ARE YOU A REAL HUMAN?

Factors of virtual influencers that predict Generation Z consumers' brand attitude and booking intention

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Abstract

Introduction

This paper aims to determine the virtual influencer-related factors that predict generation Z consumers' brand attitude. This paper also to what extent are the factors influencing brand attitude different for male and female members of generation Zand to what extent does brand attitude mediate the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention.

Research has shown that influencers have an important part in decision making behaviour of consumers who choose the place to go or to stay. This is still unknown for virtual influencers, who are fictional computer-generated characters with a social media presence. Research has not been conducted yet on virtual influencers in the hotel industry. This study studied if brand attitude has a positive relationship with booking intention when it comes to virtual influencers. This study also aims to determine if brand attitude mediates the effect of the virtual influencer-related factors on booking intention. This research proposes that the virtual influencer-related factors are source credibility, perceived similarity, emotional attachment and popularity. This study aims to determine whether there is a difference between male and female members of generation Z in terms of the factors influencing brand attitude. Moreover, this study aims to determine the virtual influencer-related factors on online engagement. Research has not been conducted on what the reasons or factors that make members of generation Z would like to engage with a virtual influencer. This study will focus on the Dutch members of generation Z.

Therefore, the research questions are: 'What are the virtual influencer-related factors that predict generation Z consumers' brand attitude' and 'To what extent are the factors influencing brand attitude different for male and female members of generation Z', but also 'To what extent does brand attitude mediate the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention'

Methods

To answer these research questions, this study used a cross-sectional survey. The respondents were exposed to an existing Dutch female virtual influencer named Esther Olofsson who promoted a hotel in the Netherlands. Respondents had to see a video and a photo of Esther promoting the hotel. A video and a photo were used to show it to respondents, so they could see what the virtual influencer looked like and how she promoted the hotel. A total of 250 respondents participated in the survey, but 224 respondents were remaining after excluding some respondents for not meeting the criteria. This study focused on Dutch male and female members of generation Z, that is why the cross-sectional survey was only available in Dutch and in the Netherlands.

Findings

Findings of this study showed that trustworthiness and popularity have a positive relationship with brand attitude. This study shows that trustworthiness and popularity are virtual influencer-related factors that predict generation Z consumers' brand attitude. Furthermore, the moderating analysis showed that there is no difference between male and female members of the generation Z when it comes to the effects of attractiveness, trustworthiness, expertise,

perceived similarity, emotional attachment and popularity on booking intention. Moreover, this study showed that expertise, emotional attachment and popularity has a positive relationship with online engagement. Lastly, this study showed that brand attitude mediated the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention. The effect of the mediating was partial.

Furthermore, the findings of this study contribute to the existing literature about virtual influencer's influence on booking intention and online engagement. This study provides more information for understanding the behaviour of generation Z when it comes to virtual influencers and their willingness to book a hotel room when a virtual influencer promotes a hotel. This study also provides more information about virtual influencers and their involvement in the services industry. This study helps hospitality marketers to know more about virtual influencers and what factors they should use in their marketing strategies. Hotels should hire a trustworthy influencer and a popular virtual influencer, so that they create a positive brand attitude. Companies who own virtual influencers should implement expertise, emotional attachment and the popularity in the posts of the virtual influencer to create more online engagement with the audience.

Keywords: virtual influencers, brand attitude, booking intention, source credibility, perceived similarity, emotional attachment, popularity, gender differences.

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1. Introduction

Social media influencers have a dominant role in companies' marketing. They have been described as 'the new brands' (Sands et al., 2022). Companies believe that marketing activities with digital influencers are more cost-effective ways than other marketing activities to promote their products and services, several unique types of influencers have been presented and used. Among them, a virtual influencer, which is defined as "the modern version of fictional brand figures that are suddenly more lifelike and real, is used on a global scale in different industries and markets, such as fashion and music (Park et al., 2021). Virtual influencers are fictional computer-generated characters with a social media presence (Moustakas et al., 2020). Majority of the virtual influencers resemble humans in physical appearance, personality and behaviour. They exhibit human characteristics through their posts and interaction with their followers (Moustakas et al., 2020). There are a large number of new accounts of virtual influencers created to share their images and content with other users in social media, which is because social media is a major network in this society, for example Instagram (Park et al., 2021).

It is not new that companies collaborate with virtual influencers. Global brands like Samsung and Prada have worked with virtual influencers (Sands et al., 2022). Samsung organised a live video shopping for the launch of the newest Samsung Galaxy S22, which was hosted by a virtual influencer named Zero. After the event with Samsung, Zero made a Tiktok account. After two weeks, the number of followers of 10.000 were more than doubled to 40.000 followers (Offbeat, 2022b). Prada announced last year that they will have their own virtual influencer named Candy. Candy is the face of the relaunched Prada candy parfum. Named after the perfume, Candy replaced the company's traditional human celebrity and influencer marketing strategy to focus better on the tech-savvy generation Z (Hiort, 2021). This is not the first time for Prada working with a virtual influencer. In 2018, Prada worked together with virtual influencer Lil Miquela for the Fashion week in Milan. Since then, Prada continued to work with Lil Miquela for marketing campaigns (Hiort, 2021). Virtual influencers have a market size of 4.6 billion dollars and it is expected to grow 26% by 2025 (Irimescu, 2022).

There is an evolution with more social media influencers who are specialised in one or more niches (Sands et al., 2022; Teh, 2021). Virtual influencers are just another variation in the increasingly important digital world in which people spend more time socialising, shopping and being entertained (Teh, 2021). Generation Z is the one largest group of internet users (Statista, 2022) and this group is a digitally savvy generation that is very familiar with social media and all virtual things (FashionUnited, 2018). Virtual influencers have double the number of followers between the ages of 13 and 17 compared to human influencers, so the fans are very young, and they know a lot about online trends (Matthews, 2022). There are many different virtual influencers in different branches, so not all of the virtual influencers are that popular and are very known (McDonell, 2022).

Research has shown that influencers have an important part in decision making behaviour of consumers who choose the place to go or to stay (Marin & Condrea, 2020). Influencers creating content during a trip or holiday is easily posted on social networks such as Facebook, Instagram and YouTube and has a strong impact on people who see it. Influencers have the ability to create brand awareness for hospitality-related properties. According to Google Travel Study of "The 2014 Traveler's Road to Decision", the hotel industry is an ideal

industry for influencers, showing that the internet is mainly used when people need to make decisions about leisure and travel, especially when the primary goal is to attract young people, such as generation Z (Ipsos MediaCT, n.d.). Having an influencer as a promoter of the hotel brand can bring a lot of publicity and recognition, leading to higher revenues (Ipsos MediaCT, n.d.). The public consider influencers as specialists or experts in the respective field of interest and give them full confidence in the information they provided. Using influencers to promote hotels can be a strategy to attract customers. The hotel industry has learned that the industry benefits strongly from using influencers in their marketing advertising, especially with young people who are highly impressionable, as they arrange their vacation based on posts and photos on social media of influencers (Marin & Condrea, 2020).

Booking intention is the intention of booking a hotel or a service (Gómez-Suárez & Veloso, 2022). Research has shown that brand attitude has a positive direct effect on booking intention. A positive attitude towards the hotel brand in social media also increases the booking intention (Gómez-Suárez & Veloso, 2022). Research has also shown that customers' positive attitude towards the hotel affects their booking intention (Ghosh, 2018). This study is going to examine if brand attitude has a positive relationship with booking intention.
Research has shown that brand attitude mediates the relationship of booking intention and engagement (Gómez-Suárez & Veloso, 2022). It is possible that the relationship between booking intention and its consequences could be intervened through a mediator (Gómez-Suárez & Veloso, 2022). Brand attitude is a variable that may play a mediation role in the connection between booking intention and the virtual influencer-related factors. This study proposed that the virtual influencer-related factors are attractiveness, trustworthiness, expertise, emotional attachment, perceived similarity and popularity. This study examines if brand attitude mediates the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention.

This study examines what the virtual influencer-related factors are that make people want to engage with virtual influencers. Engagement reflects customers' interactions with brands or firms (Hollebeek, 2021). Research has shown that engagement with brand social media pages as the level of a customer's cognitive and emotional connections, also behaviour and other forms of interaction with these social media pages. Research has not been conducted on what factors or reasons people want to engage with virtual influencers. This study examines if the factors attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity have a positive relationship with online engagement.

This study aims to determine the difference between male and female members of generation Z when looking at the virtual influencers-related factors. Research has shown that there are differences between male and female when it comes to brand attitudes and purchase intention in the sport industry (Crespo-Hervas et al., 2018). This study aims to carry out a comparison of the results based on gender. This study proposes that gender moderates the effect of the virtual influencers-relates factors on brand attitude.

To examine these gaps, this study will use a Dutch virtual influencer and this study will concentrate on the Dutch male and female members of generation Z.

This study will provide more information for practitioners and academic researchers to understand more about virtual influencers. The results of this study will provide practitioners and

academic researchers to better understand the behaviour of generation Z when it comes to virtual influencers and their factors based on gender. Research has not been conducted yet if virtual influencers also have an important part in decision making behaviour of consumers who choose the place to go or to stay. This study may help with more insights with virtual influencers and their persuasiveness in the service industry. This study may also help with more information about virtual influencers and their involvement in the hospitality industry.

This can also provide valuable information to hotels to guide their marketing strategies and marketing actions if they are interested in using a virtual influencer. It can also help with targeting marketing campaigns and whether to target male or female members of generation Z. As the virtual influencer industry is growing, as well as their followers on social media and their influence on booking intention. Therefore, the aim of this research is to determine the factors that virtual influencers can predict generation Z consumers' brand attitude. Therefore, for this study the following research questions will examined:

Research question 1: What are the virtual influencer-related factors that predict generation Z consumers' brand attitude?
Research question 2: To what extent are the factors influencing brand attitude different for male and female members of generation Z?
Research question 3: To what extent does brand attitude mediate the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention?

2.Theoretical framework

This chapter provides important background knowledge on the dependent, independent, mediating and moderating variable. As well as the hypotheses and the research model for this study.

2.1 Influencers and virtual influencers

Influencers are a form of micro-celebrities or macro-celebrities who capture their daily lives, from everyday affairs to exciting snippets of exclusive opportunities in their field. Influencers are shapers of public opinion who win over their audiences through the deliberate calibration of personas on social media, supported by "physical" interactions with their followers in person to maintain their accessibility, credibility, imitability, as well as relatability (Abidin & Ots, 2016). They post their videos and photos mainly on social media (i.e. Instagram) for their followers. Social media influencers (SMIs) are very attractive to brands. SMIs are seen by consumers as personal, genuine, trustworthy and realistic sources of information, with the significant advantage of a large network and therefore audience for the brand (Harrigan et al., 2021).

The impact of AI has also spread to the realm of social media influencers, where virtual influencers realistically mimic the characteristics, traits and personalities of human influencers (Thomas & Fowler, 2021). This is because all of virtual influencers' output is constructed and designed by humans. A virtual influencer can be defined as a digital character created in computer graphics software, then assigned a personality defined by a first-person view of the world, and made accessible on social media platforms for the purpose of influencing (Travers, 2020). A virtual influencer is visually presented as an interactive, real-time represented entity in a digital environment (Sands et al., 2022). It is normal in today's entertainment industry, where artists use it to create realistic non-human characters in films, computer games and music videos. The virtual influencer industry is booming, and with it a whole new economy in which the influencers of the future never age, have no scandals and are digitally flawless (Bae, 2022). Virtual influencers are used to promote products and replace human influencers in social commerce. Virtual influencers inspire millions of users on social media and are engaged by companies to market their products (Hofeditz et al., 2022). Just like human influencers, virtual influencers are also used by organisations for promotional campaigns of global brands such as Ikea and Unilever. On top of that, virtual influencers do not only promote products, as well as endorse political messages, such as supporting transgender rights and Black Lives Matter.

There are a few key differences between human influencer and virtual influencer. Human influencers find transparency and authenticity important, however virtual influencers have a more difficult time proving their authenticity due to all the intricate moving parts in their creation. Even as the companies behind virtual influencers reveal about their approach and styling, their virtual influencers remain digital versions of what could be real (Lewczyk, 2020). However, the compensation for the lack of transparency is a heightened sense of behavioural expectations. The companies who own the virtual influencers have them in their control. They control the virtual influencers for everything since the virtual influencers cannot say something about it. In the past, this has been a problem with human influencers who misbehave from their persona or admitting to engaging in dialogue that damages their image with their followers (Lewczyk, 2020).

2.2 The use of virtual influencers in digital marketing

Virtual influencers are increasingly becoming a valuable asset for brands. Brands can use virtual influencers in different ways. Brands can work with virtual influencers who already exist or make their own virtual influencers who totally fits with their brand. Brands like Puma and KFC created their own virtual influencers (Open Influence Inc, 2022). There are several reasons why brands want to use or collaborate with virtual influencers in their campaigns.

Virtual influencers have almost the same characteristics as human influencers. Virtual influencers are indefinitely attractive and have a youthful appearance forever due to their immortality (Brown, 2020). Based on research, virtual influencers have an engagement rate that is three times higher than human influencers. Further, followers may have a higher viewing value on virtual influencers than on human influencers because some followers are still unfamiliar with virtual influencers. This may be because followers are curious about virtual influencers because they are not yet familiar with them. This may cause social media users to stop and to look at their unique and distinguishable appearances (Open Influence Inc, 2022). This may decrease when virtual influencers are completely in the mainstream (Open Influence Inc, 2022).

According to Brown (2020), virtual influencers do not have a risk of misbehaviour or a scandal and that this is why companies want virtual influencers to avoid bad publicity from celebrities. In reality, virtual influencers also have a possibility to have a scandal and this already happened with the virtual rapper FN Meka for digital blackface. Brands can create a virtual influencer in every detail and every step to ensure that it looks exactly what the brands want. If brands want to collaborate with a virtual influencer, they have to find a virtual influencer that fits the most with their brand (Open Influence Inc, 2022). With virtual influencers, there are no physical limitations in the campaign. Brands need to use computer software to put the virtual influencers in the campaign (Open Influence Inc, 2022). Brands can use any background and virtual influencers can come from anywhere.

Virtual influencers may not be able to offer the authenticity consumers want. There are some virtual influencers who have a human-like appearance and there are also virtual influencers who have more animated appearance (Brown, 2020). The benefits of using a virtual influencer for a campaign is that consumers will attach some value or trust to what they say, and will therefore be more likely to buy a product they recommend (Cowan, 2022). From this, it logically follows that if a virtual influencer does not (or cannot) use that product, how can a consumer trust a virtual influencer's recommendation? Candy cannot use the perfume of Prada on her non-existent body, while Zero cannot use the newest Samsung s22 with also his non-existent body. Even consumers question if a virtual influencer can experience a hotel or restaurant.

2.3 What are the factors that may predict brand attitude and online engagement

Human influencers have persuasive power due to their credibility, popularity, trustworthiness and authenticity (Zhang & Wei, 2021). Research on virtual influencers impact on consumer decisions or purchase intention is limited. Research showed that the humanlike appearance of the virtual influencer enhances the feeling of social presence and that improves the brand attitude (Mohanty, 2021). Brand attitude is defined as 'consumer's overall evaluation of a brand' (Olson & Mitchell, 2000). Therefore, marketers consider brand attitude as the most important indicator of consumer behaviour towards products or services. A positive brand attitude towards a brand as a result of its evaluation not only results in consumers' continued preference for those brands, but research also shows that it has a positive effect on purchase intention (Kudeshia & Kumar, 2017).

The definition of online engagement in social media is defined as 'the level of consumer's physical, cognitive and emotional presence in connections with a particular online social platform' (Cheung et al., 2011, p. 3). It can be seen as an active digital behaviour which is characterised by high personal engagement with brands of companies or individuals who created the content in an online social platform (Silva et al., 2019). Digital influencers and company profiles on Facebook and Instagram, and the brand communities created on these platforms, make consumers become participative users of the communication process, interacting with other users by generating online engagement measures that includes likes, comments and shares (Silva et al., 2019). Research has shown that in the process of online engagement between brands and potential customers, it is possible to have influencers mediate this relationship. Virtual influencers may also act as bridges between individuals and brands, bringing their audience closer to services and products (Silva et al., 2019).

Research have shown that source credibility, perceived similarity, popularity and emotional attachment are factors that may predict brand attitude and online engagement (Yılmazdoğan et al., 2021; Mohanty, 2021; Ladhari et al., 2020; Qian-Qian et al., 2022; Wang et al., 2015). Therefore, this study will examine the following factors: source credibility, perceived similarity, popularity and emotional attachment.

2.3.1 Source credibility

Source credibility is a term used to describe the positive characteristics of a communicator that influence the receiver's acceptance of a message (Ohanian, 1990). The source credibility model can measure the credibility of a virtual influencer. According to the source credibility model, there are three components of source credibility: expertise, trustworthiness and attractiveness (Ohanian, 1990).

Expertise is defined as the extent to which a communicator is perceived to be a source of valid assertions (Ohanian, 1991, p. 46). It is the knowledge that the communicator seems to possess to support the claims made in the advertising (Ohanian, 1991, p. 46). For social media influencers, this implies that expertise can be affected by the influencers' knowledge they have about the product they recommend (Wiedmann & von Mettenheim, 2020). Expertise of celebrity endorsers had a positive influence on brand attitude for an energy bar. Further, avatars who are perceived as experts were more likely to generate higher brand satisfaction and brand attitude. Also, expertise can enhance the persuasiveness of a fashion brand influencer (Wiedmann & von Mettenheim, 2020). Further, research has shown that celebrity endorser's' expertise has a positive impact on brand attitude (Wang & Close Scheinbaum, 2017). This research proposes that expertise has a positive relationship with brand attitude.

Trustworthiness refers to the consumer's confidence in the source for providing information in an objective and honest manner (Ohanian, 1991, p. 47). Research has shown that trustworthiness of social media influencers has a positive influence on purchase intention. This is due to the fact that social media influencers provide an environment where consumers can interact with them, allowing trustworthiness to become more relevant to consumers' purchase intentions (Weismueller et al., 2020). Further, trustworthiness of an influencer can enhance their persuasiveness (Wiedmann & von Mettenheim, 2020). Research has also shown that celebrity endorser's trustworthiness has a positive impact on brand attitude (Wang & Close Scheinbaum, 2017). This research proposes that trustworthiness has a positive relationship with brand attitude.

Attractiveness corresponds to the individual's physical esteem (Yılmazdoğan et al., 2021). People with messages who are considered attractive have a significant influence on other people's opinions and ratings about a product or a place (Ohanian, 1990). Research has shown influencers' attractiveness has a positive impact on consumers' purchase decisions (Tille, 2020; Weismueller et al., 2020). Further, attractive influencers who are associated with luxury brands may enhance the product's appeal by creating an association with their attractiveness (Wiedmann & von Mettenheim, 2020). Research has shown that the appearance of the virtual influencer has a positive influence on social presence which improves brand attitude (Mohanty, 2021). Further, research has shown that celebrity endorser's attractiveness has a positive impact on brand attitude (Wang & Close Scheinbaum, 2017).This research proposes that attractiveness has a positive relationship with brand attitude.

This research suggests that the expertise, trustworthiness and attractiveness of a virtual influencer has a positive relationship with brand attitude. Therefore, the following hypotheses have been drawn up:

H1a: The attractiveness of the virtual influencer has a positive relationship with brand attitude.
H1b: The trustworthiness of the virtual influencer has a positive relationship with brand attitude.

H1c: The expertise of the virtual influencer has a positive relationship with brand attitude.

According to Wang and Scheinbaum (2018), companies prefer physically attractive influencers for designing and working with campaigns since they have more influence in shaping the customers' attitudes towards the aimed brands. Lou and Yuan (2019) have shown that attractiveness of the influencer shapes individuals' trust in content but may also boost brand awareness. Research has shown that the attractiveness of a human influencer has a positive influence on online engagement (AlFarraj et al., 2021). This research proposes that attractiveness of the virtual influencer has a positive relationship with online engagement. Wang and Scheinbaum (2018) showed that the trustworthiness of an influencer is the most important thing researched in the beauty industry and discovered a strong relationship with influencers on social media, as they found that attractiveness is the reason for consumers' attitudes to change and match with brands that are the right and trustworthy brand. Silva et al. (2019) have studied how online engagement generated from advertisements of products by digital influencers promoted on Instagram would affect the product endorsement. Research also has examined if trustworthiness of a human influencer has a positive influence on online engagement (AlFarraj et al., 2021). This research proposes that trustworthiness of the virtual influencer has a positive relationship with online engagement.
Further, Schouten et al. (2019) stated that expertise not only determines the influencers' level of credibility, but can also influence customers' buying behaviour and intention. The influencer who has more expertise and is also perceived as an expert may be more persuasive and boost brand engagement. Research has shown that the expertise of a human influencer has a positive influence on online engagement (AlFarraj et al., 2021). This research proposes that expertise of the virtual influencer has a positive relationship with online engagement.

H2a: Attractiveness has a positive relationship with online engagement.
H2b: Trustworthiness has a positive relationship with online engagement.
H2c: Expertise has a positive relationship with online engagement.

2.3.2 Perceived similarity

Perceived similarity is related to desire to imitate the behaviour and characteristics of others (Hoffner & Buchanan, 2005). Nevertheless, this association seems slightly counterintuitive, since people often want to resemble others they perceive as unequal to themselves in important ways, for example, others they perceive as more successful, talented or wealthy than themselves. Apparently, resemblance to another person promotes the desire to be like that person in different ways, especially in ways perceived as beneficial or rewarding (Hoffner & Buchanan, 2005).
        Research has shown that viewers have tended to feel similar to characters who resemble themselves in terms of demographic characteristics such as gender, ethnicity and age (Hoffner & Buchanan, 2005). People may also perceive similarities in deeper, less obvious personal characteristics such as personality, behaviour tendencies of life experiences. Perceived similarities in these kinds of fundamental characteristics seem to foster the desire to

be more similar like the character in other ways, such as by mimicking the character's posture, appearance, behaviour or other characteristics (Hoffner & Buchanan, 2005).

Wishful identification is more enhanced by similarities that go beyond demographics. According to McDonald and Kim (2001), children were more likely to imitate characters in computer games when they perceived a greater similarity in personality between themselves and the characters. Eyal and Rubin (2003) found that a generalised measure of attitude and background similarity was associated with greater identification with aggressive characters.

Previous studies have shown that homophily plays an important role in the study of bloggers and vloggers (Ladhari et al., 2020). Viewers who perceive more similarity to the vlogger tend to become attached, recommending the vlogger to another's and buying the products that are featured in the vlog. Perceiving more similarity in attitude, values, morals and appearance creates attraction and feelings of attachment, affection and passion towards the vlogger. Similarity also generates trust and attachment (Ladhari et al., 2020). Further, research has shown that there is a significant effect of perceived homophily on brand attitude. Also, the higher the homogeneity between a celebrity and consumers, the more interactions, the more effective the endorsement was likely to be (Zhang et al., 2021). Research has not been conducted on if perceived similarity has a significant effect on brand attitude. This research proposes that perceived similarity has a positive influence on brand attitude. Therefore, the following hypothesis has been drawn up:

H3: Perceived similarity has a positive relationship with brand attitude.

Moreover, social media users in general see influencers as attractive and think that influencers are similar to them (Schouten et al., 2019). Research has shown that engaging with others who share the same values and social identity can create more curiosity about a blog and can also increase engagement (Magno, 2017). Research has shown that homophily has a positive influence on blog engagement (Mainolfi & Vergura, 2021). Research has not been conducted on if perceived similarity has a positive influence on online engagement. Therefore, this research proposes that perceived similarity has a positive relationship with online engagement.
H4: Perceived similarity has a positive relationship with online engagement.

2.3.3 Popularity

According to the Cambridge dictionary, popularity is defined as the fact that something or someone is liked, enjoyed, or supported by many people (Cambridge Dictionary, 2022). Popularity is expressed in what researchers of computer-mediated communication refer to as system-generated information: the number of followers on a social media profile (Tong et al., 2008). The novelty of the influencer's content has an important effect on their popularity. Research has shown several ways to increase the popularity of influencers such as number of followers and comments, expressing the liking of video, and sharing content on other social media platforms (Chatzopoulou et al., 2010).

Research has shown that the popularity of celebrities has a positive influence on consumers' decisions. When celebrities have a lot of followers, they are perceived as having a

higher bridging social capital and consumers are more likely to connect with them (Ladhari et al., 2020). Research has shown that celebrities with a high number of followers on Twitter interact with valence of the celebrity's tweets about a brand in influencing consumer's purchase intention (Jin & Phua, 2014). According to Hill et al. (2017), vlogger's popularity has a positive influence on purchase intention of online consumers. The preference of the vlogger is transferred to the recommended brand, which enhances the recommended brand and increases the consumer' purchase intention.

Research has shown that virtual idols have been directly reflected in larger consumer markets. For instance, the global popularity of virtual idol Hatsune Miku has resulted in consumers from several countries buying Hatsune Miku merchandise such as figures and CDs (Qian-Qian et al., 2022). In endorsement advertising activities, virtual influencers may attract consumers' attention to the brand by their high popularity, and impact a more positive attitude towards the brands. After all, it is common knowledge that celebrities and virtual idols increase consumers' desire to buy the advertised brand (Ladhari et al., 2020). This feeling may enhance the brand attitude. Therefore, the following hypothesis has been drawn up:

H5: Popularity of the virtual influencer has a positive relationship with brand attitude.

Popularity is also a measurement for measuring an influencer's credibility and ensures greater reach of the message to a larger audience (Eslami et al., 2022). In other words, if a social media influencer with many followers makes content about a product, it is expected that a higher number of social media users will respond to that post. A higher level of response results in more likes, shares and comments, leading to a high increase of customer engagement for the promoted product (Eslami et al., 2022). Research has shown that a higher level of popularity for a message poster has positively associated with customer engagement on social media (Eslami et al., 2022). Therefore, this research proposes that popularity of the virtual influencer has a positive relationship with online engagement.

H6: Popularity has a positive relationship with engagement.

2.3.4 Emotional attachment

Emotional attachment is usually defined as an emotionally charged goal-specific bond between a person and a specific object (e.g. influencer), such that stronger attachment is related to stronger feelings of belonging and affection (Thomson et al., 2005). These feelings result from the sense of accessibility and psychological closeness to influencers that individuals perceive (Kowalczyk & Pounders, 2016). Research has shown that developments of emotional connections to influencers can also be relevant in persuading followers. Beforehand, not only does the sense of greater accessibility and psychological closeness to influencers that social media enables, but also the sense of intimacy that followers can feel with influencers, that people build an emotional connection with them or harbour strong feelings for them (Sánchez-Fernández & Jiménez-Castillo, 2021).

More specifically, a strong emotional connection with an influencer builds a close, intimate and satisfying relationship, which can lead to empathic responding in terms of expectations or feelings of the influencer and even imitating his/her personality and behaviour.

Followers develop genuine and intense feelings of affection for the influencers when they feel that the influencers share personal information or secrets and/or similarities (i.e. demographic and psychographic characteristics) with them. This is reinforced by the frequency and duration of online encounters, the extent to which influencers interact with followers (e.g. likes, comments, shares) and the memory of these exchanges and experiences (Sánchez-Fernández & Jiménez-Castillo, 2021). These circumstances may activate the identification mechanism where followers want to feel that they have a real, reciprocal relationship with the influencer or want to build a relationship based on modelling where the follower desires to be like the influencer, wants to behave like the influencer or actually be like the influencer (Sokolova & Kefi, 2020). Followers will passionately process the influencer's message because the influencer's statements are valuable and consistent with their own values and beliefs. This process involves individuals adopting the content of the persuasive behaviour inherent in the message (e.g. following an influencer's recommendation) because followers find it helpful to solve a problem, because it is coherent with their own orientations, or because it matches their own value system (Sánchez-Fernández & Jiménez-Castillo, 2021).

According to Wang et al (2015), influencers can induce positive emotional responses in others, fulfilling their followers' need for fantasy, identification, status, connection and attachment. In general, when followers feel that they have developed a fulfilling self-determining relationship with the influencer based on factors that strengthen the affective connections and reinforce bonds, such as attitudinal similarity and like-mindedness or other psychological or demographic characteristics (Zhang et al., 2018), they should more easily accept the influencer's proposed opinions and values (Wang et al., 2015). Furthermore, research has shown that consumers who are emotionally attached to a brand are more likely to have a positive brand attitude (Thomson et al., 2005). This research proposes that when virtual influencers become more important to generation Z, that is, that they feel and understand the virtual influencer deeply and frequently, generation Z will form a higher emotional attachment. This feeling may enhance the brand attitude. Therefore, the following hypothesis has been drawn up:

H7: Emotional attachment has a positive relationship with brand attitude.

Furthermore, research has shown that customers who have an emotional connection with a brand are not only the consumers of the brand's resources but also actively spend a lot of their time to maintain connection with the brand (Li & Han, 2021). Thus, self-brand connection influences consumers to entice others to use the product as a result of brand engagement. As their emotional attachment to a brand increases, consumers create reciprocal relationships by sharing their resources and time with the brand. Therefore, this research proposes that emotional attachment has a positive relationship with online engagement.

H8: Emotional attachment has a positive relationship with online engagement.

2.4 The moderating effect of gender

Research has shown that women and men have different motivations and personality traits that brands should pay attention to (Lindo, 2016). Gender also differs in reacting to promotional materials. Research has shown that exposure to a comparative versus non-comparative ad that attracts more attention increased men's ad engagement and thus their attitudes towards the target brand, women's attitudes were less favourable towards a comparative ad because it prompted them to think more deeply about the ad and infer that its purpose was to manipulate consumers (Chang, 2007). According to Crespo-Hervas (2018), women are more positive than men with brand attitude and purchase intention when it comes to sport service. Research has suggested that women's relative superiority in visual-spatial elaboration, noticing new products added to a visual display and seeing coherence between them could influence how men and women interpret promotions with visual ads for multiple products (Noseworthy et al., 2011). Research has not been conducted on the difference between male and female members of generation Z on attractiveness, trustworthiness, expertise, perceived similarity, popularity and emotional attachment. It was also not examined whether there are differences between male and female members of generation Z in terms of brand attitude.

This study will use a female Dutch virtual influencer to examine the differences between male and female members of generation Z.

Multiple studies studied the effect of representation of attractive women on female consumers. The result of Apaolaza et al (2011)' study showed that exposure to photos of beautiful and even above-average looking women decreases self-esteem of exposed women and increases dissatisfaction with their own looks. This means that attractive women who are presenting a brand means experiencing relief from those negative emotions. That is why women have a positive attitude with the brand that attractive women promote. Research has shown that the attractiveness of a female person has a positive influence on women's brand satisfaction towards cosmetics brands (Apaolaza et al., 2011). That is why this research proposes that women are more likely to have a higher brand attitude than men due to the attractiveness of a virtual influencer.

There is also a difference between men and women when it comes to trustworthiness of an influencer or endorsers. Research has shown that females are more likely to agree with their favourite athlete role model when they influence them to say positive things about a brand or recommend a brand to others. Also to encourage friends and family to buy certain products and brands (Bush et al., 2004). In the same research, men were more likely to listen to their favourite athlete role model when they say to buy less products of certain brands and to take some of their purchases to other businesses that offer a better price. When it comes to buying less products and getting a better price, men had more trust in an athlete role model then women. Overall, when it comes to trusting everything the athlete role model said, then women were more likely to trust their favourite athlete role model (Bush et al., 2004). When using female virtual influencers, this research proposes women have more trust in a virtual influencer than men which results in a higher brand attitude.

Further, research has shown that women have a higher risk perception than men. Women are more likely to be concerned about, for example, local facilities and technologies that are often considered contamination risks (Hitchcock, 2001). Research has shown that there are

some differences between men and women in the way experts perceive risk. Women have a bigger concern for risk due to having less education in, for example, science (Hitchcock, 2001). Research has also shown that women are more likely to listen to claims about hazards from professionals (Hitchcock, 2001). This research proposes that women will be more likely to have a higher brand attitude with a virtual influencer due to their expertise.

Research has shown that women perceive themselves to be more similar to a female influencer than men. This leads to parasocial interaction and it has a positive influence on brand attitude and post engagement. It also showed that even with a male influencer, men do not perceive themselves as similar to a male influencer (Hudders & De Jans, 2021). Since this study will use a female virtual influencer, this research proposes that women will be more likely to perceive themselves as similar to the female virtual influencer than men.

Female influencers are more popular than male influencers. The average number of likes female influencers get per post is 578 compared to 117 likes per post for male influencers. Most interestingly, male followers are 10 times more likely to like, comment on or even repost female influencer's posts than male influencers (Fowler, 2017). These posts often contain bikini photos or and lingerie. Female users are more likely to engage with clothing, make-up and food related posts from other female influencers (Fowler, 2017). Unsurprisingly, virtual influencers make mostly posts on social media about clothing and food. This research predicts that using a popular virtual influencer, women will have a higher brand attitude than men. This research proposes that women are more likely to engage with virtual influencers than men when they are popular which results in a higher brand attitude.

Furthermore, research has shown that there may be a gender difference in emotion. According to research, women are more emotionally reactive than men when it comes to psycho-physiological reactivity (McRae et al., 2008). It is assumed that women are superior in emotional skills, such as the ability of understanding other people's emotions embedded in facial features. It is also reported that women are sensitive to facial emotions compared to men. For example, women were more accurate with recognizing facial displays of emotion than men. Also, it was reported that women showed more affective priming by happy faces than men (Chen et al., 2018). This study predicts that using a female virtual influencer, women are more likely to have a higher emotional attachment. This research proposes that women have a higher emotional attachment with a virtual influencer than men which results in a higher brand attitude.

Research has not shown yet if there are differences between male and female on brand attitude, when a virtual influencer promotes a product or service. Moderating the gender variable can likely show a difference. To find more information about the differences between male and female members of generation Z on virtual influencers, the following hypotheses has been drawn up:

H9a: The positive relationship between attractiveness and brand attitude is stronger for women than for men.

H9b: The positive relationship between trustworthiness and brand attitude is stronger for women than for men.

H9c: The positive relationship between expertise and brand attitude is stronger for women than for men.

H9d: The positive relationship between homophily and brand attitude is stronger for women than for men.

H9e: The positive relationship between popularity and brand attitude is stronger for women than for men.

H9f: The positive relationship between emotional attachment and brand attitude is stronger for women than for men.

2.5 The mediating effect of brand attitude

Booking intention is a form of purchase intention, which is one of the important behavioural intentions of customers (Lin and Lu, 2011). The definition of booking intention is the consumer's willingness to book a hotel room and stay at a specific hotel (Zin & Yuchen, 2020). Furthermore, attitude is a personal concept formed from consumers' own perceptions and brand attitude focuses on the individual's assessment (Liu et al., 2012). Frequent active involvement increases individuals' knowledge about brands, which in turn builds a strong consumer-brand relationship leading to positive and favourable attitudes. Research has shown that brand attitude has a positive impact and positive direct effect on booking intention. Study of Gómez-Suárez and Veloso (2022) has shown that brand attitude generated through publications on social media has a positive direct effect on booking intention. According to Gosh (2018), customers' positive attitude towards the hotel affects their booking intention.
Research has not been conducted if using virtual influencers leads to a positive relationship between brand attitude and booking intention. To fill this gap, the following hypothesis have been drawn up:
H10: Brand attitude has a positive relationship with booking intention.

Furthermore, research has shown that engagement has a positive effect on booking intention when brand attitude is the mediator. It is possible that the relationship between booking intention and its consequences could be intervened through a mediator. Brand attitude is a variable that may play a mediation role in the connection between booking intention and the virtual influencer-related factors. This study proposed that the virtual influencer-related factors are attractiveness, trustworthiness, expertise, emotional attachment, perceived similarity and popularity. Research has not been conducted if brand attitude mediates the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention. To fill this gap, this study proposed that brand attitude mediates the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention. Therefore, the following hypothesis have been drawn up:

H11a: Brand attitude mediates the effect of attractiveness on booking intention.

H11b: Brand attitude mediates the effect of trustworthiness on booking intention.

H11c: Brand attitude mediates the effect of expertise on booking intention.

H11d: Brand attitude mediates the effect of perceived similarity on booking intention.

H11e: Brand attitude mediates the effect of popularity on booking intention.

H11f: Brand attitude mediates the effect of emotional attachment on booking intention.

2.6 Research model

Given the aim of this research and the theoretical framework, the following conceptual model was established to represent all variables and the relationships between them.

Figure 1: conceptual model
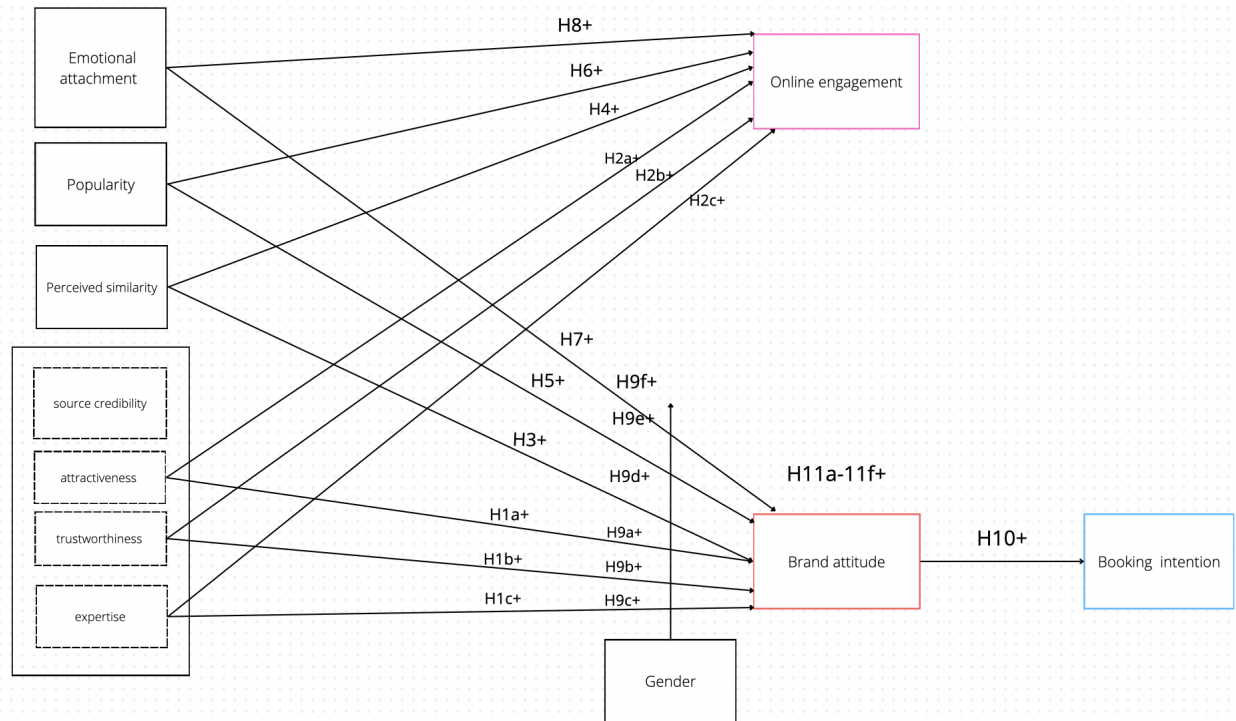
3.Research methodology

3.1 Research design and procedure

Research design

To examine if attractiveness, trustworthiness, expertise, popularity, perceived similarity and emotional attachment has a positive relationship with brand attitude a cross-sectional survey was implemented. The online questionnaire showed the respondents a video and photo of a Dutch virtual influencer who is promoting a hotel in Spain. A video and a photo were used to show it to respondents, so they could see what the virtual influencer looked like and how she promoted the hotel. The video and photo were also used to create the questionnaire for more interaction and engagement with the respondents. It also creates more real-life events that the respondents look on their Instagram to see a photo and a video of a virtual influencer.

The cross-sectional survey was divided into the following sections; socio-demographic, source credibility, popularity, homophily, online engagement, emotional attachment, booking intention and brand attitude.

The questionnaire was made with Qualtrics and the questionnaire was also distributed online. This allowed respondents to do the questionnaire with their own device and time. There might be some cultural differences in how people react to a virtual influencer and difference in how respondents respond to a questionnaire (Kemmelmeier, 2016). This study focused on Dutch male and female members of generation Z. The online survey was only available in the Netherlands and was also only available in Dutch. In order to conduct a study in accordance with the ethical rules associated with communication science research (especially at the University of Twente), it was important to ensure that all participants in the study gave informed consent.

3.2 Procedure

Respondents were selected by using snowball sampling and purposive sampling. Respondents were approached through social media such as LinkedIn, Instagram and Watsapp. The online questionnaire was also posted on the websites of Surveycircle and Surveyswap. Face-to-face communication was used with family, friends and unknown people.

In the beginning of the questionnaire, the purpose of this research was explained to the respondents. The respondents were asked if they read all the information and then they were asked to answer one filter question 'Are you a Dutch citizen?'. This was asked to make sure that the respondents met the requirements of this study. Hereafter, the respondents were introduced to a Dutch virtual influencer. A text was shown about the introduction of the Dutch virtual influencer and who is promoting a hotel in Barcelona. The hotel was fictitious, so respondents could not have a preference for a hotel if they knew the hotel. First, a video of a Dutch virtual influencer was shown to the respondents (see Appendix 1). After that, a picture of the virtual influencer who is promoting a hotel was shown to the respondents (see Appendix 1). The last picture that the respondents saw was a photo of the Dutch virtual influencer's Instagram. Respondents saw the amount of followers and the content that the virtual influencer posted on

her Instagram. After that, the respondents were asked if they watched and read everything carefully. After that, respondents were asked to answer questions about what they have seen at the start of the questionnaire. When the respondents answered all questions and completed the questionnaire, the respondents were thanked for completing the questionnaire (see appendix 3 for the online survey).

3.3 Participants

A total of 250 respondents participated in the survey. In total, 9 respondents were excluded from the survey because they were non-Dutch and 17 respondents were excluded because they did not complete the survey. A total of 224 respondents were remaining for this research. The average age of the respondents is 21 years old and SD = 3.44. The youngest respondent was 16 years old and the oldest respondent was 45 years old. A total of 79 respondents identified as male and 145 respondents identified as female. Of the total number of respondents, 1 respondent did not complete elementary school, 79 respondents had a high school diploma and 144 respondents completed a post-secondary vocational education, undergraduate or graduate degrees (see table 1).

In table 1, the demographics of the respondents are shown.

Table 1 Demographic Statistics of the respondents

		Frequency	Percentage
Gender	Male	79	35.3
	Female	145	64.7
Age	16-18	56	25
	19-21	62	28.2
	22-25	94	42
	26-28	10	4
	29-45	2	0.8
Eduation	Elementary educatio	1	0.4
	VMBO	8	3.6
	HAVO	28	12.6
	VWO	43	19.2
	MBO	20	8.9
	HBO	53	23.6
	WO bachelor	49	21.9
	WO master	22	9.8

Respondents had to indicate whether they had experience booking a hotel. A total of 215 respondents indicated that they have booked a hotel and 9 respondents indicated that they never booked a hotel before. Respondents also had to indicate if they were familiar with virtual influencers. A total of 58 respondents indicated that they were familiar with virtual influencers

and 166 respondents indicated that they were not familiar with virtual influencers. 58 respondents who indicated that they are familiar with virtual influencers, also got a follow-up question. They had to indicate where they knew about virtual influencers (see table 2).

Respondents who indicated that they knew virtual influencers, also had to indicate which virtual influencers they knew. Respondents were given an open question to fill in the name of the virtual influencer they knew. Of all respondents, 23 respondents indicated that they knew virtual influencer Lil Miquela and one person knew Esther Olofsson. Virtual influencers Hatsune Miku, Noonoouri, Lu do Magaly, The.official.ana and Thalasy were also each indicated by one person. Moreover, 5 respondents indicated that they knew virtual kpop artists or bands, for example, Superkind and K/DA. Also, 3 respondents also indicated virtual singers and rappers, for example, virtual rapper FN Meka. Asian virtual influencers were indicated by 2 respondents and one respondent indicated virtual fitness influencers. In the end, 7 respondents indicated that they forgot the name or they do not know the name of the virtual influencers.

In table 2, the experience of hotels and knowledge about virtual influencers are shown.
Table 2 Experience and knowledge statistics

		Frequency	Percentage
Booked a hotel	Yes	215	96
	No	9	4
Familiar with virtual influencers	Yes	58	25.9
	No	166	74.1
From where do the respondents know virtual influencers	Instagram	33	14.7
	Tiktok	11	4.9
	The news	9	4
	Family and/or friends	1	0.4
	Other	4	1.8

3.4 Pre-test and stimuli

Stimuli
For this study, a Dutch virtual influencer named Esther Olofsson was used for the stimuli. This study got permission from the company RauwCC (the company who owns Esther Olofsson) to use virtual influencer Esther Olofsson for research purposes. A video of Esther jumping in a hotel was used for this study. Esther jumped on a bed in a hotel room with confetti all over the room.

A manipulated photo of Esther was made for this study. Esther was posing in front of the hotel. For the hotel, a fictitious brand name 'Flow' was used in the photo. To design the manipulated stimuli, the photoshopping program Pixlr was used. The name 'Flow' was chosen

because it seems like a realistic hotel name. This was also in line with the pre-test. A fictitious hotel name was chosen to avoid respondents' knowledge of brand attitude and booking intention. The name 'Flow' was shown on the front of the hotel.

A photo of Esther's Instagram page was also used for this study. A screenshot of Esther's Instagram page was made in the beginning of november and shown to the respondents (see Appendix 1).

Pre-test

For this study, a pre-test was conducted to ensure that all issues with the formulation of the questions were identified and corrected, but also for the manipulated stimuli. The components examined were the readability of the questions, the quality of the video and the photos of the virtual influencer. In total there were 2 pre-tests, one before making the finalised version of the questionnaire and one after making the finalised version.

In the pre-test, 6 people were asked (3 female and 3 male) to give their opinions on the manipulated stimuli and questions. The respondents were all Dutch Gen Z and were asked via Whatsapp.

Findings pre-test

Firstly, the respondents were asked about their opinion and perceived humanness on the video and photos of Esther. The video had good quality and the respondents thought it was a real person at first glance. The photo of Esther was also approved by the respondents. Moreover, the location of Mallorca was not recommended by the respondents because many people went to Mallorca and this may affect booking intentions. Mallorca is a small island, so many people know what Mallorca looks like and they also know all the stores and hotels. People would also book the same hotel or apartment every time they go to Mallorca. Other locations for example, Valencia and Malaga were also not a good choice, but Barcelona was a good choice according to the respondents. Barcelona is also an affordable city that generation Z would visit. Therefore, it was useful to choose a place where people want to go, but have not gone there yet.

Secondly, the pre-test showed that the questions about Esther tested credibility and validity. The questions were also readable and understandable in the Dutch language. More importantly, the pre-test showed that none of the respondents had ever heard of virtual influencers and did not know what virtual influencers are. The respondents requested to describe virtual influencers in one sentence, so that other respondents understand what virtual influencers are.

3.5 Measures

The questionnaire consisted of questions where dependent variables (booking intention, brand attitude, attractiveness, trustworthiness, expertise, online engagement, emotional attachment, perceived similarity and popularity) and the moderating variable (gender) were measured. Additional variables consisted of socio-demographics, experience with hotel bookings and knowledge of virtual influencers were also measured.

3.5.1 Factor analysis

This research conducted a factor analysis for the items. Factor analysis was conducted to understand how the different underlying factors influence the variance between items. In table 3, the outcomes of the factor analysis are shown. The online questionnaire had in total 9 constructs, that is why the factor analysis showed 9 factors. The factors are in order: booking intention, brand attitude, attractiveness, trustworthiness, expertise, online engagement, emotional attachment, perceived similarity and popularity.

According to the factor analysis, factor 1 (booking intention) was determined by the questions 29, 33, 28, 31, 27, 32, 26, 24 and 19. Factor 2 (brand attitude) was determined by the questions 1,2,3,4,5,6,7,8 and 9, while Factor 3 (attractiveness) was determined by 36, 37 and 38. Moreover, factor 4 (trustworthiness) was determined by questions 19, 14, 17, and 19, while factor 5 (expertise) was determined by questions 10, 13 and 11. Furthermore, factor 6 (online engagement) was determined by questions 37 and 34, while factor 7 (emotional attachment) was determined by question 39. Lastly, factor 8 (perceived similarity) was determined by question 38 and factor 9 (popularity) was determined by question 25.

Originality, booking intention was assigned with questions 1 till 4 and brand attitude was assigned questions 5 till 8. Moreover, attractiveness was assigned with questions 9 till 13, while trustworthiness was assigned with questions 14 till 17. Furthermore, expertise was assigned with questions 18 till 21, while online engagement was assigned with questions 22 till 25. Lastly, emotional attachment was assigned with questions 26 till 29 and perceived similarity was assigned with questions 30 till 33, while popularity was assigned with questions 34 till 39.

The result of the factor analysis showed that the constructs measured different questions than intended. This study chose to not move the items from their originality scale to another scale. Every scale had their own assigned items and these items were based on the scales from other researchers, but also the items were formulated by the researcher herself. Factor 1 (booking intention) got a lot of items of emotional attachment and popularity, which was actually not the intention. While the items of booking intention was measured in the same scale as brand attitude, which actually should not be. To avoid questions from different constructs coming into a scale, this study chose to let all the items stay in the scale where they were assigned.

In the table 3, the results of the factor analysis are shown.

Table 3 The results of the factor analysis

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
Q29	.841								
Q33	.827								
Q28	.827								
Q31	.816								
Q27	.815								
Q32	.813								
Q26	.764								
Q24	.619								
Q19	.452			.418					
Q1		.740							
Q2		.722							
Q3		.726							
Q4		.664							
Q5		.771							
Q6		.775							
Q7		.694							
Q8		.698							
Q9		.699							
Q36			.861						
Q37			.548						
Q35			.473			.415			
Q14				.806					
Q17				.549					
Q18				.457					
Q10					.868				
Q13					.462				
Q11					.439				
Q34						.880			
Q39							.945		
Q38								.796	
Q25									.692

3.5.2 Constructs

In table 4, the constructs with their items are presented. The Cronbach's alpha of each construct is also presented.

Table 4 The constructs with their items

Constructs	Items (5-point Likert scale)	Reliability (Cronbach's alpha)
Booking intention		.89
	I am interested in Flow hotel	
	I would book this hotel in the future	
	The chances of me booking Flow hotel are high	
	I do not see a problem with booking this hotel in the future	
Brand attitude		.92
	I have a positive attitude to the Flow	
	I have a good attitude to the hotel	
	I think flow is a good brand	
	I find flow a likeable brand	
Attractiveness		.92
	I find Esther attractive	
	I find Esther classy	
	I find Esther beautiful	
	I find Esther elegant	
Trustworthiness		.93
	I find Esther honest	
	I find Esther reliable	
	I think Esther sincere	
	I feel that Esther has integrity	
Expertise		.94
	I find Esther an expert on services	
	I find Esther knowledgeable about the hotel	
	I find Esther qualified to talk about a hotel	
	I think Esther has experience with hotels	
Online engagement		.93
	I look forward to see more of Esther's videos and content	
	I would follow Esther on social media	
	I want to interact with Esther through social media	
	I would love to comment and like photos and videos of Esther	
Emotional attachment		.97
	I feel an affectionate relationship with Esther	

	I feel emotionally connected to Esther	
	I have strong feelings of connection with Esther and	
	I feel Esther and I share the same passion	
Perceived similarity		.97
	I think Esther thinks like me	
	I find Esther is similar to me	
	I think Esther behaves like me	
	In my opinion, Esther has thoughts and ideas that are similar to mine	
Popularity		.87
	I believe Esther has a lot of followers on Instagram	
	I think Esther is famous	
	I think Esther is famous among my peers	
	I think Esther is well known	
	I think Esther is well liked	
	I think Esther is well recognized	

4. Results

The results of the analyses are presented in this chapter. First, the descriptive statistics are discussed. After that, the regression analysis for predicting the dependent variable brand attitude and the dependent variable online engagement are also discussed. Moreover, the mediating role of gender is discussed.

4.1 Descriptive statistics

In table 5, the mean and standard deviation of each construct are shown. All items of the constructs were measured with a five-point Likert scale, where 1 represented totally disagree and 5 represented totally agree. Brand attitude has the highest mean of 3.68 and SD=0.60. Emotional attachment has the lowest mean of 2.94 and SD = 1.06. The construct brand attitude shows a high mean, indicating that respondents on average agree with the statements of these constructs. The standard deviation of all constructs lie between .60 and 1.14.

Table 5 Descriptive statistics.

Construct	N	M	SD
Booking intention	224	3.31	.77
Brand attitude	224	3.68	.60
Attractiveness	224	3.30	.89
Trustworthiness	224	3.06	.87
Expertise	224	3.04	1.01
Online engagement	224	2.94	.99
Emotional attachment	224	2.50	1.06
Perceived similarity	224	2.75	1.14
Popularity	224	3.60	.68

4.2 Correlation

Correlation measures the relationship between the strength of two variables (Field, 2018). The correlation coefficient is a commonly used measure of the size of an effect: values of ±0.1 represent a small effect, ±0.3 is a medium effect and ±0.5 is a large effect (Field, 2018). Table 4 presents the correlation between two variables.

Table 6 shows that all correlations are higher than 0.5, that means that the variables are positively correlated. The variables emotional attachment and perceived similarity are highly correlated, $r(224)=.925$, $p<.001$.

Table 6 Pearson correlation between all variables

Constructs	1	2	3	4	5	6	7	8	9
1.Booking intention	-								
2.Brand attitude	.716**	-							
3.Attractiveness	.580**	.564**	-						
4.Trustworthiness	.659**	.549**	.604**	-					
5.Expertise	.618**	.575**	.604**	.645**	-				
6.Emotional attachment	.684**	.554**	.679**	.707**	.730**	-			
7.Perceived similarity	.685**	573**	.670**	.661**	.736**	.925**	-		
8.Popularity	.640**	.588**	.668**	.567**	.658**	.684**	.697**	-	
9.Online engagement	.803**	.641**	.665**	.682**	.722**	.834**	.800**	.741**	-

**Significant at the 0.01 level (2-tailed)

4.3 Multi collinearity analysis

To test if the variables are correlated, a multi collinearity analysis was conducted. VIF indicates whether a predictor has a strong linear relationship with the other predictor. If the largest VIF is greater than 10 (or the tolerance is below 0.1) then this indicates a serious problem (Bowerman & O'Connell, 1990). If the average VIF is substantially greater than 1 then the regression may be biased (Bowerman & O'Connell, 1990).

Table 7 shows the VIF scores of the independent variables. All VIF scores of the constructs are between 2 and 8. Because the VIF scores are below 10, that means there are no collinearity problems, according to Bowerman & O'Connell (1990).

Table 7 Collinearity statistics of the dependent variable brand attitude

Constructs	VIF
Attractiveness	3.486
Trustworthiness	5.572
Expertise	5.220
Emotional attachment	7.734
Perceived similarity	7.683
Popularity	2.800

Table 8 Collinearity statistics of the dependent variable online engagement. Table 7 shows the VIF scores of the independent variables. All VIF scores of the constructs are between 2 and 8. Because the VIF scores are below 10, that means there are no collinearity problems, according to Bowerman & O'Connell (1990).

Table 8 Collinearity statistics of the dependent variable online engagement

Constructs	VIF
Attractiveness	3.486
Trustworthiness	5.572
Expertise	5.220
Emotional attachment	7.734
Perceived similarity	7.683
Popularity	2.800

4.4 Regression

Regression analysis is a method of predicting an outcome variable based on one predictor variable (single regression) or multiple predictor variables (multiple regression) (Field, 2009, p.198).

Table 9 shows the regression analysis for predicting the dependent variable brand attitude. Table 9 shows an adjusted r^2 of .517. This means that 51.7% of the variation in brand attitude can be explained with the model. From all constructs, trustworthiness has the strongest positive significant effect (β=.38, $t(224)$ =3.46, p<.001). The construct with the lowest significant effect is emotional attachment (β = -.03, $t(224)$ =-.248, p=.804).

Table 9 Regression coefficients of the dependent variable brand attitude

	Unstandardized coefficients		Standard coefficients	
	B	Std.Error	β	T
Constant	-2.14	.18		9.46
Attractiveness	.25	.06	.10^{ns}	1.18
Trustworthiness	-.01	.08	.38**	3.46
Expertise	.21	.07	.07 ^{ns}	.73
Emotional attachment	.45	.08	-.03 ^{ns}	-.24
Perceived similarity	-.01	.07	.06 ^{ns}	.51
Popularity	.36	.08	.20**	2.60

*. Significant at the 0.05 level (2-tailed)

**. Significant at the 0.01 level (2-tailed)
***. Significant at the 0.001 level (2-tailed)
NS: Not significant

The regression analysis shows that trustworthiness (β=.38, $t(224)$ =3.46, p<.001) and popularity (β=.20, $t(224)$ =2.60, p<.001) have a significant effect on brand attitude. That means that hypotheses of H1b and H3 are supported. The regression analysis shows that attractiveness (β=.10, $t(224)$ =.10, p=.236), expertise (β=.07, $t(224)$ =.73, p=.461), emotional attachment (β= -.302, $t(224)$ =-.24, p=.804) and perceived similarity (β=.06, $t(224)$ =.51, p=.609) do not have a significant effect on brand attitude. That means that hypotheses H1a, H1c, H2 and H4 are not supported.

Table 10 shows the regression analysis for predicting the dependent variable online engagement. Table 10 shows an adjusted r^2 of .766. This means that 76.6% of the variation in online engagement can be explained with the model. From all constructs, emotional attachment has the strongest positive significant effect (β=.48, $t(224)$=5.32, p<0.001). The construct with the lowest significant effect is trustworthiness (β = -.03, $t(224)$=-.01, p=.804).

Table 10 Regression coefficients of the dependent variable online engagement

	Unstandardized coefficients		Standard coefficients	
	B	Std.Error	β	T
Constant	1.65	.17		-1.15
Attractiveness	.07	.06	.02 ^{ns}	.38
Trustworthiness	.27	.07	.00 ^{ns}	-.01
Expertise	.05	.07	.21**	2.85
Emotional attachment	-.20	.08	.21 ^{ns}	5.32
Perceived similarity	.03	.07	-.01 ^{ns}	-.13
Popularity	.19	.07	.25**	4.59

*. Significant at the 0.05 level (2-tailed)

**. Significant at the 0.01 level (2-tailed)

***. Significant at the 0.001 level (2-tailed)

NS: Not significant

The regression analysis shows that expertise (β=.21, $t(224)$=2.85, $p<0.01$), emotional attachment (β=.48, $t(224)$=5.32, $p<0.001$) and popularity (β=.25, $t(224)$=4.59, $p<0.001$) have a significant effect on brand attitude. That means that the hypotheses H5c, H5e and H5f are supported. Attractiveness (β=.02, $t(224)$=.38, $p=.699$), trustworthiness (β=.00, $t(224)$=-.01, $p=.990$) and perceived similarity (β=-.01, $t(224)$=-.13, $p=.896$) do not have a significant effect on brand attitude. This means that hypotheses H5a, H5b and H5d are not supported.

4.5 Moderating effect of gender

After testing the direct effects of the independent variables on the dependent variables, the moderating effect of the potential moderating variable gender was also tested. The moderating analysis was conducted on the independent variables source credibility, emotional attachment, perceived similarity and popularity.

The mediation analysis was performed by Model 1 of the PROCESS macro for SPSS by Hayes (2018).

Source credibility
A moderation analysis was conducted to find out whether gender has a moderating effect of source credibility on brand attitude.

Attractiveness
First, the moderating effect of gender on the effect of attractiveness on brand attitude was conducted. The r^2 is .319, meaning that attractiveness explains 31,9% of the variance in the brand attitude. According to the moderation analysis, the effect of attractiveness on brand attitude is significant (β=.62, t(224)=3.45, p<.001). The effect of gender on brand attitude is not significant (β=.63, t(224)=.24, p=.293). The result of the moderation analysis showed that the interaction is not significant, β=-.09, 95% CI [-.198, .106], t=-.594, p=.076, indicating that the relationship between attractiveness and brand attitude is not moderated by gender. The findings showed that hypothesis 9a is not supported.

Trustworthiness
The moderating effect of gender on the effect of trustworthiness on brand attitude was conducted. The r^2 is .303, meaning that trustworthiness explains 30,3% of the variance in the brand attitude. According to the result, the effect of trustworthiness on brand attitude is significant (β=.69, t(224)=14.49, p<.001). The effect of gender on brand attitude is not significant (β=.05, t(224)=1.15, p=.248). The result of the moderation analysis showed that the interaction is not significant, β=-.04, 95% CI [-.233, .089], t=-.96, p=.335, indicating that the relationship between trustworthiness and brand attitude is not moderated by gender. The findings showed that hypothesis 9b is not supported.

Expertise
The moderating effect of gender on the effect of expertise on brand attitude was conducted. The r^2 is .580, meaning that expertise explains 58% of the variance in the brand attitude. According to the result, the effect of expertise on brand attitude is significant (β=.66, t(224)=13.10, p<.001). The effect of gender on brand attitude is not significant (β =.05, t(224)=1.10, p=.318). The result showed that the interaction is not significant, β=-.08, 95% CI [-.228, .043], t=-1.64, p=.101, indicating that the relationship between expertise and brand attitude is not moderated by gender. The findings showed that hypothesis 9c is not supported.

Perceived similarity

A moderation analysis was conducted to find out whether gender has a moderating effect of perceived similarity on brand attitude. The r^2 is .337, meaning that perceived similarity explains 33,7% of the variance in the brand attitude. According to the moderation analysis, the effect of perceived similarity on brand attitude is significant (β=.63, t(224)=12.02, p<.001). The effect of gender on brand attitude is not significant (β =.01, t(224)=.13, p=.896). The result showed that the interaction is not significant, β =-.07, 95% CI [-.238, .014], t=-2.08, p=.121, indicating that the relationship between perceived similarity and brand attitude is not moderated by gender. The findings showed that hypothesis 9d is not supported.

Popularity

A moderation analysis was conducted to find out whether gender has a moderating effect of popularity on brand attitude. The r^2 is .363, meaning that popularity explains 36,3% of the variance in the brand attitude. The result of the moderation analysis shows that the effect of popularity on brand attitude is significant (β=.66, t(224)=12.67, p<.001). The effect of gender on brand attitude is not significant (β =.07, t(224)=1.46, p=.144). The moderation analysis showed that the interaction is not significant, β=-.16, 95% CI [-.444, .027], t=-3.12, p=.027, indicating that the relationship between popularity and brand attitude is not moderated by gender. The findings showed that hypothesis 9e is not supported.

Emotional attachment

A moderation analysis was conducted to find out whether gender has a moderating effect of emotional attachment on brand attitude. The r^2 is .560, meaning that emotional attachment explains 56,0% of the variance in the brand attitude. According to the moderation analysis, the effect of emotional attachment on brand attitude is significant (β=.62, t(224)= 11.88, p<.001). The effect of gender on brand attitude is not significant (β=.01, t(224)=.27, p=.783). The moderating analysis also showed that the interaction is not significant, β=-.12, 95% CI [-.242, .028], t=-2.43, p=.121, indicating that the relationship between emotional attachment and brand attitude is not moderated by gender. The findings showed that hypothesis 9f is not supported.

Popularity

A moderation analysis was conducted to find out whether gender has a moderating effect of popularity on brand attitude. The r^2 is .363, meaning that popularity explains 36,3% of the variance in the brand attitude. The result of the moderation analysis shows that the effect of popularity on brand attitude is significant (β=.66, t(224)=12.67, p<.001). The effect of gender on brand attitude is not significant (β =.07, t(224)=1.46, p=.144). The moderation analysis showed that the interaction is not significant, β=-.16, 95% CI [-.444, .027], t=-3.12, p=.027, indicating that the relationship between popularity and brand attitude is not moderated by gender.

4.6 Mediation effect of brand attitude

The mediation effect of the potential mediating variable brand attitude was also tested. The mediation analysis was conducted on the independent variables source credibility, emotional attachment, perceived similarity and popularity.

The mediation analysis was performed by Model 4 of the PROCESS macro for SPSS by Hayes (2018).

Source credibility
A mediation analysis was conducted to find out whether brand attitude has a mediated effect of source credibility on booking intention.
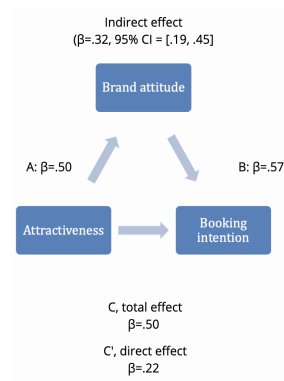
Attractiveness
The results of the mediation analysis showed that the total effect of attractiveness on booking intention was found to be statistically significant (β=.50, 95% CI= [.41, .59], t=10.61, p<.001). The effect of attractiveness on the mediator brand attitude was found to be significant (β= .50, t(224)=10.17, p<.001). The result showed that the effect of mediator (brand attitude), when controlling attractiveness, was significant (β=.57, t(224)=10.52, p<.001).The results of the mediation analysis showed that the direct effect of attractiveness on booking intention was found to be statistically significant (β=.22, 95% CI= [.13, .31], t=4.78, p<.001). Lastly, the indirect effect was also tested with non-parametric bootstrapping. The result showed that the indirect effect was found to be statistically significant (β=.32, SE = .06, 95% CI = [.19, .45].

The results of the mediation analysis showed that brand attitude mediates the effect of attractiveness on booking intention. That means that hypothesis 11a is supported.

Figure 1 shows that mediation model with the results of brand attitude as the mediator of attractiveness on booking intention.

Figure 1: Mediation model for attractiveness and booking intention with brand attitude as mediator.
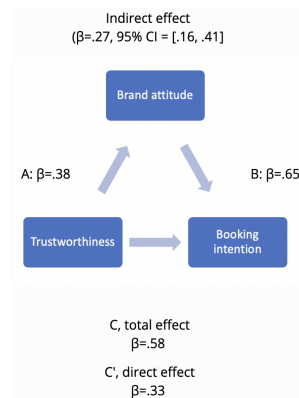
Trustworthiness

The results of the mediation analysis showed that the total effect of trustworthiness on booking intention was found to be statistically significant (β=.58, 95% CI=[.49, .67], t=13.03, p<.001). The effect of trustworthiness on the mediator brand attitude was found to be significant (β=.38, t(224)=7.60, p<.001). The mediation analysis showed that the effect of mediator (brand attitude), controlling trustworthiness, was significant (β=.65, t(224)=13.03, p<.001). The result of the mediation analysis showed that the direct effect of trustworthiness on booking intention was found to be statistically significant (β=.33, 95% CI= [.25, 42], t=7.60, p<.001). The result of the mediation analysis also showed that the indirect effect was found to be statistically significant (β=.27, SE = .063, 95% CI = [.16, .41].

The results of the mediation analysis showed that brand attitude mediates the effect of trustworthiness on brand attitude. That means that hypothesis 11b is supported.

Figure 2 shows that mediation model with the results of brand attitude as the mediator of trustworthiness on booking intention.

Figure 2: Mediation model for trustworthiness and booking intention with brand attitude as mediator.
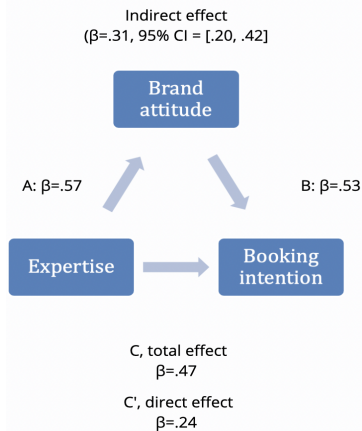

Expertise

The total effect of expertise on booking intention was found to be statistically significant (β=.47, 95% CI=[.55, .61], t=11.72, p<.001). The effect of expertise on the mediator brand attitude was found to be significant (β=.57, t(224)=10.46, p<.001). Furthermore, the mediation analysis showed that the effect of mediator (brand attitude), controlling expertise, was significant (β=.53, t(224)=10.06, p<.001).The mediation analysis showed that the direct effect of expertise on booking intention was found to be statistically significant (β=.24, 95% CI= [.15, .31], t=5.77, p<.001). The indirect effect was also found to be statistically significant (β=.31, SE = .05, 95% CI = [.20, .42].

The results of the mediation analysis showed that brand attitude mediates the effect of expertise on brand attitude. That means that hypothesis 11c is supported.

Figure 3 shows that mediation model with the results of brand attitude as the mediator of expertise on booking intention.

Figure 3: Mediation model for expertise and booking intention with brand attitude as mediator.
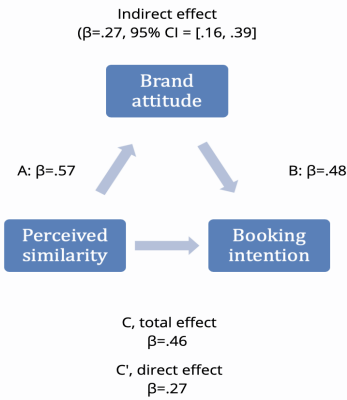

Perceived similarity

A possible mediation of brand attitude for the effect of perceived similarity on booking intention was also examined. The total effect of perceived similarity on booking intention was found to be statistically significant (β=.46, 95% CI=[.52, .68], t=14.00, p<.001). The effect of perceived similarity on the mediator brand attitude was found to be significant (β=.57, t(224)=10.42, p<.001). Furthermore, the mediation analysis showed that the effect of mediator (brand attitude), controlling perceived similarity, was significant (β=.48, t(224)=9.57, p<.001). The result of the mediation analysis showed that the direct effect of perceived similarity on booking intention was found to be statistically significant (β=.27, 95% CI [.21, .34], t=8.12, p<.001). Lastly, the indirect effect was found to be statistically significant (β=.27, SE = .05, 95% CI = [.16, .39].

The results of the mediation analysis showed that brand attitude mediates the effect of perceived similarity on brand attitude. That means that hypothesis 11d is supported.

Figure 4 shows that mediation model with the results of brand attitude as the mediator of perceived similarity on booking intention.

Figure 4: Mediation model for perceived similarity and booking intention with brand attitude as mediator.
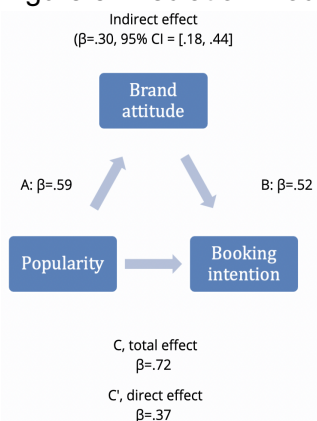
Popularity

A possible mediation of brand attitude for the effect of popularity on booking intention was also examined. The result of the mediation analysis showed that the total effect of perceived similarity on booking intention was found to be statistically significant (β=.72, 95% CI=[.61, .84], t=12.41, p<.001). The effect of popularity on the mediator brand attitude was found to be significant (β=.59, $t(224)$=10.83, p<.001). The mediation analysis showed that the effect of mediator (brand attitude) on booking intention, controlling popularity, was significant (β=.52, $t(224)$=9.69, p<.001). The result of the mediation analysis showed that the direct effect of popularity on booking intention was found to be statistically significant (β=.37, 95% CI [.26, .49], t=6.25, p<.001). Lastly, the indirect effect was found to be statistically significant (β=.30, SE = .06, 95% CI = [.18, .44].

The results of the mediation analysis showed that brand attitude mediates the effect of popularity on brand attitude. That means that hypothesis 11e is supported.

Figure 5 shows that mediation model with the results of brand attitude as the mediator of perceived similarity on booking intention.

Figure 5: Mediation model for popularity and booking intention with brand attitude as mediator.


Emotional attachment

A possible mediation of brand attitude for the effect of emotional attachment on booking intention was also examined. The total effect of emotional attachment on booking intention was

found to be statistically significant (β=.49, 95% CI=[.42, .57], t=13.95, p<.001). The result showed that the effect of emotional attachment on the mediator brand attitude was found to be significant (β=.55, $t(224)$=9.91, p<.001) Moreover, the mediation analysis showed that the effect of mediator (brand attitude), controlling emotional attachment, was significant (β=.48, $t(224)$=9.98, p<.001).The mediation analysis showed that the direct effect of emotional attachment on booking intention was found to be statistically significant (β=.30, 95% CI [.23, .37], t=8.44, p<.001). The result of the mediation analysis also showed that the indirect effect was found to be statistically significant (β=.26, SE = .05, 95% CI = [.16, .37].

The results of the mediation analysis showed that brand attitude mediates the effect of emotional attachment on brand attitude. That means that hypothesis 11f is supported.

Figure 3 shows that mediation model with the results of brand attitude as the mediator of emotional attachment on booking intention.

Figure 3: Mediation model for emotional attachment and booking intention with brand attitude as mediator.
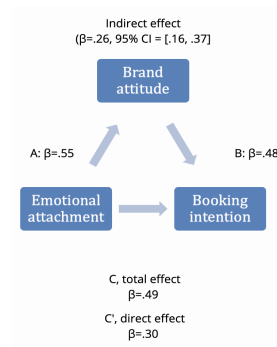
4.6 Hypotheses overview

Table 11 shows the hypotheses tested in the current study and to what extent they were supported by the findings of the statistical analyses.

Table 11 Hypotheses overview

	Hypotheses	Results
H1a	Attractiveness has a positive relationship with brand attitude	Not supported
H1b	Trustworthiness has a positive relationship with brand attitude	Supported
H1c	Expertise has a positive relationship with brand attitude	Not supported
H2a	Attractiveness has a positive relationship with online engagement	Not supported
H2b	Trustworthiness has a positive relationship with online engagement	Not supported
H2c	Expertise has a positive relationship with online engagement	Supported
H3	Perceived similarity has a positive relationship with brand attitude	Not supported
H4	Perceived similarity has a positive relationship with online engagement	Not supported
H5	Popularity has a positive relationship with brand attitude	Supported
H6	Popularity has a positive relationship with online engagement	Supported
H7	Emotional attachment has a positive relationship with brand attitude	Not supported
H8	Emotional attachment has a positive relationship with online engagement	Supported
H9a	The positive relationship between attractiveness and brand attitude is stronger for women than for men	Not supported
H9b	The positive relationship between trustworthiness and brand attitude is stronger for women than for men	Not supported
H9c	The positive relationship between expertise and brand attitude is stronger for women than for men	Not supported
H9d	The effect of perceived similarity on brand attitude is stronger for women than for men	Not supported

H9e	The positive relationship between popularity and brand attitude is stronger for women than for men	Not supported
H9f	The positive relationship between emotional attachment and brand attitude is stronger for women than for men	Not supported
H10	Brand attitude has a positive relationship with booking intention	Supported
H11a	Brand attitude mediates the effect of attractiveness on booking intention.	Supported
H11b	Brand attitude mediates the effect of trustworthiness on booking intention.	Supported
H11c	Brand attitude mediates the effect of expertise on booking intention.	Supported
H11d	Brand attitude mediates the effect of perceived similarity on booking intention.	Supported
H11e	Brand attitude mediates the effect of popularity on booking intention.	Supported
H11f	Brand attitude mediates the effect of emotional attachment on booking intention.	Supported

5. Discussion

The main goal of this study was to determine the virtual influencers-factors that predict generation Z consumers' brand attitude and to what extent do male and female members of generation Z differ on the virtual influencer-related factors. This chapter summarises the main results and examines these findings against other existing studies. Furthermore, this chapter discussed the practical implications, limitations and future research directions.

5.1 Discussion of the results

First, the findings of this study showed that trustworthiness of the virtual influencer and popularity has a positive relationship with brand attitude. Unexpectedly, the result showed that trustworthiness has a positive relationship with brand attitude. Discussed earlier in the theoretical framework, consumers question whether virtual influencers cannot experience a hotel or restaurant because of their non-existent bodies and do consumers trust virtual influencer's recommendation. This study shows that the virtual influencer can be trustworthy when it comes to recommending a hotel. As expected, popularity has a positive relationship with brand attitude. This means that through their high popularity, virtual influencers can draw consumers' interest to the brand and influence a more positive attitude towards the brands. The findings of this study are consistent with the results of other studies outside the virtual influencer context, such as Wang and Close Scheinbaum (2017) and Ladhari et al (2020). Their study showed that trustworthiness of a celebrity and popularity of vloggers has a positive influence on brand attitude.

Furthermore, the findings of this study showed that attractiveness, expertise, perceived similarity and emotional attachment has a negative relationship with brand attitude. The result showed that attractiveness has a negative relationship with brand attitude. This study showed that a female virtual influencer sharing a message is not attractive, resulting in a negative relationship with brand attitude. This study expected the attractiveness of the virtual influencer to have a positive relationship with brand attitude because of the female virtual influencer's attractive appearance. This study showed that expertise has a negative relationship with brand attitude. When it comes to brand attitude, this study showed that generation Z did not perceive the virtual influencer as an expert. This may be because virtual influencers cannot sleep in a hotel and therefore they have no knowledge about the hotel. Furthermore, perceived similarity has a negative relationship with brand attitude. This means that generation Z do not perceive themselves similar in attitude, values, morals and appearance with the female virtual influencer. This may be due to the fact that the virtual influencer has no human appearance. Lastly, emotional attachment has a negative relationship with brand attitude. This means that respondents did not feel that they are emotionally attached to the female virtual influencer, which resulted in a negative relationship with brand attitude. All in all, all the results are not consistent with the results of other studies, such as Wang and Close Scheinbaum (2017), Ladhari et al. (2020) and Thomson et al. (2005).

The findings of this study showed that expertise, popularity and emotional attachment has a positive relationship with online engagement. The virtual influencer was perceived as an expert, which resulted in a positive relationship with online engagement. It is likely that generation Z wants to know more about the female virtual influencer and her content because of her expertise and still wants to be engaged with the virtual influencer. This study showed that popularity has a positive relationship with online engagement. It is very likely when showing the Instagram post with many followers, likes and comments led to a high increase in online engagement. It could also be that people want to stay involved with the virtual influencer and see her content because other people also like to be engaged with the virtual influencer. This study showed that emotional attachment has a positive relationship with online engagement. This means that generation Z feels emotionally attached to the virtual influencer. It could be that, as emotional attachment increases, Generation Z creates reciprocal relationships by sharing their resources and time with the virtual influencers and spend a lot of time engaging with the virtual influencer. The findings of this study are consistent with the results of other studies outside the virtual influencer context, such as AlFarraj et al. (2021), Eslami et al.(2022) and Li and Han (2021).

Furthermore, this study showed that attractiveness, trustworthiness and perceived similarity have a negative relationship with online engagement. According to the findings, attractiveness has a negative relationship with online engagement. This means that generation Z did not find the virtual influencer attractive, which resulted in them not engaging with the female virtual influencer when it comes to her attractiveness. Moreover, trustworthiness has a negative relationship with online engagement. This means that trustworthiness is not a factor for generation Z if they want to engage with the virtual influencer. They may not find the virtual influencer trustworthy enough to know more about her and want to engage with her. Furthermore, perceived similarity has a negative relationship with online engagement. This means that generation Z may not feel that the virtual influencer shares the same values and social identity as them, which is why they do not want to engage with the virtual influencer. This is not consistent with the results of other studies, such as AlFarraj et al. (2021).

This study examined if gender has a moderating effect of source credibility, perceived similarity, emotional attachment and popularity on brand attitude. The results of the moderating analysis showed that the relationships between the brand attitude and independent variables are not moderated by gender. These results indicate that the relationships between brand attitude and the independent variables do not differ between men and women. This result was not expected due to the expectation that there is a difference between male and female members of generation Z. In the end, this study shows that male and female members of generation Z may choose the same answers when it comes to brand attitude.

This study examined if brand attitude has a mediating effect of source credibility, perceived similarity, emotional attachment and popularity on booking intention. This study showed that brand attitude mediates the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention. However, the results showed that the mediation effect was rather partial mediation than full mediation. This

means that the mediation effect was not stronger than expected. It could be that there is not only a mediating effect of brand attitude, but also a direct relationship between independent variables and booking intention.

This study examined if brand attitude has a positive relationship with booking intention. This study showed that brand attitude has a positive relationship with booking intention. This means that if generation Z has a positive brand attitude towards a hotel, this can lead to higher booking intentions. This study showed that in a study with a virtual influencer that could lead to a positive brand attitude that resulted in higher booking intention. The findings of this study are consistent with Ghosh (2018). His study also showed that brand attitude has a positive relationship with booking intention.

5.2 Limitations and future research

This study has a few limitations that should be considered in future research.

Firstly, this research was only limited to the hotel industry. Research has not been conducted yet on virtual influencers in the hotel industry and that is the reason for studying virtual influencers in the hotel industry. Other researchers could examine other hospitality services, such as restaurants or resorts. These hospitality services serve different services to their customers. It could be that customer' attitude may change because of the different services.

Moreover, this study used a cross-sectional survey. This type of survey was chosen to conduct quick research and find a lot of respondents. Future research could do other research designs, such as experiments and interviews. Experiments could compare male and female virtual influencers or make a new Instagram account for a fictional virtual influencer and see how many people will interact with the virtual influencer. Future research should also spend more time with the respondents and observe them several times. With this, researchers could ask in depth questions why the respondents choose their answers. Researchers could ask respondents why they think the virtual influencer is trustworthy or an expert.

This study was only limited to generation Z. No research has been done on generation Z what reasons they like virtual influencers and what factors predict the brand attitude of generation Z consumers. Research has shown that virtual influencers have a lot of followers in the age group 13 and 17. This was the reason that this research chose to study generation Z. Future research should consider studying the newest generation alpha. Due to the fact that generation alpha will grow up with digitalision. This could be interesting for companies and researchers because they could react differently to advertising or factors (NC State University, n.d.). Generation alpha is still too young for studying them, that is why researchers should wait for a few years.

Furthermore, this study was only focused on Dutch members of generation Z. Focusing the research more on one country will allow the researcher to better analyse the male and female members of Generation Z in the Netherlands. Future research could focus on other countries or other continents, such as South Korea or Canada, and compare the results with the results of this study. Thus, comparisons can be made between the male and female members of generation Z from different countries.

Moreover, this study did not take the advice of the factor analysis. To avoid questions from different constructs ending up in a scale, this study chose to leave all items in the scale where they are assigned.The factor analysis may not have been measured as this study intended, due to the sample size. According to Costello and Osborne (2005), every item needs 10 respondents. This study has 39 items and that means that this study needed 390 respondents instead of 224. Future research should make sure that they have a good amount of respondents when they try to perform the factor analysis. Also, researchers should make sure that their items of different scales do not match with each other.

Lastly, this study used a female virtual influencer. This study chose the Dutch virtual influencer Esther Olofsson because this study was focused on the Dutch members of generation Z and she is a very known virtual influencer in the Netherlands. Esther Olofsson is also the only Dutch virtual influencer. Future research could use a male virtual influencer to see

if there are differences in results with the female virtual influencer. Future research could also do a comparative study with a male and female virtual influencer and see if there are any differences with the results. This could expand research in gender differences, but also research on gender of virtual influencers. Research showed differences between human male and female influencers (Al-Shehri, M., 2021).

5.3 Implications

5.3.1 Practical implications

This study provides new insight for especially digital marketers and other practitioners. Outcomes of this study might be useful for hospitality companies and brands who target the younger generation and for companies who own virtual influencers.

Firstly, this study showed that trustworthiness and popularity have a positive relationship with brand attitude. Hospitality marketers should focus on the trustworthiness of the message and the popularity of the virtual influencer for a positive brand attitude. In other words, when people see a post of a popular virtual influencer promoting the hotel and a virtual influencer who is trustworthy, then people will have a positive attitude towards the hotel. For promoting the hotel, hotels could hire a virtual influencer who is popular but there is no need to use a virtual influencer with millions of followers due to the high amount of costs. A popular virtual influencer with thousands of followers from the country where the hotel is located is also fine to promote the hotel for a positive brand attitude.

Moreover, this study showed that expertise, emotional attachment and popularity has a positive relationship with online engagement. For companies who own virtual influencers, they should choose a niche market for the virtual influencers (Sands et al., 2022; Teh, 2021). With doing this, the virtual influencer will be more specialised in the niche market and could increase online engagement with their followers. This may also make the virtual influencer be more perceived as an expert in the niche market. The companies should make posts that could increase emotional attachment which results in a higher online engagement. They should make posts to make people know more about the virtual influencers, but also comment on the response and give compliments to the followers. By engaging with the followers, there will be a chance that followers will have more interest in the virtual influencer and it could increase the online engagement. Companies should also focus on the popularity of the virtual influencer, to make sure that the virtual influencer has thousands of followers and has collaboration with other brands. They should also post content that the people want to see and people are more likely to follow and like the post of the virtual influencer. This could also increase the popularity of the virtual influencer. When people see the Instagram page of the virtual influencer and they see that the virtual influencer is popular, then they are more likely to engage with the virtual influencer.

Furthermore, this study showed that the relationships between the brand attitude and independent variables are not moderated by gender. Hotels should make content that fit for both genders and that could increase trustworthiness and popularity which results in a higher brand attitude.

This study showed that brand attitude has a positive relationship with booking intention. Hotels should ensure that customers and future customers have a positive attitude for their hotel, as this increases their booking intention. Hotels should create a positive brand attitude first, they can do this by hiring a trustworthy virtual influencer and a popular virtual influencer for their advertising. Hotels need to sustain their advertising with a virtual influencer over a period of time so that the willingness to book a hotel increases and the customer will eventually book a room.

Lastly, this study showed that brand attitude is a mediator of the relationship between the independent variables and booking intention. Therefore, hospitality marketers should consider how to maximise brand attitude on attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity which results in higher booking intention. Hotels could create more credibility by sharing accomplishments and promoting achievements. This could create a positive attitude towards the brand and hospitality marketers could combine this with attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity. Hospitality marketers could make posts on social media with a virtual influencer who is promoting the achievements of the hotel in combination with the independent variables. This could increase the likelihood of booking a hotel room.

5.3.2 Theoretical implications

This study makes various theoretical contributions to the literature on virtual influencers and hospitality and has laid a foundation for future research in the field of booking intention, brand attitude and online engagement with the independent variables source credibility, perceived similarity, emotional attachment and popularity.

Research has not been conducted on what factors that could predict generation Z consumers' brand attitude. This study showed that trustworthiness and popularity are the factors that predict generation Z consumers' brand attitude. This confirms the findings of other studies outside the hospitality context and virtual influencers, such as Wang and Close Scheinbaum (2017) and Ladhari et al (2020). This study has contributed to improving the overall knowledge of these factors with the dependent variable brand attitude and using a virtual influencer.

Research has not been conducted on what factors might lead to more engagement with a virtual influencer. Also, there is limited research on factors that might lead to more engagement with human influencers. This study showed that expertise, popularity and emotional attachment has a positive relationship with online engagement. This study suggests that people are more likely to engage with a virtual influencer when the virtual influencer shows expertise and their popularity. Also, when people feel emotionally attached with the virtual influencer. This study expanded more research on factors that have a relationship with online engagement when it comes to virtual influencers.

Previous studies have been conducted on gender differences on brand attitude and purchase intention. Research has not been conducted on the difference between male and female members of generation Z on attractiveness, trustworthiness, expertise, perceived similarity, popularity and emotional attachment. Different from previous studies, this study uses a Dutch female virtual influencer to examine differences between male and female members of generation Z. This study showed that there are no differences between male and female members of generation Z.

In this study, brand attitude mediates the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity. However, this study showed that the effect of brand attitude as a mediator is partial. This expands research on if brand attitude mediates the effect of different factors on booking intention. Different from other studies, this study used a virtual influencer to examine if brand attitude is a mediator.

In this study, brand attitude has a positive relationship with booking intention. This study expands more research on if brand attitude has a positive relationship with booking intention. Different from other studies, this study used a virtual influencer to see if brand attitude has a positive relationship with booking intention.

6. Conclusion

This study examined what the virtual influencer-related factors are that predict generation Z consumers' brand attitude and to what extent are the factors influencing brand attitude different for male and female members of generation Z, but also to what extent does brand attitude mediate the effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention.

This study showed that trustworthiness and the popularity of the virtual influencers has a positive relationship with brand attitude. This means that trustworthiness and popularity predict generation Z consumers' brand attitude. This study showed that expertise, emotional attachment and popularity has a positive relationship with online engagement. This means that the factors that make generation z would like to engage with a virtual influencer are expertise, emotional attachment and popularity.

This study also showed that brand attitude has a partial mediating effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention. Moreover, this study also showed that gender has no moderating effect of source credibility, perceived similarity, emotional attachment and popularity on brand attitude. That means that there is no difference between male and female members of generation Z when it comes to the factors influencing brand attitude.

Furthermore, this study contributes to more research on virtual influencers. This study showed what the factors are that have a positive relationship with brand attitude and generation Z' willingness to book a hotel room or more likely to engage with a virtual influencer. This study showed more information about virtual influencers and their involvement in the services industry. For hospitality marketers, they should hire a trustworthy virtual influencer and use a popular virtual influencer to enhance their brand attitude. For companies who own virtual influencers, they should use expertise, emotional attachment and the popularity of the virtual influencer in their posts to make the audience more likely to engage with the virtual influencer. Future research should examine virtual influencers with other hospitality services, such as restaurants and resorts. Also, examine other generations, such as the newest generation alpha.

In conclusion, the virtual influencer-related factors that predict generation Z consumers' brand attitude are trustworthiness and popularity. There is no difference between male and female members of generation Z when it comes to the factors influencing brand attitude. Brand attitude has a partial mediating effect of attractiveness, trustworthiness, expertise, perceived similarity, emotional attachment and popularity on booking intention.

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Appendix

Appendix 1: Stimuli

Esther Olofsson with Flow hotel
Video:

Photo of Esther with Flow hotel

Photo of Esther's Instagram page:

esther.olofsson

464	43,2 d.	929
Berichten	Volgers	Volgend

Esther Olofsson
Ondernemer
Virtual girl exploring the real world 🤖
In love with Rotterdam, Holland 💚
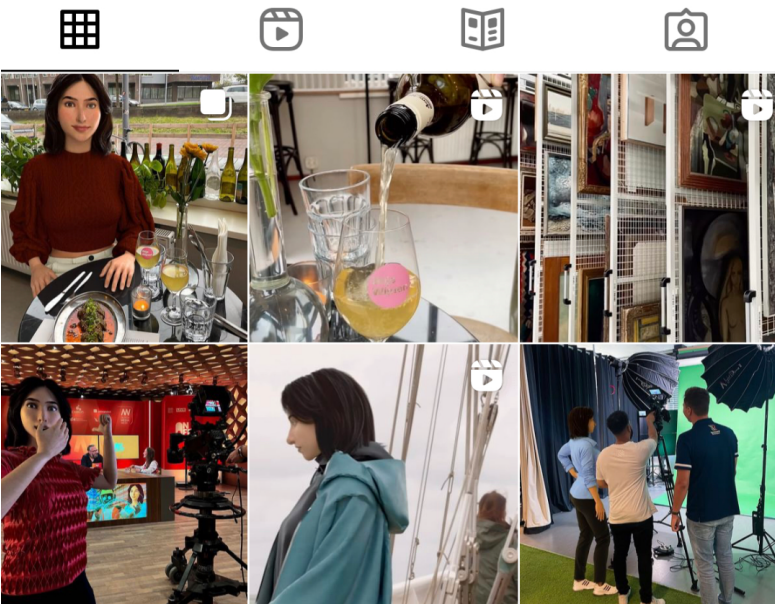Originally from Malmö, Sweden 🇸🇪
#estherexplores #mosttrustedcityguide
linktr.ee/esther.olofsson
Vertaling weergeven

Volgend ⌄   Bericht   ＋👤

NFT   FOOD   COLLABS   TRAVEL   FASHION

Appendix 2: Measurements items of variables for the main study

Booking intention Statements		
I am interested in Flow hotel.		Formulated by the researcher herself
I would book this hotel in the future.		Formulated by the researcher herself
The chances of me booking Flow hotel are high.		Formulated by the researcher herself
I do not see a problem with booking this hotel in the future		Formulated by the researcher herself

Brand attitude Statements		
I have a positive attitude to the Flow	Partly taken from Mitchell and Olson (1988)	
I have a good attitude to the hotel	Partly taken from Mitchell and Olson (1988)	
I think flow is good brand	Partly taken from Mitchell and Olson (1988)	
I find flow a likable brand	Partly taken from Mitchell and Olson (1988)	

Attractiveness Statements		

I find Esther attractive	Partly taken from Ohanian (1990)	
I find Esther classy	Partly taken from Ohanian (1990)	
I find Esther beautiful	Partly taken from Ohanian (1990)	
I find Esther elegant	Partly taken from Ohanian (1990)	

Trustworthiness Statements		
I find Esther honest	Partly taken from Ohanian (1990)	
I find Esther reliable	Partly taken from Ohanian (1990)	
I think Esther sincere	Partly taken from Ohanian (1990)	
I feel that Esther has integrity.	Partly taken from Ohanian (1990)	

Expertise Statements		
I find Esther an expert on services.	Partly taken from Ohanian (1990)	
I find Esther knowledgeable about the hotel.	Partly taken from Ohanian (1990)	

I find Esther qualified to talk about a hotel.	Partly taken from Ohanian (1990)	
I think Esther has experience with hotels.	Partly taken from Ohanian (1990)	

Online engagement Statements		
I look forward to see more of Esther's videos and content		Formulated by the researcher herself
I would follow Esther on social media		Formulated by the researcher herself
I want to interact with Esther through social media.		Formulated by the researcher herself
I would love to comment and like photos and videos of Esther		Formulated by the researcher herself

Emotional attachment Statements		
I feel an affectionate relationship with Esther.	Partly taken from Ladhari et al. (2020)	
I feel emotionally connected to Esther.	Partly taken from Jimenez and Voss (2014)	
I have strong feelings of connection with Esther.	Partly taken from Jimenez and Voss (2014)	

I feel Esther and I share the same passion.	Partly taken from Ladhari et al. (2020)	

Perceived similarity Statements		
I think Esther thinks like me	Partly taken from Ladhari et al. (2020)	
I find Esther is similar to me	Partly taken from Ladhari et al. (2020)	
I think Esther behaves like me.	Partly taken from Ladhari et al. (2020)	
In my opinion, Esther has thoughts and ideas that are similar to mine.	Partly taken from Ladhari et al. (2020)	

Popularity Statements		
I believe Esther has a lot of followers on Instagram	Partly taken from Ladhari et al. (2020)	
I think Esther is famous	Partly taken from Ladhari et al. (2020)	
I think Esther is famous among my peers.	Partly taken from Ladhari et al. (2020)	
I think Esther is well known		Formulated by the researcher herself
I think Esther is well liked		Formulated by the researcher herself

I think Esther is well recognized		Formulated by the researcher herself

Appendix 3: The online survey

Opening statement Beste respondent,

U wordt uitgenodigd om deel te nemen aan een onderzoek getiteld 'Virtual influencers and Hotel bookings'. Het doel van dit onderzoek is om te onderzoeken wat de factoren voor online koopgedrag van Nederlandse consumenten. Dit onderzoek wordt uitgevoerd door Nhung Dao, student van de Faculteit Behavioural, Management and Social Sciences (BMS), van de Universiteit Twente.

Dit onderzoek zal u ongeveer 5 tot 8 minuten kosten om in te vullen. De gegevens zullen worden gebruikt voor het analyseren van alle beantwoorde surveys.

Uw deelname aan dit onderzoek is geheel vrijwillig en u kunt zich op elk moment terugtrekken. Het staat u vrij om een vraag weg te laten.
Ik ben van mening dat er geen bekende risico's verbonden zijn aan deze onderzoeksstudie; zoals bij elke online gerelateerde activiteit is het risico van een inbreuk op gegevens echter altijd mogelijk. Uw antwoorden in dit onderzoek zullen zo goed mogelijk vertrouwelijk blijven. Ik zal de eventuele risico's minimaliseren door de gegevens veilig op te slaan en alleen ik als de onderzoeker hebben toegang van de gegevens. U wordt niet gevraagd om persoonlijke gegevens in te vullen zoals naam en adres, zodat alle gegevens zijn geanonimiseerd.

Contactgegevens van de studie voor verdere informatie: Nhung Dao, p.n.dao@student.utwente.nl

P.S.: This survey contains credits to get free survey responses at SurveySwap.io

 Ik wil meedoen met dit onderzoek.

   ○ Ja (1)

   ○ Nee (2)

Skip To: End of Survey If Ik wil meedoen met dit onderzoek. = Nee

End of Block:

Start of Block: Belangrijke informatie

Vraag 1 Bent u een Nederlandse burger?

○ Ja (1)

○ Nee (2)

Skip To: End of Survey If Bent u een Nederlandse burger? = Nee

End of Block: Belangrijke informatie

Start of Block: Esther Olofsson

Track timing Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Esther Olofsson
 Ester Olofsson is een Nederlandse virtual influencer. Virtual influencers kan worden gedefinieerd als een fictieve digitale personage dat is gecreëerd in computer graphics software met een aanwezig voor social media. Hieronder zie je foto's en video van Ester Olofsson waarbij zij Flow hotel in Barcelona promoot. Ook zie je een foto van haar instagram pagina. Klik op het play knopje om de video te laten afspelen. Als je een grote witte ruimte ziet in plaats van de video, klik op het witte ruimte en dan komt de video tevoorschijn.

Vraag 1 Heeft u alles goed bekeken en gelezen?

○ Ja (1)

○ Nee (2)

End of Block: Esther Olofsson

Start of Block: Booking intention

Vraag 1 Ik ben geïnteresseerd in Flow hotel.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 2 Ik zou Flow hotel in de toekomst boeken.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 3 De kans dat ik Flow hotel ga boeken is groot.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 4 Ik zie geen probleem om Flow hotel in de toekomst te boeken.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Booking intention

Start of Block: Brand attitude

Vraag 5 Ik heb een positieve houding tegenover het Flow hotel.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 6 Ik heb een goede houding tegenover het Flow hotel.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 7 Ik denk dat Flow een goed merk is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 9 Ik vind Flow een leuk merk.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Brand attitude

Start of Block: Attractiveness

Vraag 10 Ik vind Esther aantrekkelijk.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 11 Ik vind Esther stijlvol.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 12 Ik vind Esther mooi.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 13 Ik vind Esther elegant.

◯ Helemaal niet mee eens (1)

◯ Niet mee eens (2)

◯ Mee oneens/mee eens (3)

◯ Mee eens (4)

◯ Helemaal mee eens (5)

End of Block: Attractiveness

Start of Block: Trustworthiness

Vraag 14 Ik vind Esther eerlijk.

◯ Helemaal niet mee eens (1)

◯ Niet mee eens (2)

◯ Mee oneens/mee eens (3)

◯ Mee eens (4)

◯ Helemaal mee eens (5)

Vraag 15 Ik vind Esther betrouwbaar.

◯ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 16 Ik denk dat Esther oprecht is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 17 Ik heb het gevoel dat Esther integer is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Trustworthiness

Start of Block: Expertise

Vraag 18 Ik vind dat Esther een expert is op het gebied van services.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 19 Ik vind Esther deskundig over het hotel.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 20 Ik vind Esther gekwalificeerd om over een hotel te praten.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 21 Ik vind dat Esther ervaring heeft met hotels.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Expertise

Start of Block: Online Engagement

Vraag 22 Ik kijk uit om meer van Esher's video en inhoud te kijken.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 23 Ik zou Esther volgen op social media.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 24 Ik wil interactie met Esther op social media.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 25 Ik zou graag foto's en video's van Esther becommentariëren en liken.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Online Engagement

Start of Block: Emotional attachment

Vraag 26 Ik voel een affectieve relatie met Esther.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 27 Ik voel me emotioneel verbonden met Esther.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 28 Ik heb sterke gevoelens van verbondenheid met Esther.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 29 Ik heb het gevoel dat Esther en ik dezelfde passie delen.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Emotional attachment

Start of Block: Perceived similarity

Vraag 30 Ik geloof dat Esther net zoals mij denkt.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 31 Ik vind dat Esther vergelijkbaar is met mij.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 32 Ik denk dat Esther zich gedraagt zoals ik.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 33 Naar mijn mening heeft Esther gedachten en ideeën die op de mijne lijken.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Perceived similarity

Start of Block: Popularity

Vraag 34 Ik geloof dat Esther veel volgers heeft op Instagram.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 35 Ik denk dat Esther beroemd is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 36 Ik denk dat Esther beroemd is onder mijn leeftijdsgenoten.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 37 Ik denk dat Esther bekend is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 38 Ik denk dat Esther geliefd is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

Vraag 39 Ik denk dat Esther goed herkenbaar is.

○ Helemaal niet mee eens (1)

○ Niet mee eens (2)

○ Mee oneens/ mee eens (3)

○ Mee eens (4)

○ Helemaal mee eens (5)

End of Block: Popularity

Start of Block: Demographic

Vraag 40 Wat is uw leeftijd?

_____

Vraag 41 Wat is uw geslacht?

   ○ Man (1)

   ○ Vrouw (2)

   ○ Anders (3)

   ○ Ik wil het niet zeggen (4)

Vraag 42 Hoogst genoten opleiding

   ○ Basis onderwijs (1)

   ○ VMBO (2)

   ○ HAVO (3)

   ○ VWO (4)

   ○ MBO (5)

   ○ HBO (6)

○ WO bachelor (7)

○ WO master (8)

○ PHD (9)

○ Ik wil het niet zeggen (10)

Vraag 43 Heeft u ervaring met het online boeken van een hotel?

○ Ja (1)

○ Nee (2)

Vraag 44 Bent u bekend met virtual influencers?

○ Ja (1)

○ Nee (2)

Display This Question:

    If Bent u bekend met virtual influencers? = Ja

Vraag 45 Van waar kent u de virtual influencers?

○ Instagram (1)

○ Tiktok (2)

○ Het nieuws (3)

○ Van familie en/of vrienden (4)

○ Anders (5)

Display This Question:

    If Bent u bekend met virtual influencers? = Ja

Vraag 46 Kunt u aangeven welke virtual influencers u kent?

_____

End of Block: Demographic

Start of Block: End of survey

Vraag 47 Heeft u nog vragen of opmerkingen over dit onderzoek?

_____

End of Block: End of survey