Digital influencers and online shopping: a methodological proposal

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Abstract

Nowadays, with the constant development of the internet, individuals are increasingly taking an active part in the digital world: they view and share content and express their opinions. In social networks, online interaction is predominant. By sharing content, anonymous individuals gain visibility, reaching thousands of people and consequently gaining thousands of followers. These people are digital influencers. Through the content they publish on social networks, digital influencers are able to influence the purchase decision of their followers. In this article, we describe the methodological strategy that will be used to collect data to study the role of digital influencers in the online purchase decision of their followers. The research is quantitative in nature, and data will be collected through a questionnaire distributed on digital channels to the Portuguese population.

Keywords: Social Networks; Digital Influencers; User Generated Content; Online Purchase Intention

1. INTRODUCTION

With the constant development of the internet, nowadays, its users have more easily the ability to communicate, express, search and share opinions with other users. According to We are Social (2021), there are currently about 4.72 billion internet users, and about 4.33 billion users use social networks worldwide. Since social networks play an important role in connecting their users, most of them claim they can no longer live without these resources (World Economic Forum 2020), brands can easily find their target audiences on these digital platforms.

According to Erlandsson et al. (2016), social networks play a crucial role in communication and society's relationships by providing their users with the ability to communicate with others and express their opinion on the internet. This context has allowed a number of people to gain visibility in the digital by taking on the designation of digital influencers. As customers are increasingly more informed and less influenced by traditional advertisements, brands see digital influencers as a success factor for their businesses, with their followers viewing influencers as people similar to themselves; therefore, customers tend to place more trust and value in digital influencers' recommendations (Djafarova e Rushworth 2017).

In this case, followers tend to place more trust in digital influencers and admit that they seek information of products or services through reviews made by digital influencers that are trusted by them, and this is a method that contributes to make a purchase decision (Khwaja et al. 2020). Sudha & Sheena (2017) refer that when a digital influencer makes a post in order to evaluate a product or service, this evaluation is seen by their followers as a source of credible information that contributes to decision making.

According to Djafarova & Rushworth (2017), digital influencers are very influential and their followers tend to see them with more credibility. On the other hand, the quality of information and the ability to be interactive with their audience may represent other factors that make these digital influencers more credible and noteworthy (Islam e Rahman 2017).

Regarding the purchase, with the growth of social networks, users are more informed and concerned to obtain information about the product before making the purchase (Husnain e Toor 2017); and in this context, the followers identify the digital influencers as trustworthy people, capable of helping to make a purchase decision - this scenario is able to influence the purchase intention (Djafarova e Rushworth 2017). Thus, the purpose of this article is to present the methodological proposal that will be followed to collect data to study the role of digital influencers in the online purchase decision-making of their followers. The research is quantitative in nature, and data will be collected through a questionnaire.

2. LITERATURE REVIEW

2.1. Digital Communication

With the great evolution provided by the internet, communication also started to gain stage in the digital environment. Thus, digital communication results from the digitalization of the information media. Currently, this type of communication is essential and indispensable, since it allows to create a direct relationship with its followers, thus increasing the interaction and, consequently, the visibility of the business through the shared content, reaching more easily its desired target audience (Khan 2017).

Lendrevie et al. (2015) explain that digital communication is communication that takes place in an online environment and covers all forms of communication that are carried out with the help of the internet, namely through the website, blogs, social networks, emails, e-newsletters, among others. In fact, with the emergence of web 2.0, there was the possibility of a multidirectional communication, where the internet users began to interact directly with the content presented and

where they contribute, in the same way, to the construction of the information that circulates on the internet (Lendrevie et al. 2015).

Digital communication also saw in social media, as will be discussed in the next topic, a great opportunity to make all kinds of content reach their followers more easily. And, with social media, communication gains new formats, no longer being presented only through written text for reading, as it was commonly presented through more traditional media, and began to be presented also through images, videos and audio, through, for example, Facebook, Instagram, Twitter (Andersen 2007; Lendrevie et al. 2015). Here, digital communication reaches enormous proportions, having the ability to make content viral, enabling content to expand its visibility quickly and instantaneously, accompanied by digital media (Marques 2020).

2.2. Social Networks

The internet has facilitated online contact between people, with social media being a prime example of the central role digital communication plays in individuals' lives and being increasingly used by individuals. However, web 2.0 has been crucia in the face of making information available to anyone, which is always available, enabling questioners to contribute more information (Solanki e Dongaonkar 2016). In this context, it is important to distinguish the terms social media and social networks, as they have different meanings.

Marques (2020) explains the differences between the two concepts by revealing that social networks are people-centric, while social media focuses on the content created. In other words, social networking is a service where users can find and add their friends to their network of contacts and can also send messages and update their personal profiles.

Currently there are about 4.33 billion users in social networks around the world (We are Social 2021). These networks play an important role in connecting their users and there are several that are at your disposal.

Today, the role of social networks assumes a function of social interaction, where individuals seek information, news and entertainment (Khan 2017). In addition to highlighting information about the activities and interests of its user, which allows individuals to socialize virtually (Heinonen 2011). These have the power to make information viral and to disseminate it quickly. When contextualising the period currently experienced, in the face of the COVID-19 virus, Depoux et al (2020) claim that the panic set in these digital media spread faster than the spread of the COVID-19 virus itself. Forbes.com shared that on February 28, 2020, 6.7 million people had mentioned the coronavirus on their social media. Less than two weeks later, by March 11, they had mentioned about 20 million subjects (Wiederhold 2020). Thus, we can see that social networks effectively have a viral impact

on information sharing. As such, they play an important role in connecting their users. According to Baruah (2012) There are several Social Media formats, such as internet Forums, Blogs, Wikis, Podcasts, which can be found on Facebook, Twitter, Instagram, Reddit, among others. In addition to social media being seen as a promising advertising vehicle, brands can present themselves, communicate, influence and maintain a strong position in the face of competition.

In short, social networks provide the ability for people to share and interact with the most diverse content online and, at the same time, are a source of information regarding the activities and likings of their users (Heinonen, 2011). The accessibility to these platforms is high, being possible to make mobile connections to the Internet through the various devices, allowing this connection anytime and anywhere (Zhang et al., 2017). In other words, with the evolution of technologies and essentially from the second generation of the web, individuals became able to create their own content and share it on their social networks. This user-generated content (UGC) has been gaining more and more adhesion and relevance on the internet, as well as brands. Thus, UGC is characterised by the way the consumer produces, designs, publishes and edits content in the media (Heinonen, 2011). This perspective allows us to state that the internet is being filled with content produced by its own users and the tendency is for the number of users producing their own content to grow (Shcherbina 2017). Khan (2017) reinforces that UGC is produced by a multitude of users and not by a limited number of content producers; being, increasingly, made available through social networks and thus becoming a great ally to UGC. In this way, social networks assume a fundamental role in presenting content that is created and shared by its users, becoming available to everyone (Kaplan e Haenlein 2010). When this type of content is presented in the form of comments, Khan (2017) explains that this can further encourage interaction and discussion between users and heighten the credibility of the information.

In this context, it can be said that the great advantage of UGC is the reformulation of information, since currently, this information is created by a multitude of users. A contrary thought to what happened, according to the literature review of Web 1.0, where only the media producers were fully responsible for producing and making the content available to others (Khan 2017).

That said, a brief approach to the concept of a digital influencer follows.

2.3. Digital Influencers

Influence is an act or effect that a person or thing exerts on others (Porto Editora 2003). In this way, Influence is powerful at the business level, as you can manage to persuade your customers to purchase the products and services they want. Aware of the evolutions that online markets have been undergoing, brands see digital influencers as way to promote their brands.

In the design of Lampeitl & Åberg (2017), a digital influencer is an individual who impacts their online audience through the communication of digital content they produce, influencing the behaviours, opinions and values of followers. Glucksman (2017) adds that the influence is done through the social networks of the digital influencers themselves. In the conception of Gashi (2017), Influencers have the ability to adapt or change decisions, thoughts and actions as a result of the interaction made with their followers. In fact, these entities have a great impact on the existing interaction with others, since the people who follow these individuals only do so because they are interested in the content they publish (Ghidotti 2017). Segarra-Saavedra & Hidalgo-Marí (2018) add that digital influencers are regarded as experts on a particular subject, who publish content that is read by thousands of followers and who generate a community around them with high acceptance and interaction rates. Almeida et al (2018) defines them as virtual opinion formers who represent an alternative for companies that rely on the community gathered around these profiles as a target audience for dissemination.

Digital influencers often receive offers from companies to produce sponsored content that will be viewed by followers of the influencer's network (Almeida et al. 2018). In other words, once influencers monetize their content is through advertising publication, where they promote the brands' products and services, thus making their followers aware of them so that, later on, they may purchase them; that is, influencers receive the brands' products and then make publications referring to those products, drawing the attention of their audience. In these scenarios, the ideal is to convey a sense of trust that will have an impact on the customers' decision making (Forbes 2016).

The communication process that brands choose to involve digital influencers making their products and services well-known and recognizable. It is useful for brands that seek to expand their target audience and turn them into loyal customers, to join forces with digital influencers, since they have influence over their followers and, in this way, can contribute to the increase of the brand's reach and sales (Sudha e Sheena 2017). According to Keller & Fay (2016), digital influencers are common consumers, but they are more likely to influence their followers purchase intent. In the design of Almeida et al. (2018), digital influencers have the ability to deliver messages to a wider audience; therefore, brands increase their visibility by sponsoring digital influencers. From the point of view of brands, digital influencers can have an impact on the awareness, appeal and dedication of their followers. Here, the digital influencers by sharing the information with their followers, they increase their presence on brands social networks, and the brand increase sales, that would not otherwise have happened (Lopez 2017). To do this, it is very important to choose the most suitable influencers according to their needs (Forbes 2016).

2.4. e-Commerce

The advancement of technology has given rise to numerous benefits and conveniences for its users, with online commerce becoming a great opportunity for companies to move their traditional business online, and online shopping has become widely accepted as a way to purchase products and services. And to understand the concept of e-Commerce, or e-Commerce as it is more commonly known, it is important to understand the distinction between the concept of e-Commerce from e-Business.

According to Bieńkowska & Sikorski (2016), in 1995, IBM first introduced the concept of e-Business, as being the transformation of core businesses, affected by the evolution of internet technologies. E-Commerce would come to be defined as the online platforms that these businesses need to be able to work.

In Nazir & Haq (2017) thinking, e-Commerce is a web-based system that involves a set of online activities between the company and its customers and suppliers to satisfy needs, directly involving the issuing and receiving of bills and online transactions.

In recent years, with the development of the internet and the continuous digitalization in modern times, e-Commerce has become essential for making purchases, with consumers all over the world seeing this type of business as an asset. With its increased acceptance, by 2020, more than 2 billion people will buy products or services through e-Commerce (Coppola 2021).

Recently e-Commerce has seen a sales boom, derived from the COVID-19 pandemic, which was responsible for bringing in new consumers and keeping those who were already shopping online (Kim 2020), since, with the restrictions and precautions to be taken, e-Commerce is seen as a solution that explores new consumption alternatives and methods of purchasing products and services (Zinola 2020). Despite the existing boom in e-Commerce, Nuru (2020) states that small businesses are still in the deepest crisis, as this pandemic is generating a global crisis, small businesses end up being the most affected by not having as many resources to remain resilient throughout this situation.

Among the features associated with e-Commerce is the wide variety of products and services it makes available to customers, a simpler and less stressful purchasing process, and the ability to compare prices among competitors more easily than in traditional commerce. However, it is impossible to try the item before making the purchase, sometimes there is distrust in the payment method and the delay in receiving the items can also be slow (Katawetawaraks e Wang 2011).

2.5. Intention to buy

The purchase intention represents the pre-purchase process where the customer analyses all the variables before purchasing a product/service. Thus, Cheung & Thadani (2012) define purchase

intention as a desire to purchase a particular product in the future. Wu & Ke (2014) explain that the purchase intention consists in the interests that a customer has to obtain a product or service. This intention varies according to several factors, so it is important for brands to understand what the consumers' intention is, in order to be able to help and predict customers' purchasing behaviour in the future (Hsu, Chang & Yansritakul 2017).

Husnain & Toor (2017) also add that purchase intention is an imperative indicator that can be used to analyse consumer behaviour by measuring the likelihood of the customer finalising or not his or her purchase. In this process, information is often admitted as a factor that helps make a decision (Khwaja, Mahmood & Zaman 2020), as well as product quality, branding and advertising are also important factors contributing to this intention (Husnain & Toor 2017). With the growth of social networks, users became more informed and concerned to obtain information about the product before making the purchase (Husnain & Toor 2017). Here, digital influencers are seen as the most trusted for their followers, and have the ability to help them make a buying decision (Djafarova & Rushworth 2017).

That been said, it is time to present the research design and methodology.

3. RESEARCH DESIGN AND METHODOLOGY

As the literature review showed, the digital influencers have the ability to adapt or change the decisions, thoughts and actions of their followers, producing content that is able to influence the behaviour, opinions and values of followers through social media, creating impact with the online audience (Lampeitl & Åberg, 2017; Glucksman, 2017; Gashi, 2017). In this context, brands look to digital influencers to promote their brands and improve their visibility and increase sales, and it is very important to choose the right digital influencer (Sudha e Sheena, 2017; Almeida et al., 2018; Forbes, 2016). Thus, the general objective of this research is: to study the role of digital influencers in the purchase decision of their followers. The specific goals are: to analyse whether followers see digital influencers as a credible entity; to identify the reasons why digital influencers are followed by the public; what is the appropriate time for the disclosure of a brand; to analyse the amount spent by the follower on purchases due to the influence of the content shared by digital influencers; to identify which social network is the most pertinent for digital influencers to be on.

3.1. Research Problem

We currently live in a world where constant evolution is a priority, and, with the emergence of the internet and its evolution, the current world is constantly seeking this evolution, both for the streamlining of processes and for the improvement of human life. To this end, today it is very usual to use social networks to make themselves heard, so social networks have greatly increased their

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audience, allowing them to express their feelings, share information with their network, or even for leisure (Wiederhold 2020). However, nowadays social networks assume an essential role for social interaction. Since social networks have the ability to make the information, which circulates on it, viral by spreading quickly (Depoux et al. 2020).

The literature review also shows that digital influencers have also assumed a relevant position in information sharing, since they are seen as individuals capable of influencing the experiences and wants of their followers, as a spokesperson in transmitting information to their followers (Marques 2020).

E-Commerce currently sees a great business opportunity, since nowadays, customers have less time and availability to make their purchases, and e-Commerce proves to be an added value by bringing the purchases directly to their customers (Katawetawaraks e Wang 2011).

Finally, since influencers have an impact on the interaction of their followers, having the ability to influence their opinions and decisions, according to Gashi (2017), this research study considered relevant to investigate the role that digital influencers play in the online shopping of their followers.

3.2. Research Question and Objectives

The literature review revealed that digital influencers, with the development of the internet, started to gain prominence in social media, assuming a central role both in informing their followers, as well as in creating a relationship between them (Gashi 2017). Thus, the present study focuses on the role of digital influencers in the online purchase of their followers.

Having said that, with the present research it is intended to answer the following research question: *"What is the role of digital influencers in their followers' online purchase intention?"*. To this end, with the help of the questionnaire application we intend to investigate if the followers see the digital influencers as a credible entity; identify the reasons why digital influencers are followed by their audience, what is the appropriate time for the disclosure of a brand, by them; analyze if the digital influencer has influence in the achievement of the follower's purchase and what is the amount already spent by the follower in purchases by influence of the content shared by digital influencers; identify which is the most relevant social network for digital influencers to be present.

3.3. Hypotheses

In order to determine the variables that influence the followers' purchase decision-making process, we resorted to hypothesis building. To this end, the hypotheses are used as a resource in an attempt to answer previously designed questions in order to achieve the predefined objectives.

Having said this, 8 hypotheses are defined, 6 positive and 2 negative:

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Hypotheses
H1 – The credibility of digital influencers positively affects the attitude of followers toward purchase decision making.
H2 – The number of followers that digital influencers have, negatively affects their credibility.
H3 – The number of followers that digital influencers have, negatively affects your purchase decision making.
H4 – The product evaluation performed by digital influencers positively affects their purchase decision making.
H5 – Product evaluation by digital influencers positively affects need recognition and information seeking.
H6 – Regularity of publication positively affects the credibility of digital influencers.
H7 – The quality of information provided by digital influencers positively affects the attitude of followers in their purchase decision making.
H8 – The proximity between digital influencers and followers positively affects their purchase decision making.

3.4. Research design

This is a descriptive study of quantitative nature – see figure 1, within the positivist paradigm and seeks to collect information according to the reality experienced (Malhotra e Birks 2007). The quantitative methodology assumes data collection, analysing them through statistical techniques that allow measuring the results, studying the existing relationship and testing objective theories by analysing the existing relationship between the variables (Morais & Neves, 2007; Creswell & Creswell, 2018).
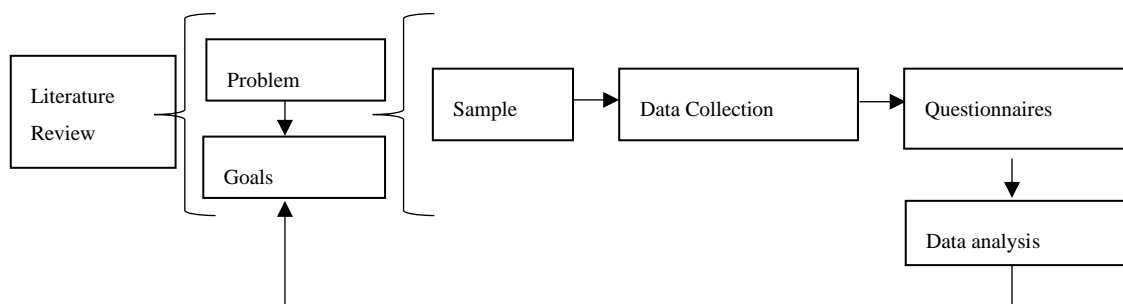
Figure 1 – Methodological Framework

The data will be collected though a questionnaire survey as it allows for a comprehensive data collection in a solid, quick and low-cost manner (Quivy e Campenhoudt 1992; Malhotra & Birks, 2007). The questionnaire is validated for the Portuguese population and it is composed of two parts: the first part aims at collecting information to characterize the study participants, consisting of closed-ended and single-choice questions; the second part aims at collecting data capable of answering the objectives proposed in the previous point, using a 5-point Likert scale, where 1 corresponds to «strongly disagree» and 5 corresponds to «strongly agree», as it allows accessing the participants' level of agreement with the statements (Malhotra & Birks 2007; Becker, 2015).

3.5. *Sample*

About the sample, according to Malhotra & Birks (2007), it is necessary to be previously defined, answering a set of questions regarding their behaviour, attitudes, perceptions, lifestyle and socio-demographic behaviours that allow data analysis. Thus, the object of this study was all individuals aged 15 or over, female or male, who have access to the Internet and a profile on social networks. Thus, it was opted for a non-probabilistic sampling technique by convenience, considering all individuals who answered the questionnaire voluntarily (Malhotra & Birks 2007).

3.6. *Data collection and analysis*

The questionnaire was created on the Limesurvey platform, and it will be disseminated on the internet, namely on social networks and by e-mail. This approach has a greater reach, allows quicker responses at a low cost and results in greater ease of data analysis, making it even simpler to reach the desired sample, which would otherwise be more complicated (Malhotra & Birks, 2007). It will be doing statistical analysis using SPSS (Statistical Package for Social Sciences).

4. RESULTS OBTAINED

This research is allied to a quantitative analysis, using a questionnaire with closed-ended questions in order to facilitate data analysis. Thus, by using the statistical analysis of the data, through SPSS, it is possible to determine the validity, reliability and statistical significance. For this, an exploratory factor analysis will be performed and Cronbach's Alpha will be calculated, in order to verify the reliability of the scales.

After obtaining the data, it is possible to make the following sociodemographic characterization of the sample that constitutes the present research:

- Age: the vast majority of respondents are in the 15 to 24 age bracket, representing 63.8%; next is the 25 to 34 age bracket (18.8%); then the 45 to 64 age bracket (8.7%);

then the 35 to 44 age bracket (8.2%); and finally, the least representative are the individuals over 65 (0.5%).
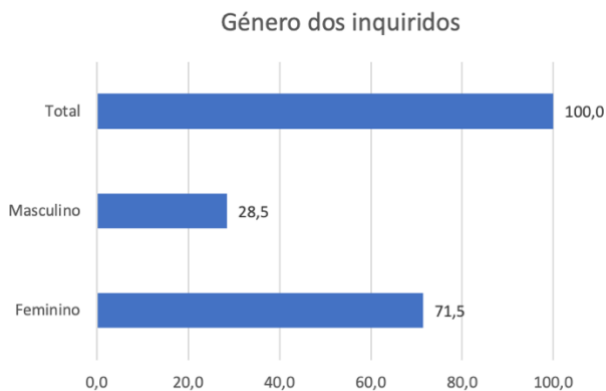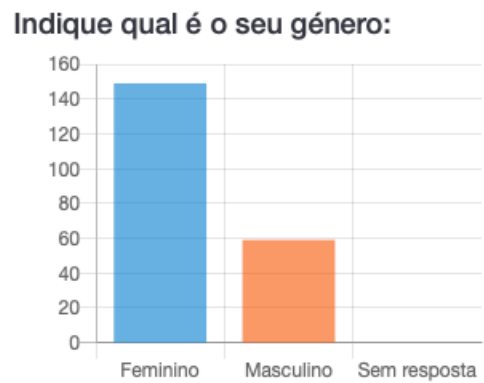

Table 2 – Age of Respondents

Figure 2 – Age of Respondents

- Gender: the majority of respondents are female, with 148 respondents of this gender and 59 of the male gender, representing a percentage of 71.5% and 28.5%, respectively.
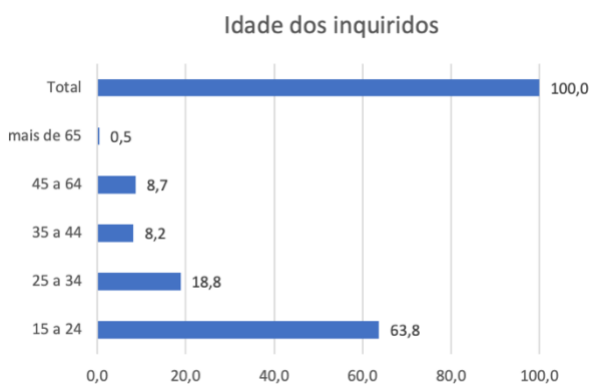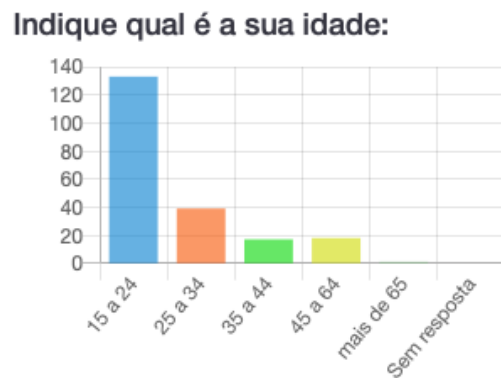

Table 3 – Gender of respondents

Figure 3 – Gender of respondents

- Education: most respondents have a college degree (42.5%); or else a high school education (38.2%); respondents with a master's degree or more represent 12.6%; respondents with a 3rd level education represent only 5.8%; and, finally, less representative of the sample are the respondents with only a 1st or 2nd level education, which both represent a percentage of 0.5%.
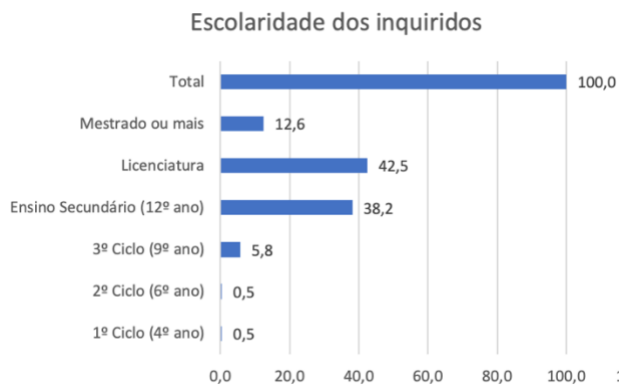
Table 4 – Respondents' education
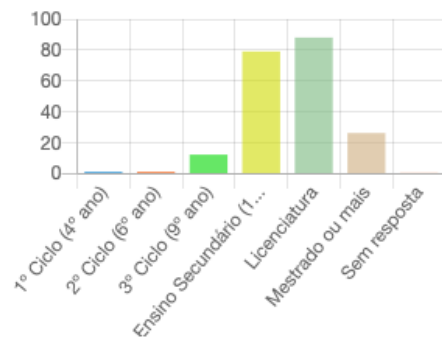
Figure 4 – Respondents' education

- Professional Occupation: most of the respondents are students (43.5%); or else, they are employees (30.4%); less representative are the working students (12.1%); then the unemployed (8.7%); followed by the self-employed (4.3%); and the least representative are the retirees (1.0%).

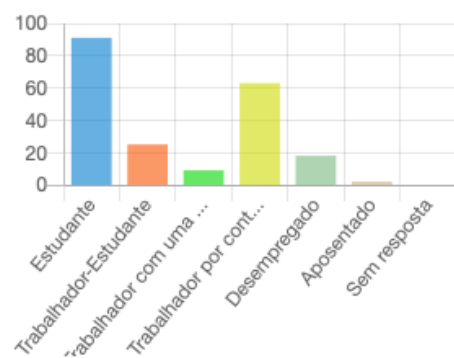Table 5 – Professional occupation of the respondents

Figure 5 – Professional occupation of the respondents

- Marital Status: the most representative are the single ones (81.2%); followed by the married ones (14%); the least representative are the widowers (1.4%).
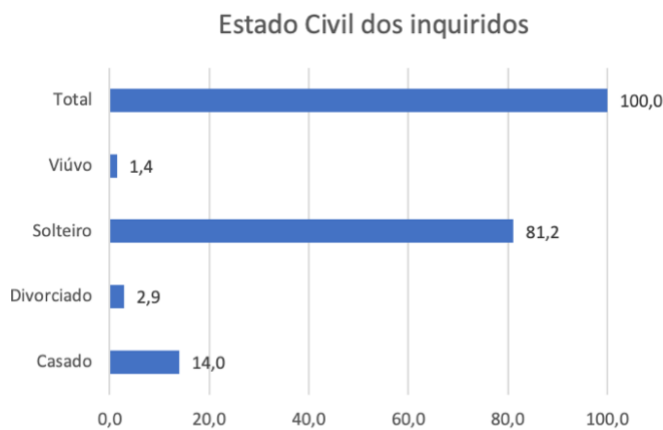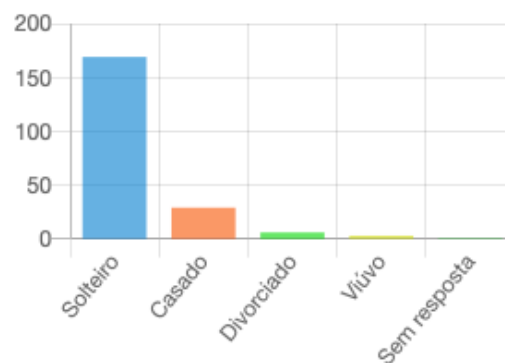
Table 6 – Respondents' marital status

Figure 6 – Respondents' marital status

- Monthly Income: a amostra é essencialmente representada por indivíduos que não usufruem de qualquer rendimento (39,1%); seguida por indivíduos que recebem entre 500€ a 999€ (32,4%); já os menos representativos são os que recebem mais de 3500€ (0,5%).
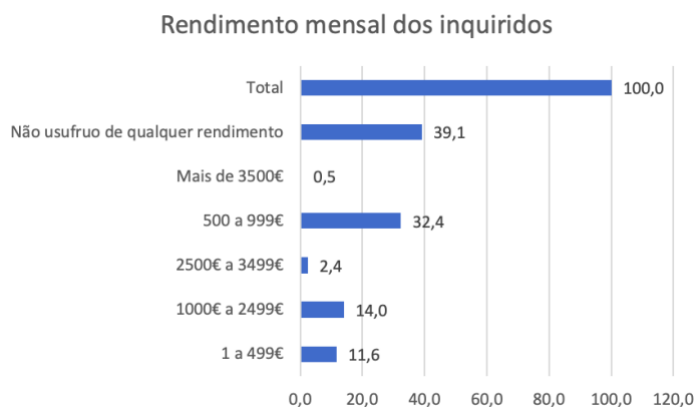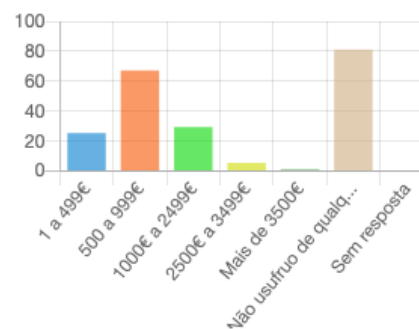

Table 7 – Respondents' Monthly Income

Figure 7 – Respondents' Monthly Income

- Residence: the vast majority of respondents live in the North (80.2%); the least representative regions are the Alentejo and the Autonomous Region of the Azores, both with a percentage of only 1%.
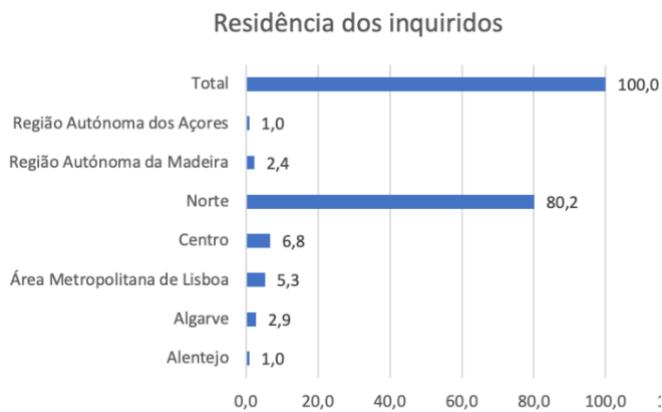
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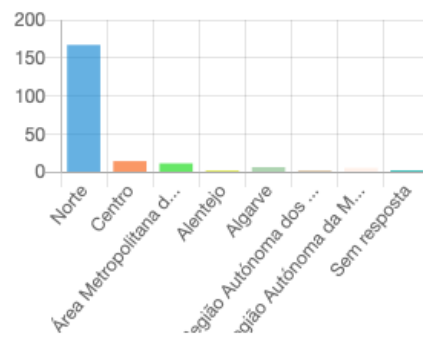Table 8 – Respondents' residence

Figure 8 – Respondents' residence

A total of 207 valid answers were obtained with this questionnaire, since there were initially two eliminatory questions, which required respondents to have access to the Internet and to have an account on social networks.
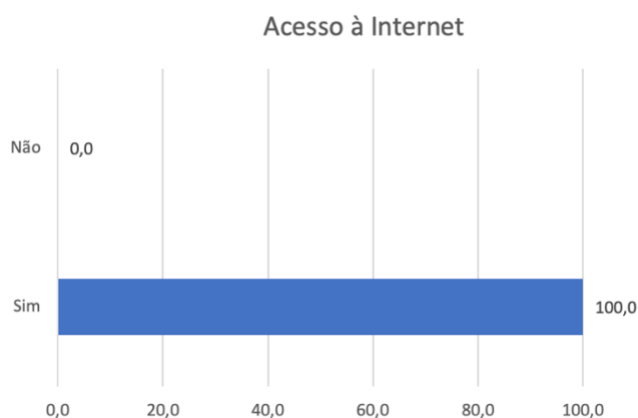

Table 9 – Internet access

Table 10 – Social network account

After the characterization of the sample under study, we proceed to the analysis of the respondents' behavior regarding the use of social networks. Thus, with regard to the social networks most used by respondents, Instagram stands out in the vast majority (69.1%); followed by Facebook (17.4%); YouTube (6.8%); Twitter (6.3%); LinkedIn (0.5%); and finally, having no respondent chosen, there is Tumblr (0%).
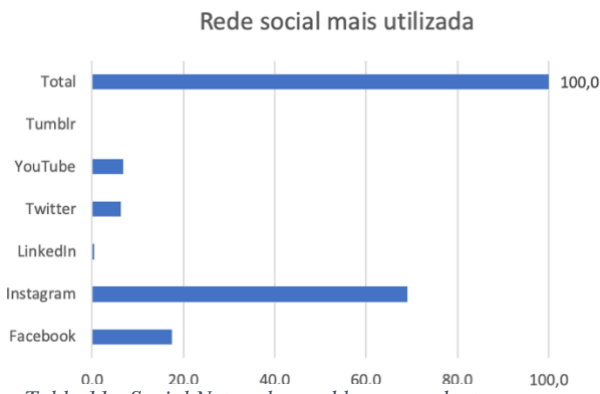
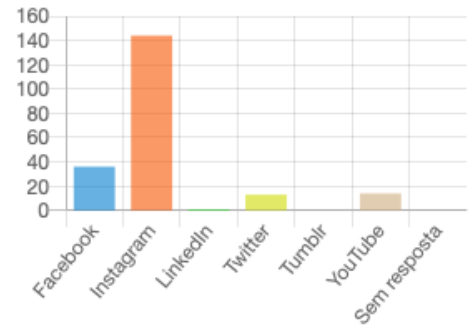Table 11 - Social Networks used by respondents

Figure 9 - Social Networks used by respondents

Regarding the frequency of Internet use, the data obtained reveal that 97.6% of the respondents use the Internet every day.
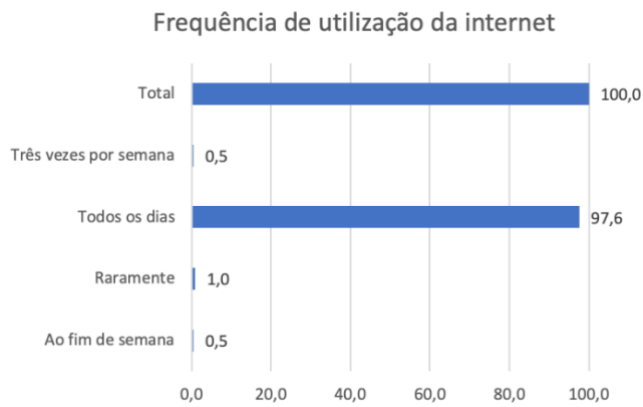

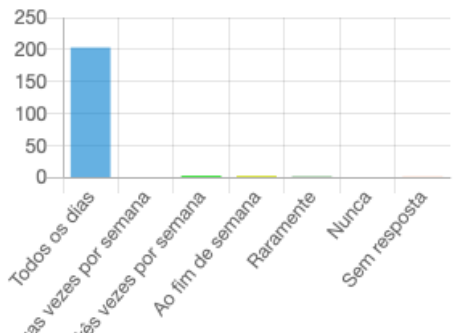Table 12 – Frequency of Internet use

Figura 10 – Frequency of Internet use

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As for the devices used for this access, 91.3% use a smartphone/mobile phone; 7.7% use a computer/laptop; and, only 1% use a tablet.
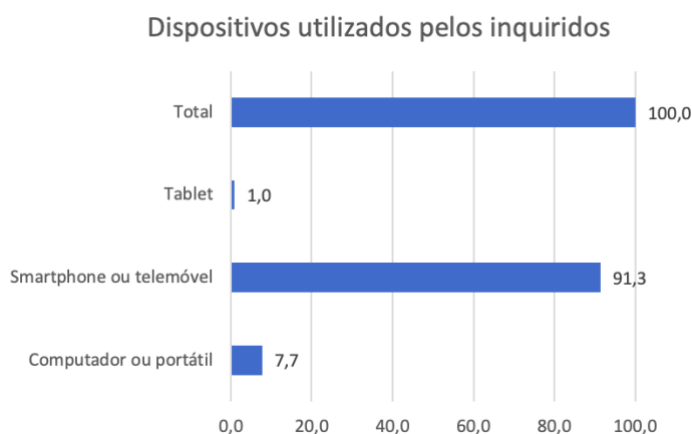
Table 4 – Devices used by the respondents
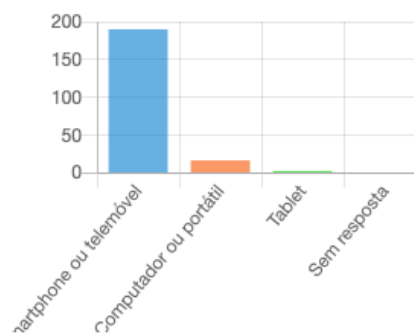
Figure 1 – Devices used by the respondents

Para os inquiridos, o tempo que consideram recomendável os influenciadores digitais fazerem publicações diariamente 50,2% consideram que seja menos de 5 minutos, por dia; 31,9% recomendam entre 6 e 10 minutos; já 9,2% consideram aceitável entre 11 e 15 minutos.
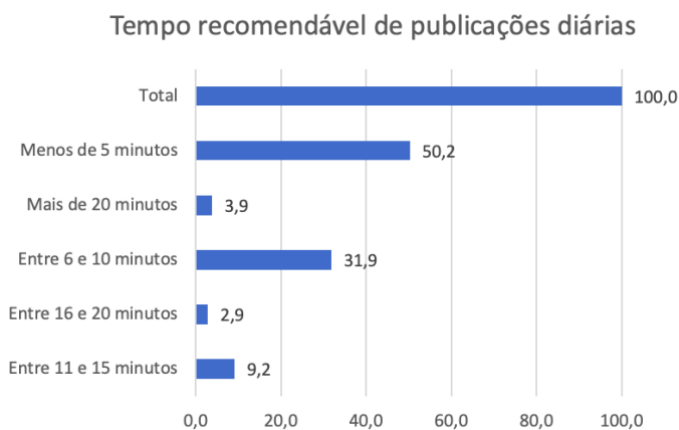
Table 5 – Recommended time of daily publications by Digital Influencers
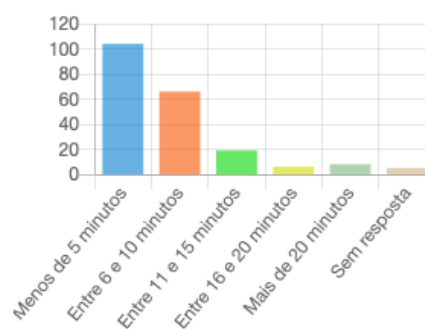
Figure 2 – Recommended time of daily publications by Digital Influencers

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Finally, regarding the money that followers have already spent on purchases, resulting from the influence of the content shared by digital influencers, 46.9% of respondents have spent between 1€ and 100€; but 33.8% admit they have never spent any money.

Table 6 – Money Spent by Digital Influencers
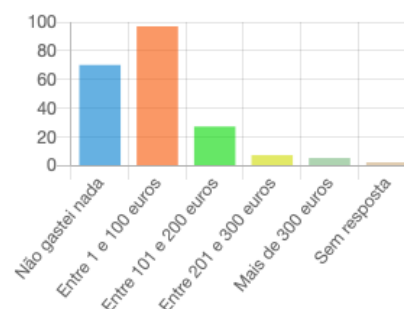
Figure 3 – Money Spent by Digital Influencers
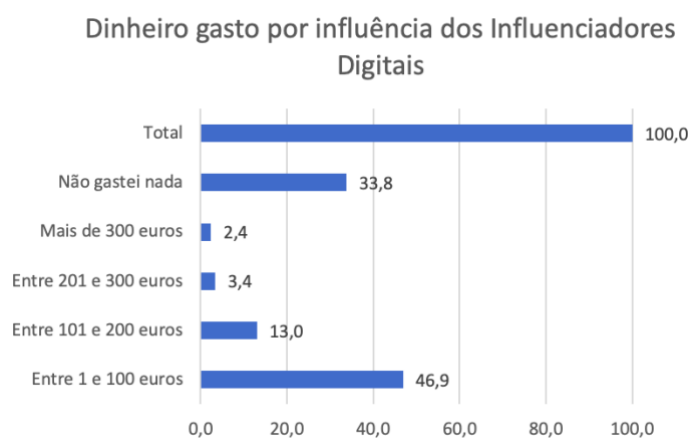
4.1. Exploratory Factor Analysis

The Exploratory Factor Analysis (EFA) is a technique, within factor analysis, which aims to identify the underlying relationships between the variables under study, through existing correlations between the variables and restrict the variables of the data under study, thus allowing controlling the initial variables **(Hair et al. 2009; Marôco 2018)**. In this way, it is possible to evaluate the size of a set of variables, in order to obtain the smallest number of variables that explains the pattern of correlations, through the analysis of covariance between observable variables as the influence of one or more factors (Osborne 2014).

4.2. Correlation Matrix

The correlation matrix allows to ascertain the existing correlation between the variables under study, for such, with the help of the EFA analysis, it is possible to verify the existence of correlation between the variables, and this correlation should be greater than 0.4, otherwise, the variables may not have common factors (Valente 2018).

To do so, it will be necessary to perform the KMO (Kaiser-Meyer-Olkin) test analysis, in order to understand the proportion of the variance of the data, in order to verify if there is a common factor between the variables (Marôco 2018). That is, with the KMO test, it is possible to determine the proportion of the variance of the data that may have a common factor. Thus, the closer the result is

to 1, the greater the proportion of variance of the data and the more suitable the sample is in the face of factor analysis (Pestana e Gageiro 2003). Assisting the results of the KMO test, the Barlett's Test of Sphericity will also be analyzed, which aims to test the hypothesis of the correlation matrix that they are not correlated, in other words, it indicates the absence of correlation between the variables under study. For this, according to Marôco (2018) the ideal is for the result to be less than 0.5. In short, through these two tests, it is possible to assess whether the factor analysis is adequate.

Keiser-Meyer-Olkin KMO Measure		0,908
Barlett's Test of Sphericity	**Aprox. Chi-Square**	5282.251
	df	666
	Sig.	.000

Table 7 – KMO & Barlett's Sphericity Test

Through these two tests, it is possible to verify that they present a sampling adequacy, with a KMO = 0.908; the Chi-square = 5282; df = 666; and, finally, Sig. = 0.000. In summary, the analysis of these results shows that the suitability of the exploratory factor analysis of the variables is quite positive and demonstrates a strong correlation between the variables under study.

4.3. Internal Consistency of the Scales

The internal consistency of scales aims at verifying the reliability of data, i.e. it aims at assessing whether an instrument is measuring well the data under study, whether it returns consistent results in the various dimensions with the same individuals, thus allowing studying the qualities of scales (Stelko-Pereira et al., 2010).

In order to obtain results with good awareness, it is necessary to have variables with high reliability and that are valid. To this end, using Cronbach's Alpha, it is possible to establish reliability through the consistency of responses, in other words, if the variable is consistent, then it is reliable (Hill & Hill, 2012), since reliability translates into the accuracy of the measurement of the scales. With regard to the validity of scales, these are related to their accuracy, however, a scale can be reliable, but be wrong, which means that it is invalid, so it is necessary to verify its accuracy, however, one should always check the reliability of the instruments first and only then proceed to their validity (Hill & Hill, 2012).

Cronbach's Alpha is used to assess the internal consistency of the scales used through the questionnaire applied in this research. Thus, it is possible to measure the correlation of the answers,

based on the variance of the individual items and the variance of the sum of the items that use the same measurement scale (Maroco & Garcia-Marques, 2006).

Cronbach's Alpha varies between 0 and 1, and from 0.7 it is already possible to obtain a reasonable consistency (Hill & Hill, 2012). Table 22 shows that the scale has a Cronbach's Alpha value of 0.952, within a range of 0.9 to 1.0, which reveals an excellent consistency, showing the reliability of the instrument.

Table 8 – Cronbach's Alpha

Cronbach's Alpha	Cronbach's alpha based on standardized items	Number of Items
0,952	0,953	37

5. DATA DISCUSSION

This research aims to analyze the role that digital influencers play with their followers, regarding their intention to buy online. To this end, through the results obtained with the questionnaire applied, we will proceed next to the discussion of them, in order to study this influence.

Taking into account the variables under study, it is presented a table with the minimum, maximum, average and standard deviation, according to the answers of the respondents:

Variable	Minimum	Maximum	Average (M)	Standard Deviation
Credibility (14 Itens)	1	5	3,70	1,08
Followers (3 Itens)	1	5	2,77	1,23
Product Evaluation (3 Itens)	1	5	3,92	1,05
Proximity (4 Itens)	1	5	3,42	1,16
Regularity of Publications (3 Itens)	1	5	3,94	1,01
Recognition of Need and Search for Information (4 Itens)	1	5	3,26	1,19
Purchase Decision (3 Itens)	1	5	3,59	1,05
Loyalty to Digital Influencers (3 Itens)	1	5	3,69	1,14

Table 9 – Minimum, Maximum, Average and Standard Deviation of Variables

Based on the analysis of the table above, the minimum and maximum values of each variable are, respectively, 1 and 5, taking into account the fact that likert scales were used for each variable.

As far as the mean is concerned, here the average of the various items corresponding to each variable was taken, and the same happens with the calculation of the standard deviation. With the interpretation of the results obtained, it can be seen that all variables have an average above 3 points, with the exception of the variable followers, which presents an average of M=2.77. Of all the variables studied, the regularity of publications is the one that represents a higher average M=3.94.

Thus, regarding the variable "credibility", the average of the answers was 3.70, which shows that before the questions presented the respondents partially agree with the statements, while the variable "followers" obtained an average of 2.77, which shows that the respondents partially disagree with the statements, which can be translated that the number of followers is not a relevant factor to follow the influencer, or help make a purchase decision. Moving on to the variable "product evaluation", the average obtained here was 3.92, and the product evaluation when done by digital influencers can indeed help in the evaluation of products, by their followers, and even make the follower buy the product or service in question. Regarding the variable "proximity", the average was 3.42, and the respondents consider that the proximity between the digital influencer and the followers is a factor that can contribute to increase the credibility of these influencers; the variable "regularity of publications" is the variable that presents the highest average (3.94), which shows that influencers have more ability to influence their followers. The variable "need recognition and information search" obtained an average of 3.26, and the follower seeing the influencer sharing information about a product or service can help to arouse his follower's interest. Regarding the variable "purchase decision", the average obtained is 3.59, and influencers are able to help their followers to make a purchase decision; and finally, the variable "loyalty to digital influencers" had an average of 3.69, i.e., the followers, when they identify with influencers and consider them credible, tend to become loyal to them.

6. CONCLUSION

Digital influencers are present on social media and brands look at them as means to increase sales. As such, it is expected that this research will provide an in-depth insight into the impact of influencers on the purchasing decision process of the abs that follow them. Furthermore, it is expected to understand whether digital influencers are defined as a credible entity; identify the reasons that lead an individual to be followed by a digital influencer; what is the appropriate time for the disclosure of a brand; analyse the amount spent by the follower in purchases due to the influence of the content shared by digital influencers; identify which social network is the most pertinent for digital influencers to be on. This way, we expect the research to reveal data that will

enable the creation of strategies to assist brands in increasing their visibility in order to better understand the context of digital influencers and identifying the role they can play for brands.

REFERENCES

Almeida, Marcos Inácio Severo de, Ricardo Limongi França Coelho, Celso Gonçalves Camilo-Junior, e Rafaella Martins Feitosa de Godoy. 2018. «Quem lidera sua opinião? Influência dos formadores de opinião digitais no engajamento». *Revista de Administração Contemporânea* 22(1):115–37.

Andersen, P. 2007. «What is Web 2.0?: ideas, technologies and implications for education».

Baruah, Trisha Dowerah. 2012. «Effectiveness of Social Media as a Tool of Communication and Its Potential for Technology Enabled Connections: A Micro-Level Study». 2(5):10.

Becker, João Luiz. 2015. *Estatística básica: transformando dados em informação*. Bookman editora.

Bieńkowska, Jolanta, e Czes\law Sikorski. 2016. «Hyperflexibility A feature of e-commerce organisations». *Management* 20(2):210–23.

Cheung, Christy MK, e Dimple R. Thadani. 2012. «The impact of electronic word-of-mouth communication: A literature analysis and integrative model». *Decision support systems* 54(1):461–70.

Coppola, Daniela. 2021. «E-commerce worldwide - Statistics & Facts». *Statista*. Obtido 23 de Maio de 2021 (https://www.statista.com/topics/871/online-shopping/).

Creswell, John, e David Creswell. 2018. *Research design: qualitative, quantitative and mixed approaches.* 5ª.

Depoux, Anneliese, Sam Martin, Emilie Karafillakis, Raman Preet, Annelies Wilder-Smith, e Heidi Larson. 2020. «The pandemic of social media panic travels faster than the COVID-19 outbreak». *Journal of Travel Medicine* 27(taaa031). doi: 10.1093/jtm/taaa031.

Djafarova, Elmira, e Chloe Rushworth. 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. doi: 10.1016/j.chb.2016.11.009.

Erlandsson, Fredrik, Piotr Bródka, Anton Borg, e Henric Johnson. 2016. «Finding Influential Users in Social Media Using Association Rule Learning». *Entropy* 18(5):164. doi: 10.3390/e18050164.

Forbes, Kristen. 2016. «Examining the beauty industry's use of social influencers». *Elon Journal of Undergraduate Research in Communications* 7(2):78–87.

Gashi, Linda. 2017. *Social media influencers-why we cannot ignore them: An exploratory study about how consumers perceive the influence of social media influencers during the different stages of the purchase decision process*.

Ghidotti, Natalie. 2017. «Snapchat, Instagram and Influencers: How to Know What's Best for Your Brand». Obtido 6 de Dezembro de 2020 (https://apps.prsa.org/Intelligence/Tactics/Articles/view/11831/1139/Snapchat_Instagram_and_Infl uencers_How_to_Know_Wha#.X8z9iy-tH5Z).

Glucksman, Morgan. 2017. «The rise of social media influencer marketing on lifestyle branding: A case study of Lucie Fink». *Elon Journal of Undergraduate Research in Communications* 8(2):77–87.

Hair, Jr., B. William, B. Babin, e R. Anderson. 2009. *Análise multivariada de dados*.

Heinonen, Kristina. 2011. «Consumer Activity in Social Media: Managerial Approaches to Consumers' Social Media Behavior». *Journal of Consumer Behaviour* 10(6):356–64. doi: https://doi.org/10.1002/cb.376.

Hill, Manuela Magalhães, e Andrew Hill. 2012. *Investigação por questionário*. Sílabo.

Hsu, Chia-Lin, Chi-Ya Chang, e Chutinart Yansritakul. 2017. «Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity». *Journal of Retailing and Consumer Services* 34:145–52.

Husnain, Mudassir, e Areeba Toor. 2017. «The impact of social network marketing on consumer purchase intention in Pakistan: Consumer engagement as a mediator». *AJBA* 10(1):167–99.

Islam, Jamid, e Zillur Rahman. 2017. «The Impact of Online Brand Community Characteristics on Customer Engagement: An Application of Stimulus-Organism-Response Paradigm». *Telematics and Informatics* 34(4):96–109. doi: 10.1016/j.tele.2017.01.004.

Kaplan, Andreas, e Michael Haenlein. 2010. «Users of the world, unite! The challenges and opportunities of Social Media - ScienceDirect». Obtido 22 de Novembro de 2019 (https://www.sciencedirect.com/science/article/pii/S0007681309001232).

Katawetawaraks, Chayapa, e Cheng Wang. 2011. «Online shopper behavior: Influences of online shopping decision». *Asian Journal of Business Research* 1(2).

Keller, Ed, e Brad Fay. 2016. «How to Use Influencers to Drive a Word-of-Mouth Strategy». 8.

Khan, M. Laeeq. 2017. «Social media engagement: What motivates user participation and consumption on YouTube?» *Computers in Human Behavior* 66:236–47.

Khwaja, Muddasar Ghani, Saqib Mahmood, e Umer Zaman. 2020. «Examining the Effects of

EWOM, Trust Inclination, and Information Adoption on Purchase Intentions in an Accelerated Digital Marketing Context». *Information* 11(10):478. doi: 10.3390/info11100478.

Kim, Rae Yule. 2020. «The Impact of COVID-19 on Consumers: Preparing for Digital Sales». *IEEE Engineering Management Review* 48(3):212–18. doi: 10.1109/EMR.2020.2990115.

Lampeitl, Andreas, e Paulina Åberg. 2017. «The Role of Influencers in Generating Customer-Based Brand Equity & Brand-Promoting User-Generated Content».

Lendrevie, Jacques, Julien Lévy, Pedro Dionísio, e Joaquim Vicente Rodrigues. 2015. *Mercator da Língua Portuguesa*.

Lopez, Angela. 2017. «The Rise of Social Influencers: A New Age of Digital Marketing». *Influence.Co*. Obtido 6 de Dezembro de 2020 (http://blog.influence.co/rise-of-social-influencers/).

Malhotra, Naresh K., e David F. Birks. 2007. *Marketing Research: An Applied Approach*. 3. edition. Harlow, England London New York Boston San Francisco Toronto Sydney Singapore Hong Kong Tokyo Seoul Taipei, New Delhi Cape Town Madrid Mexico City Amsterdam Munich Paris Milan: Financial Times Prentice Hall.

Marôco, João. 2018. *Análise Estatística com o SPSS Statistics.: 7ª edição*. ReportNumber, Lda.

Maroco, João, e Teresa Garcia-Marques. 2006. «Qual a fiabilidade do alfa de Cronbach? Questões antigas e soluções modernas?» *Laboratório de psicologia* 4(1):65–90.

Marques, Vasco. 2020. *Redes Sociais 360*.

Morais, Ana Maria, e Isabel Pestana Neves. 2007. «Fazer investigação usando uma abordagem metodológica mista». *Revista Portuguesa de Educação* 20(2):75–104.

Nazir, Salsabeel, e Zia Haq. 2017. «E-Commerce Perception and Adoption-A Study of Tour and Travel Operators of J&K State».

Nuru, Mohammed. 2020. *Comprehensive Systemic eCommerce Framework: Solution for the COVID-19 Pandemic Impacts on Small Business Communities*.

Osborne, Jason. 2014. «Best Practices in Exploratory Factor Analysis».

Pestana, M. H., e J. G. Gageiro. 2003. «Análise factorial». *Análise de dados para Ciências Sociais: a complementaridade do SPSS. Lisboa: Edições Sílabo* 31–45.

Porto Editora. 2003. «influência in Dicionário infopédia da Língua Portuguesa». Obtido 8 de Dezembro de 2020 (https://www.infopedia.pt/dicionarios/lingua-portuguesa/influ%C3%AAncia).

Quivy, Raymond, e Luc Campenhoudt. 1992. «Manual de investigação em ciências sociais».

Segarra-Saavedra, Jesús, e Tatiana Hidalgo-Marí. 2018. «Influencers, moda femenina e Instagram:

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el poder de prescripción en la era 2.0».

Shcherbina, Iuliia. 2017. «Reading in the Age of Web 2.0: Russian Social Science Review: Vol 58, No 1». Obtido 28 de Dezembro de 2020 (https://www.tandfonline.com/doi/abs/10.1080/10611428.2017.1275204).

Solanki, Manishkumar R., e Abhijit Dongaonkar. 2016. «A Journey of Human Comfort: Web 1.0 to Web 4.0». *2016* 75–78.

Sudha, M., e K. Sheena. 2017. «Impact of influencers in consumer decision process: the fashion industry». *SCMS Journal of Indian Management* 14(3):14–30.

Valente, João Carlos da Silva. 2018. «Influenciadores digitais e o seu poder de influência no processo de decisão de compra e na construção da lealdade». PhD Thesis.

We are Social. 2021. «Global Social Media Stats». *DataReportal – Global Digital Insights*. Obtido 23 de Maio de 2021 (https://datareportal.com/social-media-users).

Wiederhold, Brenda K. 2020. «Using Social Media to Our Advantage: Alleviating Anxiety During a Pandemic». *Cyberpsychology, Behavior, and Social Networking* 23(4):197–98. doi: 10.1089/cyber.2020.29180.bkw.

World Economic Forum. 2020. «Coronavirus Has Exposed the Digital Divide like Never Before». *World Economic Forum*. Obtido 27 de Junho de 2021 (https://www.weforum.org/agenda/2020/04/coronavirus-covid-19-pandemic-digital-divide-internet-data-broadband-mobbile/).

Wu, Wann-Yih, e Ching-Ching Ke. 2014. «An online shopping behavior model integrating personality traits, perceived risk, and technology acceptance». *Social Behavior and Personality* 43(1):85. doi: 10.2224/sbp.2015.43.1.85.

Zhang, Yuchi, Michael Trusov, Andrew T. Stephen, e Zainab Jamal. 2017. «Online shopping and social media: friends or foes?» *Journal of Marketing* 81(6):24–41.

Zinola, Anna. 2020. «The Consumer Behaviour in a Post Pandemic World». *Micro & Macro Marketing* (3):647–56.