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Social Networks and Digital Influencers in the Online Purchasing Decision Process

Maria José Angélico Gonçalves [1,*], Adriana Oliveira [2], António Abreu [2] and Anabela Mesquita [2]

[1] Centre for Organisational and Social Studies of the Polytechnic Institute of Porto (CEOS.PP), Accounting and Business School (ISCAP), Porto Polytechnic Institute, Porto, Outermost Regions Sustainable Ecosystem for Entrepreneurship and Innovation (OSEAN), 465-004 São Mamede de Infesta, Portugal
[2] Centre for Organisational and Social Studies of the Polytechnic Institute of Porto (CEOS.PP), Accounting and Business School (ISCAP), Porto Polytechnic Institute, Porto, 465-004 São Mamede de Infesta, Portugal; aoliveira@iscap.ipp.pt (A.O.); aabreu@iscap.ipp.pt (A.A.); sarmento@iscap.ipp.pt (A.M.)
* Correspondence: mjose@iscap.ipp.pt

Abstract: Social networks have become a significant part of people's daily lives, particularly in the purchasing process. In this context, digital influencers have played an essential role in shaping consumers' opinions. In this sense, studying the role of social networks and influencers in the online product purchase decision process was considered pertinent. We selected two technology adoption models to fulfill this purpose: the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). We conducted an exploratory study using a quantitative approach, with data being collected through a questionnaire distributed online. The statistical analysis of the empirical model employed a partial least squares structural equation modeling (PLS-SEM) technique. Analyzing the 135 responses allowed us to conclude that social networks are relevant in consumers' purchase decision process. This research highlights the importance of the credibility of influencers, emotional connections with audiences, and the dynamics of the media in shaping consumer behavior. It highlights the strong influence of digital influencers on purchasing decisions and makes a methodological contribution with a rigorous empirical model. This study also suggests avenues for future research in order to deepen the understanding of influencer and social media marketing strategies.

Keywords: social media; digital influencers; consumer behavior

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1. Introduction

The growth in the use of social networks has been evident, reaching 3.8 billion users in 2020, representing 49% of the world's population (https://wearesocial.com/uk/blog/2020/01/digital-2020-3-8-billion-people-use-social-media (accessed on 19 September 2024)) [1]. This scenario has driven the emergence of new digital platforms, revolutionized the way we communicate [2], and given popularity to social networks, which have come to be defined as groups of actors (people, institutions, or groups). Users began to create social connections, exchange information, and communicate more directly and interactively, providing a favorable environment for publicizing products and establishing effective communication between consumers and brands, specifically through digital influencers [3]. Digital influencers have come to be defined as individuals with an online audience who can influence the behaviors, opinions, and values of others through the digital content they produce [4]. Several studies were carried out with the aim of studying the role of digital influencers in consumer behavior, particularly based on contexts such as tourism, the decision-making process, and e-commerce, or even seeking to study the perception of risk associated with recommendations made by digital influencers [5–8]. In this relationship between decision making and digital influencers, consumers use digital influencers as a reference for making

purchases, evaluating the life cycle of products, and testing and analyzing their characteristics to make the best purchasing decision [9]. And the conclusions of different studies revealed that factors such as trust, credibility, or attractiveness in the purchasing decision, authenticity and relevance of content, and emotional connection or personalized content are relevant in consumers' purchasing decision making [5–10]. Additionally, studies indicate that social media influencers significantly impact consumer behavior by influencing shopping intentions, brand perception, and buying decisions [11–13]. Social media influencers enhance shopping behavior through social influence, with brand credibility being a key factor. Platforms like Instagram drive consumer engagement and purchase decisions. Positive attitudes towards SMIs and tailored content boost purchase intentions, with trust and relatability converting followers into buyers. Influencer marketing is a booming industry, though concerns about influencer fatigue and ethical practices are emerging.

These statements demonstrate the importance of the actions of digital influencers in consumers' choices of products or services.

Therefore, it was considered pertinent to formulate the following research question: how do social networks and digital influencers affect consumers' online purchasing decisions? It was therefore deemed pertinent to define the main objective of this study as seeking to understand the role of social networks and their importance in influencer marketing. Our specific objectives were to verify whether social networks and digital influencers influence consumers in deciding to buy products online; to verify whether sociodemographic factors influence social network users in deciding to purchase products online; and to identify consumers' perceptions of the content posted by digital influencers. Considering the research problem and objectives, two technology adoption models were selected: the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). For this purpose, we opted for an exploratory quantitative study, collecting data through a questionnaire survey. The article begins with a literature review, covering topics such as digital influencers and the digital world, the Internet, the purchasing process, and digital influencers. The text continues with the statement of the problem, objectives, methodology, research framework, and conceptual model, and it ends with the presentation and discussion of the results.

2. Theoretical Background

2.1. Digital Influencers and the Digital World

The evolution of the Internet has led digital influencers to have an unlimited global audience of users. Therefore, online digital influencers have greater reach and a greater chance of influencing the results of marketing campaigns [14]. The rise of social media has allowed ordinary users to become content producers [15–17]. Social networks have also transformed social interactions in the digital environment, where exchanging information and online contacts have become the norm [18].

At the same time, organizations increasingly recognize that the success of new product launches is often linked to the influence of digital influencers on consumers [14], who provide consumers with current and advanced information that can influence their opinions of brands [19,20]. Digital influencers therefore have the power to influence their followers' attitudes, perceptions, and purchasing behaviors, making them increasingly valuable to brand managers [20]. And it should be emphasized that the relevance of digital influencers is felt throughout different moments that involve making a purchasing decision, starting from their ability to generate interest and desire for a particular product or service, during their evaluation of the product or service, with the opinions and recommendations of digital influencers being important, and even at the moment of the purchasing decision and post-purchase, with digital influencers being able to help, for example, with brand loyalty [6]. Digital influencers are viewed as trustworthy and unbiased, leading their followers to purchase the products they recommend [21]. The popularity of digital influencers on social media is due to their use, presence, and activity; they are known for their knowledge, specialization in a particular area, and power of influence [19,20]. On social media, the

profiles of digital influencers, especially on Instagram, are considered more powerful than those of traditional celebrities because they are given a greater degree of credibility [21]. They therefore represent a great opportunity as a marketing tool.

The recommendation of products by digital influencers is included in everyday narratives in a natural, authentic, and accessible way in the eyes of the public, becoming a standard and credible practice of Electronic Word of Mouth (eWOM). Word of mouth is informal communication between consumers about products or services, and it is influenced by consumer satisfaction, shopping experience, personal motivations, and social influences [22]. Still, in this line of thought, it is pertinent to mention that studies have identified credibility and relevance, emotional connection, and personalized content as characteristics of digital influencers that affect consumers' intention to buy. When choosing to use digital influencers as a strategy to promote products or services, it is important to hire those who have a strong degree of credibility and the ability to present personalized content and those who are capable of creating emotionally engaging environments with the public [20]. And in this sense, brand managers are recognizing and harnessing the power of digital influencers, looking for ways to integrate them into their marketing strategies [21]. In this sense, marketers use digital influencers as message mediators, online brand ambassadors, and storytellers to establish relationships with consumers and increase the likelihood of consumers purchasing their brands' products [19,20].

With the growth of media platforms, the effectiveness of digital influencers has been consolidated over time, contributing to the change in the decision-making processes of consumers, who search for and share information about brands and products on the Internet [21]. The main factors that lead a user to be considered a digital influencer on Instagram are originality and uniqueness rather than quality or quantity [23]. Therefore, aspects such as creativity or being unique seem to be vital to becoming a digital influencer. Advertising agencies generally choose digital influencers based on elements such as credibility, correspondence with the brand, and image among the public. Congruence between the celebrity and the brand is essential for increasing consumer confidence and communication [24–26]. It should be noted that studies have shown that trust in digital influencers plays a very important role in the purchasing decision, with variables such as credibility and the attractiveness of digital influencers being fundamental in creating this trust and, subsequently, in the purchasing decision [5]. However, it is also important to bear in mind that the perceived risk in the context of recommendations can negatively influence followers' attitudes and purchase intentions. And in this scenario, trust in the influencer becomes very important, as it can directly contribute to curbing this perceived risk and not influencing the sale of the product or service [8]. Social networks are vital tools for brand communication [27], influencing customer awareness, information gathering, opinions, attitudes, purchasing behaviour, and post-purchase evaluations [28]. Digital influencers therefore play an important role, particularly in influencer marketing on Instagram, as they can influence the purchasing behaviors of their followers. Digital influencers are people who have a large following on social media and can affect their audience's purchasing decisions. They can be seen as intermediaries between companies and their customers, helping to build trust and brand credibility [29]. As we will see in the next section, statements take center stage in the context of the purchasing process.

2.2. Internet, Purchase Process, and Digital Influencers

With the evolution of the Internet, particularly the development of the World Wide Web, there have been substantial changes in the way we communicate [30–33]. And while Web 1.0 consisted of a system of interconnected information based on graphics and links and marked by static pages [31], Web 2.0 would enable bi-directional communication and active user participation, becoming essential in making purchasing decisions [31–35]. Web 3.0, also known as the Semantic Web, would create a more intelligent Internet, open to accessing and storing information [36], where machines understand human semantic expressions, help produce content, and optimize users' online experiences [31].

With the emergence of social networks, companies have had the opportunity to build closer and more personalized relationships with customers [37–39], and consumers have started to gather information and make decisions based on it [40–44].

Social networks are centered on people as they promote communication between groups and take on a social interaction function where individuals look for information, news, and entertainment; they are a source of entertainment, connections, and information, which reflects what is on the minds of their users [45,46]. Social networks have the power to make information go viral and spread quickly around the world. Users now have the ability to communicate and express their opinions [47,48]. Consumers' opinions are a relevant factor as they can influence the frequency of use of a product or service [49]. Among social networks, Instagram stands out as one of the most popular social network services, with over one billion monthly active users [50–52]. Instagram allows companies to showcase their brands more authentically and attractively, creating a closer connection with customers. This scenario contributes to an increase in three situations: (1) brand visibility, (2) building a more positive brand image, and (3) the possibility of reaching a larger and more diverse audience. This leads to an increase in Internet users and a rapid growth in online purchases of goods and services without forgetting the relevance of ease of use associated with the effectiveness and efficiency of the user's interaction with a system, product, or service with minimum effort or frustration [53].

It should be noted that the moment the consumer starts looking for a particular product or service, the buying process begins. Thus, before the purchase is made, the intention to buy arises, and it is during this period that the involvement and construction of the desire to purchase arises, which is why it is so important to pay attention to consumer behavior [54,55]. This situation has forced companies to look for new methods to reach consumers and shape their behaviors, including brand loyalty and purchase intent, making it more important to address customer satisfaction and loyalty as well as the online purchasing decision-making process [56–59]. It has also become relevant to consider consumers' attitudes and motives for buying. Attitudes are consumers' positive or negative perceptions of a product, service, or brand [60] and can be influenced by beliefs, values, and past experiences. Motives reveal why consumers buy or use products and services and are influenced by needs, desires, expectations, and social influences [61].

It is important to understand purchasing behavior and design successful platforms that support consumers' decisions [62]. In this regard, it is worth noting that the outcome of a purchasing process can be measured by consumer satisfaction [63,64]. Satisfaction is defined as a function of consumer expectations and the extent to which these expectations are met [65,66]. For Kotler and Armstrong [67], online customer satisfaction can be related to factors such as the quality of the product or service, the price, the details of the product and promotion, the ease of use, and the security of the payment process [68,69]. Consumer characteristics, such as decision-making style and product knowledge, should also be considered as they determine the evaluation effort allocated to a decision-making process, affecting specific mechanisms such as the time allocated and the number of alternatives examined [70,71]. Also worth mentioning is the consumer's perceived usefulness of a product or service concerning their needs and expectations [72,73], which can be influenced by factors such as price, quality, brand, and user experience. Consumers who invest more effort in their purchasing decision-making process feel more confident in their choice and are more satisfied with the option chosen [74,75]. Satisfaction with the choice and purchasing process are affected in different ways by the evaluation effort invested in a purchasing decision [75]. This reinforces the relevance of factors such as the influencer's credibility and authenticity, which are vital for building trust and driving positive purchasing decisions [76,77].

Based on this conceptual framework and linking it to the previous point, we can now understand the unique role of the marketing professional in the whole process, as they must use marketing to manage relationships with customers online in order to achieve effective communication with the customer and influence them to buy. In this way, social

media marketing has made it possible for companies to expand their brands' influence more effectively, resulting in an exponential growth rate due, for example, to the repeated sharing of the product or service by followers, which helps brands to gain extraordinary attention [78]. In this context, influencer marketing has taken on a more critical approach, and the word "influence" can be broadly defined as the power to affect a person, thing, or course of events [79]. But it is pertinent to note that having many followers may not be enough. Therefore, organizations need to give relevance to the role of digital influencers in promoting products or services as a strategy to continuously reach customers [78] as well as creating contexts for interactions and content sharing that can contribute to sharing opinions and motivating consumers [80]; after all, consumers value the opinions of others [81]. It is therefore pertinent to identify a suitable digital influencer who has a large influence on other people's decision making as well as on their attitudes and behaviors [82,83].

Having said this, the following section focuses on the research carried out.

3. Materials and Methods

3.1. Problem, Objectives, and Conceptual Model

With digital influencers playing a pivotal role in the digital marketing strategy, the following research question was formulated: "how do social networks and digital influencers affect consumers' online purchasing decisions?" Thus, the focus of this study is to assess the influential power of digital influencers in consumers' purchasing decision-making process, or in other words, the acceptance of social media technologies. Given the problem and the focus of this study, the main objective was to try to understand the role of social networks and their importance in influencer marketing. The following are the specific objectives:

- To check whether social networks and digital influencers have an influence on consumers in the process of deciding to buy products online;
- To check whether sociodemographic factors influence social network users in the online product purchase decision process;
- To identify consumers' perceptions of the content posted by digital influencers.

Considering the research problem and objectives, two technology adoption models were selected: the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) Model. The TAM (Technology Acceptance Model) and UTAUT (Unified Theory of Acceptance and Use of Technology) are key models for understanding technology acceptance in various contexts. In 2022, Lopes et al. [84] conducted a study that aimed to develop a conceptual model to explain users' behaviors and intentions when using e-learning systems, identifying the skill shortages and mismatches regarding the readiness to teach in an online environment. In 2023, Al-Kfairy et al. [85] developed a model for social commerce adoption, examining United Arab Emirates consumers' Instagram shopping intentions. Al-Kfairy et al. [86] explored the role of trust in the acceptance of online shopping technologies, focusing on trust-building in social commerce.

The Technology Acceptance Model (TAM) is widely used to describe an individual's acceptance of information systems [87]. The original TAM has three constructs: (1) perceived ease of use, (2) perceived usefulness, and (3) use.

The UTAUT is a framework [88] developed to predict technology acceptance in organizational environments. The UTAUT suggests that the four primary constructs—performance expectancy, effort expectancy, social influence, and facilitating conditions—are direct determinants of behavioral intention and, ultimately, behavior, and that these constructs, in turn, are moderated by gender, age, experience, and voluntariness of use [88]. In these contexts, gender, age, or experience are considered relevant in the intention to use. Gender is associated with the relationship between performance or effort expectancy and intention to use. Age acts as a regulator between performance or effort expectancy and usage behavior. Experience regulates the intention to use relationship between effort expectancy and social influence [88].

3.2. Methodology, Research Framework, and Conceptual Model

To address the purpose of this research, an exploratory study of quantitative nature was conducted using a questionnaire survey as the data collection instrument.

Next, we present the research reference table—see Table 1—built on the basis of the literature review and the validated scales and where the constructs under study can be identified: frequency of use [49]; perceived usefulness [72,73]; ease of use [53]; attitudes [60]; motives [61]; digital influencers [79]; word of mouth [22]; brand trust [74]; and purchase intention [61].

Table 1. Table of research references.

Variable Constructs	Sources	Indicators
Frequency of use	1: [89]	1. Do you have an active Instagram account?
	1 and 2: [90]	1. How often do you visit Instagram? 2. On average, how many hours a week do you use Instagram?
	1 and 2: [91]	1. Instagram is part of my daily activities 2. Instagram has become part of my routine
	1 [73]	1. I use Instagram frequently during my week
Perceived usefulness	1, 2, and 3: [73]	1. Using Instagram improves my performance as a consumer 2. Using social media and Instagram is useful to me 3. Using Instagram is useful for my consumer activities
Ease of use	1, 2, and 3: [73]	1. Using Instagram is easy for me 2. I find it easy to interact with Instagram 3. I feel comfortable and confident using Instagram
	1: [92]	1. Using Instagram requires no mental effort on my part
Attitudes	1, 2, and 3: [92]	1. I find Instagram an interesting way to get in touch with brands 2. I find Instagram an interesting way to search for information about brands/products/services 3. I see Instagram as a means of sharing knowledge
	1 and 2: [93]	1. I like to buy products/services that have been recommended on Instagram. 2. I'm interested in buying products/services that have been recommended on Instagram.
Reasons	1, 2, 3, 4, 5, and 6: [92]	1. I follow brands on Instagram that I consume or buy 2. I think that my interest in following a brand on Instagram is related to my satisfaction with the brand 3. Following brands on Instagram helps me acquire information about new offers 4. I like the influence and creative content on Instagram that is created by brands 5. I think that product-related information obtained through Instagram is relatively reliable 6. Instagram is a reliable source of information because it enables transparent communication between the brand and the consumer
Digital influencers	1, 2, 3, 4, 5, and 6: [94]	1. On Instagram, when an influencer demonstrates a product, I feel the need to look for more information about the product 2. I feel that an influencer who interacts with their Instagram followers on a daily basis has a greater influence on purchasing decisions. 3. I believe that the more followers on social media, particularly Instagram, the more credible the influencer is 4. The greater the number of social media partnerships an influencer has, the more impact their communication has on products 5. I tend to follow digital influencers with more followers on Instagram 6. I have already become a customer of a brand or product through a digital influencer on Instagram
	1, 2, and 3: [93]	1. I'm inclined to accept the opinions of digital influencers' opinions on products/services on social media
	1: [83]	1. I am influenced by recommendations of

Table 1. *Cont.*

Variable Constructs	Sources	Indicators
Word of mouth	1, 2, 3, and 4: [95]	1. I use social networks to write (posts, comments) about the prices charged by a brand 2. I use social media, particularly Instagram, to write (posts, comments) about my negative personal experience with a brand 3. I use social media, particularly Instagram, to express (with posts, comments) any doubts I have about a brand. 4. I write comments, opinions and/or information on Instagram because I want to help other users with my own experiences
	1, 2, 3, and 4: [92]	1. I suggest products I like to my friends on Instagram 2. I comment on products and profiles of brands I like on Instagram 3. I recommend other users to buy products online via Instagram 4. Instagram allows me to get advice from other users before deciding on my purchase
Trust in the brand	1, 2, 3, and 4: [96]	1. I'd rather buy from my favourite brand than try one I don't know 2. I always buy from the brands I follow on Instagram 3. I consider myself loyal to the product/service brands I follow on Instagram 4. I follow/follow the brand of the products/services I buy on Instagram
Purchase intention	1, 2, 3, 4, 5, 6, and 7: [93]	1. Communication on Instagram influences my opinions and feelings about products/services 2. Communication on Instagram helps me remember products/services 3. Communication on Instagram is useful when I'm deciding which brand or product to buy 4. When deciding to buy a product/service, I'll consider buying the one recommended by a digital influencer 5. The likelihood of buying products/services recommended by digital influencers is high 6. The communication made by digital influencers on Instagram influences the consumer's intention to buy 7. The communication of products/services on Instagram helps me make purchasing decisions

The frequency of use was measured using four indicators according to a 6-point Likert scale (1 = rarely; 6 = several times a day). The usefulness, ease of use, attitudes, trust, and purchase intention were measured using a five-level Likert scale (1 = strongly disagree; 5 = strongly agree). Motives were analyzed according to six indicators to understand why consumers buy or use products and services. Ten indicators were used to understand the influence of digital influencers on consumers' purchasing decisions. In the word-of-mouth analysis, eight indicators were used to understand the impact of other people's opinions on consumers' decision making.

Having presented the problem, objectives, and constructs under study, this research proposes the conceptual model shown in Figure 1, a model based on the Technology Acceptance Model (TAM) by Venkatesh et al. [88].

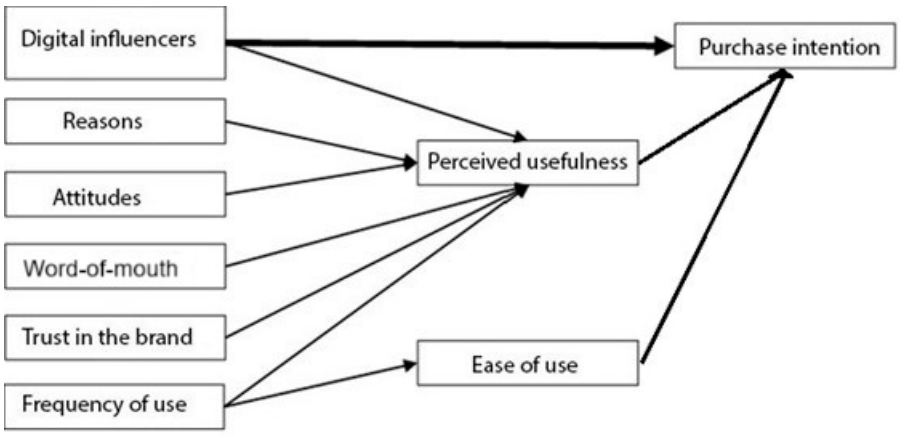

Figure 1. Proposed conceptual model.

The hypotheses were formulated based on prior research, including the study by Sousa and Batista [97]:

Hypothesis 1 (H1). *Marketing campaigns presented on Instagram by digital influencers positively influence consumers' purchasing decisions.*

Hypothesis 2 (H2). *Marketing campaigns presented on Instagram by digital influencers positively influence perceived usefulness.*

Hypothesis 3 (H3). *Reasons positively influence perceived usefulness.*

Hypothesis 4 (H4). *Attitudes positively influence perceived usefulness.*

Hypothesis 5 (H5). *Word of mouth positively influences perceived usefulness.*

Hypothesis 6 (H6). *Trust in the brand positively influences perceived usefulness.*

Hypothesis 7 (H7). *Frequency of use positively influences purchase intention.*

Hypothesis 8 (H8). *Frequency of use positively influences perceived usefulness.*

Hypothesis 9 (H9). *Perceived usefulness positively influences purchase intention.*

Hypothesis 10 (H10). *Ease of use positively influences purchase intention.*

After this explanation, the instrument and procedures used for data collection, analysis, and validation of the empirical model are presented.

3.3. Instrument and Procedures for Collecting and Analyzing Data and Validation of Empirical Model

As previously mentioned, data were collected through a questionnaire based on validated scales and the conceptual model (Figure 1). The questionnaire began with a closed-ended question to filter respondents, asking if they had an active Instagram account, followed by questions about the frequency of visits to the social network platform and the average number of hours they used Instagram per week. The questionnaire also requested sociodemographic information such as gender, age, and academic qualifications to characterize the sample. The other five sections of the questionnaire focused on evaluating respondents concerning the variables of the analysis model. The Likert scale and a scale inspired by the Technology Acceptance Model (TAM) [87] were also used. To confirm the applicability of the questionnaire, a pre-test was conducted with four participants from different age groups in three stages: first, we checked if the respondents understood the questions asked; secondly, we assessed whether the multiple choice questions included all possible options; and the third stage aimed to determine if the language used was appropriate and presented clearly. Based on the pre-test participants' responses, changes were made to improve the clarity and effectiveness of the questionnaire, ensuring it was understood by respondents and provided more accurate results. The necessary modifications included adjustments in the introduction, the elimination and reformulation of questions, the simplification of response options, and resizing of the questionnaire. After these verifications, the questionnaire was built using Google Forms in the Portuguese language and disseminated on the social media platforms Facebook and Instagram, covering the period from 12 to 26 June 2023. Statistics were used to analyze the collected data, namely structural equations using PLS. The statistical analysis of the empirical model followed a partial least squares structural equation modeling (PLS-SEM) approach [98], which was used instead of the covariance-based technique (CB-SEM) for model estimation due to the small sample size and the absence of normality assumptions.

The procedure followed two steps. First, the measurement model was evaluated, specifically its reliability, convergent validity, and discriminant validity. To assess reliability, we examined the outer loadings, considering the removal of items with loadings below 0.7, as suggested by Hair, Hult, Ringle, and Sarstedt [98]. We calculated composite reliability (CR) to assess construct reliability [98]. We used Nunnally's [99] cutoff point of CR > 0.7 as a reference. For convergent validity, we examined the average variance extracted (AVE), considering AVE > 0.50 as acceptable [100], which means that each construct explains at least half of the variance of its items. For discriminant validity, we used Fornell and Larcker's [101] criterion, according to which each construct shares more variance with its items than with the indicators of other latent variables. To achieve this, we compared the square root of the AVE ($\sqrt{}$AVE) with other correlations between constructs. Discriminant validity is ensured when $\sqrt{}$AVE is greater than the correlations of each construct with the others, so the Fornell–Larcker [101] criterion was used. Second, the structural model was evaluated. To assess the model's explanatory power, we calculated the R-squared (R2) value for each endogenous (dependent) variable. Model fit was assessed with the standardized root mean residual (SRMR), considering a value less than 0.10 as a criterion [102]. The Root Mean Square Residual Covariance Matrix of the External Model (rms Theta) was checked and applied only to reflective models to assess the degree of correlation between the residuals of the external model. A result close to zero indicates a good fit, implying that the correlations between the residuals of the external model are small. We used Henseler et al.'s [102] criterion of 0.12 in this study. The Normed Fit Index (NFI) was calculated as 1 minus the Chi-squared (Chi^2) value of the proposed model divided by the Chi^2 values of the null model. An adequate fit was considered for NFI > 0.90. The effect size (f2) was calculated to measure how much an exogenous construct contributes to the R2 of a given endogenous latent variable. Following [100] Hair et al.'s (2019) recommendation, values of 0.02, 0.15, and 0.5 were considered cutoffs for small, moderate, and large effects, respectively. To assess the predictive relevance of the model, the Stone-Geiser Q2 value was calculated using a blindfolding procedure [100]. Results above 0 suggest that the model has good predictive relevance.

Finally, the hypotheses were evaluated through a bootstrap analysis with 5000 samples. The strength and direction of the association were estimated with unstandardized coefficients (β). The t statistic was calculated by dividing the β coefficient by the estimated standard deviation (SD). The null hypothesis was rejected for p-values less than 0.05.

Next, the study object and sample are presented. This study utilized a non-probabilistic convenience sampling method, focusing on individuals who were readily available and willing to complete the questionnaire.

3.4. Study Object and Sample

Instagram was selected as the object of study due to its significant growth in user numbers, and the sample used for the questionnaire was non-probabilistic by convenience. After data collection, it was found that 135 people responded, 97 (71.9%) of whom were female and 38 (28.1%) were male, with the age groups between 18 and 25 years and between 26 and 35 years standing out, representing 71.9% of the sample in total, with each group representing 31.9% and 40.0%, respectively, as shown in Chart 1.

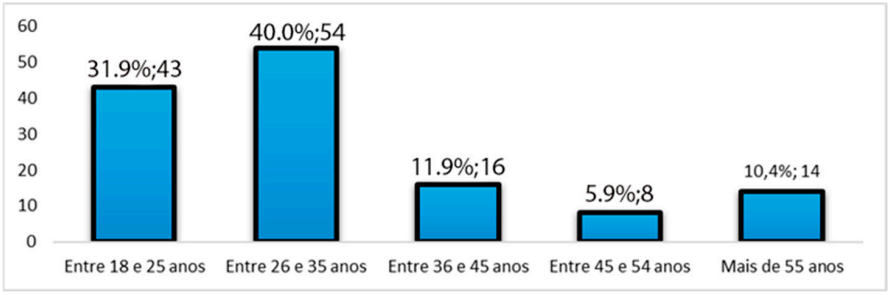

Chart 1. Age distribution in sample.

The majority of respondents had higher education (80.4%), with the proportion of graduates (36.3%) and postgraduates (23.0%) standing out (Chart 2).

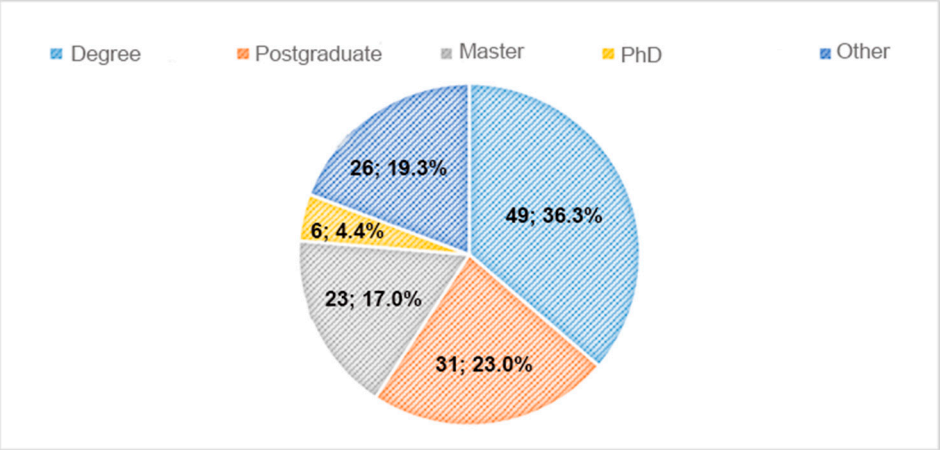

Chart 2. The distribution of educational qualifications in the sample.

Since it was part of the inclusion criteria, all respondents had an active Instagram account and followed or monitored digital influencers on this social network platform. The majority of respondents reported daily use of Instagram (87.4%), as shown in Chart 3.

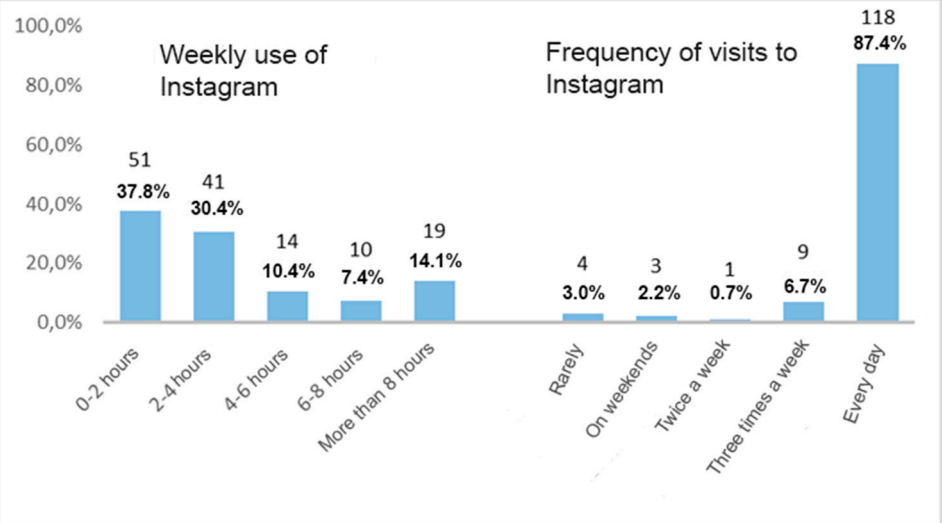

Chart 3. Distribution of Instagram use.

4. Presentation of Results

To address the purpose of this research, a specified empirical model was constructed, initially consisting of nine constructs (see Figure 1). However, as a result of the established criterion, all indicators with outer loading values of less than 0.70 were eliminated. Figure 2 highlights the associations with the highest effect sizes according to the thickness of the connections between the constructs. Unstandardized coefficients are presented, and for the predicted constructs, the R2 value is shown.

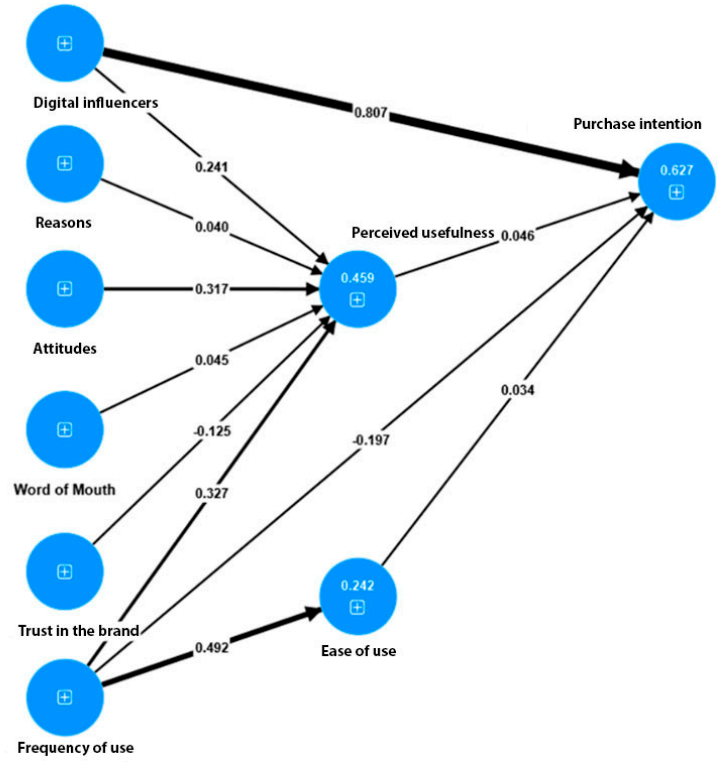

Figure 2. Specified empirical model.

The final indicators and their respective outer loading results can be observed in Table 2, where the composite reliability (CR) and average variance extracted (AVE) results are also presented, fully meeting the established criteria, CR > 0.70 and AVE > 0.50.

Table 3 presents the results of discriminant validity. According to the Fornell–Larcker [101] criterion, each construct should share more variance with its items than with the indicators of other latent variables. By comparing the square root of the AVE ($\sqrt{}$AVE) with other correlations between constructs, it was observed that in all cases, the $\sqrt{}$AVE was higher, thus confirming this criterion and ensuring discriminant validity. Effect sizes were achieved by calculating the f2 value to measure how much an exogenous construct contributes to the R2 value of a given endogenous latent variable. It is notable that there is a high effect size in the association of digital influencers with purchase intention (f2 = 1.285) and moderate effects in the association of usage frequency with ease of use (f2 = 0.319) and usage frequency with perceived usefulness (f2 = 0.153). Slight effects were also found in the associations of attitudes with perceived usefulness (f2 = 0.098), brand trust with perceived usefulness (f2 = 0.010), digital influencers with perceived usefulness (f2 = 0.043), motives with perceived usefulness (f2 = 0.002), word of mouth with perceived usefulness (f2 = 0.002), ease of use with purchase intention (f2 = 0.002), usage frequency with purchase intention (f2 = 0.062), and perceived usefulness with purchase intention (f2 = 0.003).

Table 2. The indicators included in the final model.

Construct	Indicator	Indicator Description	Outer Loading
Frequency of use	FreqU3	Instagram is part of my daily activities	0.946
CR = 0.946	FreqU4	Instagram has become part of my routine	0.950
AVE = 898			
Trust in the brand	ConfM3	I follow/follow the brand of the products/services I buy on Instagram	0.863
CR = 0.872	ConfM4	Communication on Instagram influences my opinions and feelings about products/services	0.894
AVE = 773			
Word of Mouth	WoM4	I suggest products I like to my friends on Instagram	0.827
CR = 0.876	WoM6	I comment on products and profiles of brands I like on Instagram	0.843
AVE = 0.703	WoM7	I recommend other users to buy products online via Instagram	0.844
Attitudes	Att2	I find Instagram an interesting way to search for information about brands/products/services	0.691 *
CR = 0.892	Att4	I see Instagram as a means of sharing knowledge	0.932
AVE = 737	Att5	I like to buy products/services that have been recommended on Instagram.	0.929
Reasons	Mot1	I follow brands on Instagram that I consume or buy	0.841
CR = 0.895	Mot2	I think that my interest in following a brand on Instagram is related to my satisfaction with the brand	0.813
AVE = 0.681	Mot3	Following brands on Instagram helps me acquire information about new offers	0.827
	Mot4	I like the influence and creative content on Instagram that is created by brands	0.818
Digital Influencers	InfDig1	On Instagram. when an influencer demonstrates a product, I feel the need to look for more information about the product	0.720
CR = 0.915	InfDig6	I feel that an influencer who interacts with their Instagram followers on a daily basis has a greater influence on purchasing decisions.	0.833
AVE = 0.684	InfDig7	I believe that the more followers on social media, particularly Instagram, the more credible the influencer is	0.874
	InfDig8	The greater the number of social media partnerships an influencer has, the more impact their communication has on products	0.913
	InfDig9	I tend to follow digital influencers with more followers on Instagram	0.781
Perceived Usefulness	UtP1	Using Instagram improves my performance as a consumer	0.899
CR = 0.881	UtP2	Using social media and Instagram is useful to me	0.723
AVE = 0.713	UtP3	Using Instagram is useful for my consumer activities	0.899
Ease of use	FacU1	Using Instagram is easy for me	0.914
CR = 0.914	FacU2	I find it easy to interact with Instagram	0.929
AVE = 0.781	FacU3	I feel comfortable and confident using Instagram	0.803
Purchase Intention	IC1	Communication on Instagram helps me remember products/services	0.726
CR = 0.894	IC2	Communication on Instagram is useful when I'm deciding which brand or product to buy	0.855
AVE = 0.680	IC3	When deciding to buy a product/service, I'll consider buying the one recommended by a digital influencer	0.848
	IC4	The likelihood of buying products/services recommended by digital influencers is high	0.861

* Included due to the importance of the indicator and the fact that the value is very close to the established criterion (>0.70).

Table 3. Discriminant validity according to the Fornell–Larcker [101] criterion.

	Attitudes	Trust in the Brand	Ease of Use	Frequency of Use	Digital Influencers	Purchase Intention	Reasons	Perceived Usefulness	Word of Mouth
Attitudes	**0.858**								
Trust in the brand	0.531	**0.879**							
Ease of use	0.373	0.244	**0.884**						
Frequency of use	0.359	0.196	0.492	**0.948**					
Digital Influencers	0.635	0.702	0.230	0.318	**0.83**				
Purchase Intention	0.505	0.777	0.135	0.100	0.776	**0.83**			
Reasons	0.507	0.585	0.452	0.397	0.502	0.376	**0.83**		
Perceived Usefulness	0.562	0.328	0.260	0.518	0.504	0.360	0.394	**0.844**	
Word of Mouth	0.447	0.612	0.196	0.207	0.544	0.55	0.338	0.323	**0.838**

To assess the predictive relevance of the model, Stone-Geiser's Q2 value was calculated, with results significantly higher than 0 for: ease of use (Q2 = 0.216), predicted by frequency of use; purchase intention (Q2 = 0.613), predicted by purchase intention, perceived usefulness and brand trust; and perceived usefulness (Q2 = 0.401), predicted by digital influencers, motives, attitudes, word-of-mouth, brand trust and frequency of use (see Table 4).

Table 4. Predictive relevance assessed with Stone-Geiser Q2 value.

	Q2
Ease of use	0.216
Purchase Intention	0.613
Perceived Usefulness	0.401

Table 5 presents the results of the hypotheses under study. The following hypotheses were confirmed: H1, which evaluated the association of attitudes with perceived usefulness ($\beta = 0.317$; $p = 0.001$), suggesting that more positive attitudes lead to greater perceived usefulness; H4, which evaluated the association of usage frequency with ease of use ($\beta = 0.492$; $p < 0.001$), suggesting that higher usage frequency leads to greater ease of use; H5, which evaluated the association of usage frequency with purchase intention ($\beta = -0.197$; $p = 0.006$), suggesting that higher usage frequency leads to lower purchase intention; H6, which evaluated the association of usage frequency with perceived usefulness ($\beta = 0.327$; $p < 0.001$), suggesting that higher usage frequency leads to greater perceived usefulness; H7, which evaluated the association of digital influencers with purchase intention ($\beta = 0.807$; $p < 0.001$), suggesting that greater relevance given to digital influencers leads to higher purchase intention (the effect size of this association was the highest in the study, f2 = 1.285); and H8, which evaluated the association of digital influencers with perceived usefulness ($\beta = 0.241$; $p = 0.014$), suggesting that greater relevance given to digital influencers leads to higher perceived usefulness. It is also noted that not all indirect effects were significant, ruling out the possibility of mediation. Regarding H5, it is suggested as an additional explanation that users with higher usage frequency may have levels of purchase intention that do not increase proportionally, creating a negative effect that reflects a constancy in purchase intention after a certain number of uses, or that users who purchase more frequently are motivated by other factors, such as digital influencers (the result with the highest effect size in this study).

Table 5. The coefficients estimated for the model and the results of the hypotheses.

	b	DP	T Student (b/DP)	*p*-Value	Results
H1 Attitudes ⇒ Perceived usefulness	0.317	0.097	3.280	0.001	✔
H2 Trust in the brand ⇒ Perceived usefulness	−0.125	0.105	1.191	0.234	X
H3 Frequency of use ⇒ Purchase intention	0.034	0.049	0.679	0.497	X
H4 Frequency of use ⇒ Ease of use	0.492	0.082	6.017	<0.001	✔
H5 Frequency of use ⇒ Purchase intention	−0.197	0.071	2.770	0.006	✔
H6 Frequency of use ⇒ Perceived usefulness	0.327	0.072	4.566	<0.001	✔
H7 Digital influencers ⇒ Purchase intention	0.807	0.053	15.345	<0.001	✔
H8 Digital influencers ⇒ Perceived usefulness	0.241	0.098	2.455	0.014	✔
H9 Reasons ⇒ Perceived usefulness	0.040	0.079	0.507	0.612	X
H10 Perceived usefulness ⇒ Purchase intention	0.046	0.064	0.720	0.471	X
H11 Word-of-mouth ⇒ Perceived usefulness	0.045	0.081	0.560	0.575	X

To check how well the model fits the observed data, the model and explained variance were adjusted using the R^2 coefficient of determination (see Table 6). The SRMR was 0.089, which means that the model has an acceptable fit but is not considered optimal, and the NFI was only 0.663, which means that the fitted model is not much better than the null model.

Table 6. R^2 and model adjustment—statistical results.

	R^2	Model Adjustment
Ease of use	**0.242**	SRMR = 0.089 NFI = 0.663
Purchase Intention	**0.627**	
Perceived Usefulness	**0.459**	

Given the presented data, it is understood that this research provides a deeper understanding of the role of social networks, specifically Instagram. It highlights its importance in influencer marketing [79]. It was evidenced that digital influencers play a significant role in consumers' purchasing decision processes, with a notable effect size (f2 = 1.285) in the association between digital influencers and purchase intention [103]. The strong association between the relevance of digital influencers and purchase intention indicates that consumers are likely to make purchase decisions based on influencer recommendations [103]. In addition to analyzing the digital influence of social networks and influencers, this study also explored how sociodemographic factors (age, gender, and education level) can influence social network user behavior in purchasing decisions. Influencers' reliability and credibility in shaping consumers' opinions were also highlighted [79]. It is asserted that attitudes positively affect perceived usefulness [60]. Usage frequency positively influences ease of use, perceived usefulness, and purchase intention [44]. The digital influencers' construct impacts purchase intention and perceived usefulness. Given the objective of verifying the influence of digital influencers on the purchasing decision process, its validity is confirmed [103].

5. Discussion

This research provides a deeper understanding of the impact of social networks, particularly Instagram, on influencer marketing. It reveals that digital influencers significantly influence consumers' purchasing decisions, with a notable effect size in the relationship between influencers and purchase intention. This study also examines how sociodemographic factors, such as age, gender, and education, affect user behavior regarding purchasing decisions. Additionally, it highlights the importance of influencers' reliability and credibility in shaping consumers' opinions. This study confirms that digital influencers significantly impact purchase intention and perceived usefulness, validating their influence on consumers' purchasing decision process.

After analyzing the data, it was found that most hypotheses were validated. H1 was confirmed, highlighting the importance of consumers' favorable predispositions towards Instagram, directly influencing the perceived usefulness of this experience, which can be influenced by beliefs, values, past experiences, and factors such as price, quality, brand, and usage experience. H5 reveals that there is a relationship between higher usage frequency [44]— that is, the frequency with which consumers use a product or service—and lower purchase intention [61], providing an insight into the complexity of consumers' decision-making processes and indicating that, after a certain period of use, other factors and influences, such as perceived value, product quality, purchase experience, and social influences, may play more relevant roles in consumers' purchase decisions, highlighting, for example, digital influencers. The finding that higher usage frequency is associated with greater ease of use (H4) highlights the effects of repetition and familiarity on the perception of interaction with the platform, indicating that frequent practice [44] can lead to greater comfort and ease of use, positively influencing user experience [53]. In turn, the confirmation of H6, the interconnection between usage frequency and perceived usefulness, emphasizes how repetition is linked to the formation of more positive perceptions regarding the usefulness of Instagram, as the more they use a platform, the more likely they are [44] to recognize the values and benefits it can bring them, directly influencing the perception of usefulness [72]. The validation of H7 and H8 emphasizes the significant impact that digital influencers have on purchase decisions and perceived usefulness, as digital influencers are individuals who have a large number of followers on digital platforms. The association between greater relevance given to digital influencers and higher purchase intention highlights the impact influencers have on consumers' decision-making processes [79].

Regarding the non-validated hypotheses, it can be concluded that a statistically significant relationship was not established between these variables in our sample or the context of this study. The following hypotheses were not validated: H2 (brand trust and perceived usefulness), H3 (Instagram's ease of use and purchase intention), H9 (motives for using Instagram and perceived usefulness), H10 (perceived usefulness and purchase intention), and H11 (word of mouth and perceived usefulness).

Based on the results and analyses conducted, it can be concluded that the influence of social networks, especially Instagram, on consumers' purchasing decision processes is a relevant phenomenon. The validation of most hypotheses highlights the importance of factors such as positive attitudes towards the platform, usage frequency, the influence of digital influencers, and perceived usefulness in how consumers perceive and interact with Instagram. These results demonstrate the importance of understanding the various interactions between the studied variables, recognizing that the purchasing decision process is influenced by a combination of individual, contextual, and social factors. Additionally, digital influencers are highlighted as key elements in shaping consumers' opinions and influencing their choices.

According to our study, social networks play a crucial role in influencer marketing, significantly impacting consumer behavior and purchase intentions. Key factors include influencer credibility and authenticity, which are vital for building trust and driving positive purchase decisions [76]. Emotional connections between influencers and their audience enhance relevance and influence purchasing behavior. Social media dynamics, such as real-time interactions and content resonance, are more important than reach in motivating consumers [80]. Contrary to the results obtained in our study, according to Hanief et al. [77], brand trust, particularly among Generation Z (people born between 1995 and 2010), is also fundamental in shaping consumers' decisions. However, challenges such as transparency and authenticity can undermine consumer trust, highlighting the need for careful management of relationships with influencers [77]. However, challenges like transparency and authenticity can undermine consumer trust, highlighting the need for careful management of influencer relationships.

Concerning the research question posed ("How do social networks and digital influencers affect consumers' online purchasing decisions?"), and taking into account the literature and the results of this study, we can conclude that social networks and digital influencers significantly influence consumers' online purchasing decisions, with many consumers trusting influencers' recommendations. The credibility, authenticity, and relevance of influencers are crucial in shaping consumers' opinions and leading to positive purchase outcomes. Social networks act as essential communication channels between brands and consumers, while digital influencers can strongly affect followers' attitudes and behaviors, making them valuable assets for brands. In addition, factors such as positive attitudes towards social media, frequency of use, and the impact of influencers play a key role in shaping consumers' perceptions and online purchasing decisions.

6. Conclusions

This research aimed to understand the role of social networks and their relevance in influencer marketing, covering possible influencing factors such as usage frequency, perceived usefulness, ease of use, attitudes, motives, digital influencers, word of mouth, brand trust, and online purchase intention. To achieve this purpose, we conducted an exploratory study with a quantitative approach, employing an online questionnaire for data collection. Responses were collected from 135 participants. The majority of respondents were female (71.9%), aged between 26 and 35 years (40%), and had higher education (80.4%), being graduates (36.3%) or postgraduates (23%). For data analysis, we used a structural equation model using PLS.

This study confirms that Instagram significantly influences consumers' purchasing decisions, particularly through the impact of digital influencers. The key findings include the importance of positive attitudes towards Instagram, frequent usage, and the strong influence of digital influencers on perceived usefulness and purchase intention. However, some hypotheses related to brand trust, ease of use, and word of mouth were not validated, likely due to the subjective nature of these perceptions. Overall, the results highlight the complex interplay of factors in consumer decision making, with digital influencers playing a crucial role.

This research enhances influencer marketing theories by emphasizing the roles of credibility, authenticity, and emotional connections in shaping consumers' behavior and purchase intentions. It reveals that resonance, rather than mere reach, is key in influencing consumers' decisions on social media. Practically, the findings can guide marketing managers and entrepreneurs in selecting authentic influencers to build trust and drive sales, while also informing investors about the significant impact of influencer marketing on brand value and consumer behavior.

In summary, this research provides a critical perspective on influencer marketing and the relevance of social networks in consumers' purchase decision-making process, and future work can significantly contribute to deepening knowledge and making more informed decisions in the context of influencer marketing and social media strategies.

This study's limitations include potentially unrepresentative sample size and demographics, limiting the generalizability of the findings. Its focus on Instagram may restrict applicability to other social media platforms, and the data's relevance could diminish over time due to rapidly changing social media trends. Additionally, self-reported data may introduce biases, and this study might oversimplify influencer effectiveness by not accounting for variations among different types of influencers.

For future work, it is suggested that the sample be diversified, mixed methodologies be adopted, studies be conducted to track changes over time, different social media platforms be compared, and different market sectors be analyzed. Investigating long-term effects can also contribute to a more comprehensive understanding of this phenomenon.

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