, 8*(2), 191–208. https://doi.org/10.1080/19392397.2016.1218292

Ki, C., & Kim, Y. (2019). The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic. *Psychology & Marketing, 36*(10), 905–922. https://doi.org/10.1002/mar.21244

Kim, D. Y., & Kim, H.-Y. (2021). Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure. *Journal of Business Research, 130*, 405–415. https://doi.org/10.1016/j.jbusres.2020.02.020

Kim, H. (2022). Keeping up with influencers: Exploring the impact of social presence and parasocial interactions on Instagram. *International Journal of Advertising, 41*(3), 414–434. https://doi.org/10.1080/02650487.2021.1886477

Kim, J., & Song, H. (2016). Celebrity's self-disclosure on Twitter and parasocial relationships: A mediating role of social presence. *Computers in Human Behavior, 62*, 570–577. https://doi.org/10.1016/j.chb.2016.03.083

Kim, M., & Kim, J. (2020). How does a celebrity make fans happy? Interaction between celebrities and fans in the social media context. *Computers in Human Behavior, 111*, Article 106419. https://doi.org/10.1016/j.chb.2020.106419

Ladhari, R., Massa, E., & Skandrani, H. (2020). YouTube vloggers' popularity and influence: The roles of homophily, emotional attachment, and expertise. *Journal of Retailing and Consumer Services, 54*, Article 102027. https://doi.org/10.1016/j.jretconser.2019.102027

Lee, E.-J., & Jang, J. (2013). Not So Imaginary Interpersonal Contact With Public Figures on Social Network Sites. *Communication Research, 40*(1), 27–51. https://doi.org/10.1177/0093650211431579

Leite, F. P., de Baptista, P., & P.. (2022). The effects of social media influencers' self-disclosure on behavioral intentions: The role of source credibility, parasocial

relationships, and brand trust. *Journal of Marketing Theory and Practice, 30*(3), 295–311. https://doi.org/10.1080/10696679.2021.1935275

Li, F., & Du, T. C. (2017). Maximizing micro-blog influence in online promotion. *Expert Systems with Applications, 70*, 52–66. https://doi.org/10.1016/j.eswa.2016.10.060

Lim, X. J., Mohd Radzol, A. R. bt, Cheah, J.-H. (Jacky), & Wong, M. W. (2017). The Impact of Social Media Influencers on Purchase Intention and the Mediation Effect of Customer Attitude. *Asian Journal of Business Research, 7*(2). 10.14707/ajbr.170035.

Liu, S., Jiang, C., Lin, Z., Ding, Y., Duan, R., & Xu, Z. (2015). Identifying effective influencers based on trust for electronic word-of-mouth marketing: A domain-aware approach. *Information Sciences, 306*, 34–52. https://doi.org/10.1016/j.ins.2015.01.034

Lou, C. (2022). Social Media Influencers and Followers: Theorization of a Trans-Parasocial Relation and Explication of Its Implications for Influencer Advertising. *Journal of Advertising, 51*(1), 4–21. https://doi.org/10.1080/00913367.2021.1880345

Lou, C., & Kim, H. K. (2019). Fancying the New Rich and Famous? Explicating the Roles of Influencer Content, Credibility, and Parental Mediation in Adolescents' Parasocial Relationship, Materialism, and Purchase Intentions. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.02567

Lueck, J. A. (2015). Friend-zone with benefits: The parasocial advertising of Kim Kardashian. *Journal of Marketing Communications, 21*(2), 91–109. https://doi.org/10.1080/13527266.2012.726235

Magno, F. (2017). The influence of cultural blogs on their readers' cultural product choices. *International Journal of Information Management, 37*(3), 142–149. https://doi.org/10.1016/j.ijinfomgt.2017.01.007

Magno, F., & Cassia, F. (2018). The impact of social media influencers in tourism. *Anatolia, 29*(2), 288–290. https://doi.org/10.1080/13032917.2018.1476981

Marques, I. R., Casais, B., & Camilleri, M. A. (2021). The Effect of Macrocelebrity and Microinfluencer Endorsements on Consumer–brand Engagement in Instagram. *Strategic Corporate Communication in the Digital Age, 131–143*. https://doi.org/10.1108/978-1-80071-264-520211008

Marwick, A. E. (2015). Instafame: Luxury Selfies in the Attention Economy. *Public Culture, 27*(1), 137–160. https://doi.org/10.1215/08992363-2798379

Moffitt, K., & Azarfar, N. (2021). *A Guide to Influencers: Mega, Macro, Micro, and Nano*. https://www.entertainimpact.com/2021/10/a-guide-to-influencers-mega-macro-micro-and-nano/.

More, J. S., & Lingam, C. (2019). A SI model for social media influencer maximization. *Applied Computing and Informatics, 15*(2), 102–108. https://doi.org/10.1016/j.aci.2017.11.001

Muda, M., Musa, R., Mohamed, R. N., & Borhan, H. (2014). Celebrity Entrepreneur Endorsement and Advertising Effectiveness. *Procedia - Social and Behavioral Sciences, 130*, 11–20. https://doi.org/10.1016/j.sbspro.2014.04.002

Munnukka, J., Maity, D., Reinikainen, H., & Luoma-aho, V. (2019). "Thanks for watching". The effectiveness of YouTube vlogendorsements. *Computers in Human Behavior, 93*, 226–234. https://doi.org/10.1016/j.chb.2018.12.014

Porteous, J. (2018). *Micro influencers vs macro influencers: What's best for your business?* https://emplifi.io/resources/blog/micro-influencers-vs-macro-influencers?utm_source=socialbakers.com.

Rasmussen, L. (2018). Parasocial Interaction in the Digital Age: An Examination of Relationship Building and the Effectiveness of YouTube Celebrities. *The Journal of Social Media in Society, 7*(1), 280–294.

Reinikainen, H., Munnukka, J., Maity, D., & Luoma-aho, V. (2020). 'You really are a great big sister' – parasocial relationships, credibility, and the moderating role of audience comments in influencer marketing. *Journal of Marketing Management, 36* (3–4), 279–298. https://doi.org/10.1080/0267257X.2019.1708781

Roelens, I., Baecke, P., & Benoit, D. F. (2016). Identifying influencers in a social network: The value of real referral data. *Decision Support Systems, 91*, 25–36. https://doi.org/10.1016/j.dss.2016.07.005

Sakib, M. N., Zolfagharian, M., & Yazdanparast, A. (2020). Does parasocial interaction with weight loss vloggers affect compliance? The role of vlogger characteristics,

consumer readiness, and health consciousness. *Journal of Retailing and Consumer Services, 52*, Article 101733. https://doi.org/10.1016/j.jretconser.2019.01.002

Scott, G. G. (2014). More Than Friends: Popularity on Facebook and its Role in Impression Formation. *Journal of Computer-Mediated Communication, 19*(3), 358–372. https://doi.org/10.1111/jcc4.12067

Sheikhahmadi, A., Nematbakhsh, M. A., & Zareie, A. (2017). Identification of influential users by neighbors in online social networks. *Physica A: Statistical Mechanics and Its Applications, 486*, 517–534. https://doi.org/10.1016/j.physa.2017.05.098

Sinkwitz, J. (2020). *Using Micro Influencers on Your Site to Capture Enterprises*. https://learn.g2.com/micro-influencers#what-are-micro-influencers.

Sokolova, K., & Kefi, H. (2020). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services, 53*, Article 101742. https://doi.org/10.1016/j.jretconser.2019.01.011

Taylor, C. R. (2020). The urgent need for more research on influencer marketing. *International Journal of Advertising, 39*(7), 889–891. https://doi.org/10.1080/02650487.2020.1822104

Torres, P., Augusto, M., & Matos, M. (2019). Antecedents and outcomes of digital influencer endorsement: An exploratory study. *Psychology & Marketing, 36*(12), 1267–1276. https://doi.org/10.1002/mar.21274

Trammell, K. D., & Keshelashvili, A. (2005). Examining the New Influencers: A Self-Presentation Study of A-List Blogs. *Journalism & Mass Communication Quarterly, 82* (4), 968–982. https://doi.org/10.1177/107769900508200413

Trivedi, J., & Sama, R. (2020). The Effect of Influencer Marketing on Consumers' Brand Admiration and Online Purchase Intentions: An Emerging Market Perspective. *Journal of Internet Commerce, 19*(1), 103–124. https://doi.org/10.1080/15332861.2019.1700741

Uribe, R., Buzeta, C., & Velásquez, M. (2016). Sidedness, commercial intent and expertise in blog advertising. *Journal of Business Research, 69*(10), 4403–4410. https://doi.org/10.1016/j.jbusres.2016.04.102

Uzunoğlu, E., & Kip, S. M. (2014). Brand communication through digital influencers: Leveraging blogger engagement. *International Journal of Information Management, 34* (5), 592–602. https://doi.org/10.1016/j.ijinfomgt.2014.04.007

Vrontis, D., Makrides, A., Christofi, M., & Thrassou, A. (2021). Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies, 45*(4), 617–644. https://doi.org/10.1111/ijcs.12647

Yuan, S., & Lou, C. (2020). How Social Media Influencers Foster Relationships with Followers: The Roles of Source Credibility and Fairness in Parasocial Relationship and Product Interest. *Journal of Interactive Advertising, 20*(2), 133–147. https://doi.org/10.1080/15252019.2020.1769514

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research, 37*(2), 197–206. https://doi.org/10.1086/651257

Rita Conde is MSc. in Marketing.

Beatriz Casais is PhD in Business and Management Studies by University of Porto, MSc in Marketing, with a bachelor Degree in Communication Sciences. She is the vice-Dean of the School of Economics and Management of the University of Minho, and the head of the executive education unit – UminhoExec. She is currently Assistant Professor in the fields of Marketing and Strategy. Her research focuses on social marketing, business ethics and public health advertisement. She has published in Journal of Macromarketing, Tourism Perspectives, Health Marketing Quarterly, Journal of Social Marketing, International Journal of Entrepreneurial Behavior & Research, Journal of Fashion and Marketing Management, Corporate Communications, Journal of Hospitality and Tourism Technology, Journal of Hospitality and Tourism Management, Place Branding and Public Diplomacy, Social Sciences, World Review of Entrepreneurship Management and Sustainable Development, and International Review on Public and Nonprofit Marketing, among others.