Master Thesis

Business Administration | Marketing

BRAND AWARENESS BY USING A FASHION CELEBRITY ON SOCIAL MEDIA

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Abstract

The use of social media such as Instagram, Facebook, Twitter, and YouTube is becoming an essential part of our lives. Simultaneously, in the last years, a shift from offline celebrity advertisements to online celebrity advertisements has occurred. The purpose of this study is to understand how differently the relationship between female younger and older customers with a different level of engagement affects brand awareness by using a famous online celebrity. These relationships will be mediated by the acceptance of new technology and moderated by the credibility of the source. This study extends the existing literature by analysing a more recent phenomenon of online fashion celebrities that are very popular on social media platforms. This study was conducted between 353 female participants from all of Europe, and the data is analysed through multiple linear regression analyses. Results confirmed the negativity of the relationship between age groups and brand awareness by using a celebrity and the positivity of the relationship between customer engagement and brand awareness by using a celebrity. The mediating variable was found to have a negative effect on the relationship between the two IVs and the DV. This means that the acceptance of new technology does not positively improve the relationship between both age groups - customer engagement and brand awareness. The moderating variable credibility of the source was found to have a positive and significant role in the relationship between the acceptance of new technology and brand awareness when the advertisement is made by a non-famous celebrity. On the other hand, it appeared to have a non-significant effect when the advertisement was made by a famous celebrity.

Keywords

Brand awareness, fashion celebrities, online celebrities, acceptance of new technology, customer engagement, age groups, credibility of the source

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1. Introduction

Nowadays, the word "technology" is largely used in society, and it can evoke many connections. Technology can be viewed in different ways by different people: it has quite a broad meaning. It is possible to simply define this word as a set of tools and techniques which aim to improve people's lives, and one of the biggest improvements in terms of technology is the social media "world". "A social media is an online platform that people use to build social networks or social relations with other people who share similar personal or career interests, activities, backgrounds or real-life connections" (Akram and Kumar, 2017, p. 347).

Social media is revolutionizing many aspects of our lives. The use of new technologies completely changed our way of thinking, our way of communication, and the way we interact with each other. Currently, the use of technology, which includes the use of social media among people, is having a boom and it is becoming more common than in the past. According to the statistics made by the market researcher Kempf (2020), in 2020 the number of people that use the internet worldwide is around 4.5 billion, while 3.8 billion are individuals that use social media. These numbers are elevated if we think that 60% of the population is already using an online platform, and for the next year it is expected an increase in the number of individuals that use social media.

Simultaneously with the development of social media, a new phenomenon is becoming popular across the internet world: online celebrities, more commonly called "influencers". "Celebrities are now conceptualized as human brands, they use technology to take more control of their personal and human brands by posting "status updates", "likes" and photos, and even responding to consumer comments." (Kowalczyk and Pounders, 2016, p. 1). In recent years have celebrities raised their use of social media such as Facebook, Instagram and Twitter as a platform of communication and interaction with their fans, spreading and sharing information about not only brands but also their personal lives (Chung & Cho, 2017).

While thinking about celebrity advertisements, a quick relation comes to mind: celebrity endorsement. With this term, it means an individual of public recognition who promotes products, services or activities on behalf of a company (Nyarko et al. 2015). Celebrities create contact with customers through advertising products or services and spreading a good image to raise awareness in the customers' mind.

However, not all customers are the same, they differ in many aspects such as gender, age, technology acceptance, culture, background, nationality, motivation to buy some products

or motivation to follow such celebrities. For this reason, it is of crucial importance to recognize and understand how different customers are being influenced by celebrity endorsement differently. Customers are influenced by celebrity advertisements in different ways, and it is not possible to put younger and older customers in the same bracket as they both have different needs, behaviors, backgrounds, and motivations. Due to this reason, it is necessary to make a distinction between different age categories and appraise how these groups are being influenced to perform targeted advertisements. Besides this consideration, it is also important to affirm that it is not easy to divide the population in only two groups: "younger" and "older". Since there are many different ages in between, this research takes into account five different age groups in order to have a more precise result.

First of all, customers' age appears to be an important factor in this thesis, older people present different capabilities compared to younger individuals due to their age. The reduction in their mobility affects their propensity for using new technology which allows them to navigate on online platforms. However, customers who buy online are not only students or young individuals, many older customers find it easier and faster to use social media as a platform to make purchases even though they may be sometimes skeptical. This is mostly due to the time saving that social media is bringing in their lives. Coto et al., 2017 conducted their research on social media and elderly people in Costa Rica, and they affirmed that purchases are not the only purposes that encourage older people to use social media. This also helps them to stay in contact with their family and friends with the aim to reduce their loneliness thus, enhancing their well-being and lifestyle. Purposes that are similar to those of younger customers.

Secondly, the choice to take into consideration only women is due to the fact that, according to Widgery and McGaugh (1993) which conducted their study in America, women are more liable to promotional persuasion and tend to process an advertisement more deeply than men. The reasons why females are more likely to be persuaded by promotional advertising is because, from a study conducted by Dittrich (2000) in Germany, it emerged that women, on average, see around 400-600 adverts per day. Moreover, women are more likely to look at fashion magazines, fashion advertisements on social media, follow fashion celebrities because celebrities may reflect what they like in terms of fashion subjects.

Thirdly, an important factor that is impossible to forget when studying the awareness of the brand by using a celebrity is customer engagement. Many are the studies concerning this topic e.g. Phua et al., (2018), Faria et al., (2013), Van Doorn (2010). Customer engagement is an emotional relationship between the customer and the brand, which can be mediated by the role of the celebrities who sponsor the specific brand. Customer engagement leads to higher

brand loyalty, brand awareness and brand connection, which is a relative advantage for the company. Nowadays, in order to increase their popularity and their customers' engagement, some brands are making collaborations with famous celebrities, for example, including their name in the product. To name one, it is possible to mention the case of Rihanna in collaboration with Puma. This brand was initially ideated as holding sports characters and focusing only on clothes and shoes for athletes and sportspersons. During the last decade, Puma decided to broaden its target group and produce clothing for daily use. In fact, in 2017, Puma made a collaboration with Rihanna: it created a line of daily use shoes and clothes which was sponsored by Rihanna; thus, all these products had the name of this celebrity (Rihanna) next to that of brand Puma. Indeed, Thomasson (2017), affirmed that after the collaboration with celebrity Rihanna, Puma sales raised of 23% in Europe.

1.1 Research Objectives

The objective of this research is to provide a clear vision of how brand awareness by using an online celebrity is different between younger and older customers and with regard to the different levels of customer engagement. Both younger and older female customers and their engagement with online fashion products will be taken into consideration, and thus, the acceptance of new technology will be used as a mediating factor that may increase or decrease the customer's brand awareness. Additionally, the credibility of the source will be taken into consideration as a moderating variable. These observations raise several questions that constitute the focus of this paper: Do age and customer engagement explain brand awareness of female customers? How does the acceptance of new technology as a mediating variable play a role? How does the credibility of the source as a moderator variable play a role?

1.2 Research Outline

This thesis comprises several chapters. Firstly, the theoretical background and literature review will be provided. Includes all the relevant literature which is of crucial importance for the development of my research. Consistent literature regards the use of social media by celebrities, the problem statement, and the gap in the literature are included. Consequently, the conceptual model and the hypotheses will be discussed. Secondly, the research methodology will be portrayed and how I will conduct my investigation. The third part dwells on data collection, analysis, and results. Following, in chapter five, I will present the discussion and conclusion about theoretical implications and finally, managerial implications and suggestions for future research will be disclosed.

2. Literature Review

Starting from the statements proposed in the research conducted by Duffett (2017), who studied how the attitudes of young customers are being influenced by social media, this thesis aims to solve the gap that has been found in the mentioned literature. This concerns the following aspects: first of all, Duffett's analysis has been done by taking into account only the Generation Z cohort which includes only teenagers from 13 to 18 years, and secondly, he just examined all the different types of social media without focusing on specific ones. Furthermore, in Duffett's study, female teenagers compared to male teenagers emerged to have a higher affective attitude on social media, which refers to a higher level of liking. This outcome is due to the fact that female customers have higher participation in social media activities than male customers, thus males have a less favourable attitude towards the social media marketing communications compared to the opposite gender (Duffett, 2017, Ruane and Wallace 2013).

While conducting my analysis, in order to solve the gap presented before, not only the teenager category will be taken into account, but the study will be also extended to old customers so as to verify the differences between older and younger customers. Moreover, the study will focus only on four social media platforms, which are Instagram, Facebook, Twitter, and YouTube, so as to get a more specific analysis. These four specific platforms have been chosen because from statistical data of Statcounter (Figure A), from February 2019 to February 2020, the social media with the highest number of users are Facebook, Twitter, Pinterest, Instagram, and YouTube. However, Pinterest will not be taken into consideration because it is not a social media which utilizes celebrities' endorsements.

2.1 Acceptance of innovation and Technology Readiness Index (TRI)

Nowadays, customers are dealing more than before with online platforms and sophisticated technology; however, the predisposition of accepting new technologies extensively varies among the population. Technology Readiness is defined by Parasuraman (2000, p. 308) as "the people's propensity to embrace and use new technologies for accomplishing goals in home life and at work". According to the fact that the acceptance of new technology is not the same for everyone, in some cases it has registered an increase of customer frustration while using technology (Parasuraman, 2000).

The study conducted by Duffett (2017) in South Africa concluded that younger customers are becoming more resistant to offline marketing and always more open to online marketing campaigns. It is certainly easier for the younger generation to use and adopt new

technologies as it is a "generation born with technology in hand". On the other hand, it is much harder for older people to adopt new technological devices and in general, new technologies because they have never been part of their youth. For this reason, the importance of the development of the new technology is not perceived as so important by all older individuals. A statistic made by Clement (2019) has shown the difference of the worldwide daily use of the internet between younger and older people, where younger people have a higher percentage of use of the internet and as age grows, internet use decreases (Figure B). These results show a certain resistance of older people to accepting and using new technologies.

According to the research conducted by Lancaster University (2018) on the resistance of older consumers to embracing new technologies, it emerged that the first-mentioned reason why older people have these issues is the fear of doing something wrong when using technological systems. Secondly, older individuals consider new technology hard to understand, hard to use and a waste of time. Thirdly, older users feel insecure while using online platforms, and they see a lack of knowledge and skills that they need while navigating on social networks. Cognitive capabilities and memory in older individuals are lower compared to those of younger users. Czaja et al., (2007) affirmed that the more computer anxiety a person has, the less the use of technology. The anxiety of online users includes the fear of making mistakes while doing a certain action or the fear of not being able to perform directions. Due to these reasons, some people prefer not to use new technologies instead of trying and stumbling across how they function.

Many studies (e.i. Czaja et al., 2007 and Westjohn et al., 2009) showed that even if the acceptance of new technologies is a problem for many individuals, their usage is a factor of central importance. This is because it permits to improve the quality of people's lives and mostly, regarding older people, it permits them to improve their independence, well-being, control, convenience, their freedom of action and autonomy. The development of new technologies is an important advancement for older people, it creates opportunities to assist them in their daily tasks and activities as well as helping to connect their family with them in an easier way. In fact, in 2013, in the UK there was registered an increase of older adults in the use of tablets for online purposes compared to the percentage of the year before and the percentage of younger people who used this technology was extremely high (Ofcom, 2014a). Due to this reason, there still exists a considerable difference between older and younger customers regarding the acceptance of new technology (Vaportiz et al., 2017). Simultaneously, the Technology Acceptance Model (TAM) has to be mentioned since it is somehow related to the TRI. This model was mentioned and developed for the first time by Davis (1989).

In a study conducted by McCloskey (2006) around the USA, the ease of use, usefulness, and trust in electronic commerce usage, which includes electronic commerce and online shopping, and the impact they have on older consumers have been examined. Basically, the TAM shows that two factors "ease of use" and "usefulness" have a positive and direct impact on usage. However, in the specific study of McCloskey, it emerged that the ease of use is not positively related to the participation of consumers in electronic commerce. With this statement, it is possible to say that consumers buy online without being influenced by the ease of use. On the contrary, it emerged that mostly for older consumers, the usefulness has a direct and significant effect on electronic commerce thus, usefulness has a positive impact on the ease of use: the easier, the more useful. Lastly, the third examined factor "trust" did not result to have highly significant effects on electronic commerce however, it has a great impact on the ease of use and usefulness.

In sum, different people have diverse feelings and not all individuals are psychologically ready to accept new technologies at the same time and in the same way. Therefore, a combination of positive and negative feelings that people hold about technology affects technology readiness (Parasuraman, 2000, Parasuraman and Colby 2015). However, even if consumers may have positive feelings about the acceptance of new technology, their previous negative feelings might stay in their minds, and thus, they may be more resistant than other people to accept and use new technologies. This mostly happens among older individuals who don't have a mentality projected on technology due to the period they were born in.

2.2 Brand awareness by using a celebrity

Customer brand awareness is a very broad theme. It is possible to define it as the "customer's ability to identify the brand under different scenarios and to recognize and recall that a brand is a member of a certain product category" (Aaker, 1991, p. 61). Brand awareness can be divided into two different categories which are the brand recognition and the brand recall, where the first is the customer ability to confirm prior exposure to the brand when given the brand as a cue and the second refers to the customer ability to retrieve a brand from memory when given a product category or when the customer has a need that is related to a category (Keller, 1993). Brand awareness is an outcome that is due to many different factors that can influence its level and intensity: in this research, this element will be the only dependent variable that will be studied, and it will be operationalized in brand recognition and brand recall. Tritama & Tarigan (2016), conducted a study regarding the effect of social media on brand awareness of a product. They stated that social media had a big improvement in the customer brand awareness of a certain product since users were more interested in online advertisements

than offline advertisements. Indeed, their suggestion to increase the brand awareness of a product is that companies which aim to launch a new product should use social media since it has a significant positive impact on customer brand awareness.

In this specific study, brand awareness will be taken into account with regard to the use of a celebrity that endorses the brand. Celebrities can work in both offline and online platforms, and an overview of both types will be given. However, this analysis will be conducted only about celebrities on online platforms. In the next two chapters, a detailed explanation of both celebrities on offline and online platforms will be presented as to give a perspective on the two categories and the reason why this thesis will be focused only on one of them.

2.2.1 Celebrities on offline platforms

"Celebrities' presence in media is not a new concept, but technology, in particular social media, has transformed how celebrities engage directly with their fans online" (Kowalczyk and Pounders, 2016, p. 10). According to Goldfarb & Tucker (2011), online and offline markets are not the same, they work differently and they should be treated differently. This assertion is in line with the statement that online celebrities are different from offline ones, thus, their approach with their fans differs. With this sentence, it means that traditional (offline) celebrities communicate with their public through advertising in newspapers, on TV, via billboards and their communication is not directly projected to specific consumers but to a broad public that will decide to listen to or look at the celebrity if that advertising fits their needs and interests.

Regarding the way of communication through traditional media, Jordan (1993) conducted a study in America on the impact of traditional media and the opinion of the general public on celebrities. Overall, it emerged that individuals are influenced in different ways by different publicities. Moreover, he affirmed that commentators and experts on offline advertising are the most influential individuals in public opinion both in newspapers and television. On the other hand, online celebrities are directly engaging with their fans, they speak to a targeted public and thus, Djafarova & Rushworth, (2017) affirmed that the phenomenon of online influencers has a greater impact on consumers' brand attitudes than traditional celebrities. Followers who are interested in a specific celebrity's topic, voluntarily decide to follow them and engage with them. It is common that online celebrities virtually talk with their fans to increase customers' engagement. Overall, celebrity advertising on TV is commonly known and used worldwide however, celebrity advertisements in online environments are taking over (Bergkvist & Zhou, 2016).

Following this statement, a study conducted by Daboll (2011) in the USA found that TV advertising is becoming less effective than before and offline celebrities are failing while sharing information to the vast public. This is happening because as mentioned before, individuals have different interests and they prefer to interact and follow on social media just celebrities that fit their passions.

In previous research, many studies have been conducted about the role of celebrities in advertisements on paper and TV (e.g Erdogan, 1999, Amos, Holmes, and Strutton, 2008). Fewer studies concerning brand awareness by using an online famous celebrity have been conducted, this is due to the fact that this subject is quite new, and it emerged in the latest years.

2.2.2 Celebrities on online platforms

"In their marketing efforts, companies increasingly abandon traditional celebrity endorsers in favour of social media influencers, such as vloggers and Instafamous personalities" (Schouten et al., 2019, p. 258). This happens because the development of online platforms is increasing while the use of traditional methods of communication such as TV, newspaper, billboards are having a dramatic drop in people's lives. For the reasons stated above, this research will be focused only on four specific online platforms which are Instagram, Facebook, Twitter, and YouTube, which are usually not utilized for business purposes (such as LinkedIn) but mostly for fun. In fact, according to Leskin (2017), Instagram is the most common and used way for customers to interact with celebrities. From a study conducted by Oberlo (Figure C, Appendix), in 2019 the active worldwide users on an Instagram platform raised the number of 500 million. They were less than half in 2017. These numbers permit Instagram to be a massive online platform, thus reaching a large number of customers who engage with celebrities who promote products of a certain brand. Moreover, it has been highlighted the fact that nowadays, Instagram (and also Twitter) doesn't show users random posts based on the time they were posted but it shows only posts that are of real interest to customers, based on their engagement. Consequently, fans can directly interact and see only posts and advertisements of celebrities they are interested in. Thanks to all these improvements in the social media environment, many companies experienced rapid and great growth of their sales also due to the help that online celebrities brought to their firms: brand awareness increases thanks to the role that celebrities have on social media platforms. Chung & Cho, (2017, p. 47) affirmed: "These new media environments have narrowed the distance between audiences and celebrities and have altered the role of audiences from that of mere spectators or admirers to "friends" of celebrities.", which in the online language are called followers. It is of crucial importance to highlight that these users called "friends" are not real friends.

They are virtual friends that are labelled in this way from an online language. The concept of "friends" in an online environment corresponds to "followers".

Firms and influencers cooperate: companies are responsible for paying a certain amount of money to a specific influencer who has the responsibility to share the product or service of that brand on his/her social profile to his/her public (followers). Nowadays, almost every brand has a part of its budget that is entirely devoted to marketing actions which include collaborations with online celebrities. This means that almost all companies, both small and big ones, spend a certain amount of money on online celebrity campaigns. Most of the time, online celebrities receive the product they have to advertise directly at home in order to be able to test it before showing it to the public. They usually unpack and try the product in front of their followers through the creation of a video. This permits celebrities to be closer to customers and engage with them straightforwardly. A study conducted by Andrew (2017, p. 1) affirmed that "many of the most successful Instagram influencers advertising campaigns are in predominantly female niches, like fashion and beauty" and turn their online social presence into a real job called "fashion blogger". This happens because, as mentioned before, most of the fashion bloggers belong to the fashion and make-up fields which are the most followed categories of interest by online users. As it will be mentioned in the next chapters, female customers are more active on social media platforms than male customers. For this reason, it is possible to find more female fashion bloggers than in the opposite case.

According to the study conducted by Oberlo (Appendix D), 49% of the purchases made by customers online derive from celebrities advertising on social media. This percentage is high: almost half of the whole online purchases made by customers are due to the role that celebrities have on online platforms and their ability to engage with customers. Following this statement, it is clear that online celebrities are can increase customer brand awareness, however, it is still not completely clear if customers of different ages are being influenced in the same way by online celebrities or it largely differs. On the other hand, it is of crucial importance to highlight the fact that 49% of the purchases derive from online celebrity advertisement, and that it can also be considered as a big risk. The risk consists in the fact that if such a celebrity makes a mistake in suggesting a certain product or behaves incorrectly, this will dramatically affect the company's sales. For this reason, companies have to be very careful in choosing the right influencer and training her/him properly in order to avoid bad mistakes. Gräve (2017 p. 1), defined an influencer as "an opinion leader in digital social media who communicates to an unknown mass audience". If before it was mentioned the word "friends", in this case, the opposite word was cited. The difference is slight but clear: the influencer speaks to an unknown mass audience, this is her/his followers.

These followers feel very close to the influencer so much that they can think of her as a friend. Nevertheless, defining celebrities as "opinion leader" is an old well-known term, offline celebrities were called with the same appellation by many researchers (e.g. Breed 1955, Jordan 1993) and nowadays, with the emergence of online celebrities, this term is used in the same way but in an online context. In offline communications, companies always tried to define and use specific market segments in order to be as effective as possible. However, the use of celebrities in online contexts which advertise a certain product permitted to reduce costs of targeting which were relevantly high in offline advertising. The improvement of technology and the use of social media have led to the customization of the marketing messages that are directed only to a specific group of customers (Goldfarb, 2014). In line with this statement, Iyer et al. (2005) affirmed that the targeting of an advertisement brings more positive outcomes than targeted pricing. For this reason, an online advertisement with the help of online celebrities is of crucial importance for companies as it is a factor that increases firms' income and advantages in the targeted market. If on one hand, the online advertisement brings many advantages, it leads to a great disadvantage for the offline advertisement: when the exposure to online advertisement increases, the price of offline advertising rises. However, surprisingly from a study conducted by Daboll (2011) in the USA, in 2010, it emerged that the use of celebrities to advertise products is a waste of time and thus, leads to a loss of money. He affirmed that celebrities can be ineffective because they can confuse their public while advertising a product. This means that users can be exposed to information that is not clear or not in line with their thoughts which leads to confusion in their mind. Indeed, Daboll's study showed a negative relationship between the celebrity and the effectiveness of the advertisement (Figure E, Appendix). It has been shown that one-fifth of celebrity advertisements have a negative impact on the overall effectiveness of the advertisement.

2.3 Age groups on social media

Research on the effects of celebrity endorsement on target audiences' behaviour is narrow. Kowalczyk and Pounders (2016) conducted research in the USA based on the authenticity of celebrities on social media taking into consideration only the student category (thus limiting the study to a specific age group). Their recommendation for future research is to include different age groups in order to see how individuals of different ages are being influenced by social media advertising and if the consequences differ. It is possible to affirm that the explosion of the utilization of social media is quite an actual theme and for this reason, as mentioned above, the gap this study is trying to solve in the literature is focused on how

celebrities may influence female consumers of different age groups on social media.

Sometimes it is common to think that only young individuals use social media because it is considered a new technology for the new generation and older customers are considered to act inappropriately on online platforms due to their age (Jerslev & Petersen, 2018). However, the issue of acting inappropriately is not the only problem for older customers when using social media. They are resistant even to starting to use these new technologies. Researches show that younger generations compared to older customers, are more active and tend to have more contact on social media with their peers than face to face (Kristoffer et al., 2013). This is a disadvantage that technology and consequently online advertisements are bringing to society. Nowadays, the number of adults who are subscribing to online platforms is having a dramatic increase and the role that celebrities have in promoting a brand is no longer seen as an action merely aimed at younger customers but also to the older generations (Jerslev & Petersen, 2018). It is crucial to also have a focal point on the drawbacks not to use the internet/online platforms that people who are resistant to the acceptance of new technologies (supposedly the majority is constituted by older people) do not think about. First of all, not using internet platforms reduces the possibility of connecting with friends/family or in general with people on the other side of the world. Secondly, individuals may not be well-informed about events or trends. Thirdly, to mention a factor that is strongly related to the topic of celebrities, people who decide not to use internet platforms might not have much information about specific products or services and their usage which are explained by celebrities. However, on the other hand, it is necessary to also highlight some factors that are in contrast with the positive improvements that new technologies brought in individuals' lives. Coto et al., (2017) in their study figured out four disadvantages of the acceptance of new technologies for older people (I personally believe these drawbacks are also valid for younger individuals) which are intrapersonal barriers, structural barriers, interpersonal barriers, and functional barriers. Moreover, the use of new online platforms is considered by many individuals as risky and insecure, both fears lead to a certain resistance to the use of social media. From a general overview based on the previous studies that have been conducted in this field (e.g. Jerslev & Petersen, 2018 and Kowalczyk & Pounders, 2016) it is possible to affirm that it is important to take into account older celebrities and on the other hand, also older audiences. The reason for this decision is that with the development of technology, also society experienced considerable evolution. According to the research mentioned above, it is of crucial importance to study and differentiate customers in older and younger groups to investigate the differences that both categories have when exposed to online celebrity advertisements.

2.4 Customers Engagement with Celebrities

Customer engagement can be explained as a specific interaction or experience between the customer and the brand. From the study conducted by Brodie et al., (2011), it emerged that customer engagement can be evaluated as a strategic factor that gives competitive advantage and an element that helps companies to predict future business performances. The engagement of customers with a celebrity who promotes a certain product of a certain brand leads to an understanding of sales growth and profits in the future. However, the firm also has a crucial role in building and increasing the engagement of the customer with its brand and products. In fact, fashion retailers have to choose faster than their competitors their method of advertising and how they want to reach their customers with celebrity endorsement.

Phua et al., (2018) conducted a study on customer engagement with celebrities who endorse e-cigarettes on Instagram to verify if celebrity endorsement in this field was effective in terms of brand recognition, recall, and loyalty. It emerged that promotional publicities made by celebrities are well perceived when customers see and feel a sincere link between the celebrity and the product that he/she is promoting. When customers can perceive this "link" they are more likely to be engaged with the celebrity and consequently with the brand. Indeed, customer engagement is an important factor to take into consideration because not all customers who follow a specific celebrity have the same level of engagement: not everyone is interested in a certain topic at the same time and in the same way. Customer engagement is a broad, dynamic, and iterative process (Brodie et al., 2011). On the other hand, when the customer engagement starts to come less compared to the level that was before, it means that the marketing department experienced some mistakes in managing online celebrities' publicity. Customer engagement is a key element that has to be built from the company and with the biggest role of celebrities who endorse the product and help the company to make the product popular. Faria et al., (2013) conducted their research on the customer engagement taking into consideration three factors which are satisfaction, commitment and loyalty. These three factors resulted to be of crucial importance in order to better study and understand customer engagement. These are factors that enable the company to create a long-term relationship with clients. First of all, satisfaction is the positive feeling that the customer has towards the company. Secondly, commitment is an emotional attachment to the company that can consequently determine the loyalty of the customer, which means that the customer is satisfied and willing to make other purchases. All these mentioned factors result essential to determine customer engagement. Similar factors were also taken into consideration by Van Doorn (2010), he analysed the antecedents that influence customer engagement behaviour.

The antecedents used in this study were customer-based, firm-based and context-based. The customer-based comprises factors such as satisfaction and commitment that were also used in the analysis conducted by Faria et al., (2013), which strengthen the concept that these two factors are of crucial importance when analysing the customer engagement.

This study will focus on female consumers of all ages and on celebrities who work in fashion sectors and thus, endorse fashion products. According to Liu and Suh (2017), fashion celebrities most of the time are females and their main role is to spread information through the creation of fashion content about a certain product of a certain brand with the purpose to tempt their public to buy it. The message that the celebrity shares have to be in line with the idea behind the campaign, otherwise customers may misperceive the message that the brand wants to send. Customer engagement with a certain product is a basic factor to analyse how a celebrity who is promoting a specific brand can influence older and younger customers. Not all the female population is attracted to the fashion sector and, consequently by fashion online celebrities. For this reason, in this study the engagement of a woman on fashion advertising has to be carefully analysed.

2.5 Female customers

Many researches on the gender of both celebrities and customers have been conducted (e.g Widgery & McGaugh 1993, Kaur 2018, Sliburyte 2009). However, the conclusions are not the same and thus it is not possible to have a clear view of which gender is influenced the most by online celebrity advertising. Nevertheless, according to the study conducted by Widgery and McGaugh (1993) on the offline environment, women are more liable to promotional persuasion: they try to find more information and they process an advertisement more deeply and for longer than men.

As reported by the analysis made by Vermeren (2015) (Figure F, Appendix), Instagram, and Facebook platforms, on average, are mostly frequented by women while Twitter and YouTube are mostly frequented by men. Even if the difference is not big, it has been found that Instagram has 58% female users and 42% male users, Facebook experienced traffic of 52% of female individuals and 48% of male. On the other hand, Twitter and YouTube respectively have 47% and 45% of female users and 53% and 55% of male users. However, Vermeren also highlighted that women use social media to search for deals and promotions from fashion brands while men do not use these platforms for these specific purposes, only a small percentage do. Males are more likely to engage with celebrities who sponsor sports brands.

Only the female category will be taken into account and there are several reasons why it has been chosen to focus only on this group: first, some studies (e.g. Kaur, 2018), analysed the impact of both genders on the relationship between the behaviour of consumers and celebrity endorsement. I personally believe that for my research, a specific investigation is needed regarding the fact that when the company uses celebrity endorsement as a promotional approach, it has to focus on the gender of the target client. This research will perform a specific and accurate study on female online behaviour when exposed to celebrity advertisements. Secondly, Sliburyte (2009) made an accurate analysis of celebrity endorsement targeting customers based on gender in general traditional advertising. Moreover, he found that the use of celebrities on a precise gender helps to intensify the bond between the specific category of customer and the celebrity who represents the brand. Thirdly, according to Vermeren (2015), women on average, are more willing to use social media as a way to communicate with other people and to share more personal information while on the other hand men use online platforms mostly for business reasons. This happens because Vermeren (2015, p. 1), affirmed that "women are more vocal, expressive and willing to share. In other words, women are biologically wired for social networking". Moreover, females and males have different stimuli and interests, for instance, women are interested in topics like fashion, beauty, and fit products, while men are more focused on topics such as sports and engines (Andrew, 2017). For this reason, it is necessary to make a clear distinction between the two groups, and in this case focus only on the female category. Besides these statements, it is of crucial importance to take into consideration how credible the customer perceives the source in order to determine his/her willingness to trust the brand and buy the product.

2.6 The credibility of the source

"Credibility is the degree to which the source is supposed to have capabilities pertinent to the message subject matter and it can be expected to offer an ideal view on the issue" (Aziz et al., 2013 p. 108).

The credibility of celebrities is one of the essential factors in online and offline advertisements. The reliability of celebrities leads to a higher reputation of the whole corporation, greater fidelity towards the firm, and the brand (Aziz et al., 2013). Moreover, the credibility of the source leads to the validity and authenticity of the brand. Customers are more willing to buy a specific brand if the source that informs the public is credible and reliable. If a customer perceives the source as poor in content and credibility, his/her propensity to believe and buy the product will be minimum.

For this reason, engaging a celebrity who is being perceived as credible on what he/she proposes to the public is of crucial importance to increase the number of sales and the notoriety of the company in general. Another factor that needs to be highlighted is what Mowen & Brown (1981) analysed. They conducted a study about offline celebrities, and they showed that when the celebrity endorses only one product instead of multiple products, this endorsement is taken more positively by the consumer. Consequently, consumers will have more sympathetic attitudes toward the propaganda which leads to greater credibility toward the information emphasized by the celebrity. This concept was developed based on offline celebrity endorsement; however, it can also be applied to the online environment since it is based on the same notions of celebrity endorsement.

Higher levels of source credibility lead to higher persuasion of the celebrity on the customers and thus, more influential compared to lower credible sources (Pornpitakpan, 2004). Influencers have a positive effect on persuading the message they want to transmit to the public. For this reason, the information they are willing to spread must be real and reliable (Seiler & Kucza, 2017). These two authors in their research highlighted the importance of the product-fit because celebrities should be chosen from the company not in a random way, but following the purpose of the firm in order to raise credibility and create strong and profitable strategies. It is then possible to affirm that celebrities play a strategic role in terms of building strong bonds between the customer and the firm. "A reliable celebrity also helps in brand identification and brand recall" (Aziz et al. 2013 p. 184). For these reasons, the more credible a source of information, the more influential the advertisement will be on customer brand awareness. Basically, the celebrity must try to have a maximum level of credibility in order to get the highest number of positive reactions from customers.

Overall, many studies were involved in the research of offline celebrities while less research was conducted regarding to social media celebrities. However, Gräve (2017) made a comparison between the two forms of celebrity advertisements (online and offline). He affirmed that trust is a necessary condition for customers to give credibility to celebrities and thus, he found that online influencers are recognized as more credible than traditional celebrities. The author mentioned that these online celebrities are high in credibility because they are seen as something special that is not present in the online market in some other ways. Online celebrities address their messages on social media only to the public who voluntarily chooses to follow them. To emphasize this concept, the statistics conducted by Oberlo (Figure D) shows that 49% of the online purchases are due to the marketing campaigns that celebrities make thanks to the credibility that customers develop towards them.

The more customers feel confident in the suggestions that the celebrity is giving them and trusts the source, the more likely he/she will be to make the purchase. However, on the other hand, if there is a lack of credibility of the source, the advertisement concerning the specific product won't have the same effect as there would not be a complete perception of credibility. Consumers will not be predisposed to perceive the advertising as real and the purchase of the product and brand loyalty will fail as a consequence.

2.7 Overview of the above findings

From the analysed literature, it emerged that older customers are increasing their use of social media platforms and slowly they are becoming less resistant than before to accepting new technology. Following these statements, higher levels of acceptance of new technology can positively influence brand awareness by using an online celebrity.

Brand awareness by using an online celebrity is the main focus of this thesis. Nowadays, this theme is widely discussed among people, and as it was mentioned in the above chapters, online celebrities are taking over all the social media platforms. They are followed by everyone, younger and older customers. The level of awareness of the brand that customers have depends on many factors. In this thesis, two variables have been theoretically and empirically analysed: the age of customers and customer engagement. If, on one hand, younger customers are more inclined to use social media, older people are impressively rising their daily use of these platforms. Another variable that has resulted to be of crucial importance from the research analysed before is customer engagement. People have different interests, different knowledge, different ways of thinking, and for these reasons they also have different levels of engagement with celebrities who sponsor a certain brand. Lastly, the credibility of the source has always been one of the most important topics when studying celebrity advertisements (before when analysing offline celebrity advertisement, and nowadays also for the online celebrity advertisement). This factor is so important that it can influence both the negative or the positive way of customer brand awareness by using a celebrity. When the credibility of the source is low, it can negatively influence brand awareness. On the other hand, if the credibility of the source is high, brand awareness can be positively influenced.

2.8 Hypotheses and Conceptual Model

2.8.1 Age and customer engagement towards brand awareness by using an online fashion celebrity

Many researchers, when analysing customer brand awareness by using a famous online celebrity, highlighted the importance of taking into consideration that distinct customers of divergent age-groups are being influenced differently. It is necessary to deeply analyse how different older and younger customers react to celebrity advertising on online platforms. The researches pointed out that celebrity endorsement has a bigger effect on younger than older customers (Atkin and Block, 1983). Thus, the older the consumers, the less they are influenced by online celebrities. Therefore, we hypothesize:

H1: There is a negative relationship between age and the awareness of the brand by using an online fashion celebrity.

Another variable that has crucial importance in determining customer brand awareness is customer engagement. According to Shojaee & Azman (2013) brand awareness is influenced by many factors which include WOM, customer engagement and brand exposure. From their research, it resulted that the most effective factor in the context of social media is customer engagement. Furthermore, as Schivinski et al., (2016) analysed in their research, the levels and the types of engagement are important concepts to deeply understand the engagement of the customer with the brand. They stated that higher levels of customer engagement contribute to a higher awareness of the brand. For these reasons, it is expected that the higher the customers are engaged with celebrities, the more they are influenced by them. Therefore, we hypothesize:

H2: There is a positive relationship between customer engagement with a fashion celebrity and the awareness of the brand by using an online fashion celebrity.

2.8.2 Acceptance of New Technology as a mediating variable

When investigating Technology Readiness, it is necessary to make a study and a clear distinction between older and younger customers. These two categories are not willing to accept new technologies at the same time and in the same way.

Existing research (e.g Lin and Hsieh, 2007) affirmed that not everyone is equally ready to accept new sophisticated ways of communication. Moreover, The Centre for Research and Education on Aging andTechnology Enhancement (CREATE) found that older consumers are less likely to use technology than younger customers (Vaportzis et al., 2017). Finally, Czaja et al., (2007) found that older customers are slower to adopt new technologies compared to younger people. Overall, higher acceptance of new technology as a mediating factor can lead to greater awareness of the brand by using an online fashion celebrity. The mediating variable acceptance of new technology mediates the direct relationship between the IV and the DV, demonstrating the reason for the relationship to occur. Therefore, we hypothesize:

H3: The acceptance of new technology positively mediates the direct relationship between age and brand awareness by using an online fashion celebrity.

H4: The acceptance of new technology positively mediates the direct relationship between customer engagement with a fashion celebrity and brand awareness by using an online fashion celebrity.

2.8.3 The credibility of the source as a moderator factor

The impact of the moderator factor is supposed to be relevant to the relation that the independent variable(s) has on the dependent variable. The moderator factor has crucial importance because it can affect the strength and the direction of the relationship between the IV and the DV.

Luo et al., (2013, p. 94), in their research analysed the moderating role of the credibility of the source and affirmed that "source credibility is defined as an information reader's perception of the expertise and trustworthiness of a source". If for some researchers the credibility of the source has an important effect on the customer's mind because it can change his/her attitude towards the product. Other researchers believe that the credibility of the source is a more complex concept since it is a factor that interacts with many other variables and consequently can change customers' perception of the product. For these reasons, many studies used the credibility of the source as a moderating variable in different situations. "Information provided by a highly credible source will produce a greater effect on perceived information credibility" (Luo et al., 2013, p. 94). In this research, it has been affirmed that higher credibility of the source positively changes the attitudes of people while low credibility of the source is not highly likely to change customers' attitudes.

In this thesis, the credibility of the source will have a moderating role between the acceptance of new technology and brand awareness. Indeed, Li and Suh (2015), affirmed that the source of credibility affects in a positive way the acceptance of new information systems.

For these reasons, it is expected that highly acceptance of new technology from the credibility of the source will have a stronger effect on brand awareness compared with those from less credibility of the source. Moreover, it is expected that higher credibility of the source will be perceived by the customer as more believable information. On the other hand, the advertisement from lower credibility of the source will trigger some doubts in the customer's mind. Therefore, we hypothesize:

H5: Highly credibility of the source has a positive moderating effect on the relationship between the acceptance of new technology and customer brand awareness by using a famous online celebrity.

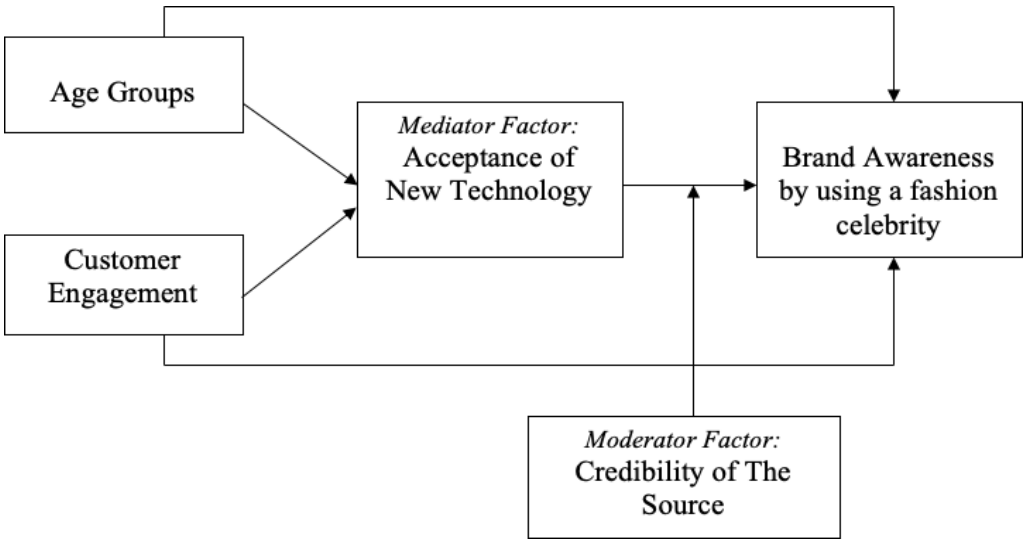

Figure 1: Conceptual model

3. Research Methodology

3.1 Research design

In this research two independent variables (IVs) were used, which are 1) age offemale customers and 2) engagement of customers with fashion products. Both IVs lead to customer brand awareness by using online celebrity advertisement through the mediator factor which is the acceptance of new technology. Moreover, I designed a moderator factor which is the credibility of the source of information. According to my hypotheses, the moderating factor has a positive impact on the relationship between the acceptance of new technology and brand awareness.

The empirical research has been conducted to solve the problem statement exposed in previous chapters through first, qualitative research, and secondly, through a quantitative survey. The qualitative research has been done before starting the quantitative research through interviews between younger and older customers. Interviews were conducted in order to understand if there were some other relevant concepts to include in the questionnaire beside the findings in the theoretical research. Indeed, the purpose of the qualitative research was to see if the variables analysed in the theoretical section are also present in today's life of younger and older people and whether there was the need to include some additional ones. Quantitative research has been spread over all the female population in Europe. An online survey through questionnaire has been provided in order to be able to get specific answers and information from the interviewed individuals.

3.2 Procedure of qualitative research phase

A qualitative study consisted of a skype, semi-structured interview with a small number of 6 European women of different ages in order to understand the key elements to include in the survey. This procedure was primarily an exploratory and observational phase and it has been done to understand opinions, ideas, motivations, experiences, and issues about my topic from different points of view. Respondents were asked to answer questions that were touching all the main points of the research and all the variables of the conceptual model: demographic questions, their engagement with fashion brands, their relationship with the acceptance of new technology, the perceived credibility on social media and their awareness with brands. Questions were broad in order to let the respondents answer what they really thought about the presented topic without manipulating and limiting their answers (Appendix G).

With regards to the results of the qualitative research, the main finding which supports the theoretical chapter is that online celebrity advertisement is a theme which is highly present in people's lives. However, half of the respondents affirmed that they do not really mind about celebrity advertisement even if they use social media. This means they might not be highly engaged with the content that online celebrities share. Moreover, all the interviewed people affirmed that they use social media platforms in their daily lives, using new technologies such as smartphones and laptops. As previously analysed from the theory, some users are more resistant to using new technology and some others are less resistant. The credibility of the source (in this case the online celebrity) resulted to be of crucial importance to the respondents in order to increase their brand awareness. However, they recognize that not all the celebrities that sponsor a certain product can be a credible source.

New information regarding the acceptance of new technology was acquired and entered in the quantitative questionnaire. These include the purpose of the daily use of social media which emerged to be to stay in contact with friends/family, to look for new trends in the market, for fun and to be inspired by celebrities.

The qualitative research positively impacted the quantitative research since it allowed me to confirm the previous theoretical statements and add some new important information that emerged from the six interviews.

3.3 Procedure of quantitative research phase - questionnaire

The questionnaire was conducted by sending an invite to participate via online platforms such as Facebook, Instagram, and WhatsApp. Thus, it was asked to participants to share the survey with female people they knew (Appendix I).

Respondents were informed they were answering to an online questionnaire where they evaluated the effect that online celebrity advertisements had on them. The analysis consisted of five parts: in the first section, participants were asked to answer basic questions related to the use of social media. In the second part, they were asked questions regarding customer engagement, and questions regarding brand awareness by using an online fashion celebrity. The third part concerning questions about the credibility of the source and the fourth part concerned the acceptance of new technology. In the last part, some basic questions such as demographic characteristics (age, gender, country, and education) were asked.

For the independent variable customer engagement, three articles that studied customer engagement were taken into consideration, and they have been adapted to this research. First of all, it has used some insights of the customer-based antecedents of customer engagement

behaviour of the article by Van Doorn (2010 p. 256) which are satisfaction and commitment. The second article that has been used is the study performed by Phua (2018) which studied customer engagement with celebrities that endorse e-cigarettes. Thirdly, it has taken into account the article of Faria et al. (2013) regarding the commitment, satisfaction, and loyalty as components of customer engagement. Questions consisted of the concepts of all the three mentioned studies. Respondents were asked to answer two questions concerning the satisfaction and two questions concerning the commitment based on a Likert scale from 1 to 5 (1= not at all, 2= a little, 3= neutral, 4= somewhat, 5= very much) in order to verify the match between customer engagement with fashion celebrities. Moreover, two other questions concerning the loyalty were asked based on a Likert scale from 1 to 5 (1=never, 2=sometimes 3=about half the time, 4=most of the time, 5=always). As suggested from the study I mentioned before, customer engagement has been operationalized in three components: satisfaction, commitment, and loyalty.

Regarding the dependent variable, in order to verify the brand awareness by using a famous celebrity, it has been adapted to the study conducted by Tritama and Tarigan (2016) which studied the effect of social media on brand awareness of a product. Their questionnaire has been slightly modified in order to better fit the questions to this research. In fact, brand awareness has been measured by using an online celebrity advertisement. The scale measurement has not been changed, the eight questions from the study by Tritama and Tarigan (2016) were kept by only changing the focus they put on social media into online celebrity advertisement. Participants were asked to answer eight questions based on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly disagree). As mentioned in the second chapter, brand awareness is formed by two components which are brand recognition and brand recall. For this reason, brand awareness has been operationalized in these two components.

Concerning the mediator factor: the acceptance of new technology was measured by taking into consideration the methodology used by Parasuraman and Colby (2015). A number of eight Technology Readiness 2.0 statements were presented using a 5-point Likert scale (1=strongly disagree, 2=somewhat disagree, 3=neutral, 4=somewhat agree, 5=agree). Questions covered the following categories that were also used in the article: Optimism, Innovativeness, Discomfort, and Insecurity. In this thesis, only eight items were taken into account from the study of Parasuraman and Colby (2015) because their entire research is focused on the Acceptance of New Technology, while in this thesis, this variable is used only as a mediating variable. Moreover, the last seven questions were developed based on the results

of the qualitative research, for these questions as well, the 5-point Likert scale is the same that was used before. In the end, the acceptance of new technology was performed with 15 items.

For the moderating variable, it has been taken into consideration the measurement method used by Appelman and Sundar (2016): the credibility of the source was investigated. Respondents were asked to see four online advertisements from four different celebrities: two famous celebrities (high credibility), and two non-famous celebrities (low credibility). High credibility is associated with a famous celebrity because he/she is a well-known person, while low credibility is associated with a non-famous celebrity since he/she is not well-known by the population. For each advertisement, they were asked to answer questions about their perception of the advertisement through a rating scale 1-5 (1=not at all, 2=a little, 3=neutral 4=somewhat, 5=very much). Participants were asked to read one advertisement and then they had to answer a list of 10 adjectives. Five of these ten adjectives included the formative measures of the credibility of the source (clear, complete, comprehensive, detailed, professional) and the other five included the reflective measures of the credibility of the source (accurate, authentic, believable, reliable, trustworthy), as proposed in the study conducted by Appelman and Sundar (2016). This is how the credibility of the source will be then operationalised: formative and reflective measures. In the end, as a consequence of the credibility of the source, participants were asked their probability of buying the product they saw in the advertisement. This item was not borrowed from the study of Appelman and Sundar (2016) but as additional information regarding the credibility of the source. See Table 1 for an overview of the operationalization of the variables and see Appendix H to have a more detailed view of the operationalization of each question.

Table 1: Operationalization of the variables

Variable	Definition	Items
Customer Engagement with a celebrity (Faria, 2013)	Interaction between the customer and a celebrity who sponsor the product	6 5-point Likert scale
Acceptance of New Technology (Parasuraman & Colby, 2015)	It defines how users come to accept and use new technology	15 5-point Likert scale
The credibility of the Source (Appelman & Sundar, 2016)	It is the degree to which a customer believes what the celebrity says	40 5-point Likert scale
Brand Awareness by using a celebrity (Tritama & Tarigan, 2016)	How the customer is aware of the brand that has been sponsored by a celebrity online	8 5-point Likert scale

3.4 Data collection method

No age limit has been set; all the females were welcome to participate in the survey. The analysis firs focused on age, and afterwards, during the analysis of the questionnaire, the research was segmented through age groups: this was ex-ante segmentation. The reason why it has been chosen to analyse the age group after the survey is that between groups there is heterogeneity which means that needs are different and answers would differ, while within groups, people are the same, and they are homogeneous.

3.5 Data analysis

The method that has been used to get the results and answers of the problem statements is regression analysis where it is possible to regard each regression coefficient as an indicator of importance. It has to be taken into account that all variables have to be metrically scaled, and there has to be a linear dependency between variables. Specifically, this study utilized the multiple regression analysis that permits to evaluate several metrics of independent variables and one metric of a dependent variable. However, this study required some steps before conducting multiple regression analysis (checking on the right gender and assumptions for applying regression analysis).

First of all, since we intended to include European females, males and non-European females had to be excluded from the database. Secondly, two items in the Acceptance of New Technology needed to be reversed and re-coded because they were formulated in a negative way. In order to get an accurate and appropriate analysis, I had to reverse two questions “I do not consider it safe to provide personal information over the internet” and “I don’t like social media because they don’t show the real life of celebrities”. Thirdly, based on similar answers that respondents gave during the survey and similar historical period, they were divided into groups. Indeed, age was segmented into five groups which are 1) under 24, 2) 25-30, 3) 31-40, 4) 41-55, 5) 56 and older. The first and the second groups are formed by younger customers, the third category is a hybrid, in between the younger and older customers, and the fourth and fifth categories are composed of older customers who participated in my research.

Regarding the phases of the analysis, it has started with a simple analysis of descriptive and frequencies for each item and each variable. Secondly, factor and reliability analyses were conducted, followed by the correlation matrix to see whether factors correlate high with each other or not. Lastly, multiple regression analysis was conducted.

4. Results

4.1 Sample

The total number of responses obtained from the online survey was 400 (N=400). However, since some of the respondents were males and some others were not-European female customers, the final number of valid answers refers to 353 respondents (N=353). In the end, all the final respondents were European and female.

The demographic analysis was run taking into consideration only those answers that were complete, which in the end resulted to be 353 as mentioned before. The majority of 353 respondents were younger customers, aged under 24 (63,2%) with a bachelor's degree as a higher level of education (42,8%). The category with the smallest number of respondents was customers aged 56 and older (2%) and PhD as a higher level of education (1,4%). Most of the respondents were from Italy (55,2%), followed by the UK (13,9%), Netherlands (8,2%), and so on. For a more detailed overview of the demographic variables see Table 2.

Table 2: Demographic variables

	N	%
AGE GROUPS		
Under 24	223	63,2
25-30	66	18,7
31-40	31	8,8
41-55	26	7,4
56 and older	7	2,0
LEVEL OF EDUCATION		
High School	77	21,8
Bachelor's Degree	151	42,8
Master's Degree	102	28,9
PhD	5	1,4
Other	18	5,1
COUNTRY OF CITIZENSHIP		
Italy	195	55,2
United Kingdom	49	13,9
Netherlands	29	8,2
Germany	10	2,8
France	8	2,3
Greece	7	2,0
Other	55	15,6

4.2 Descriptive Analyses

Five questions were asked to the participants in order to understand how they were related to the theme I proposed in this study. The first question regarded how often participants use social media such as Facebook, Instagram, YouTube, and Twitter. It resulted in a mean of 4.45, which means that people, on average, use social media often/very often. In fact, a number of 221 respondents answered: "very often", while only 6 people answered the completely opposite answer "not at all" (see Table 3). The std. deviation is .868 which is lower than the mean and it means that there is a preponderance of high values. The second question was about how familiar the participants are with the social media platforms mentioned in the previous question, in this case, the mean was 3.99 with a standard deviation of .876. Even in this case we have a good std. deviation result. A number of 149 participants answered: "very familiar" while only 3 participants responded, "not familiar at all" (see Table 3 for more details).

Table 3: Frequencies

How often do you use social media such as Facebook, Instagram, YouTube and Twitter?			*How familiar are you with these social media platforms?*		
	Frequency	**Percent**		**Frequency**	**Percent**
Not at all	6	1.7	**Not at all familiar**	3	.8
Rarely	10	2.8	**Slightly familiar**	14	4.0
Sometimes	23	6.5	**Moderately familiar**	77	21.8
Often	93	26.3	**Very familiar**	149	42.2
Very Often	221	62.6	**Extremely familiar**	110	31.2
Total	353	100.0	**Total**	353	100.0

The third question concerned the fact if respondents actually follow any online celebrity: 227 respondents answered yes, and 76 no. Only participants who responded "yes" were directed to the next two questions that were related to a more specific investigation of who and in which field the celebrity they named works. The celebrity who was mentioned the most resulted to be Chiara Ferragni with a high frequency of 76 which represents the 21.5% of 227 answers, followed by Kylie Jenner which had a frequency of 8 (2.3%), Gigi Hadid with a frequency of 7 (2.0%) and Rihanna with a frequency of 6 (1.7%). Other celebrities were named with minor frequency. When respondents were asked in which field the celebrity they chose works, it emerged that 119 people answered "other" which means it was not one of the mentioned categories (fashion, makeup, sport, engines). This answer was followed by a number

of 117 responses that regarded the “fashion” field. 20 were the answers in the “makeup” field, 19 “sport” and only 2 “engines”, for a total of 227 answers (see Table 4).

Table 4: Frequencies

Can you name one celebrity you follow?			*In which field does the celebrity you chose work?*		
	Frequency	**Percent**		**Frequency**	**Percent**
Chiara Ferragni	76	21.5	**Fashion**	117	33.1
Kylie Jenner	8	2.3	**Make up**	20	5.7
Gigi Hadid	7	2.0	**Sport**	19	5.4
Rihanna	6	1.7	**Engines**	2	.6
			Other	119	33.7
			Total	277	78.5

4.3 Factor Analysis and Reliability Analysis

In order to verify the reliability of the research, which indicate the accuracy of the measurement, the factor analysis has been conducted. This analysis was conducted for each variable of the conceptual model in order to confirm that the variables used for this research contain all the necessary information to provide meaningful results and to make sure that there are no other underlying dimensions. Furthermore, it permitted to check whether or not the items belonged to the constructs that were intended to do so.

The first factor analysis was conducted on brand awareness. In order to validate that the factor analysis is a good technique to use, the KMO and Bartlett’s Test of Sphericity were conducted. The KMO is .855 and Bartlett’s test .000. Both results affirm that the factor analysis is a suitable method (see Table 5 for more details). The analysis was performed by using the principal axis factoring method and an oblique rotation with oblimin method because all the correlations resulted to be higher than 0.40 (Appendix J). According to the table shown in Appendix J, two factors explain 50,95% of the common variance however, this is not a high percentage. From the pattern matrix (Appendix J) it is possible to see that, as it was planned, two factors can be labelled: five items load high on the first factor “brand recognition” and three items load high on the second factor “brand recall”.

The second factor analysis was conducted on customer engagement, the variable resulted significantly from Bartlett's Test of Sphericity and scored high in the KMO=.851. This analysis was conducted by using the principal axis factoring, where it emerged that only one factor explains 53,60% of the variance (Appendix K). In this case only one factor was extracted, and the solution cannot be rotated. This means that all the items of customer engagement fit

into a single construct. This difference from the theory can be explained by the fact that only two items for each term (satisfaction, commitment and loyalty) were used and they were not enough. Due to this issue, the Cronbach's Alpha for each construct was analysed. Cronbach's Alpha permits to see how strictly related a set of items are. The reliability of the first two elements that are part of the satisfaction, scored .809 which can be considered a high result. As well as for the loyalty, which reliability resulted to be .827. On the other hand, the reliability of the commitment resulted to be .445 which is a low score. As mentioned before, this is due to the fact that for each construct only two items were included.

The third factor analysis was conducted on the first, second, third and fourth advertisements and the credibility of the source. The analysis was conducted separately for each advertisement. In the end, four "credibility of the source" were given (Ad1 (high credibility), Ad2 (low credibility), Ad3 (high credibility), Ad4 (low credibility)). The Bartlett's test of Sphericity and the KMO resulted adequate for all the four advertisements, as it is possible to see from Table 5. The analyses were performed by using the principal axis factoring as an extraction method and Promax as a rotation method (see Appendix L for detailed information). For the credibility ad 1, two items explain 63,60% of the common variance. For the credibility ad 2, two items explain 68,26% of the common variance. For the credibility ad 3, 2 items explain 72,70% of the common variance. For the credibility ad 4, 2 items explain 73,43% of the common variance. As it was planned from the theory, it is possible to label two factors. Indeed, from the pattern matrix table (appendix L) it is possible to notice that 6 items load high on factor 1 "formative" and 4 items load high on factor 2 "reflective", for all the 4 credibility advertisements. As shown from the study conducted by Appelman and Sundar (2016), the credibility of the source is operationalized in formative and reflective measures. The only difference in this research is that the item "accurate" resulted to be a formative measure while in the provided literature it was labelled as reflective. This result implies that this empirical result is not in line with the theoretical constructs borrowed from Appelman and Sundar (2016).

With regards to the factor analysis of the acceptance of new technology, the Bartlett's test of Sphericity resulted to be significant (.000) and the KMO was .761 which is also significant. The factor analysis was performed by using the principal axis factoring as the extraction method, however, not all the correlations resulted to be above .30 (or -.30). Due to this reason, it was used the Varimax as a rotation method. As shown in Appendix M, 5 factors explain only 41.66% of the common variance, which is a low percentage. As shown in the rotated factor matrix table (Appendix M), four items load high on the first factor "optimism", two items load high on the second factor which emerged from the pre-test and that it is possible

to call “purpose of social media”. Moreover, two items load high on the third factor “insecurity”, two items load high on the fourth factor “discomfort” and two items load high on the fifth factor which emerged from the pre-test and that it is possible to call “disliking online celebrities”. Two items that in the TRI 2.0 were operationalized as “innovativeness”, loaded on “optimism” which indeed, reflected the old operationalization of the TRI 1.0. Three items loaded low on factors and were deleted. These are: “I mostly use social media such as Facebook, Instagram, YouTube and Twitter to stay in contact with my friends and family”, “I mostly use social media such as Facebook, Instagram, YouTube and Twitter just for fun”, “I usually use new technology (e.g. smartphones, tablets, laptops) to make online purchases”.

Table 5: KMO and Bartlett’s Test of Sphericity for all variables

Factor	**KMO Measure of Sample Adequacy**	**Bartlett’s Test of Sphericity Significance**
Brand Awareness	.855	.000
Customer Engagement	.851	.000
Credibility of the Source Ad 1	.897	.000
Credibility of the Source Ad 2	.910	.000
Credibility of the Source Ad 3	.903	.000
Credibility of the Source Ad 4	.930	.000
Acceptance of New Technology	.761	.000

From the reliability analysis (Table 6), it emerged that the Credibility of the Source Ad4 has the highest reliability, (α=0.942): the internal consistency can be considered as excellent, followed by the other variables of the credibility of the source. Customer Engagement scored high as well with α=0,865, followed by Brand Awareness with α=0.841, the internal consistency of these two variables is very good. The lowest internal consistency has been found in the Acceptance of New Technology (α=0.562) which is a questionable result. For this reason, two questions were deleted from the analysis which from the Item-Total Statistic table appeared to be those to be deleted to be able to increase the reliability of the construct. The question “I worry that information I make available over the internet may be misused by others” and “I still prefer to use traditional media to watch celebrity advertisements such as newspaper, TV, radio” were removed and the Cronbach’s Alpha increased (α=0.694). One possible explanation of the low correlation of the item “I still prefer to use traditional media to watch celebrity advertisements such as newspaper, TV, radio” with the others is that this question is the only one related to traditional media and may confuse the respondents and not fully explain the acceptance of new technology. Overall, the elimination of these two items and the consistency of the variable can be considered acceptable.

Table 6: Internal consistency

Construct	Cronbach's Alpha	# of Items	# of Items Deleted	Cronbach's Alpha
Brand Awareness	.841	8	0	
Customer Engagement	.865	6	0	
Credibility of the Source Ad 1	.906	10	0	
Credibility of the Source Ad 2	.924	10	0	
Credibility of the Source Ad 3	.938	10	0	
Credibility of the Source Ad 4	.942	10	0	
Acceptance of New Technology	.562	12	2	.694

4.4 Correlations

The correlation matrix that was conducted presents an overview of the correlations between all the variables investigated (Table 7). From the first insight of the correlations presented below, it is clear that the independent variable age groups is negatively correlated with all the other variables. This result is able to show what was stated in the previous chapters: older female customers have a negative relationship with brand awareness, credibility, acceptance of new technology and customer engagement.

Interestingly, the highest correlation is between brand awareness and customer engagement with the celebrity (r=.671), meaning that there is a positive correlation between the two concepts. Customer who is highly engaged with the fashion celebrity will also have a higher and positive awareness of the brand by using an online fashion celebrity. The highest negative correlation was found between customer engagement and age groups (r=-.393). This negative correlation means that the older the customers, the lower the customer engagement with an online fashion celebrity.

Table 7: Correlation matrix of all variables

	Age Groups	Brand Awareness	Customer Engagement	Source Credib1	Source Credib2	Source Credib3	Source Credib4	Acceptance of New Techn.
Age Groups	1	-.265**	-.393**	-.299**	-.105*	-.352**	-.356**	-.213**
Brand Awareness	-.265**	1	.671**	.455**	.221**	.375**	.382**	.497**
Customer Engagement	-.393**	.671**	1	.499**	.207**	.472**	.485**	.537**
Source Credib1	-.299**	.455**	.499**	1	.497**	.517**	.468**	.368**
Source Credib2	-.105*	.221**	.207**	.497**	1	.315**	.274**	.204**
Source Credib3	-.352**	.375**	.472**	.517**	.315**	1	.489**	.310**
Source Credib4	-.356**	.382**	.485**	.468**	.274**	.489**	1	.427**
Acceptance of New Techn.	-.213**	.497**	.537**	.368**	.204**	.310**	.427**	1
Mean	1.66	3.54	2.84	3.32	3.04	3.64	3.27	3.21
Std. Deviation	1.04	.660	.874	.864	.877	.971	.971	.572

**. Correlation is significant at the 0.01 level (2-tailed). N=353
*. Correlation is significant at the 0.05 level (2-tailed). N=353

4.5 Regression Analyses and Hypotheses Testing

4.5.1 Regression Analysis to predict the Brand Awareness from Age Groups

Before starting with the regression analysis, it is of crucial importance that the assumptions of this analysis are being met. In order to verify the homoscedasticity of the data, to reveal a linear relationship between independent variables and brand awareness, a Scatter Plot was used (Appendix N). It shows that residuals are equally distributed and thus, there is a line which shows a straight relationship with brand awareness. In this case, it can be assumed that both assumptions, homoscedasticity and linearity are met. Another important condition that has to be met is that the data must not show multicollinearity. If multicollinearity exceeds 4.0 or the level of tolerance is less than 0.2, it means there is a problem with multicollinearity (Hair et al., 2014). In this case, as shown in Table 8, this assumption was completely met, the

VIF resulted to be 1.065 with a high level of tolerance of .939. Furthermore, the assumption of normality was checked through the P-Plot (Appendix N) and the requirement was met: the residuals (errors) are approximately normally distributed.

The first linear regression analysis was conducted between age groups and brand awareness. According to the results of the model summary which shows the strength of the relationship between the IV and the DV, a significant regression analysis was found. R displays the linear correlation between age groups and brand awareness, which is .265, that means that the independent variable is 26.5% predicting the brand awareness. The R Square resulted to be .070 that explains whether there is variance in the dependent variable (brand awareness) that in this case is brought by the IV age groups. As shown in Table 9, the Standardized Coefficients Beta is negative (-.265) and the significance is .000, in this case, this result explains that there is a negative relationship between age groups and brand awareness. Basically, this means that when people get older, brand awareness decreases.

Subsequently, a linear regression analysis was conducted in order to predict the mediator factor (acceptance of new technology) from the independent variable (age groups). The model summary shows an R of .213 and an R Square of .045. The Standardized coefficient Beta resulted to be negative (-.213) and the significance .000. Even in this case, it is possible to notice a negative relationship between the independent variable and the mediating variable. A multiple regression analysis was calculated to predict the dependent variable Brand Awareness from the mediator factor (acceptance of new technology) and the independent variable age groups (see Table 9). The correlation between R is the multiple correlation coefficient which is the linear correlation between IVs and the DV, it resulted to be .523. R Square is .273 which demonstrates that 27,3% of the variation is explained by the model. In this case, the analysis gave two standardized coefficients beta 1) -.106 and 2) .532 and the respective level of significance of .000 and .000. Overall, the mediator factor acceptance of new technology did not positively improve the relationship between age groups and brand awareness. The negative effect is also confirmed by the unstandardized effect of the variable age groups that resulted to be always negative: when the age increases, the outcome decreases. The result of the relationship between age groups and brand awareness mediated by the acceptance of new technology is Beta value=-.113 which is a partial mediation effect. It is a partial mediation effect because the relationship between the IV and the DV is significant: the direct impact of predictor X on response Y is a direct effect and the impact of predictor X on response Y through the mediator variable is an indirect effect. *H1* was supported and *H3* was not supported.

Table 8: Multicollinearity

	Collinearity Statistics	
	Tolerance	**VIF**
Age Groups	.939	1.065
Acceptance of New Technology	.939	1.065
Dependent variable: Brand Awareness		

Table 9: First Regression Analysis

Model 1 (Age Groups and Brand Awareness)	**Coefficients Std. Error**	**Standardized Coefficients Beta**	**Sig.**
Age Groups	.033	-.265	.000
Model 2 (Age Groups and Acceptance of New Technology)			
Age Groups	.027	-.213 (a)	.000
Model 3 (Age Groups, Acceptance of New Technology and Brand Awareness)			
Age Groups	.030	-.106 (c)	.000
Acceptance of New Technology	.059	.532 (b)	.000
Total = a*b = -.212*.532 = -.113			

4.5.2 Regression Analysis to predict the Brand Awareness from Customer Engagement

The second phase of the analysis consisted of running a regression analysis to verify the strength of the relationship between the independent variable customer engagement and the dependent variable brand awareness. Moreover, the mediating variable acceptance of new technology was introduced to understand if this mediation may improve the relationship between the IV and the DV.

First of all, as mentioned in the above chapter, the linearity and homoscedasticity assumptions of the regression analysis were met and checked with the use of a Scatter Plot (Appendix N). As reported in Appendix L, the normality of the residuals is normally distributed. Moreover, the assumption of the multicollinearity was met (see Table 10), it resulted in a VIF of 1.417 and tolerance of .706 (VIF should not exceed 4.0 and tolerance should be higher than 0.2).

The first linear regression was conducted between brand awareness and customer engagement and it was found that the IV predicts 67,1% of the DV (R=.671), where R explains the correlation between the DV and the IV.

Moreover, it displays an R Square of. 450 (45.0%) which explains the variance in the brand awareness brought by customer engagement. With regard to the coefficients tab, as shown in Table 11, the standardized coefficient beta is quite high (.671) which results in having a high impact on the brand awareness (the level of significance is .000).

The second linear regression regarded the mediator variable acceptance of new technology that was used as a dependent variable and the customer engagement as an independent variable. The R resulted to be .537 while the R Square .289 with a significance level of .000. We found a standardized coefficient of .537 and a significance level of .000.

The third regression was conducted a multiple regression where customer engagement and acceptance of new technology were used as independent variables and brand awareness as a dependent variable. It resulted in R=.689 and R Square=.474. customer engagement and acceptance of new technology together predict 68.9% of the brand awareness and explain variance in the brand awareness of 47.4%. In the coefficients table, the significance level resulted to be .000 for both variables. Both variables were significant predictors of the brand awareness. As shown in Table 8, the standardized coefficients beta is higher for customer engagement (.429) than for the acceptance of new technology (.221). The final result of the relationship between customer engagement and brand awareness mediated by the acceptance of new technology was positive (.1), however, the mediating factor doesn't improve the relationship significantly. The mediating analysis consisted of a partial mediation because as mentioned before, the relationship between the IV and the DV was significant. From this analysis, it resulted that the *H2* is supported and the *H4* is not supported.

Table 10: Multicollinearity

	Collinearity Statistics	
	Tolerance	**VIF**
Customer Engagement	.706	1.417
Acceptance of New Technology	.706	1.417

Dependent variable: Brand Awareness

Table 11: Second Regression Analysis

Model 1 (Customer Engagement and Brand Awareness)	**Coefficients Std. Error**	**Standardized Coefficients Beta**	**Sig.**
Customer Engagement	.030	.671	.000
Model 2 (Customer Engagement and Acceptance of New Technology)			
Customer Engagement	.027	.537 (a)	.000
Model 3 (Customer Engagement, Acceptance of New Technology and Brand Awareness)			
Customer Engagement	.035	.429 (c)	.000
Acceptance of New Technology	.057	.221 (b)	.000
Total = a*b = .429*.221 = .1			

4.6 Moderation Analysis: The Credibility of the Source

To further analyse the last hypothesis H5 that comprises the relationship between the acceptance of new technology and the brand awareness moderated by the credibility of the source (which was divided into four advertisements). Indeed, four regression analyses were conducted.

First of all, in order to conduct a moderation analysis, it is necessary to centre the predicted variables (IVs) which are the credibility of the source 1 (for the first advertisement, credibility of the source 2 for the second advertisement and so on) and the acceptance of new technology, in order to avoid the multicollinearity. Secondly, the centred variables were multiplied in order to get an interaction variable (AcceptanceOfNewTechnology*CredibilityOfTheSource1) this has been done for all the four ads' credibility of the source (1-2-3-4). Successively, the assumptions of normality, linearity and homoscedasticity were met and calculated through the scatterplot and P-Plot (see Appendix O). The last assumption of the multicollinearity was confirmed with the VIF and the tolerance statistics as shown in table 12.

For the first advertisement, a new regression analysis was conducted in two models. The first model between the two IVs and the DV and the second model was calculated with the interaction effect to see if there is a significant influence of the moderating variable on the model. When looking at the model summary (table 13), it is possible to see that the R Square

of the first model is .337 which represents the proportion of the variance of the brand awareness that is explained by the IVs, wherein the second model (when the interaction was introduced), it appeared to be .343. The R square change of the model 2 (interaction between acceptance of new technology and credibility of the source 1) accounted for a small additional significant 0.5% of the variance (.005). The Sig. F Change resulted to be non-significant (.089). A non-significant regression equation was found when the moderating variable credibility of the source 1 was added to the model (model 1: F Change=89, p<.000, model 2: F Change 2,90, p=.089).

Table 12: Multicollinearity

	Tolerance	**VIF**
(Constant)		
AcceptanceOfNewTechnology	.868	1.153
CredibilityOfTheSource1	.866	1.155
AcceptofNewTech*CredibOfTheSour1	.935	1.069

Dependent Variable: Brand Awareness

Table 13: Model Summary Ad 1

Model	**R**	**R²**	**Adjusted R²**	**R² Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.581(a)	.337	.333	.337	89.003	2	350	.000
2	.585(b)	.343	.337	.005	2.903	1	349	.089

a. Predictors: (Constant), CredibilityOfTheSource1, AcceptanceOfNewTechnology
b. Predictors: (Constant), CredibilityOfTheSource1, AcceptanceOfNewTechnology, Interaction1
c. Dependent Variable: BrandAwareness

The second analysis took into consideration the second advertisement “credibility of the source2”. All the assumptions were met, as shown above, as well as the assumption of multicollinearity which is shown in table 14. In this case, the R square in the model 1, which is the proportion of the variance of the brand awareness (DV) explained by the acceptance of new technology and credibility of the source 2 (IVs) was .258. While the R square of model 2 (when the interaction was introduced) resulted to be .277. As shown in Table 15, the R square change accounted for additional 1,9% of the variance, which means that the variable added in the second model significantly improved the prediction. Both models appeared to be significant (1. P<.000 and 2. P=.003). A significant regression equation was found when the moderating variable credibility of the source 2 was added to the model because p<.05. (model 1: F Change=60.74, p<.000, model 2: F Change 9,223, p=.003).

Table 14: Multicollinearity

	Tolerance	VIF
(Constant)		
AcceptanceOfNewTechnology	.881	1.135
CredibilityOfTheSource2	.839	1.192
AcceptofNewTech*CredibOfTheSour2	.917	1.090

Dependent Variable: Brand Awareness

Table 15: Model Summary Ad 2

Model	R	R^2	Adjudsted R^2	R^2 Change	F Change	df1	df2	Sig. F Change
1	.508(a)	.337	.258	.258	60.740	2	350	.000
2	.526(b)	.343	.277	.019	9.223	1	349	.003

a. Predictors: (Constant), CredibilityOfTheSource2, AcceptanceOfNewTechnology
b. Predictors: (Constant), CredibilityOfTheSource2, AcceptanceOfNewTechnology, Interaction2
c. Dependent Variable: BrandAwareness

The third regression analysis took into account the credibility of the source 3. The assumption of multicollinearity was tested and met (as shown in table 16). As it is possible to see from table 17, in model 1 the main effect of the two independent variables accounted for 29.2% (R square change) of the variance in brand awareness and it resulted to be significant. The interaction between acceptance of new technology and credibility of the source 3, accounted for additional 0.3% of the variance, which is a very small percentage, in fact, it appeared to be non-significant: p= .196.

Table 16: Multicollinearity

	Tolerance	VIF
(Constant)		
AcceptanceOfNewTechnology	.881	1.135
CredibilityOfTheSource3	.839	1.192
AcceptofNewTech*CredibOfTheSour3	.917	1.090

Dependent Variable: Brand Awareness

Table 17: Model Summary Ad 3

Model	R	R^2	Adjusted R^2	R^2 Change	F Change	df1	df2	Sig. F Change
1	.541(a)	.292	.288	.292	72.269	2	350	.000
2	.544(b)	.296	.290	.003	1.675	1	349	.196

a. Predictors: (Constant), CredibilityOfTheSource3, AcceptanceOfNewTechnology
b. Predictors: (Constant), CredibilityOfTheSource3, AcceptanceOfNewTechnology, Interaction3
c. Dependent Variable: BrandAwareness

Fourthly, the fourth regression analysis regarded the fourth advertisement “credibility of the source 4”. The assumption of the multicollinearity was met, and it is shown in table 18.

According to the model summary (table 19), the R square change of the first model (without the interaction) explained the 27.7% of the variance in brand awareness. In the second model, it is possible to notice that the interaction, that was included, explained an additional significant 1,9% of the variance. A significant regression equation was found when the moderating variable credibility of the source 4 was added to the model (model 1: F Change=66.91, p<.000, model 2: F Change 9.187, p=.003).

Table 18: Multicollinearity

	Tolerance	VIF
(Constant)		
AcceptanceOfNewTechnology	.805	1.243
CredibilityOfTheSource4	.796	1.257
AcceptofNewTech*CredibOfTheSour4	.977	1.024

Dependent Variable: Brand Awareness

Table 19: Model Summary Ad 4

Model	R	R^2	Adjusted R^2	R^2 Change	F Change	df1	df2	Sig. F Change
1	.526(a)	.277	.272	.277	66.914	2	350	.000
2	.543(b)	.295	.2989	.019	9.187	1	349	.003

a. Predictors: (Constant), CredibilityOfTheSource4, AcceptanceOfNewTechnology
b. Predictors: (Constant), CredibilityOfTheSource4, AcceptanceOfNewTechnology, Interaction4
c. Dependent Variable: BrandAwareness

Furthermore, from a general overview, if the four advertisements are taken into consideration from their overall mean, it is possible to notice that the mean of the first and the third advertisements which were from famous celebrities were respectively 3.32 and 3.64. On the other hand, the mean of the second and fourth advertisements which were from less famous celebrities was respectively 3.04 and 3.27. Differences between the advertisements done by the two famous celebrities (1 and 3) and the two non-famous celebrities (2 and 4) are minimal, but they exist. However, as it has been shown in Table 13 and Table 17, advertisements 1 and 3 from famous celebrities resulted to be non-statistically significant, while advertisements 2 and 4 are statistically significant (Table 15 and Table 19).

On a more detailed level, the item that scored the highest for advertisements 1 (famous celebrity) and 4 (non-famous celebrity) is “clear” with respective means of 3.96 and 3.57 which are relatively high. With regards to advertisement 2 (non-famous celebrity), the highest mean resulted to be “believable” with a mean of 3.39, lastly, advertisement 3 (famous celebrity) scored the highest mean ever (compared to the other advertisements), on the item “professional” with a result of 4.15. Moreover, respondents perceive the first (mean of 2.69)

and second (mean of 2.43) advertisements as not really "detailed" which had the lowest means. The lowest mean of the advertisement 3 resulted to be "authentic" with a score of 3.41 and for the fourth advertisement, it resulted to be "professional" with a mean of 2.97 (more details can be found in table 20). All the 353 respondents answered these questions regarding the credibility of the source. As shown in table 20, from the T-Test, all the means resulted to be statistically significant (.000).

Table 20: Item statistics, means of credibility of the source

	Ad. 1 Mean Sig. (famous celeb.)		Ad. 2 Mean Sig. (non-famous celeb.)		Ad. 3 Mean. Sig. (famous celeb.)		Ad. 4 Mean Sig. (non-famous celeb.)	
Clear	3.96	.000	3.32	.000	3.82	.000	3.57	.000
Complete	3.36	.000	2.85	.000	3.68	.000	3.45	.000
Comprehensive	3.33	.000	2.87	.000	3.62	.000	3.38	.000
Detailed	2.69	.000	2.43	.000	3.47	.000	3.23	.000
Professional	3.13	.000	2.91	.000	4.15	.000	2.97	.000
Accurate	3.29	.000	2.96	.000	3.67	.000	3.23	.000
Authentic	3.16	.000	3.23	.000	3.41	.000	3.15	.000
Believable	3.50	.000	3.39	.000	3.47	.000	3.31	.000
Reliable	3.35	.000	3.27	.000	3.55	.000	3.22	.000
Trustworthy	3.39	.000	3.23	.000	3.58	.000	3.17	.000

Lastly, with regards to the four advertisements of the credibility of the source, one more question was asked for all the four cases: how the probability of respondents was to buy the product they just saw in the advertisement. From a descriptive analysis, interesting results emerged: the second and fourth advertisements, which are those advertised by a non-famous celebrity, scored the highest on the probability to buy the product after having seen the advertisement. The second and fourth advertisements (from non-famous celebrities) respectively had a mean on 2.40 and 2.51, while the first and the third advertisements (from famous celebrities) scored lower compared to the other two (means of 2.28 and 2.30). Even in this case, the differences are not extreme, but they exist. From the T-Test, it emerged that all these results are statistically significant (.000). From these findings it is possible to affirm that products advertised by non-famous celebrities had a higher probability to be bought by respondents than those advertised by famous celebrities.

4.7 Conclusions

From a general overview, as it was hypothesized, the analysis showed that there is a negative relationship between the IV age groups and the DV brand awareness, which states that the older the customers, the less their brand awareness by using a celebrity. In this case, the first hypothesis was supported (H1 supported). For the second hypothesis, it was hypothesized

that the relationship between customer engagement and brand awareness would be positive, and it was confirmed (H2 supported): the more the customer is engaged with the fashion celebrity, the higher the brand awareness by using a celebrity. The third hypothesis regarded two IVs (age groups and the acceptance of new technology as a mediating factor) and the DV. For this relationship, it was estimated a positivity in the role of the mediating factor on the relationship between age groups and brand awareness. It emerged that the relationship remained negative, for this reason, hypothesis 3 was not supported. The fourth hypothesis as well took into consideration the acceptance of new technology as a mediating variable between customer engagement and brand awareness. In this case, the acceptance of new technology had a negative role because it was not able to increase the strength of the relationship (H4 not supported). The last hypothesis concerning the moderating factor credibility of the source was analysed in the relationship between the acceptance of new technology (IV) and the brand awareness (DV). Since the credibility of the source was divided in four different advertisements, they were analysed in four different regressions. As shown in the previous chapter, two of them resulted to be non-significant, while the other two appeared to be significant. For these reasons, it is possible to affirm that the hypothesis 5 was partially supported. An overview of all the hypotheses can be found in Table 21.

Table 21: Summary of the hypotheses

Hypothesis	**Conclusion**
H1: There is a negative relationship between age and the awareness of the brand by using an online fashion celebrity.	Supported
H2: There is a positive relationship between customer engagement with a fashion celebrity and the awareness of the brand by using an online fashion celebrity.	Supported
H3: The acceptance of new technology positively influences the relationship between age and the awareness of the brand by using an online fashion celebrity.	Not Supported
H4: The acceptance of new technology positively influences the relationship between customer engagement with a fashion celebrity and the awareness of the brand by using an online fashion celebrity.	Not Supported
H5: The credibility of the source by using an online fashion celebrity has a positive moderating effect on the relationship between the acceptance of new technology and customer brand awareness.	Partially Supported

5. General Discussion

This thesis aimed to get a better understanding of the brand awareness of customers by using fashion celebrities who work on social media platforms such as Instagram, Facebook, Twitter, and YouTube, by taking into consideration the age of customers and their level of engagement with fashion celebrities. Additionally, by using the acceptance of new technology as a mediating variable and by utilising the credibility of the source of information as a moderating variable. In order to be able to study this phenomenon, a conceptual model was developed based on previous studies and literature. Furthermore, five hypotheses were created and tested through a questionnaire. The research questions of this study were mentioned in chapter one: "Do age and customer engagement explain brand awareness of female customers? How does the acceptance of new technology as a mediating variable play a role? How does the credibility of the source as a moderator variable play a role?" and analysed in chapter four. What emerged from this thesis and that gave a clear answer to questions that were formulated in the beginning is that, first of all, both age and engagement are two independent variables which are completely able to explain the customer brand awareness. These two relationships will be further explained in the next section. Secondly, it clearly emerged a considerable difference between younger and older customers concerning the acceptance of new technology. As previously stated, and now confirmed, younger customers are more positively related to the acceptance of new technology than older customers. However, the introduction of the mediating variable acceptance of new technology brought a negative result in both cases. It emerged to have a negative role when introduced in the relationship between age and brand awareness and between customer engagement and brand awareness. On the other hand, the introduction of the moderator factor credibility of the source resulted in a partial positive result.

5.1 Discussion

This research started with an analysis of how different aged-female customers and customers with a different level of engagement with fashion celebrities affect their brand awareness by using a celebrity. This research shows that there is a negative relationship between age groups and brand awareness, which supports the first hypothesis (H1). This result can confirm what previous research stated: older female customers are less aware of the brand when a celebrity is used to endorse the product/brand. On the other hand, younger customers are more willing to listen to what celebrities say and what they sponsor and share on online platforms, and consequently, they have higher brand awareness when a celebrity is used in the advertisement campaign.

When the mediating factor acceptance of new technology was introduced in the model, the relationship between the age groups and the acceptance of new technology resulted to be negative as well. In hypothesis 3, it was hypothesized that the acceptance of new technology could positively influence the relationship between age groups and brand awareness. This concept was not supported because the result that emerged from the regression analysis was negative (H3 not supported). This explains the fact that even if older customers are more likely than before to accept new technology in terms of using social media platforms for fun purposes, they still have low brand awareness by using a celebrity. On the other hand, younger customers are more inclined to accept new technology and thus, have higher brand awareness by using a celebrity.

Another objective of this research was to see how customers with different levels of engagement with fashion products differ in their brand awareness by using a celebrity. It was hypothesized that female customers with higher engagement with fashion celebrities should have higher brand awareness by using a celebrity. The first analysis showed that there is a positive and high relationship between customer engagement and brand awareness, which confirmed the second hypothesis (H2). This result explains that customers that are already interested and engaged with fashion celebrities in general, will have a more positive attitude towards brand awareness by using a celebrity. Furthermore, it is possible to affirm that it would be surprising if the result showed the opposite outcome since most of the previous research in this field showed the positive relationship between the two variables. However, as mentioned in the results part, theoretically, the customer engagement was operationalized in three constructs (satisfaction, commitment and loyalty). However, during the analysis, all the items loaded only on one construct. This difference from the theory is due to the fact that only two items per construct were used and they were not enough to explain the three constructs. During the second analysis, the mediating factor "acceptance of new technology" was introduced. Even here it emerged that the acceptance of new technology does not have a positive role in improving the relationship between customer engagement and brand awareness. For this reason, it is not possible to affirm that this mediating variable contributes to the improvement of the positivity of the relationship between the IV and the DV. Furthermore, during the analysis, it emerged that three items that were introduced in the acceptance of new technology, based on the answers of the qualitative research, loaded low on all the factors. For these reasons, they have been deleted. Indeed, it is possible to affirm that those items may represent the concept of the acceptance of new technology, but they are not part of the acceptance of new technology construct itself.

The last objective of the study was to analyse the impact that the moderating variable credibility of the source had on the relationship between the acceptance of new technology and brand awareness. First of all, since four different advertisements were presented to respondents, the credibility of the source was analysed in four different analyses to better understand if their impact could positively increase the strength of the relationship between the acceptance of new technology and brand awareness. From the four regression analyses, it emerged that the credibility of the source of two advertisements shared by famous celebrities did not have a significant impact on the relationship between the acceptance of new technology and brand awareness. However, the credibility of the source of two advertisements shared by non-famous celebrities had a significant impact. This means that the credibility of the source for advertisements of famous celebrities is not a necessary condition to increase the customer brand awareness. On the other hand, when an advertisement is shared by a non-famous celebrity, the credibility of the source emerges to have a positive impact on the relationship between the acceptance of new technology and customer brand awareness. Due to these two different results that emerged during the analysis of the credibility of the source, it is possible to divide the hypothesis 5 into two different hypotheses. The hypothesis H5a would state that the credibility of the source of a famous celebrity does not have a significant moderating effect on the relationship between the acceptance of new technology and customer brand awareness. On the other hand, the hypothesis H5b would state that that the credibility of the source of a non-famous celebrity has a significant moderating effect on the relationship between the acceptance of new technology and customer brand awareness. In addition, when analysing the credibility of the source for all four advertisements, it emerged a difference in my empirical study compared with the theoretical study taken into consideration. From the study conducted by Appelman & Sundar, the item “accurate” was labelled as a reflective item, while in this thesis it emerged to be a formative item.

Furthermore, a few descriptive analyses were conducted in order to get as much information as possible from the proposed questionnaire. In general, the majority of respondents use social media platforms very often, and they affirmed to be very familiar when using them, this condition typically fits perfectly to the features of young, highly educated women. These results confirmed what it was stated in the first chapters: nowadays the use of social media is a fundamental part of everyone’s life. Someone uses it a bit more and someone else a bit less, but in general social media is a consistent part of people's lives. For these reasons, online advertisements take over traditional offline advertisements that are losing importance more and more.

Lastly, it is possible to affirm that almost everyone who is active on social media platforms follows a celebrity. Indeed, it emerged that the majority of participants follow a celebrity, and a very high percentage of them chose Chiara Ferragni as the first online celebrity they could think of when asked the question. Chiara Ferragni is the most famous Italian fashion celebrity and quite popular abroad, she also landed at first place on global ranking "Forbes' Top Influencers List" in the fashion category (Clare O'Connor, 2017). However, it is important to highlight that a possible explanation for the high number of this answer is due to the fact that the majority of the respondents were Italians (195 out of 393). Additionally, Chiara Ferragni was also proposed in this research as an example of an online advertisement in the phase of the investigation of the credibility of the source, as she resulted in the most mentioned name during the qualitative test. Furthermore, the analysis revealed that most of the celebrities that respondents follow on social media belong to "fashion" and "other" categories. It was not possible to include all the existing categories (such as cinema, singing, theatre, food and so on) in potential responses. However, from the names that the respondents wrote when asked to name one celebrity they follow, it emerged that most of them were singers and actors.

5.2 Theoretical Implications

This research contributes to the marketing literature by providing several observations regarding customer brand awareness by using a celebrity. Since this theme is quite a modern and actual theme because the world of social media and celebrity is having their boom in these years, there is not much research that intensely studied this phenomenon, and with the characteristics I presented in this thesis.

A theoretical implication that this thesis develops is the study of brand awareness by using a celebrity in an online environment, mostly focused only on Instagram, Facebook, Twitter, and YouTube, by finding which are the differences of the perception of this theme between younger and older female customers and by taking into consideration their level of engagement with fashion celebrities. This research brought a different type of study compared to the vastity of studies that have been conducted regarding the role of celebrities, where the main factors of the studies were always the loyalty, the WOM, and so on. This thesis only focused on one part of the brand equity that is brand awareness. It resulted to be a valid and efficient study: taking into consideration different age groups that are present on social media, it helped to reach a more detailed view on how efficient a marketing campaign with celebrities should be for different audiences. Age groups is an accurate predictor for measuring customer brand awareness by using a celebrity. As well as for customer engagement, it resulted in having

a direct relationship with the customer brand awareness, and it emerged to be an accurate and authentic predictor for this study.

Another theoretical implication that can be derived from this study is that it was taken into consideration the broad meaning of the concept of "fashion products" and "fashion celebrities", while previous research often focused only on a specific target such as "luxury brands". The aim of this study was to address a wide audience and not limit it to "cheap" or "expensive" products as it has been done in the past (e.g. Godey et al., 2016 that focused their attention only on the social media marketing efforts of luxury brands). Choosing this category of study has permitted me to contribute to previous research by taking into consideration the nowadays most popular field in terms of celebrity advertisement between social media's users. The choice of the fashion category resulted in a well-fitted analysis of customer brand awareness by using a celebrity on an online platform.

This study also contributes to the literature by studying this actual phenomenon only among European without mixing too many cultures (only a few) altogether that could bring very different results due to different backgrounds. Moreover, large quantities of previous research were conducted among the American or Indian population. However, European culture and lifestyle are quite different, and the theoretical implication that it is possible to highlight here is the study of a different population that often has a marginal role while conducting academic research. This fact has permitted me to also take into consideration the point of view of a big continent that has an important role in terms of social media and celebrity advertisements.

Lastly, another contribution that this research showed is that for measuring the customer brand awareness by using a celebrity, the acceptance of new technology does not have a considerable role as a moderating factor. On the other hand, the credibility of the source leads to have an important role when the advertisement is made by a non-famous celebrity, but not when the advertisement is made by a famous celebrity: the moderating factor is not significant.

5.3 Managerial Implications

Besides the theoretical implications, there are also some managerial implications that this study can provide, and that can be relevant for marketing managers. The main conclusion of this research that managers can take into consideration when they try to increase the customer's brand awareness by using a celebrity is to accurately target the public. As the results of this study showed, younger and older customers do not have the same interest regarding the world of celebrities and fashion products.

Older customers are still sceptics towards the use of social media, but mostly they show a lack of interest in looking at celebrity advertisements on online platforms. On the other hand, younger customers are very open and much more likely and willing to pay attention and follow their favourite celebrities. For these reasons, managers should take into consideration the different audiences that exist and keep in mind that it is not possible to advertise a product through a celebrity that covers the public from teenagers to over 65. Once again, this study confirms prior knowledge of how important it is to target the public where to allocate the advertisement. However, the way companies target a specific audience should take into consideration more than one factor. This research showed that it would be better for managers to mostly focus their attention on younger female customers that have a high level of engagement with fashion celebrities on online platforms. For older customers, the use of online platforms as a way to engage with celebrities is still a taboo. For this reason, managers should pay less attention to marketing campaigns which aim at increasing the brand awareness of older customers. It might turn out a waste of time and money.

Another managerial implication that this study showed is that taking into account the acceptance of new technology is a very important factor while implementing a marketing strategy, however, it can't drastically change the condition of the customer brand awareness. Consequently, managers should take into consideration the level of customers' acceptance of new technology when developing a marketing strategy but not as a primary factor to study when analysing brand awareness by using a celebrity.

Lastly, it emerged that the credibility of the source is a fundamental factor while incrementing brand awareness by using a non-famous celebrity. Managers should carefully choose the person who best fits the purpose of their campaign because it appears that customers do not perceive really important the credibility of the source when the celebrity is well-known. Although, it is influential when the advertisement is made by a non-famous celebrity. Managers must not overlook the issue of the "credibility of the source" when implementing a strategy to increase the brand awareness by using a non-famous (or less-famous) celebrity because based on the level of credibility they arouse in the customer's mind, they can fail or highly succeed.

5.4 Limitations and Future Research

There are several limitations that this research holds and suggestions for future research that may be improved and examined. First of all, regarding the limitations section, this research was ideated and conducted only among European customers. This fact strongly contributes to the biggest limitation of this analysis: different cultures and different countries may have

different perceptions about social media and celebrity advertisements and may have different engagement with fashion celebrities. For this reason, a possible suggestion for future research would be to focus on different continents such as America, Africa, Oceania or Asia or to be more specific and focus only on one country to get as detailed results as possible. For example, three of the biggest groups of respondents of this research are Italian, English and Dutch: these countries are highly developed and may have similar characteristics in terms of interest of same online platforms, same mindsets and culture. On the other hand, Eastern European countries are less developed than Western European countries and have different culture, religion and way of using social media and celebrity endorsement. Another suggestion for future research may be the comparison between Eastern European and Western European customers.

The second limitation that it is possible to highlight is that only the female population was taken into account. Even if previous research affirmed that females are more inclined to use social media for fun, to search for deals and promotions, and to engage with fashion celebrities (Vermeren, 2015), males can also contribute differently about this theme. Future research could only focus on male customers or take into consideration both male and female customers and highlight the main differences between these two groups. Or again, it would be possible to take into consideration both genders and analyse their brand awareness by using a fashion celebrity, since males who are highly engaged in a fashion product, can be similar to females who are highly engaged in a fashion product. In this case, it would not be a matter of gender but of engagement in a particular product (in the present case fashion products).

Thirdly, this research exclusively focused on the fashion field where celebrities work, thus extremely limiting the study to a small group of celebrities even if it is one of the most popular categories (Andrew, 2017). However, there exist many other fields where celebrities are active on social media and engage with customers (e.g. makeup, fitness, cinema). Future research may focus on another category or not focus on any category and do broad research only based on celebrities online. Or again, future research may shift their attention to male celebrities that are highly present in sport, engines, and cinema fields.

One of the biggest limitations that have been found in this research is that the majority of the respondents were younger customers while the number of older customers was quite small. For this reason, this study may not really represent the real situation across Europe.

Future research may try to find a more adequate number of older respondents in order to have a similar number of older and younger female customers to get a more correct result.

Another limitation that needs to be mentioned is that only one moderating factor, which is the credibility of the source was taken into consideration while from previous analyses many other moderating factors can increase the brand awareness, for example, the skills of the celebrity, the loyalty, or the celebrity-brand match-up. These factors are highly important when discussing brand awareness by using a celebrity and may give important results and contributions for further analyses.

As well as for the mediating factor: in this analysis, only the acceptance of new technology was analysed as having a mediating role between the independent variables and the dependent variable and evaluated to be a well-fitted mediating variable in this situation. However, many other variables can be used as mediating factors for improving the relationship that may be highly relevant while conducting this kind of analyses. For instance, it may be taken into account the increasing knowledge of a new product or the attractiveness of the product (Tritama & Tarigan, 2016).

Furthermore, as previously mentioned in the discussion part, it emerged that the credibility of the source produced two different results for the two different types of celebrities who were used. The credibility of the source of the advertisement made by a non-famous online celebrity resulted in improving and strengthen the relationship between the acceptance of new technology and brand awareness. On the other hand, those made by famous online celebrities did not have a positive impact on strengthening the relationship. For these reasons, it emerged how important it is to divide these two kinds of credibility of the source. In future research, it would be useful to divide the credibility of the source into two hypotheses and deeply analyse them.

Lastly, as proven from other studies and theories, other independent variables can be relevant while studying brand awareness by using a celebrity. This research did not focus on a specific brand or product but more in general, in fashion products. In future research, it would be possible to concentrate on a specific brand and investigate brand recall and brand recognition, which are the two elements that form brand awareness to get a more detailed study on this dependent variable.

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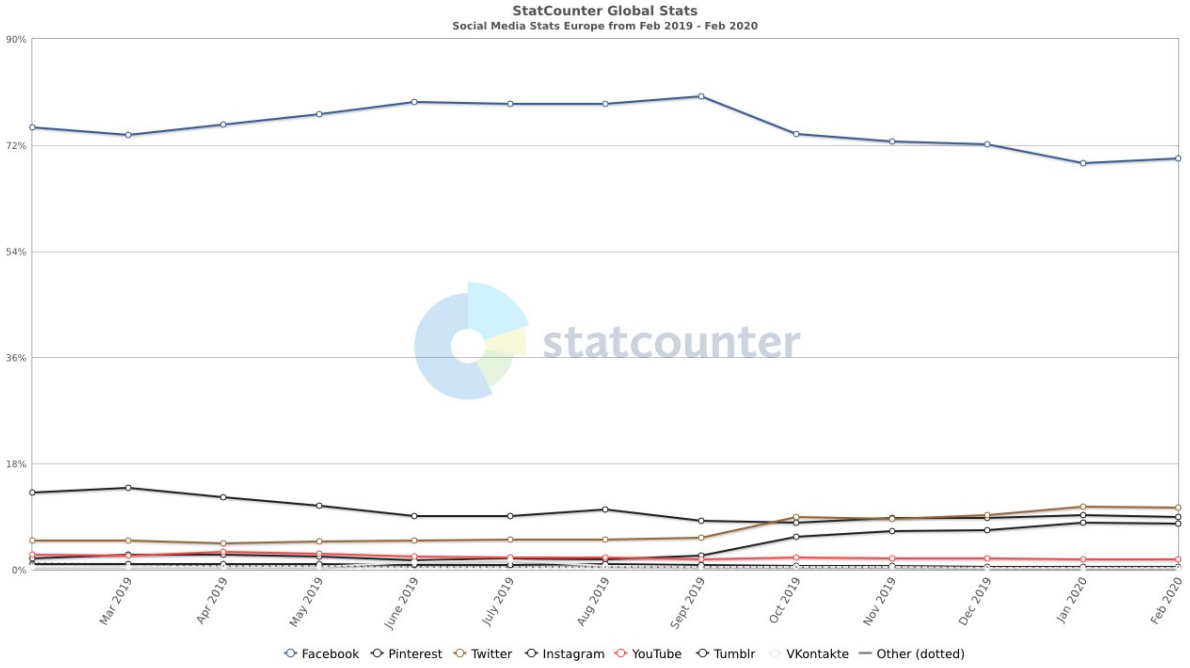
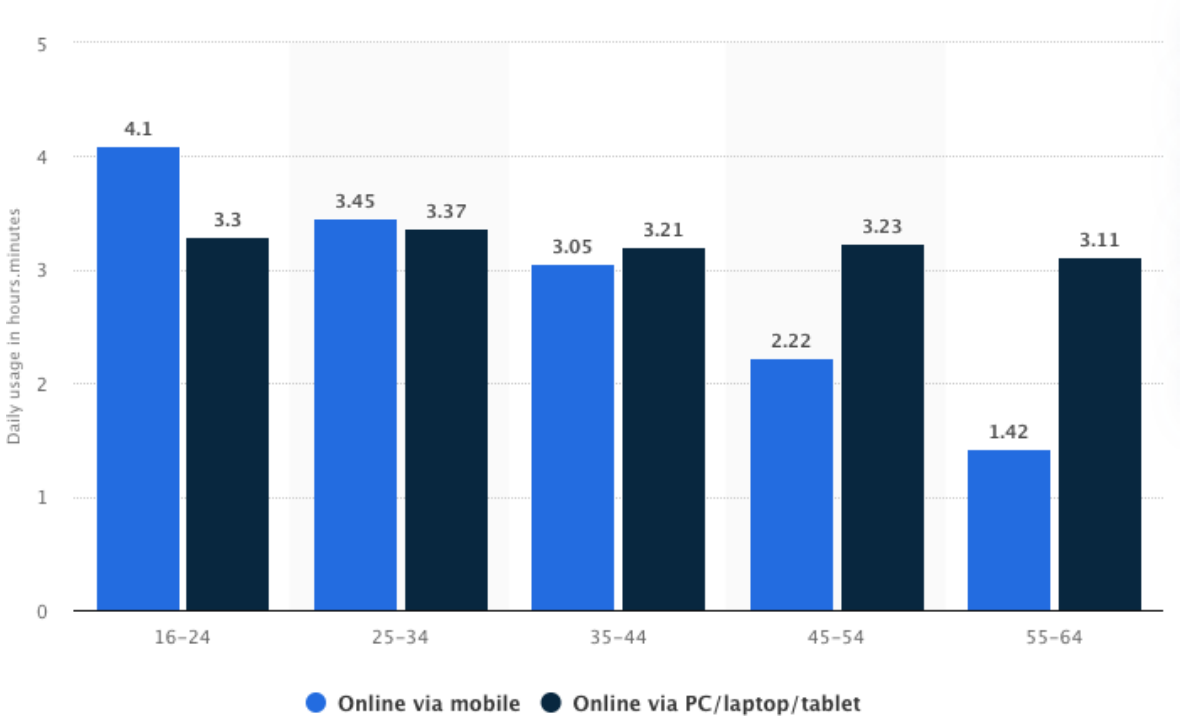
7. Appendix:

Appendix A: Europe Social Media usage - from February 2019 to February 2020



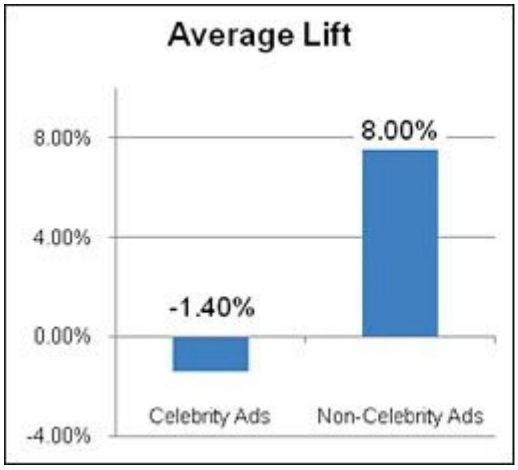
Appendix B: Average daily internet usage worldwide 2019, by age and device

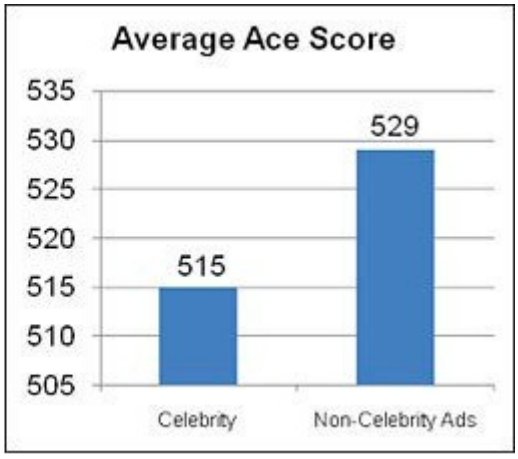


Appendix C: Instagram worldwide active users in 2019

Appendix D: Influencers on Social Media in 2018

Appendix E: Ineffectiveness of Celebrities Advertising in 2010





Appendix F: Social Media Platform by User Gender

Social Media Platform by User Gender

	Female Users (%)	Male Users (%)
Snapchat	70	30
Pinterest	60	40
Instagram	58	42
Facebook	52	48
Twitter	47	53
LinkedIn	46	54
YouTube	45	55

Appendix G: Pre-test interview

Dear participants,

Thank you for the time and cooperation in this survey. I am a Marketing Master student at Radboud University in Nijmegen and my supervisor is Mr Hans Kasper, a Marketing professor at Maastricht University.

Before starting I would like to say that the interview will take approximately 40 minutes and the participation is voluntary and completely anonymous. The answers will be used only for this research and not for other purposes. Please be aware that you can decide to stop the survey at any moment without negative consequences. Do you agree if I record the interview?

During this survey, I will ask some questions regarding the relationship between brands and celebrities in advertisements on the internet, mostly on social media such as Facebook, Instagram, Twitter and YouTube.

1) What is your opinion about celebrity advertisements on social media?
2) What does online celebrity advertisement mean to you?
3) How is this factor present in your life?
4) What is cutting-edge technology at home for you?
5) Why do you use this cutting-edge technology at home? And not other technologies?
6) What motivates you to try new technology? And why do these factors you just said motivate you to try new technology?
7) What makes you hesitant to try new technology? Why?
8) What is it about you in particular that influences the extent of your technology use?
9) How often do you use the internet? Why?
10) Do you think the internet improves the quality of your life through greater freedom? If yes why? If no, why?
11) Do you think the internet improves the quality of your life through greater control? If yes why? If no, why?
12) Do you perceive a lack of familiarity in using technology? If yes why? If no, why?
13) Do you perceive some risk in using technology? If yes why and which? If no, why? (e.g. security and privacy)
14) What kind of social media do you have? And why do you possess Facebook and not Instagram for instance?
15) For what purposes do you use these social media?

16) If you follow some celebrities, in what kind of field do they work in?
17) Can you tell me some international fashion celebrities you follow on social media?
18) What sort of activities (things) do you do on social media that involve fashion brands? (e.g. watching fashion brands videos, pictures, images, commenting)
19) Can you name activities that motivate Internet users to be engaged with a fashion brand? (e.g. giveaways)
20) Have you ever heard about the following fashion brands:
    - Versace, Puma, Vogue, Saint Laurent, H&M
21) Have you ever heard about the following online fashion celebrities?
    - Jennifer Lopez, Chiara Scelsi, Alaya F., Rihanna, Victoria Beckham, Phoebe Waller-Bridge, Got7 JB, Naomi Campbell, Beyonce, Johanna Ortiz
22) Do you always perceive the information that online celebrities are telling you as credible? If yes why? If not why?
23) When do you think information has a lack of credibility?
24) When do you think the information can be valued as credible?
25) Do you follow fashion celebrities even if you don't perceive them as credible? Why?
26) What could increase the credibility of the source?
27) In order to evaluate the credibility of the source, have you ever taken into consideration the validity and reliability of the source? How are these two factors important to you?
28) Is there a topic that we didn't discuss in this interview that you feel relevant and important in this field?
29) What is your age?
30) What is your gender?
31) Are you European?

Thank you for the time you spent answering these questions, your cooperation has been really important.

Appendix H: Questionnaire items

Brand Awareness (Tritama & Tarigan, 2016):

1. Online celebrity advertisements are good to be used as a marketing tool for fashion products.
2. Any fashion brand should have online celebrity advertisements as marketing tools.
3. Advertising through online celebrities is more quickly recognized by the community rather than advertising through offline celebrities.
4. Online celebrities can attract more customers to the company products.
5. Advertisements that draw attention to online celebrities determine the selling of company products.
6. I know a lot of new fashion products from online celebrity advertisements.
7. Online celebrity advertisements help me to remember new fashion products.
8. I like to buy fashion products that are advertised by online celebrities.

Customer Engagement (Faria, 2013):

Satisfaction:

1. I am very satisfied with the content that my favourite fashion celebrities are sharing on social media.
2. I am very satisfied with the choice of following celebrities on social media that work in the fashion field.

Commitment:

3. I usually "like" posts that fashion celebrities I follow share on social media.
4. I usually "comment" on posts that fashion celebrities I follow share on social media.

Loyalty:

5. I intend to keep following the online fashion celebrities I am currently following within the next year.
6. I intend to keep interacting with the online fashion celebrities I am currently following within the next year.

The credibility of the Source (Appelman & Sundar, 2016):

How do you perceive the following online fashion celebrity advertisement?

Formative measures of message credibility:

1. Clear
2. Complete
3. Comprehensive
4. Detailed
5. Professional

Reflective measures of message credibility:

6. Accurate
7. Authentic
8. Believable
9. Reliable
10. Trustworthy
11. What is your probability to buy this product after having seen the above advertisement?

Acceptance of New Technology (Parasuraman & Colby, 2015):

Optimism:

1. New technologies contribute to a better quality of life.
2. Technology gives me more freedom to do things where I please.

Innovativeness:

3. I find new technologies to be mentally stimulating.
4. I prefer to use the most advanced technology available.

Discomfort:

5. Sometimes, I think that technology systems are not designed for use by ordinary people.
6. It is embarrassing when I have trouble with a high-tech gadget while people are watching.

Insecurity:

7. I worry that information I make available over the internet may be misused by others.

8. I do not consider it safe to provide personal information over the internet.

From the pre-test:

9. I usually use new technology (e.g. smartphones, tablets, laptops) to make online purchases.
10. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to stay in contact with my friends and family.
11. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to look for new fashion trends in the market.
12. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to be inspired by the online celebrities I follow.
13. I mostly use social media such as Facebook, Instagram, YouTube and Twitter just for fun.
14. I don't like social media because they don't show the real life of celebrities.
15. I still prefer to use traditional media to watch celebrity advertisements such as newspapers, TV, radio.

Demographic:

1. How old are you?
2. What is your gender?
3. What is your country of citizenship?
4. What is the highest education you obtained (or you are currently obtaining)?

Appendix I: Full Questionnaire

Dear participants,

My name is Federica Ferrari. I come from Bergamo in Italy.
At the moment I am a Master student of Marketing at Radboud University in Nijmegen, the Netherlands.
My supervisor is prof Hans Kasper.
This survey will take approximately 12 minutes, the participation is voluntary and completely anonymous. The answers will be used only for this research and not for other purposes. Please be aware that you can withdraw from the survey at any moment without negative consequences.

To take part in this research you should be a woman and no age-limit has been set. The purpose of this survey is to understand the different impact that celebrity advertisements on social media platforms have on customers' lives.

1. How often do you use social media such as Facebook, Instagram, YouTube and Twitter? (1=not at all, 5=very often)
2. How familiar are you with these social media platforms? (1=not familiar at all, 5= extremely familiar)
3. Do you follow any online celebrities? (Yes, No)
    - If yes selected:

    3.1. Can you name one celebrity you follow?

    3.2. In which field does the celebrity you chose work? (Fashion, Makeup, Sport, Engineers, Others)

To what extent do you agree with the following statements? (1=Strongly Disagree, 5=Strongly Agree)

4. Online celebrity advertisements are good to be used as a marketing tool for fashion products.
5. Any fashion brand should have online celebrity advertisements as marketing tools.
6. Advertising through online celebrities is more quickly recognized by the community rather than advertising through offline celebrities.
7. Online celebrities can attract more customers to the company products.

8. Advertisements that draw attention to online celebrities determine the selling of company products.
9. I know a lot of new fashion products from online celebrity advertisements.
10. Online celebrity advertisements help me to remember new fashion products.
11. I like to buy fashion products that are advertised by online celebrities.

To what extent would you rate the following statements? (1=not at all, 5=very much)

12. I am very satisfied with the content that my favourite fashion celebrities are sharing on social media.
13. I am very satisfied with the choice of following celebrities on social media that work in the fashion field.
14. I intend to keep following the online fashion celebrities I am currently following within the next year.
15. I intend to keep interacting with the online fashion celebrities I am currently following within the next year.

To what extent do you do the following actions?

16. I usually “like” posts that fashion celebrities I follow share on social media.
17. I usually “comment” on posts that fashion celebrities I follow share on social media.

In the following section, four different online advertisements will be presented, you should answer the following questions regarding the credibility of the source that these online celebrities are revealing to you.

First celebrity advertisement on Instagram:

How do you perceive the following online fashion celebrity advertisement? (1=not at all, 5=very much)

18. Clear
19. Complete
20. Comprehensive
21. Detailed
22. Professional
23. Accurate
24. Authentic
25. Believable
26. Reliable
27. Trustworthy
28. What is your probability to buy this product after having seen the above advertisement? (1=not at all probable, 5=very much probable)

Second celebrity advertisement on Instagram:

How do you perceive the following online fashion celebrity advertisement? (1=not at all, 5=very much)

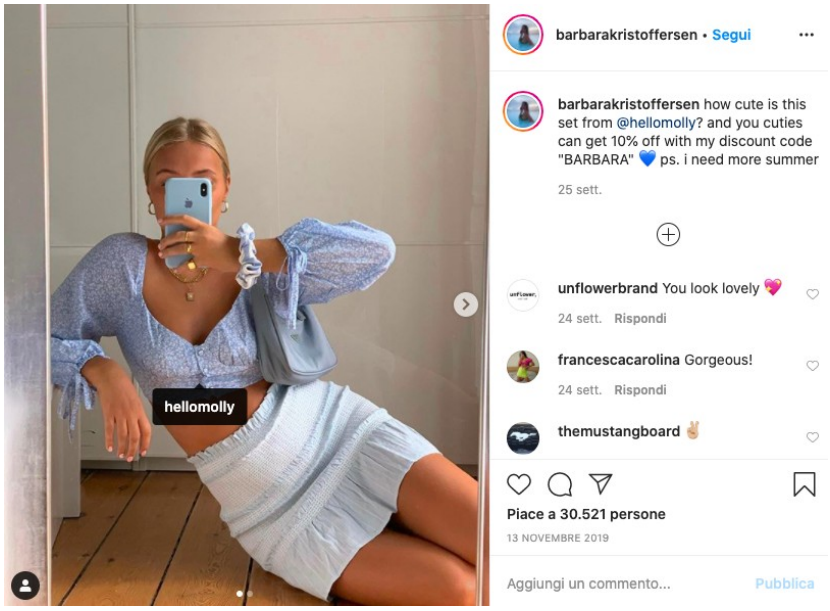
29. Clear
30. Complete
31. Comprehensive
32. Detailed
33. Professional
34. Accurate
35. Authentic
36. Believable
37. Reliable
38. Trustworthy
39. What is your probability to buy this product after having seen the above advertisement? (1=not at all probable, 5=very much probable)

Third celebrity advertisement on Instagram:

How do you perceive the following online fashion celebrity advertisement? (1=not at all, 5=very much)

40. Clear
41. Complete
42. Comprehensive
43. Detailed
44. Professional
45. Accurate
46. Authentic
47. Believable
48. Reliable
49. Trustworthy
50. What is your probability to buy this product after having seen the above advertisement? (1=not at all probable, 5=very much probable)

Fourth celebrity advertisement on Instagram:



How do you perceive the following online fashion celebrity advertisement? (1=not at all, 5=very much)

51. Clear
52. Complete
53. Comprehensive
54. Detailed
55. Professional
56. Accurate
57. Authentic
58. Believable
59. Reliable
60. Trustworthy
61. What is your probability to buy this product after having seen the above advertisement? (1=not at all probable, 5=very much probable)

To what extent do you agree with the following statements? (1=strongly disagree, 5=agree)

62. New technologies contribute to a better quality of life.
63. Technology gives me more freedom to do things where I please.

64. I find new technologies to be mentally stimulating.
65. I prefer to use the most advanced technology available.
66. Sometimes, I think that technology systems are not designed for use by ordinary people.
67. It is embarrassing when I have trouble with a high-tech gadget while people are watching.
68. I worry that information I make available over the internet may be misused by others.
69. I do not consider it safe to provide personal information over the internet.

To what extent do you agree with the following statements? (1=strongly disagree, 5=agree)

70. I usually use new technology (e.g. smartphones, tablets, laptops) to make online purchases.
71. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to stay in contact with my friends and family.
72. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to look for new fashion trends in the market.
73. I mostly use social media such as Facebook, Instagram, YouTube and Twitter to be inspired by the online celebrities I follow.
74. I mostly use social media such as Facebook, Instagram, YouTube and Twitter just for fun.
75. I don't like social media because they don't show the real life of celebrities.
76. I still prefer to use traditional media to watch celebrity advertisements such as newspapers, TV, radio.
77. How old are you?
78. What is your gender?
79. What is your country of citizenship?
80. What is the highest education you obtained (or you are currently obtaining)? (High School, Bachelor's Degree, Master's Degree, PhD, Other)

Thank you for the time you spent answering these questions, your cooperation has been really important.

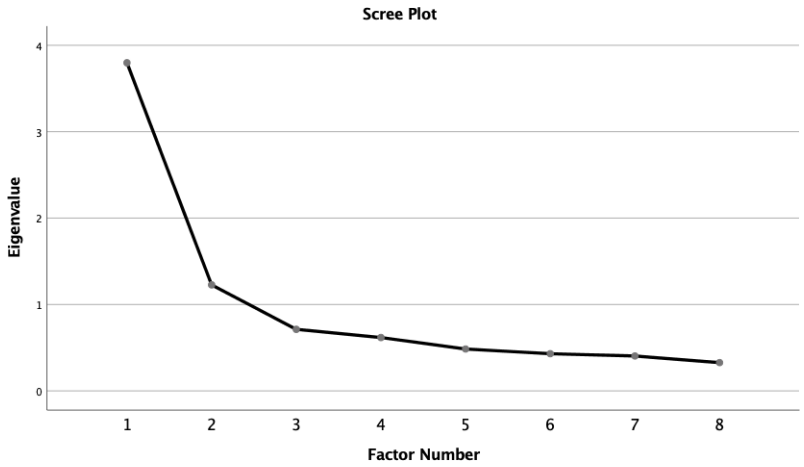
Appendix J:

Pattern Matrix (a)

	Factor	
	1	**2**
Online celebrity advertisements help me to remember new fashion products.	.798	
I like to buy fashion products that are advertised by online celebrities.	.798	
I know a lot of new fashion products from online celebrity advertisements.	.737	
Any fashion brand should have online celebrity advertisements as marketing tools.	.654	
Online celebrity advertisements are good to be used as a marketing tool of fashion products.	.605	
Online celebrities can attract more customers to the company products.		.846
Advertising through online celebrities is more quickly recognized by the community rather than advertising through offline celebrities.		.657
Advertisements that draw attention to online celebrities determine the selling of company products		.493

Extraction Method: Principal Axis Factoring.
Rotation Method: Oblimin with Kaiser Normalization

a. Rotation converged in 4 iterations.



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3,798	47,470	47,470	3,326	41,571	41,571	3,124
2	1,227	15,342	62,812	,750	9,378	50,949	2,312
3	,712	8,903	71,715				
4	,617	7,718	79,434				
5	,484	6,054	85,488				
6	,430	5,377	90,865				
7	,404	5,046	95,911				
8	,327	4,089	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Factor Correlation Matrix

Factor	1	2
1	1,000	,572
2	,572	1,000

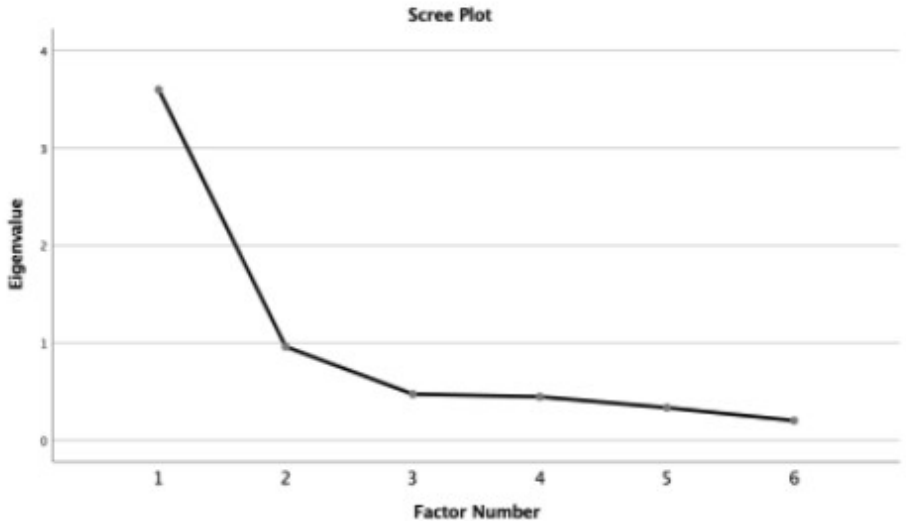
Extraction Method: Principal Axis Factoring.
Rotation Method: Oblimin with Kaiser Normalization.

Appendix K:

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,595	59,923	59,923	3,216	53,595	53,595
2	,958	15,967	75,890			
3	,471	7,851	83,740			
4	,444	7,398	91,139			
5	,332	5,537	96,675			
6	,199	3,325	100,000			

Extraction Method: Principal Axis Factoring.

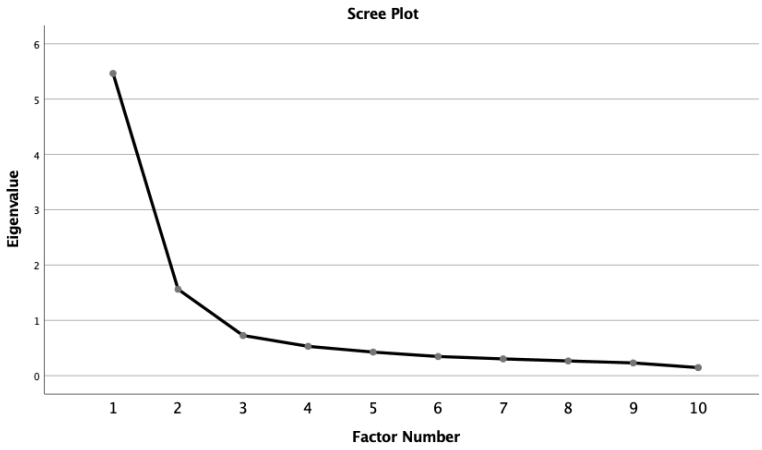


Appendix L:

Credibility AD 1 Pattern Matrix (a)

	Factor	
	1	**2**
How do you perceive the above online fashion celebrity advertisement?		
Complete	.877	
Comprehensive	.823	
Detailed	.799	
Accurate	.750	
Clear	.645	
Professional	.464	
Reliable		.907
Believable		.874
Trustworthy		.858
Authentic		.739

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
a. Rotation converged in 3 iterations.



Factor Correlation Matrix

Factor	1	2
1	1,000	,587
2	,587	1,000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

Total Variance Explained

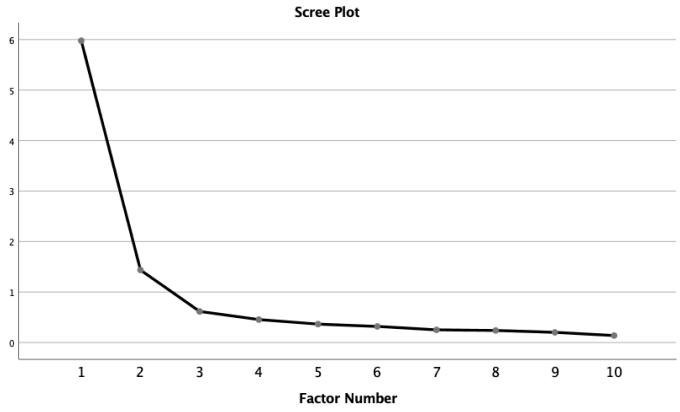
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5,464	54,640	54,640	5,122	51,217	51,217	4,424
2	1,562	15,619	70,260	1,238	12,382	63,599	4,210
3	,726	7,261	77,521				
4	,531	5,307	82,827				
5	,426	4,259	87,086				
6	,346	3,460	90,546				
7	,304	3,037	93,582				
8	,266	2,656	96,239				
9	,231	2,307	98,546				
10	,145	1,454	100,000				

Extraction Method: Principal Axis Factoring.
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Credibility AD 2 Pattern Matrix (a)

	Factor	
	1	**2**
How do you perceive the above online fashion celebrity advertisement?		
Complete	.903	
Comprehensive		.899
Detailed	.833	
Accurate	.712	
Clear	.682	
Professional	.465	
Reliable		.914
Believable		.876
Trustworthy		.831
Authentic		.820

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
b. Rotation converged in 3 iterations.



Factor Correlation Matrix

Factor	1	2
1	1,000	,630
2	,630	1,000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

Total Variance Explained

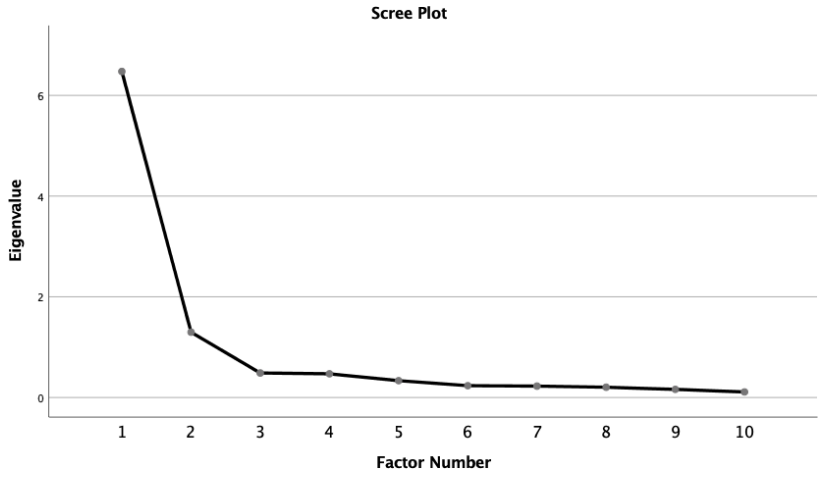
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5,978	59,783	59,783	5,672	56,716	56,716	4,959
2	1,437	14,366	74,149	1,155	11,546	68,262	4,707
3	,616	6,157	80,306				
4	,454	4,544	84,850				
5	,365	3,648	88,498				
6	,319	3,191	91,689				
7	,252	2,518	94,207				
8	,239	2,389	96,596				
9	,201	2,015	98,611				
10	,139	1,389	100,000				

Extraction Method: Principal Axis Factoring.
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Credibility AD 3 Pattern Matrix (a)

	Factor	
	1	**2**
How do you perceive the above online fashion celebrity advertisement?		
Complete	.945	
Comprehensive		.895
Detailed	.870	
Accurate	.770	
Clear	.759	
Professional	.667	
Reliable		.932
Believable		.889
Trustworthy		.885
Authentic		.634

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
c. Rotation converged in 3 iterations.



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,475	64,752	64,752	6,214	62,139	62,139	5,652
2	1,297	12,973	77,726	1,056	10,556	72,696	4,990
3	,486	4,863	82,589				
4	,470	4,703	87,292				
5	,334	3,343	90,634				
6	,235	2,351	92,985				
7	,226	2,259	95,245				
8	,204	2,040	97,285				
9	,161	1,613	98,898				
10	,110	1,102	100,000				

Extraction Method: Principal Axis Factoring.
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Factor Correlation Matrix

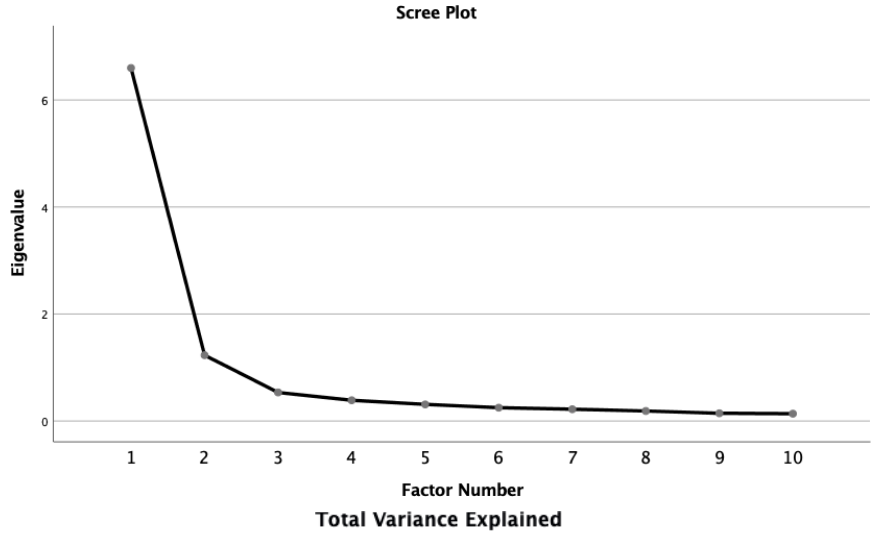
Factor	1	2
1	1,000	,664
2	,664	1,000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

Credibility AD 4 Pattern Matrix (a)

	Factor	
	1	**2**
How do you perceive the above online fashion celebrity advertisement?		
Complete	.952	
Comprehensive	.950	
Detailed	.881	
Accurate	.793	
Clear	.613	
Professional	.428	
Reliable		.928
Believable		.874
Trustworthy		.862
Authentic		.760

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
d. Rotation converged in 3 iterations.



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,598	65,985	65,985	6,343	63,435	63,435	5,652
2	1,230	12,302	78,286	,999	9,994	73,428	5,324
3	,533	5,335	83,621				
4	,388	3,877	87,498				
5	,311	3,108	90,606				
6	,250	2,495	93,102				
7	,221	2,205	95,307				
8	,187	1,872	97,179				
9	,145	1,452	98,630				
10	,137	1,370	100,000				

Extraction Method: Principal Axis Factoring.
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Factor Correlation Matrix

Factor	1	2
1	1,000	,682
2	,682	1,000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

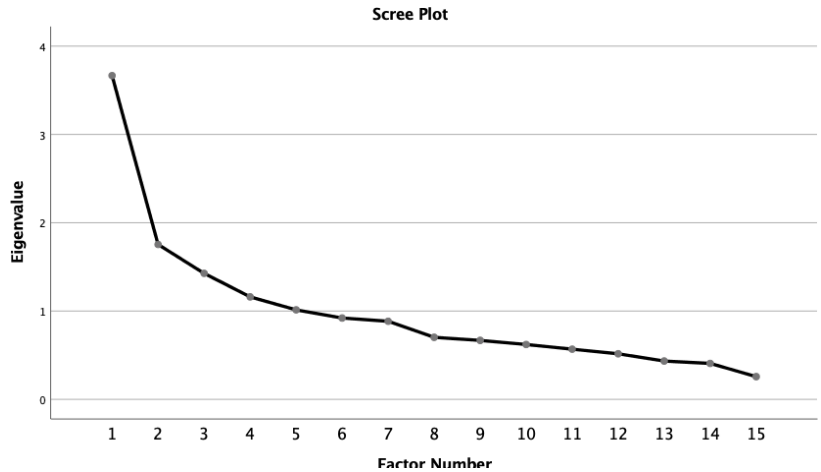
Appendix M:

Acceptance of New Technology Rotated Factor Matrix (a)

	Factor				
	1	**2**	**3**	**4**	**5**
To what extent do you agree with the following statements?					
Technology gives me more freedom to do things where I please.	.709				
I find new technologies to be mentally stimulating.	.676				
I prefer to use the most advanced technology available.	.639				
New technologies contribute to a better quality of life.		.633			
I mostly use social media such as Facebook Instagram, YouTube and Twitter to look for new fashion trends in the market.		.816			
I mostly use social media such as Facebook, Instagram, YouTube and Twitter to be inspired by the online celebrities I follow.			.768		
I worry that information I make available over the internet may be misused by others.				-.780	
I do not consider it safe to provide information over the internet_reversed			.583		
I think that technology systems are not designed for use by ordinary people.					.560
It is embarrassing when I have a trouble with a high-tech gadget while people are watching.					.536
I don't like social media because they don't show the real life of celebrities.	.498				
I still prefer to use traditional media to watch celebrity advertisements such as newspapers, TV, radio.					-.496

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization. (a)

a. Rotation converged in 6 iterations.



Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,666	24,443	24,443	3,149	20,992	20,992	2,126	14,171	14,171
2	1,754	11,691	36,134	1,215	8,101	29,093	1,638	10,918	25,089
3	1,427	9,514	45,647	,977	6,512	35,605	1,139	7,591	32,680
4	1,160	7,736	53,384	,538	3,585	39,190	,729	4,862	37,542
5	1,014	6,757	60,141	,370	2,469	41,659	,617	4,117	41,659
6	,921	6,140	66,281						
7	,884	5,895	72,176						
8	,702	4,683	76,858						
9	,668	4,451	81,309						
10	,621	4,142	85,451						
11	,568	3,787	89,238						
12	,516	3,440	92,678						
13	,434	2,892	95,570						
14	,407	2,714	98,284						
15	,257	1,716	100,000						

Extraction Method: Principal Axis Factoring.

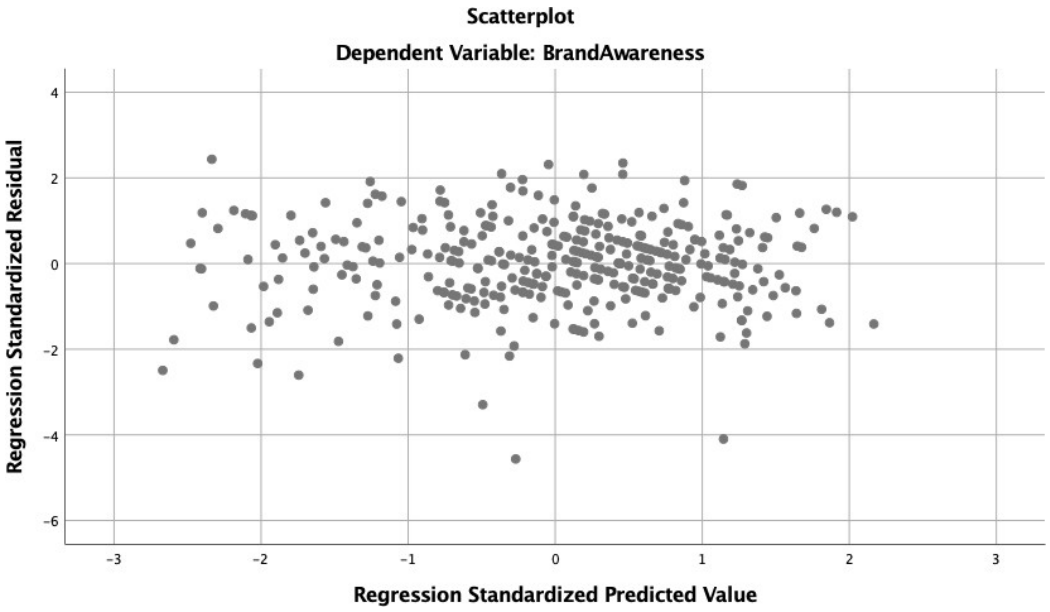
Factor Transformation Matrix

Factor	1	2	3	4	5
1	,731	,557	,310	,079	,233
2	,096	,320	-,718	,536	-,292
3	,655	-,723	-,132	,046	-,169
4	-,150	-,143	,572	,765	-,210
5	-,070	-,212	-,207	,345	,888

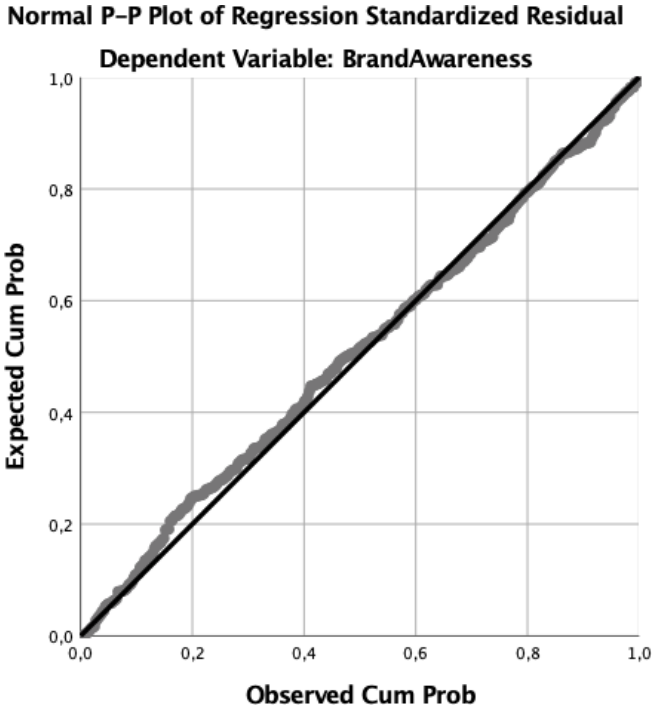
Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

Appendix N: Assumptions for the multiple regression analyses

Linearity and Homoscedasticity:

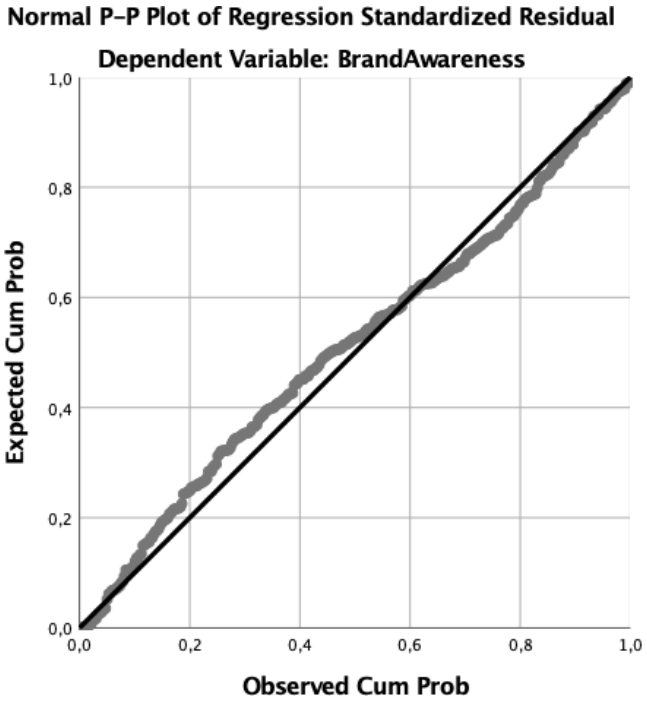


Normality:

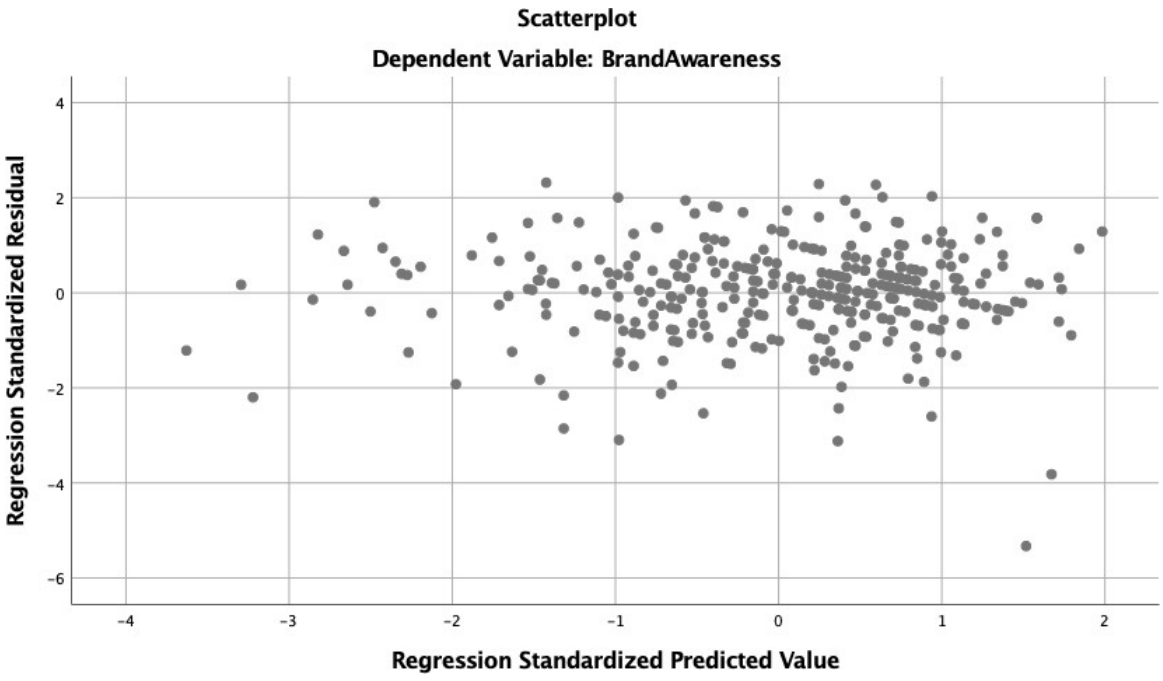


Appendix O: Assumptions for the moderating analysis

Normality:



Linearity and Homoscedasticity:



Research Integrity Form - Master thesis

Name:	Student number:
RU e-mail address:	Master specialisation:

Thesis title:
Brief description of the study:

It is my responsibility to follow the university's code of academic integrity and any relevant academic or professional guidelines in the conduct of my study. This includes:

- providing original work or proper use of references;
- providing appropriate information to all involved in my study;
- requesting informed consent from participants;
- transparency in the way data is processed and represented;
- ensuring confidentiality in the storage and use of data;

If there is any significant change in the question, design or conduct over the course of the research, I will complete another Research Integrity Form.

Breaches of the code of conduct with respect to academic integrity (as described / referred to in the thesis handbook) should and will be forwarded to the examination board. Acting contrary to the code of conduct can result in declaring the thesis invalid

Student's Signature: _____ **Date:** _____

To be signed by supervisor

I have instructed the student about ethical issues related to their specific study. I hereby declare that I will challenge him / her on ethical aspects through their investigation and to act on any violations that I may encounter.

Supervisor's Signature: _____ **Date:** _____