

The Role of Artificial Influencers in Tourism Marketing

Bachelor Thesis for Obtaining the Degree

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Submitted to Marion Garaus

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Affidavit

I hereby affirm that this Bachelor Thesis represents my written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

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Abstract

Influencer marketing appears to be gaining popularity nowadays. Especially in the tourism industry influencers are widely used and there is great potential. Virtual influencers are a relatively new and still unknown part of influencer marketing. As little research has been done in the comparison of real and virtual influencers, this thesis will examine this problem. The focus is on tourism as influencer marketing is commonly used in the tourism industry with the tendency to further increase. This paper focuses on the differences between real and virtual influencers and if virtual influencers have the same effect on consumers as real influencers in the future of tourism marketing. An experiment has been conducted with 104 valid results, and participants were randomly allocated to either the real or virtual influencer to get a result with as little bias as possible. A manipulation check was included and could be supported. However, the survey did not provide conclusive results for some participants which, therefore, have been excluded from the analysis, and only 96 results were used in the analysis. The empirical part firstly focuses on the difference between real and virtual influencers in terms of booking intention, trustworthiness, usefulness, and credibility. Evidence was found to support the hypothesis which is comparing the effects of the mentioned variables with virtual and real influencers. Furthermore, in the second part of the research, the focus is drawn toward different variables such as trustfulness, curiosity, and usefulness in terms of influencer marketing to examine if they have a significant effect on booking intention. The results are promising, and it opens doors for further research.

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1 Introduction

Influencer marketing has gained enormously over the past few years. In 2016 the market size was estimated to be 1.7 billion U.S. dollars and it increased to 6.5 billion U.S. dollars in 2019 (Statista, 2020). That shows an increase of almost four times the market size in 2016 and is expected to further increase up to 15 billion U.S. dollars by 2022 (Zhou et al., 2020). Over the past years, the terms influencer and influencer marketing gained increasing awareness in business as well as society.

To provide a common understanding of influencers and influencer marketing, these terms are defined as follows: An influencer is “Someone who has the power to affect the purchasing decisions of others because of his or her authority, knowledge, position, or relationship with her or his audience.” and influencer marketing as “a hybrid of old and new marketing tools” and “involves a brand collaborating with an online influencer to market one of its products or services” (Marketing Hub, 2020). Kadekova & Holienčinová (2018, p. 93) states that “Influencer is anyone who has added value to their social network, whether it is Facebook, Instagram, Snapchat, Pinterest, YouTube or others”. Influencers are also defined as “These opinion leaders are trusted individuals who offer advice and exercise influence over the opinion of others” (Gretzle, 2018, p. 1). Influencer marketing is described as “a rapidly growing industry that attempts to promote products or increase brand awareness through content spread by social media users who are considered to be influential” (Carter, 2016, p. 2). According to Condor Ferries (2020), most of their bookings were made online in 2018 with a total of 82%. This is a very high percentage and will further increase in the future. Therefore, it shows clearly that there is great potential for influencer marketing in the tourism industry. Furthermore, a marketing expert sees a great possibility for influencer marketing and that it will become more professionalized in the future (Chouchi, 2020). This also gives indications for the increasing importance of influencer marketing in the tourism industry in the future.

However, looking at current research there has not been an in-depth analysis of how influencer marketing influences purchasing behavior of consumers. This paper will be analyzed how influencer marketing shapes tourism, especially regarding booking intention. Due to COVID-19, the industry is characterized by a high level of uncertainty and there is a necessity to discuss if influencer marketing in the tourism industry will continue as it is or may change due to several factors. The consumer purchase behavior may be influenced by influencer marketing and plays an immersive role in younger generations, especially in generations Y and Z (Kadekova & Holienčinová, 2018). In addition, more and more older generations follow the trend and are being influenced through influencer marketing, even though the percentage is a lot lower compared to millennials, born between 1981 and 2001 (Kadekova & Holienčinová, 2018). A new trend in influencer marketing is the rise of virtual influencers which started with Miquela Sousa, also known as Lil Miquela as being the first virtual influencer, meaning not being a real human instead computer-generated virtual robot (Robinson, 2020).

Pointing out the increasing and developing market of influencers, this paper should help businesses to understand the importance of influencer marketing and should make them aware of the opportunities which come along. Influencer marketing is showing increasing importance when it comes to purchasing decisions worldwide. In 2018, 45,4% of the influencers' audience tried something which was recommended by a micro-influencer and 26,9% made a purchase based on the micro influencers' recommendation. (Statista, 2020). Also, Arora et al. (2019) state that customers are likely to be inspired by influencers regarding their purchase intention. Creating a story when reviewing a product or service appears to be the most useful type of review for customers (Black & Kelley, 2009). Storytelling is usually a part of influencer marketing which makes it very appealing for companies to work together with an influencer to achieve exactly this goal and creating a story around their product or service. To find out how influencer marketing shapes the travel decision-making process and ultimately booking behavior, an experiment will be conducted with the overall objective to investigate the difference in consumers' perceptions between virtual and

real influencers. The results of the experiment and the thesis, in general, will give an overview of the current impact of influencer marketing on booking intention and how this industry will be seen in the future. Therefore, the research question for this thesis is “To what extent do people trust virtual influencers more/less than real influencers?”.

2 Literature overview

A literature review has been conducted to get an overall understanding of digital marketing, social marketing, influencer marketing and, the effect on tourism. A general overview of influencer marketing, the different types of influencers, and what channels are most used in influencer marketing will be provided. In addition, consumer purchase behavior and decision-making about influencer marketing are explored. The future trends of influencer marketing and what drives this industry are also examined in this section. Especially the technological trend such as virtual influencers will be discussed in detail.

2.1 The emergence of digital marketing in the tourism industry

In recent years marketing has changed enormously. New technologies force companies to implement digital marketing rapidly. There are several different ways of digital marketing. The tourism sector uses tools such as email marketing, online campaigns, blogs, websites mobile applications, or any type of social media marketing (Sharma et al., 2020). It needs to be taken into consideration that the way consumers search on the web will change due to the increasing implementation of AI, meaning other keywords, hashtags, and emotions need to be used to target customers (Dumitriu & Popescu, 2020). According to Sharma et al. (2020), people prefer online booking and information search for travel over traditional travel networks. The importance of social media in tourism has a growing value and is emphasized by many experts (Dumitriu & Popescu, 2020). However, to take full advantage of digital marketing Saura (2021) states that the data which is collected needs to be taken more into consideration with the help of data science. This leads to a promising approach towards a more autonomous process which is called automated marketing and gains in attraction. This helps marketers with the use of AI to identify certain patterns of their users with algorithms and machine learning to achieve more automatic marketing (Dumitriu & Popescu, 2020). Following this, Dumitriu & Popescus' (2020) findings demonstrate that there is an increasing shift from digital marketing towards

intelligent marketing. This leads to the point of an increasing new trend of virtual influencer marketing.

2.2 Influencer marketing

Influencer marketing is a relatively new approach. However, it gains rising attractiveness as a marketing tool and needs to be investigated more in detail. In the following sections, it will be explained which types of influences there are, what channels are used and how influencers affect purchase intention and decision making. Furthermore, it will be explained how the future of influencing marketing could look like.

2.2.1 Influencer types and channels used

People are mostly not willing to decide on their own, so different opinions are often welcome to help in decision-making (Brown & Hayes, 2008). Especially with all the information, a consumer is surrounded with at current times, it is often hard to decide on certain products or services without anyone's help and opinion. Influencer marketing is a great way to help people with their decision-making and purchase intention because the influencers give their opinion on products or services. This helps consumers to decide because they already have an opinion from someone else. According to Statista (2020), AXON Marketing & Communications has conducted a survey where 80% in Latin America were influenced through social media influencers for their decision regarding the travel destination. 75% were influenced when it comes to their hotel and airline decisions (Statista, 2020). This shows that a great majority were inspired by influencers for their travel experience in 2019. Influencer marketing not only gains increasing awareness in the tourism industry. It becomes an increasing part of today's society and plays a key role when it comes to luxury goods (Godey et al., 2016). In this article, it is also explained that customer reviews have a significant effect on customers' booking behavior and references (Godey et al., 2016). Influencers may also be considered as customers' reviews when they talk about an experience e.g., while traveling. Recommending a hotel or an airline because the

service and the experience was unique will encourage others to stay at the same hotel or fly with the recommended airline. As reviews play an emerging role in today's purchasing behavior in tourism (Statista, 2020) as well as for luxury goods (Godey et al., 201) and probably many other sectors, influencer marketing can be used to generate reviews and enhance customers purchases. When targeting millennials, it is strongly advised to communicate with them on a dialogue basis and let them be part of the brand experience (Mobolade, 2016). Influencer marketing can help to reach a broader audience and to communicate in different ways with the audience.

There are four different types of influencers and different platforms being used for influencer marketing. To get an overview of the different types of influencers it will be explained in table 1.

Types and characteristics of influencers	
Type	Characteristics
Nano influencer	Influencers with less than 1k followers. Usually have a very reliable audience and seem very trustworthy.
Micro influencer	These types of influencers have a reach between 1k and 10k and have a 25% - 50% engagement rate per post. They appear to have the highest engagement rate.
Macro influencer	Macro influencers have between 10k and 1M followers. These Influencers are usually specialists in their chosen field such as tourism or travel.
Mega influencer	These influencers have over 1 million followers and are usually celebrities. Mega influencers often charge very high prices and there may be a lack of authenticity with the promoted brand.

Table 1: Types and characteristics of Influencers (Soucie, 2018)

Table 1 gives an overview of the four different types of influencers. Based on the influencers' number of followers they are ranked into different categories with different characteristics. Nano influencers are categorized with a reach of fewer than 1.000 followers, which are usually very trustworthy and target the local community. Micro-influencers show the highest engagement rate with 25% to 50% per post which

is a great opportunity for companies to work with. When looking for a specialist in their field e.g., tourism, macro-influencers with a reach of 10k to 1 million followers are probably the best choice. Mega influencers have a reach of over 1 million and tend to be celebrities (Soucie, 2018).

Despite the number of followers, influencers may be distinguished between three other factors. Influencers can be differentiated with their motivation of action, their communication platform, and their type of activity (Wielki, 2020). Social media influencers often share the same values as opinion leaders (Farviar et al., 2021) and often have the role of opinion leaders for their followers. Three main features have been identified which are characteristics like self-confidence and credibility, interested in learning new things, and usually are socially active (Farviar et al., 2021). These features help influencers to successfully perform their job and to achieve high engagement rates on their channels. As influencer marketing is widely spread on various channels through the web, research on current literature has been conducted to identify the main channels being used. One of the most common channels for influencers is social media platforms such as Facebook, Twitter, YouTube, or Instagram (Arora et al., 2019). In addition, Wielki (2020) identified TikTok, Bloggs, and Snapchat as common platforms for influencers. Marketers strongly focus on Instagram with a percentage of 89% followed by Facebook and Twitter with 70% (Gretzle, 2018). In addition, they use YouTube, Blogs, and Snapchat as their main channels to target their audience (Gretzle, 2018). In the tourism industry influencers can increase the booking intention through various platforms and help the customer with their decision making when they are targeted on the right platform using suitable influencers. To find out the most suitable platform for each business, market research will help to identify the customers' needs and wants.

2.2.2 The role of influencer marketing in the decision-making process

Brown & Hayes (2008) mentioned that customers believe an influencer more than the brand itself. This is a reason for the rise in influencer marketing as the target group can identify themselves with the influencer. A study shows that there is a positive

relationship between brand identity and purchase intention (Dash et al., 2021). Influencer marketing can enhance brand identity by being a brand ambassador for example. Continuously promoting and showing products or services from the same brand settles the brand into the consumers' mind, ensures brand recognition, and boost brand identity. Furthermore, a positive relationship between brand image and purchase intention and brand interaction and purchase intention is shown (Dash et al., 2021). An influencer can increase the brand image for the followers by creating a brand image for themselves and share this brand image with their community. This may help companies to achieve a unique brand image which will improve purchase intention. Social media influencers, especially on Instagram have an enormous impact on purchase intention and decision making (Casalóa, 2018). Due to the marketing 4.0 model, brand interaction became an essential part, and it became a lot easier than in earlier days (Dash et al., 2021). Further research shows that social influence can have an enormous impact on consumers' decision-making and purchases in tourism (Tanford & Montgomery, 2014). Companies have an increasing focus on consumers' social media attention to achieve a higher customer engagement rate (Hudson et al., 2016). Influencer marketing can help brands to interact with their customers and achieve a higher purchase intention and consumer engagement. The most successful influencers are those who build strong relationships with their followers (Farivar et al., 2021). Creating posts or videos for a specific brand and continuously interacting with the consumers in the comments can help a brand to improve its customers' experience and promote purchase intention.

In previous studies, it has been proven that tourism has a strong impact on the environment. However, many businesses in the hospitality and tourism industry have implemented marketing strategies with the target that travelers contribute to a more sustainable environment (Tkaczynski et al., 2020). Since influencers act as role models for many followers, they are a great source to show their community how more sustainable tourism can be achieved by practicing it themselves. This way they might influence their followers and create a global movement to encourage sustainable travel. As an example, influencers might reuse towels in hotels or take the train

instead of flying somewhere when it is a short distance. Sharing this with the communities may encourage them to do so as well. Influencer marketing in tourism started with the collaboration of bloggers and was quickly followed by various social media platforms as mentioned previously (Gretzel, 2018). However, Gretzel (2018) states that it must be investigated how consumers perceive the impact of influencer marketing for their booking intention and decision making in tourism which will be looked at in this paper.

2.2.3 Influencers and their trustworthiness towards social media users

Trustworthiness has no general definition as it can have various meanings depending on the situation it is relating to. In this paper, the focus is on the trustworthiness of content provided on the internet. People rely on characteristics of the sources where the information is found (Rieh, 2002). Examples are author or content creator and their credentials as well as reputation, the type of source, and the domain type (St. Jean et al., 2011). This helps the consumer to judge if the information provided is trustworthy. There are different aspects where trustworthiness is used in the online world and can have different meanings. However, there is something which they all have in common which includes reliability, unbiased, and fairness (Hilligross & Rieh 2008). For influencers, it is helpful to keep these key terms in mind and address them to generate trustworthiness towards their followers.

In the tourism industry, the credibility of the information provided on the internet is essential to ensure trustworthiness which increases booking intention (Berhanu & Raj, 2020; Yoo et al., 2009). Fotis et al. (2012) state that user-generated content such as social media influencers appear to be more trustworthy than official tourism websites and travel companies. Travelers trust the content and recommendations of other travelers on social media (Berhanu & Raj, 2020). In contrast, there is research showing the opposite. Cox et al. (2009) shows that user-generated content may seem popular but are not as reliable and generate less trustworthiness for customers in the travel sector than official sites. Trustworthiness lacks with online reviews on e.g., Trip Advisor as there are firms offering organizations to write positive reviews for a

monthly fee (Ayeh et al., 2013). Therefore, customers tend to trust their peers more which could be friends as well as influencers. For travel decisions and booking intention, people rely on customer-generated content because it is all about the experience (Yoo et al., 2009). Regarding influencers, the most important measurement is trustworthiness followed by attractiveness, and lastly the expertise of the influencers (Wiedmann & Mettenheim, 2020). This emphasizes the importance of trust in the influencers and that this can have an enormous impact on the decision-making process. In this paper, the focus will be drawn towards the comparison of real versus virtual influencers. A survey from Singapore in 2020 with 1,111 respondents shows that 51% trust human influencers more than virtual influencers and 44% have the same degree of trust (Statista, 2021). When it comes to purchasing intention human influencers have a significantly stronger impact compared to virtual influencers as the survey from Singapore showed (Statista, 2021). In terms of tourism, an experiment will compare the trustworthiness of real and virtual influencers to find out how it can impact booking intention.

2.2.4 Future trends in influencer marketing

The future of marketing is shaped by three major factors which are technological trends, socioeconomic trends, and geopolitical trends (Rust, 2019). This forces the tourism industry to adapt to new trends and adjust its marketing strategies towards emerging trends. The way how marketers perceive their marketing strategy depends on the target group. However, people are more willing to interact with the brand and influence the company's decision in some ways, and want to identify themselves with the company's values and beliefs (Mobolade, 2016). For this reason, it is very important to choose the influencer very wisely, so they represent and share the same values as the company. Otherwise, influencer marketing could even have a negative impact because the influencers could harm the companies' values and beliefs. Technological trends such as artificial intelligence (AI) bring many chances for the tourism industry such as cost and time efficiency. However, it also creates great risks for the whole industry as AI may replace human intelligence which could lead to job

losses (Rust, 2019). Furthermore, new technologies such as augmented reality (AR) and virtual reality (VR) have become more widespread and can transfer the world of influencer marketing. AR is defined as “images produced by a computer and uses together with a view of real-world” according to Cambridge Dictionary (n.d.) and VR as “a set of images and sounds, produced by a computer, that seem to represent a place or a situation that a person can take part in” (Cambridge Dictionary, n.d.). Comparing these two tools, VR creates a non-existing reality that is visualized through various components of images and sounds, and AR adds digital information to an already existing world.

According to Sung (2021), the implementation of AR and VR can immensely enhance the customer experience. The current online experience is mainly focused on audiovisual content and does not include other senses such as the sense of touch or smell. Current research suggests that including different scents in a VR experience enhances the customer experience, improves decision-making and, increases booking intention (Flacián, et al., 2021). These future promising tools can be implemented in influencer marketing to create a different and unique customer experience which may help to influence the customers' purchase behavior in tourism. It needs to be taken into consideration, that there is not enough data available yet to measure the effectiveness of AR and VR marketing (Sung, 2021). However, it is suggested to strongly focus on providing a great service for the customers and focus on the soft skills of employees because the need for analytical skills will decrease in the future as there will be AI (Rust, 2019).

2.3 The new phenomenon of virtual influencers

So far, little research has been conducted on the topic of virtual influencers. Especially, regarding virtual influencers and their effectiveness as well as trustworthiness. The influencer marketing industry is currently mainly focused on companies paying influencers to promote their products or services and become brand ambassadors to establish a brand relationship. However, companies have started to create their own virtual influencers which are virtual robots (Kadekova & Holienčinová, 2018). These

influencers are artificial people, 100% computer generated and operating fully online to promote certain brands or thoughts (Kadekova & Holienčinová, 2018). One of the first and most popular virtual influencers is Miquela with three million followers (Miquela, n.d.).

Regarding virtual humans, many questions occur in terms of trust and authenticity. Current research has been conducted to find out how voice will impact the trust in a virtual human. It turned out, that virtual humans with a voice show an enormous increase in trustworthiness (Chiou et al., 2020). With this outcome, it can be assumed that virtual influencers who speak with their audience through the camera potentially have a greater trust than virtual influencers who only post pictures of them.

Virtual influencers have on average a three times higher engagement rate than real influencers with the same number of followers (Mak, 2020). As they are robots, they are also multi-talented which allows them to create much more content and are not limited to a certain field of operation (Mak, 2020). This allows virtual influencers to cooperate with brands in the tourism and hospitality industry as well as many other industries. In times like this, where companies are limited in creating content due to Covid-19, especially travel content, a collaboration with virtual influencers may bring several benefits for the companies (Torres, n.d.). Miquela is one of the most popular virtual influencers with three million followers on Instagram (Miquela, n.d.). This virtual influencer supports the Black Lives Matter movement and presents herself as a 19-year-old girl posting photos with friends and her activities throughout the day. Imma is a virtual influencer with over 300k followers on Instagram and is interested in Japanese culture, film, and art (Imma, n.d.). For tourism companies, it gives a great opportunity to work and collaborate with Imma for travel promotions for Japan and other countries as well as with Miquela for tourism campaigns. Figure 1 shows pictures of Miquela and Imma from their Instagram page.



Figure 1: Virtual influencer Miquela and Imma (Miquela, 2019; Imma, 2020).

Figure 1 shows two pictures of virtual influencers Miquela and Imma. In the first picture, Miquela is captured with a beach in the background and the second picture shows Imma in a bamboo forest.

Virtual humans bring several benefits for companies as they have no days off and are always fully on point. Whereas for real influencers there might be some bad days, or a faux pas could happen which could damage the company's image (Keohana, 2020). Virtual influencers can create any type of content and play any role. This helps companies to create the ideal influencer which suites perfectly their companies' image (Dahan, 2020). Keohana (2020) questions also if there is even a difference between virtual influencers and perfectly edited pictures of real influencers and states that virtual influencers are more transparent in many ways. Even the world health organization (WHO) has collaborated with Knox Fox, who is a virtual influencer, for a social media campaign to target Gen-Z (Torres, n.d.).

Nevertheless, there is not much information provided about the companies who create these artificial influencers and what their aim is. Also, very little data is available to measure if these companies are profitable with their creations. Given the current research, not enough findings are provided and could be an invitation for research.

2.4 Hypotheses development

The hypotheses of this paper focus on the comparison of real and virtual influencers. There are many signs that virtual influencers are a great opportunity for companies in the future (Mak, 2020). In the current state, real influencers are commonly known, and an increasing impact can be seen due to higher bookings related to influencers (Chouchi, 2020). The first three hypotheses are comparisons between real and virtual influencers with the variables booking intentions, trustworthiness, and usefulness. Followed by three hypotheses comparing curiosity, trustworthiness, and usefulness with booking intention as the dependent variable.

Research shows that brand image has a positive effect on booking intention which makes it so important to create a justifiable brand image (Dash et al., 2021). Creating this image with influencers helps to build trust which will result in higher booking intention (Casalóa, 2018). Followers can identify themselves with the influencer and want to experience the same thing which their favorite influencer does (Miller, 2018). This means that when influencers post about their favorite trip and their outstanding experience, the followers want to have the same adventure and book a trip. As it is rather hard for followers to identify with virtual influencers a study from Singapore came to the result that real influencer has a higher impact on booking intention compared to virtual influencers (Statista, 2021). Based on this, the following hypothesis is developed:

H1: Real influencers have a more positive impact on booking intention as compared to virtual influencers.

In 2020, the research found that 48% of virtual influencers had a decline in the number of followers (Frolov, 2021). This could be an indicator of either the followers did not like the content of the virtual influencers, it was not useful for them, or they found it misleading as they could not identify themselves with the influencer. Followers want to have a connection with the influencer they follow which is the case for many real influencers (Farivar et al., 2021). This brought the following hypothesis:

H2: Real influencers have a more positive impact on perceived usefulness as compared to virtual influencers.

Brown & Hayes (2008) state that customers have a higher trust in influencers compared to brands. The reason, therefore, is, that brands promote their products or services, and influencers can choose what they want to promote and represent. As real influencers are not commonly known yet, the perceived trust is not as high as for real influencers. The research concluded that virtual influencers are considered more trustworthy with a real human voice because it appears more familiar to the followers (Chiou et al., 2020). Schouter et al. (2020) claim that influencers have a higher value than a celebrity because followers find it hard to identify with celebrities as well as trust as compared to influencers. This phenomenon potentially presents the same situation for real versus virtual influencers. This results in the following hypothesis.

H3: Real influencers have a more positive impact on trustworthiness as compared to virtual influencers.

Marketers try to create interesting and useful content to increase engagement with their target group (Hudson et al., 2016). This way customers feel more involved and part of the experience which leads to higher sales. Furthermore, with a higher engagement rate, it means that the content is interesting and useful for the followers (Farivar et al., 2021). As trust is the most important measure for influencer marketing, it is suggested to strongly focus on this element because trustful influencers increase decision-making and sales (Berhanu & Raj, 2020). Curiosity also plays a major role in booking intention and studies have proven a positive effect (Shiau & Wu, 2013). The content which is provided by a company has a significant role when it comes to booking intention (Lai et al., 2013). When tourism companies cooperate with influencers, they should pick them wisely and make sure the content which is produced is useful for the followers. This way a positive impact on booking intention can be achieved. Based on these results the following hypotheses are developed:

H4: Trustworthiness has a positive impact on booking intention.

H5: Curiosity has a positive influence on booking intention.

H6: Usefulness has a positive influence on booking intention.

3 Method

In the following section, the method used is explained. First, the different research designs, quantitative, qualitative, and mixed research design according to Crewell (2014) are described. This followed with a deeper explanation of the chosen method for this research paper. Secondly, it will be explained how the experiment will be created and what steps will be conducted. Also, the development of questions is explained. Lastly, it will be elaborated on how the experiment will be analyzed and the finding will be presented.

3.1 Research design

When it comes to collecting primary data, there are different ways how this can be achieved. According to Crewell (2014), it can be distinguished between three different approaches: qualitative, quantitative, and mixed-method.

The major distinction is between the qualitative and the quantitative research design (Hair et al., 2013). With the qualitative approaches, research can be conducted to find out a relationship between individuals or groups compared with social or human problems. Ethnographies, case studies, focus groups, and narrative and grounded theories are used to create information with personal meaning and emphasize the study's complexity (Crewell, 2014). For the quantitative research design, the relationship between independent and dependent variables will be analyzed. For this method usually, statistical testing is used to analyze the data and visualize the outcome (Hair et al., 2013). Statistical testing also helps to prevent bias. The two types of quantitative research are surveys or experiments.

The mixed-method uses both, qualitative and quantitative research to achieve a deeper understanding of the research question (Hair et al., 2013). The quantitative approach has a postpositivist worldview and uses statistical tools to support or reject hypotheses. In addition to the quantitative approach, the qualitative approach may create a constructivist or transformative worldview (Crewell, 2014). The combination of these two methods allows the mixed method to apply a pragmatic worldview by collecting numerous types of data to achieve a more accurate understanding of the research question (Crewell, 2014). An example could be to start with a broad survey followed by an in-depth interview.

For this paper, the quantitative research approach is considered. An experiment using an online survey tool has been conducted to find out how influencer marketing influences booking intention and trustworthiness. According to Stopp & Harrison (2012), surveys are distinguished between interview surveys and self-completion surveys. Interview surveys include face-to-face as well as telephone surveys and self-completion surveys are e-mail or online surveys (Stoop & Harrison, 2012). In this thesis, the mode of an online experiment in combination with a survey is chosen to collect data with the aim of a minimum of 100 responses. The researcher employs one factor between subjects' design with the type of influencer (real-world influencer vs. artificial influencer) as a manipulated factor. The participants will be randomly allocated to these two groups with a minimum of 50 people in each group. To get the respondents individual people will be acquired via different social media platforms and email and asked to participate in the experiment. This way a broader audience can be reached to have a representative sample.

3.2 Stimulus material

In figure 2 the two different pictures which were randomly allocated to the participants are illustrated. The picture on the left shows the real influencer and the picture on the right presents the edited version, which was used as the artificial, virtual influencer.

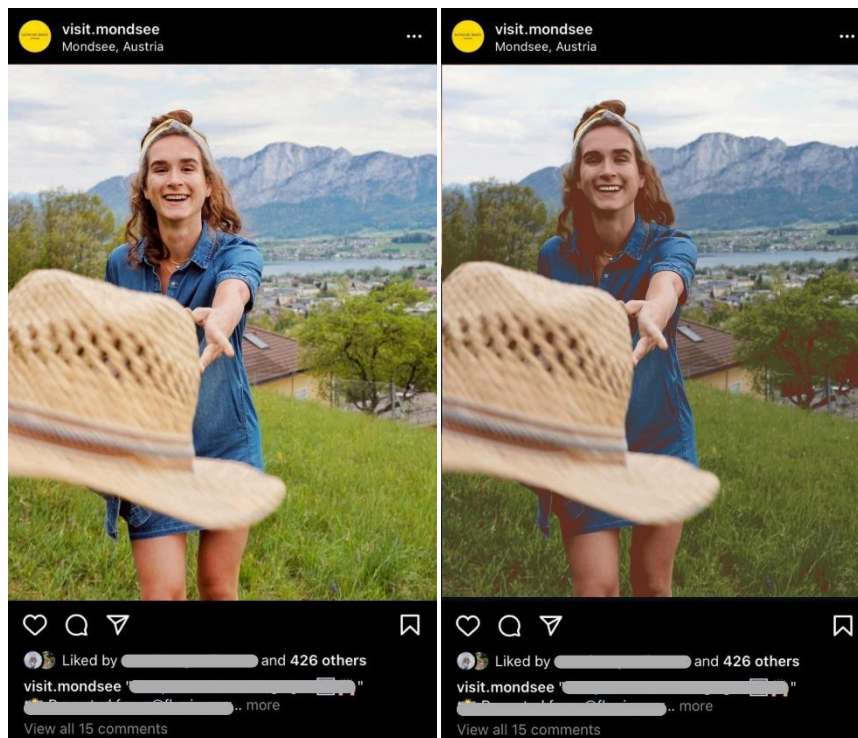


Figure 2: Real influencer vs. virtual influencer

For the experiment, group 1 gets the original picture demonstrating the real influencer and group 2 gets the edited version with the note that this is a virtual influencer. To minimize bias, the person on the stimulus material was selected very carefully with the goal that none of the participants knew her. To increase the external validity of the current research, the author collaborated with the tourism board of Mondsee. The tourism board allowed the author to use their Instagram username to make the whole stimulus and visual experience more authentic. It is important to note that both pictures are the same person. One picture is the original picture and the other one is manipulated to have the disclosure of an artificial influencer. The participants are informed about the characteristics of the person. To one group the characteristics of the real person are presented, and the other group receives a description of the characteristics of the artificial influencer. The real persons' name is Hanna, she is 21 years old and studies management in Salzburg. For the artificial

person, the author came up with a virtual person to give her a character as well. The artificial persons' name is Hanna, she is a 21-year-old woman and presents herself as a nature and travel lover. She loves to share her experiences with the community and expanding her horizon. All based on an artificial person, meaning that she does not exist in real life, instead just virtually and works based on algorithms.

The survey is structured in four different sections. The first part is an introduction to the survey which gives an overview and participants are asked to put themselves in the situation where they search for the next holiday destination. In the second part, the participants are exposed to the picture of the influencer where the manipulated variable comes into play. Participants are randomly shown either the real influencer or the artificial person. After the participants see the picture, questions are asked related to the picture regarding the perception of the influencer. Following with the third part which is dedicated to the impact of influencers on booking intention. The last section asks the participants about demographic information such as age, gender, nationality, and education.

3.3 Measures

The survey includes multiple-choice, single-choice, and Likert scales as well as open questions. This gives a broad selection of different question modes to provide a variation and avoid boredom for the participants. To provide an example of the scale is the Likert scale. The first part of the survey is screening questions that have been used from existing research which was conducted by Voskaite (2020). These questions focus on social media usage with the focus on Instagram. After the screening questions, the participants are exposed to the picture of the influencer. Participants were randomly allocated to two groups, and the participants are either exposed to the real influencer or the virtual influencer which is stated in the beginning. For the next part established scales have been used to find out the participants' perceptions of the influencers. Scales from Ayeh et al. (2013), Kim et al. (2017), Veirein et al. (2017), and Lou & Kim (2019) are used, and some items are slightly adapted to fit better to the content of this survey. With these scales, the researcher wants to find

differences in participant's perceptions of the various constructs between real and virtual influencers. The last part consists of demographic questions such as age, gender, and if they have visited Mondsee before.

3.4 Analysis and results

To test the developed hypotheses, statistical testing is used. The data will be analyzed with SPSS which is a statistical program. First, a manipulation check is conducted, followed by a preliminary analysis before the actual hypotheses testing starts.

3.4.1 Manipulation check

As mentioned before, the analysis starts with a manipulation check. In this part, it needs to be checked if the manipulation worked out as intended, i.e., if respondents noticed that the AI influencer is indeed an AI influencer. The test is significant, although considerably more respondents noticed in the real condition the correct type of influencer. However, when looking at the chi-square test, it can be concluded that the manipulation worked, since there was a significant association between the influencers' post participants were exposed (AI or real influencer) and their responses to the question asking which influencer they were exposed to ($\chi^2 = 69.00, p < .01$). Since many people did not notice in the AI condition that this is an AI influencer, for further analysis, only the cases where respondents noticed the difference are considered.

3.4.2 Sample characteristics

In total there are 104 participants in the experiment, but only 69 are valid for this research because for the other participants the manipulation check was not successful. To achieve a more accurate result, these participants are excluded from the analysis, and only 25 participants who answered the survey with the virtual influencer and 44 participants who answered the survey with the real influencer are considered. When it comes to the age of participants there was a broad range from

17 to 59 years old with a mean of 26.57 years old. The distribution between gender was 31.25% male and 68.75% female.

3.4.3 Preliminary analysis

Table 2 displays the measurement of constructs. As we have seen in the manipulation check-in 3.4.1 the manipulation of real and artificial influencers worked which means that the study worked and can be approved. Therefore, it could be continued with the reliability analysis, and Cronbach’s alpha was calculated. Seven constructs were analyzed including curiosity (6 items), trustworthiness (4 items), usefulness (4 items), aesthetics (4 items), booking intention (2 items), other intention (3 items), and similarity of interests (2 items).

Construct/ Items	Cronbach's alpha
Curiosity (Hill, et al. 2016) 7-point Likert scale (strongly disagree—strongly agree) I feltcurious ...interested ...excited ...enthusiastic ...attentive ...inspiration	0.878
Trustworthiness (Ayeh et al., 2013) How does the post of the influencer seem to you? The post seems... dishonest/honest unreliable/reliable insincere/sincere untrustworthy/trustworthy	0.928
Usefulness (Ayeh et al., 2013) "How did you perceive this post of the influencer?" 7-point Likert scale (strongly disagree—strongly agree) With a post like this, the influencer helps to improve my travel planning. With a post like this, the influencer makes my travel planning easier. With a post like this, the influencer makes it easier for me to reach travel-related decisions.	0.920

<p>Overall, influencers like this help me with travel planning</p> <p>Aesthetics (Veirein et al., 2017)</p> <p>"What is your perceived expressive aesthetics of the post?"</p> <p>7-point Likert scale (strongly disagree—strongly agree)</p> <p>I like the look of the post.</p> <p>The post is visually appealing.</p> <p>The post looks pretty.</p> <p>The visual design of the post is attractive</p>	0.938
<p>Booking intention (Kusumasondjaja & Tjiptono, 2019; Lou & Kim, 2019)</p> <p>In the following, we are interested in your perceptions of the influencer.</p> <p>Please indicate the extent to which you agree/not agree with the following statements</p> <p>7-point Likert scale (strongly disagree—strongly agree)</p> <p>The probability that I would book a trip to Mondsee based on this post is very high.</p> <p>My willingness to book a trip to Mondsee based on the influencers' posts is very high.</p>	0.891
<p>Other intentions</p> <p>In the following, we are interested in your intention to follow the exposure of the post.</p> <p>Please indicate the extent to which you agree/not agree with the following statements.</p> <p>7-point Likert scale (strongly disagree—strongly agree)</p> <p>I would share this post.</p> <p>I would click on this post.</p> <p>I would like this post.</p>	0.784
<p>The similarity of interest (Ayeh et al., 2013)</p> <p>In the following, we are interested in your perceptions of the influencer.</p> <p>Please indicate the extent to which you agree/not agree with the following statements.</p> <p>7-point Likert scale (strongly disagree—strongly agree)</p> <p>The post reflects my own interests.</p> <p>There are interests I can identify with.</p>	0.923

Table 2: Measurement of constructs

The feeling subscale consists of 6 items ($\alpha = .878$), the trust and the useful subscale consisted of 4 items ($\alpha = .928$); ($\alpha = .920$); the aesthetics subscale consisted of 4 items as well with ($\alpha = .938$). Furthermore, Cronbach's alphas for 2 booking intention items 3 other intentions were .891 and .784, respectively. The similarity of interest subscale

consisted of 2 items and was found to be highly reliable ($\alpha = .923$). All constructs have an alpha above .7 so the mean for each is calculated for further analysis.

3.4.4 Hypotheses testing

A MANCOVA tests the first three hypotheses and a single linear regression analysis tests H4 – H6. For the following analysis, 25 participants were exposed to the artificial influencer and 44 participants saw the picture of the real influencer.

MANCOVA Analysis

A multivariate analysis of covariance has been performed. The experimental condition was that participants were either exposed to the real influencer or the virtual influencer. Factor variables were booking intention, usefulness, trustworthiness, and credibility as dependent variables and the appealing of the post as a covariate. On a model level, the results look promising. Taking Roy’s largest root test, the p-value is significant because it is below .05 ($p < .01$). Further data from the multivariate test is taken from the Roy’s largest root test. The following are taken into consideration: the value which equals 1.43 and the F-ratio is $F(4, 63) = 22.50$. In the next step, the significance in the difference for each dependent variable is investigated.

In table 3 the statistical test results for hypotheses 1, 2, and 3 are provided. This data will be discussed in more detail in the next paragraphs.

Variables	Virtual Influencer		Real Influencer		Aesthetics		
	Mean	N	Mean	N	F value	R ²	p
Booking intention	4.30	25	5.35	44	$F(1, 66) = 4.74$	0.51	.03
Usefulness	2.86	25	3.75	44	$F(1, 66) = 3.45$	0.18	.07
Trustworthiness	2.52	25	3.52	44	$F(1,66) = 6.50$	0.25	.01

Table 3: Statistical test results for H1 - H3

Starting with the analysis of the first hypothesis which is “Real influencers have a more positive impact on booking intention as compared to virtual influencers.” an inspection of the means reveal that for AI influencer the mean ($M=2.52$) is significantly lower than the mean for the REAL influencer ($M=3.52$) for the dependent variable

booking intention. This result is significant ($F(1, 66) = 4.74, p = .03$) which means that real influencers are more helpful when it comes to booking intention. However, all participants are rather neutral towards booking intention compared with real and AI influencers.

The analysis proceeds with testing H2, namely “Real influencers have a more positive impact on perceived usefulness as compared to virtual influencers.”. Therefore, the means are compared between real and virtual influencers. The mean for AI influencers ($M=2.86$) is lower than the mean for the REAL influencer ($M=3.75$) for the dependent variable booking intention. This result is not significant ($F(1, 66) = 3.45, p = .07$) and means that there is no significant outcome that real influencers have more effect when it comes to usefulness than AI influencers. However, the result expresses a tendency that the usefulness of participants who were exposed to the real influencer is higher compared to the ones who were exposed to the AI influencer.

The next part of the analysis continuous with H3 which is “Real influencers have a more positive impact on trustworthiness as compared to virtual influencers.”. When comparing the means from AI influencers ($M = 4.30$) and REAL influencers ($M = 5.35$), real influencers resulted in a considerably higher value for the dependent variable trustworthiness. The outcome is significant ($F(1,66) = 6.50, p = .01$). This conveys a clear indication that trustworthiness towards real influencers is higher than towards virtual influencers, however, both seem trustworthy for the participants.

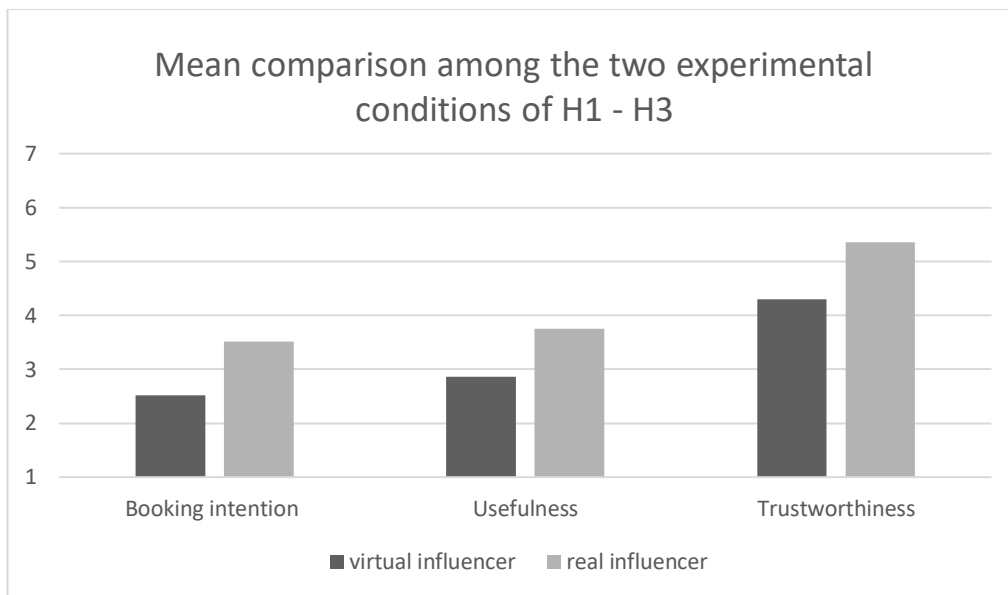


Figure 3: Mean comparison among the two experimental conditions of H1 - H3.

Figure 3 shows the comparison of the means from the two experimental conditions. Booking intention, usefulness, and trustworthiness are compared between virtual and real influencers. For all three cases, the bar chart shows that the variables are higher for the real influencers. Participants have a higher booking intention when they saw the post of the real influencer (M=3.52) compared to the virtual influencer (M=2.52) and they perceived the post as more useful from real influencers (M=3.75) compared to virtual influencers (M=2.86). Overall, the participants perceive the influencers' posts as most trustworthy with the scenario of the real influencer (M = 5.35). However, the virtual influencers' post seems also trustworthy for the participants (M = 4.30).

Regression Analysis

To test H4 – H6, three single linear regression analyses are estimated with trustworthiness, curiosity, and usefulness as independent variables and booking intention as dependant variables.

The first regression analysis tests H4 (Trustworthiness has a positive impact on booking intention) by estimating a single regression analysis with trustworthiness as

the independent variable and booking intention as the dependent variable. Looking at R^2 ($R^2 = .36$), 33.1% of the total variation of booking intention can be explained by trustworthiness. The coefficient ($\beta = .60$) is meaningful and positive which means that the more trust people have towards influencers, the more they intend to book a trip, hotel, or activity. The regression indicates that the outcome is significant ($F(1, 68) = 37.98, p < .01$) and the effect of trustworthiness towards influencers is therefore significant. This means that trustworthiness has indeed a positive impact on booking intention.

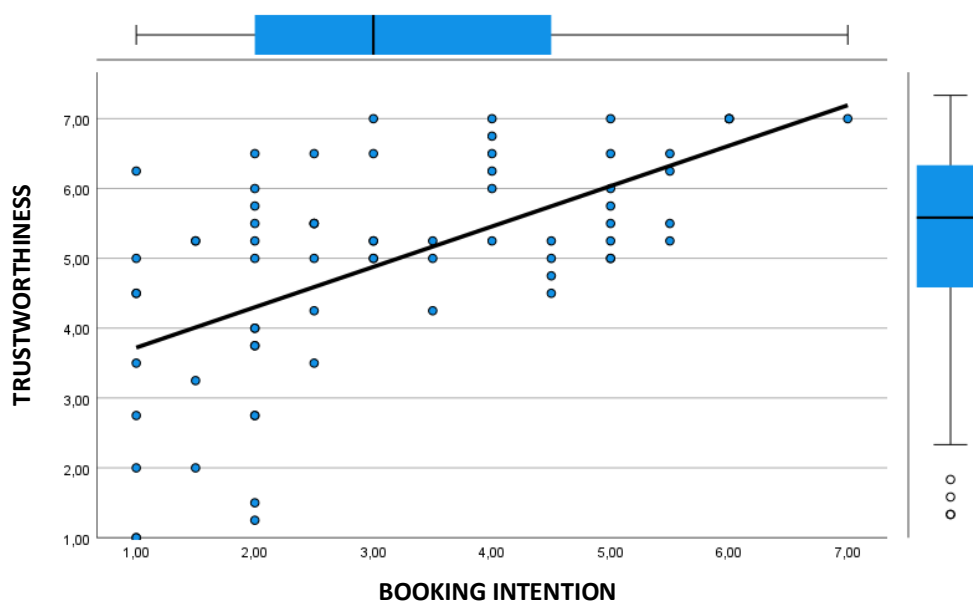


Figure 4: Scatterplot trustworthiness and booking intention.

The graph in figure 4 shows that there is a positive impact of trustworthiness towards booking intention. The scatterplot illustrates the regression equation which shows a clear positive relationship between trustworthiness and booking intention.

Hypothesis 5 namely “Curiosity has a positive influence on booking intention.” is the second hypothesis where single linear regression analysis is conducted. R^2 ($R^2 = .33$) implies that booking intention accounts for 33% of the variance of curiosity. This indicates that booking intention achieves moderate results when the influencers’ post seems curious for participants. Based on further data ($F(1, 67) = 32.52; p < .01$) the

results are significant, and the null hypothesis can be rejected. The coefficient ($\beta = .57$) also supports this as it is positive and relatively high. This means that the more curious a post of an influencer is the higher the booking intention.

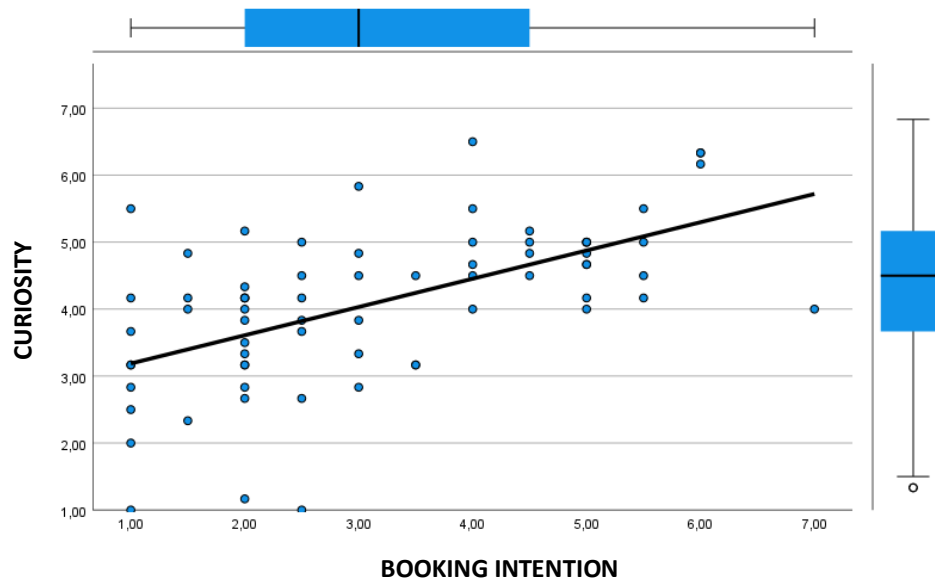


Figure 5: Scatterplot curiosity and booking intention.

Figure 5 shows the regression analysis on a scatterplot and a strong regression can be seen which supports hypothesis 5 and the null hypothesis can be rejected.

The last single linear regression analysis is hypothesis 6, namely “Usefulness has a positive influence on booking intention.”. The result of R^2 ($R^2 = .50$) indicates that booking intention accounts for 50% of the variance in usefulness. This means that booking intention achieves good results when the influencer post was useful for participants. In addition, based on the F and p-value ($F(1, 67) = 66.82$; $p < .01$) the results are significant. Also, the coefficient beta is high ($\beta = .71$) and indicates that the higher the degree of usefulness of an influencers’ post is, the higher the booking intention.

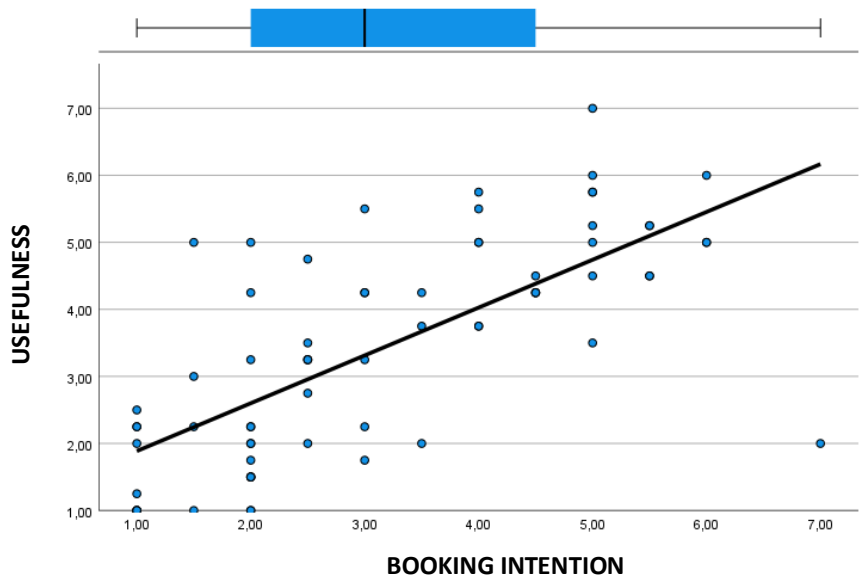


Figure 6: Scatterplot usefulness and booking intention.

Based on the scatterplot in figure 6, a clear regression can be seen which demonstrates that usefulness has a positive effect on booking intention. Based on all collected data for hypothesis 6, the null hypothesis can be rejected.

3.5 Discussion

In this section, the results of the experiment are discussed in more detail. The first part will focus on the theoretical implications and the second part focuses on the managerial implications.

3.5.1 Theoretical implication

Current research shows that there is a rise in influencer marketing. Not only do millennials take advantage of influencer marketing, instead, there is also an enormous rise in older generations (Kadekova & Holienčinová, 2018). This paper focuses on the difference between real and virtual influencers. Present research validates that real influencers in general demonstrate a higher effect in marketing compared to virtual influencers (Statista, 2021). However, not many people are aware of virtual influencers yet, which can be a reason for this statistical outcome. Based on the comparison of real and virtual influencers in H1 – H3 a clear trend towards real

influencers can be seen. Real influencers have a significant positive effect in terms of booking intention and trustworthiness. However, analyzing the result it was not significant that real influencers have a more positive impact than virtual influencers when it comes to usefulness. This may have several reasons, such as people may not know the difference between virtual and real influencers or can simply not identify themselves with a virtual person. All three hypotheses are controlled by aesthetics, so any effects are caused by different aesthetic perceptions of the post such as “I like the look of the post.”, “The post is visually appealing.”, “The post looks pretty.”, and “The visual design of the post is attractive”.

For the second part of the analysis, the effect on booking intention was examined. H4 – H6 focuses on the effect of different variables on booking intention. The variables that were considered are trustworthiness, curiosity, and usefulness and presented a meaningful, and significant result. This means that all three variables (trustworthiness, usefulness, and curiosity) had a significant effect on booking intention when the participants were exposed to the Instagram post.

3.5.2 Managerial implication

The data analysis from this research suggests that real influencers have a higher effect on tourism compared to virtual influencers. This is shown in the first 3 hypotheses which include booking intention, usefulness, and trustworthiness. These variables are all important variables for influencer marketing in tourism. As a marketing manager of a tourism company, it is necessary to create useful and trustful content which increases the credibility of the organization or destination which leads to higher booking intention. For now, based on this analysis, it is recommended to focus on real influencers instead of virtual influencers because they show better results in terms of trustworthiness and booking intention. However, as the results for usefulness were not significant, there is still potential for virtual influencers which should not be underestimated.

In terms of booking intention hypothesis 4, hypothesis 5, and hypothesis 6 were studied. The results are significant and indicate the importance of trustworthiness, usefulness, and curiosity. All three hypotheses resulted in a p-value below .01 and overall showed significant results to reject the null hypotheses. For marketing experts, it is recommended to focus their social media and influencer campaigns on these elements because the results show that they play a key role to increase bookings. Creating content that is useful for the community regularly can create trustworthiness. Furthermore, collaborating with influencers who represent your brand and destination will help to create trust towards the brand. The analysis suggests that there should also be a focus on curiosity, so followers become curious about the destination and want to experience it themselves. As a result, it leads to higher booking intentions.

3.5.3 Limitation and future research

The limitation of this research is the relatively small sample size. With a bigger sample size, a more accurate result could be achieved. Furthermore, virtual influencers are not commonly known yet which could have also created bias because people were not sure what is meant by a virtual influencer. Using a virtual influencer such as Miquela or Imma (see figure 1) could have made the experiment much more authentic instead of manipulating a real persons' photo. This leaves room for further research. Additionally, more Instagram posts could be provided for the experiment, so participants get a better understanding of the influencer which potentially affects the trustworthiness of an influencer. It is hard for participants to draw conclusions based on only one post and it also seems that the description matter to participants and not only the picture itself. A wider range of pictures, including pictures with more scenery and only a little of the influencer itself could also help for further research regarding tourism and destination management. This would lead to a more accurate result and the influencer itself could become less important because the destination will be the focus.

4 Conclusion

The current research shows that influencer marketing has an increasing impact on tourism and consumers' purchase intention and decision-making are affected (Casalóa, 2018). Purchase intention can be enormously inspired by social media influencers with their posts and interaction with their followers. Furthermore, virtual influencer marketing gains increasing attention which provides great opportunities for the tourism industry to influence their customers in terms of decision-making and booking intention (Mak, 2020). Only limited research has examined the different impacts of virtual and real influencers in tourism. To close this research gap and get reliable measurements, an online experiment has been conducted. This experiment helped to find out about the impact of influencer marketing in tourism by comparing virtual and real influencers. Furthermore, influencers' impact on consumers booking intention and decision-making and how this will shape the future of influencer marketing from the customers' perspective is examined.

The empirical part has two major focuses. In the first part, a comparison of real and virtual influencers in tourism marketing is measured and supported with three hypotheses. These hypotheses focus on booking intention, trustworthiness, and usefulness. Based on the conducted analysis, H1 and H3 can be supported which means that real influencer has a more positive effect on booking intention and trustworthiness. H2 cannot be supported because the results were not significant. This means that real influencers are not necessarily more useful for customers compared to virtual influencers. As virtual influencers are not commonly known yet it could be a reason why participants are insecure about their posts and find it hard to trust. At least for now, this research suggests focusing on real influencers for marketing in tourism. However, there is a potential for virtual influencers in the future which needs further investigation on how these influencers are accepted from the community.

The second part of the empirical research focused on booking intention and the effect of different variables. The results of the analysis demonstrate that trustworthiness, usefulness, and curiosity have a significant effect on booking intention. This means that marketers should focus on these elements when choosing an influencer for collaboration to achieve a promising result for the companies' image. It is strongly advised to choose influencers who create interesting content which is useful for their followers and also makes them curious. Additionally, tourism organizations want to work with trustworthy people to increase trust in the brand and achieve a loyal customer base.

In general, there is still room for further research to understand the difference between real and virtual influencers in tourism better. However virtual influencers are not commonly known yet which creates some difficulties for investigation. As soon as virtual influencers gain in popularity, further research could provide different results.

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A big thank you to everyone who supported my journey throughout 2020. To everyone in serious and unfavorable situations because of the pandemic or any troubles in your personal life, may my prayer reach each and every one of you. You are all super heroes! 🍷 Beautiful kimono by @mademoiselle_yulia thank you always 🙏 #2021 #あたしCGらしい #ithinkimcgi #謹賀新年 #Happynewyear [Instagram photo]. <https://www.instagram.com/p/CJkOvSHJTGB/>

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