

The effects of paid Instagram posts on purchase intention through social identification and brand credibility



Radboud Universiteit Nijmegen

By: Marleon Dias Jones (S4747747)

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Marketing Radboud University

Supervisor: Prof. dr. Gerrit Antonides

2nd examiner: Dr. Herm Joosten

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ABSTRACT

This research studies the relationship between influencer marketing and purchase intention. This is done by comparing the effects of influencer marketing with the effects of celebrity endorsement. Social identification and brand credibility are also researched as mediators in this relationship.

This research was run through an online experiment by Qualtrics in which respondents could fill in questions about either a female or male influencer or female or male celebrity promoting products on Instagram. This online experiment was filled in by 107 participants in total, which were randomly divided across different groups exposed to different influencer types. The influencers and celebrities both promoted Colgate products, which were utilitarian products. By answering the questionnaire, the purchase intention of respondents was measured while being exposed to either influencer (marketing) or celebrity endorsement. The direct relationship between influencer type on one hand and brand credibility and purchase intention on the other hand, and the indirect relationships with purchase intention through the mediator's social identification and brand credibility were assessed. Lastly, the mediation of social identification in the relationship between brand credibility and purchase intention was also addressed. The results showed that influencer marketing did not have a significantly more positive effects on purchase intention than celebrity endorsement. This was not an expected result based on literature. However, a positive and significant relationship was found between brand credibility and purchase intention; social identification and purchase intention; and brand credibility and social identification. This was expected based on the literature study.

Therefore, it can be concluded that there indeed is a positive relationship between the mediators and the outcome variable purchase intention. However, the choice of using an influencer for endorsement or a celebrity did not seem to matter when using a utilitarian product.

These results lead to the following questions: what should the distinction be between influencers and celebrities? and what other factors determine the strength of influencer marketing as a marketing tool to improve purchase intention. This gap, among other things, is recommended to be addressed in future research.

TABEL OF CONTENTS

1: INTRODUCTION	P.5-9
1.1. Social media age	P.5-6
1.2. Challenge with influencer marketing	P.6-7
1.3. Relevance	P.7-8
1.4. Research question	P.8-9
1.5. Contribution	P.9
1.6. Structure	P.9
2: THEORETICAL FRAMEWORK	P.10-16
2.1. New developments in influencer marketing	P.10-11
2.2. Effect of influencer marketing on Instagram on brand credibility	P.11-13
2.3. The role of social identification	P.13-15
2.4. Brand credibility and social identification	P.15
2.5. Conceptual model	P.16
3: METHODOLOGY	P.17-27
3.1. Research design	P.17-18
3.2. Pilot survey	P.18-19
3.3. Sample	P.20-21
3.4. Procedure	P.21-22
3.5. Materials	P.22
3.6. Measures	P.23-25
3.6.1. Socio-demographic variables	P.23
3.6.2. Social identification	P.23-24
3.6.3. Brand credibility	P.24
3.6.4. Purchase intention	P.24-25
3.7. Ethics	P.25
3.8. Data analysis	P.25-27
4: RESULTS	P.28-39
4.1. Results pilot survey	P.28
4.2. Descriptive statistics questionnaire	P.28-29
4.3. Factor & reliability analysis	P.29-31
4.4. Randomization test	P.31
4.5. Hypotheses	P.32-39

4.5.1. Hypothesis 1	P.32
4.5.2. Hypothesis 2	P.32-33
4.5.3. Hypothesis 3	P.33
4.5.4. Hypothesis 4	P.33-34
4.5.5. Hypothesis 5	P.34-35
4.5.6. Hypothesis 6	P.35-36
4.5.7. Hypothesis 7	P.36-38
4.5.8. Hypothesis 8	P.38
4.5.9. Exploratory analyses	P.38-39
5: CONCLUSION AND DISCUSSION	P.40-44
6: BIBLIOGRAPHY	P.45-52
7: APPENDIX	P.45-119
Appendix 7.1: Measures key concepts	P.53-54
Appendix 7.2: Pilot survey	P.55-70
Appendix 7.3: Data analysis pilot survey	P.71-75
Appendix 7.4: Questionnaire	P.76-93
Appendix 7.5: Descriptive statistics control variables	P.94-95
Appendix 7.6: Permission Colgate	P.96
Appendix 7.7: Project plan	P.96-97
Appendix 7.8: SPSS output pilot survey	P.97-98
Appendix 7.9: SPSS output data analysis questionnaire	P.98-100
Appendix 7.10 Factor analysis familiarity	P.100-103
Appendix 7.11 Randomization	P.102-107
Appendix 7.12	P.108-117
Research integrity form	P.118

INTRODUCTION

1.1. SOCIAL MEDIA AGE

Opportunities for people to connect are limitless, individuals were never as connected as today. Technological developments and social trends make this 24/7, ubiquitous connection through social media possible (Breves, Liebers, Abt, & Kunze, 2019). According to Wiederhold (2019) more than 100 million photos and videos are shared every day. Millions of users share their daily lives through pictures and videos. These users can engage through social media by liking, commenting on, and sharing each other's posts (Wiederhold, 2019). Currently, the number of social media users and the time spent on social media is still rising (Breves et al., 2019). Therefore, marketers are living in an incredibly attractive age, having the option of connecting with consumers directly through social media that they use every moment of the day (p.440).

Influencer marketing is a relatively new phenomenon gaining more and more attention. Through different social media platforms such as Facebook, Twitter, YouTube, and Instagram individuals can share pictures, thoughts, and ideas with the world. These individuals are called influencers. The Cambridge Dictionary (2019) defines an influencer as "a person who is paid by a company to show and describe its products and services on social media, encouraging other people to buy them." For a long time, the influencer title was limited to celebrities. However, in the last few years everybody can be an influencer. The concept of being an influencer is widened and can now be defined as "someone who changes or affects the way other people behave" (Cambridge Dictionary, 2019). Social media have therefore increasingly become a significant part of firms' marketing strategies (Pradiptarini, 2011). "Influencer marketing has been described as a type of native advertising, branded entertainment, or highly credible electronic word of mouth, because the commercial posts usually are woven seamlessly into the daily narratives that social-media influencers share with their followers" (Breves et al., 2019, p.441). Brands also participate in this social media exchange relationship. 80% of consumers follow at least one brand on social media and 70% of the brands are active on Instagram via their own account (Brain, 2015).

Instagram is one of the biggest social media platforms with 500 million active users daily (Wiederhold, 2019). Active use "involves chatting, sharing photos, or status updates with a specific audience or posting other personal content that others can then comment or give likes" (Thorisdottir et al., 2019). Contrary to passive use, which involves consuming

the content posted and reposted by others without specific purpose, Instagram is used as a tool to connect with others and share stories (Wiederhold, 2019). Therefore, social media is an effective promotion and communication platform which may increase sales and engagement (Pradiptarini, 2011). Social media influencers are often perceived as being more credible and authentic than the conventional endorsers (Djafarova & Rushworth, 2017). This leads to more and more firms choosing online marketing over traditional media (Breves et al., 2019). 74 Percent of marketers are actively integrating influencer marketing into their content (Linqia, 2019). This is part of the brands' paid media. Paid media is defined as "media activity a brand generates and distributes to media channels which the brand does not control" (Rietveld, van Dolen, Mazloom, & Worring, 2019, p.22). Paid media is incredibly attractive for brands as it is relatively low-cost and brands could reach a larger audience (Rietveld et al., 2019).

1.2. CHALLENGE WITH INFLUENCER MARKETING

Individuals with many followers are perceived as relatively attractive and trustworthy by consumers (Djafarova & Rushworth, 2017). The individuals with the highest numbers of followers on Instagram are often celebrities (Statista, 2020). These celebrities often use their Instagram pages to deliver promotional messages (Djafarova & Rushworth, 2017). Social media influencers in general are said to have high credibility (Chung & Cho, 2017). Unfortunately, various examples in practice show that this trust is frequently violated. A noticeably big example is the *Logan Paul scandal*. Logan Paul is an American influencer and vlogger who, in 2018, recorded a video of himself at Aokigahara, which is a Japanese forest known for the high amount of suicides being committed (Bean, 2018). Major media commotion arose, because Logan Paul decided to film a body of a suicide victim that he came across during his "adventure" (Bean, 2018). This caused a major impact on this influencers' reputation and made Logan Paul lose over 700,000 followers on Instagram in just six months (Banks, 2019). Multiple brands have since come forward with statements expressing disagreement with the actions of Logan Paul trying to limit the consequences (Bean, 2018). No numbers are available about the effects of Logan Pauls' actions on the credibility of the brands that worked with this influencer, however it is likely this will have an effect.

Choice of influencers is abundant and therefore marketers are facing the challenge of how to select the most effective influencers for their brand (De Veirman, Cauberghe, & Hudders, 2017). This not only concerns effectiveness in terms of profitability, but also brand

credibility. Marketers must be careful in the selection of which influencers to partner with and/or make brand ambassadors (Bean, 2018), if the brand wants to ensure high brand credibility. As shown in the Logan Paul example influencer marketing could have an influence on brand credibility. Brand credibility is defined as “the believability of the information conveyed by a brand, which requires that consumers perceive that the brand has the ability and willingness to continuously deliver what has been promised” (Wang & Scheinbaum, 2018, p.20).

It is important that the consumer can identify with the influencer chosen (Chung & Park, 2017). When an individual strongly identifies with an influencer, the influencer and the individual become one and the individual will view him-/her as part of that influencer’s social group. When social identification is high, the influencer can influence the individual easier (Rubin, Perse, & Powell, 1985). This process is summarized in the concept of social identification that can be explained by social identification theory (Jin & Phua, 2014).

Brand credibility is also important in this relationship. High brand credibility decreases the perceived risk of a consumer to a certain brand (Erdem, Swait, & Valenzuela, 2006). Individuals are more likely to identify with a brand with higher credibility (An et al., 2019). Therefore, the image of the influencer is significant in the effectiveness of the use of influencer marketing, as a bad image can harm the associated brand (Campbell & Warren, 2012). The social interaction between the consumer and the influencer is vital in a consumer’s decision (Tanner et al., 2007). This does not only hold in physical stores, but also in the social media context. The more the consumer can identify with the influencer and wants to impersonate the influencer, the more likely the consumer will buy the same products and services the influencer uses (Ki & Kim, 2019). Therefore, it is expected that the desire of the consumer to impersonate the influencer will lead to high purchase intention (Ki & Kim, 2019).

1.3. RELEVANCE

Influencer marketing is a relatively novel topic and therefore, a limited amount of scientific investigation has been done (Breves et al., 2019) and the research is still fragmented. However, the last few years more and more scientific research is studying the effect influencer marketing has on different performance metrics. Multiple studies have researched the relationship between influencer marketing and purchase intention (Johansen & Guldvik, 2017; Lim et al., 2017; Singh & Banerjee, 2019; Sokolova & Kefi, 2020; Trivedi & Sama, 2020). Multiple researchers indicate that further components should be researched

to ensure a more comprehensive advice regarding effective influencer selection (De Veirman et al., 2017). This could be, for example, through social identity theory as will be done in this research, by a focus on the congruence between influencer and consumer through social identification. Wijgers (2018) studied the effect of vlogs on brand attitude and introduced the theory of social identification as a mediator. This researcher found that advertising in a vlog has a more positive effect on brand attitude than advertising in TV commercials. Furthermore, she found that social identification led to a more positive brand attitude than a low degree of identification. Brand identification positively affects brand loyalty (Chung & Park, 2017, p.48). Therefore, social identification is an important mediator to consider in studying influencer marketing.

Furthermore, research has been done studying the relationship between influencer marketing and brand credibility (Chu & Kamal, 2013; Djafarova & Rushworth, 2017; Djafarova & Trofimenko, 2019; Wang & Scheinbaum, 2017). Brand credibility is the mediator in the relationship between brand experience and brand attitude (Nayeem, Murshed and Dwivedi (2019). Therefore, a certain brand experience through an Instagram post ultimately influences the brand attitude a consumer has through brand credibility.

Jin et al. (2018) found a difference between the two types of celebrities: the Instagram celebrity and the traditional celebrity. Various studies have compared the social media with traditional media celebrities, but limited research has made a distinction between social media celebrities.

1.4.RESEARCH QUESTION

This research will study the effect paid media on Instagram has on consumers' purchase intentions, through the mediator's social identification and brand credibility. Instagram is the social media platform chosen as Instagram is the most used platform among the younger audience (Schomer, 2019), which is the future customer. Additionally, Instagram is perceived as the most effective social network platform (Breves et al., 2019).

The research question will be tested by means of an online experiment, testing seven hypotheses stated in Chapter 2.

Jin et al. (2018) found that the Instagram influencer's post achieved a more positive brand attitude than a similar post with a traditional celebrity endorser. Therefore, in the experiment Instagram posts of influencers are compared to that of celebrities. Toothpaste of the American brand Colgate is endorsed in both posts.

The aim of this research is to study the effect Influencer marketing on Instagram has on purchase intention. The mediators in this relationship are brand credibility and social identification between the consumer and the influencer. Additionally, as brand credibility has an effect on social identification this relationship will also be tested.

Brand credibility, social identification and purchase intention will all be measured through a questionnaire. Only men and women between the age of 18-31 were included in this research.

1.5. CONTRIBUTION

Brands must be careful in picking which influencer to work with and how to set up their own social media channels as this influences purchase intention (Ki & Kim, 2019). Therefore, it is important for marketers to understand this distinction and take this into consideration in their choice of influencers to work with on Instagram and the way in which they set up their collaboration messages. Consequently, this research will help brands in better understanding what aspects in Instagram influencer marketing affect the purchase intention the most and hopefully will lead to more successful influencer marketing campaigns of Instagram. However, this research will also provide added value for the consumer because as the brand implements the recommendations of this research the consumer will get more consistent and fitting messages.

1.6. STRUCTURE

This research document will be structured as follows. Chapter 2 will discuss the theoretical framework. The theoretical framework will outline the relevant literature on the key concepts of this research. The concepts discussed are sequentially influencer marketing in relation to purchase intention, brand credibility, social identification and the relationship between social identification and brand credibility. Based on this literature hypotheses will be formulated, and the conceptual framework will be drawn. Chapter 3, methodology, will outline and legitimize the sample size chosen and measures used. Chapter 4 will show the results derived from research. Chapter 5 will draw conclusions based on the results, and present theoretical and managerial implications.

2. THEORETICAL FRAMEWORK

In this chapter the relevant literature will be discussed. Based on the literature hypotheses will be formed to answer the research question. First, the central concept of influencer marketing will be discussed in comparison to celebrity endorsement. Hypotheses will be formed based on the relationship of the central concept with purchase intention, brand credibility and social identification. The theory behind the relationship between brand credibility and social identification will be discussed. Lastly, the mediation relationship of social identification and brand credibility will be presented with the conceptual framework.

2.1. NEW DEVELOPMENTS IN INFLUENCER MARKETING

According to Djafavora and Rushworth (2017) the use of traditional celebrities as a product endorser is not as effective as it formerly was. Celebrity endorsement is defined as “mutually beneficial partnerships between the celebrity and the endorsed brand” (Ilicic & Webster, 2013, p.942). However, in the last few years a new type of celebrity arose, namely the *influencer*. A lot of attention is paid to this modern celebrity who has become famous because of the use of online platforms. In traditional media often celebrities were used in campaigns and advertisements. However, in the last few years the opportunities for branding across online channels has grown (Breves et al., 2019). Recently, advertising blockers have been growing in popularity, which makes it possible for consumers to block the advertisement (De Veirman et al., 2017). Consumer resistance toward pop-up advertisements decreases advertising effectiveness. To combat this, the best way to advertise is by, among other things, integrating advertisement into the content of the social media posts (Breves et al., 2019). This type of advertisement is called influencer marketing (De Veirman et al., 2017). Influencer marketing is defined as “a form of marketing where marketers and brands invest in selected influencers to create and/or promote their branded content to both the influencers’ own followers and to the brands’ target consumers” (Lou & Yuan, 2019, p.58). The rise of social media offered possibilities to execute these new marketing strategies (Breves et al., 2019). In recent years Instagram gained a lot of new features, making this new type of advertisement possible. Next to following, liking, commenting, and sharing, the consumer now also actively engages through Instagram stories, IGTV and Instagram Live (Lee, 2019). Through Instagram stories brands can create a poll in which they can ask questions to consumers (Lee, 2019), for example which product they like more. The relationship with the influencers is experienced as more

meaningful by the consumers and more salient in the life of consumers compared to the relationship with celebrities who mostly appear on traditional media (Chung & Cho, 2017). Through Instagram features as following, sharing, liking, and commenting the consumer can interact with the influencers (Lee, 2019). The level of reciprocity makes this relationship stronger as influencer also can share with consumers and respond to consumers' comments (Chung & Cho, 2017). The messages shared by these influencers affect the millennial consumers' purchase decisions the most (Cooley & Parks-Yancy, 2019).

Compared to traditional celebrities there is a higher demand for influencers as they are perceived as easier accessible and genuine (Djafarova & Rushworth, 2017). Influencers are more powerful and traditional celebrities seem to not have met this power level yet (Wiley, 2014). Therefore, it is expected that influencers are more powerful in influencing consumers' purchase decisions than celebrities. Based on these findings the following hypothesis is formulated:

***H1:** Influencer marketing has a more positive effect on purchase intention than paid celebrity endorsement on Instagram*

2.2. EFFECT OF INFLUENCER MARKETING ON INSTAGRAM ON BRAND CREDIBILITY

According to Erdem and Swait (2004) the concept of brand credibility consists of the elements of trustworthiness and expertise. Brand credibility is defined as “the extent to which consumers believe a brand's claims, and their perception of whether the brand is able to continuously deliver what has been promised” (p.192). Brands are used to communicate information and by this try to overcome the information asymmetry present in the market (Erdem & Swait, 2004). Brands are an effective tool as brands can give clarity to the consumer about what to expect about the product, product attributes and can ensure that product claims by the brand are reliable (Erdem & Swait, 1998).

High brand credibility decreases the risk perceived by the consumer and increases perceived quality (Erdem, Swait & Valenzuela, 2006). Ambiguity and unclarity surrounding a certain product often caused due to the lack of information shared leads to low credibility (Erdem & Swait, 1998). Without brand credibility information communicated by the brand does not hold any value to the customer (Erdem & Swait,

1998). Therefore, brand credibility is an important determinant of the value of brand send messages.

To form the brand, elements of the marketing mix are used, including promotion (Erdem & Swait, 2004). At this point influencer marketing often comes in. Through the community networks created between influencers and their followers, on social network sites as Instagram, a lot of information can be shared through these networks (Thoumrungroje, 2014). This can provide clarity surrounding a certain product or brand. Consequently, brand credibility will increase, as clarity is the antecedent of brand credibility (Erdem & Swait, 1998). However, according to Djafarova and Rushworth (2017) social media influencers are perceived as more credible than traditional celebrity endorsements. The brand endorsed by the influencer will be associated with the influencer, which adds to the dimension of trustworthiness of the brand (Spry et al., 2011). Consequently, the high credibility that these influencers carry positively affects the credibility of the brand that is endorsed (Elberse & Verleun, 2012).

A product is a solution to a certain problem. Endorsers who have personal experience with the problem are perceived as more credible endorsing problem-related products (Djafarova & Rushworth, 2017). Influencers are often perceived as more relatable and credible than celebrities. Based on these findings, it is expected that influencer marketing on Instagram will have a more positive effect on brand credibility than traditional celebrity endorsement. Based on these findings the following hypothesis is formulated:

H2: Influencer marketing has a more positive effect on brand credibility than celebrity endorsement on Instagram

High brand credibility leads to a positive effect purchase intention. Brand credibility has often been linked to positively affecting various antecedents of purchase intention as brand attitude (Brinol et al., 2004). If consumers perceive the brand as being credible this has a positive influence on the consumer and will increase the chance the consumer will intend to buy a product (Sheeraz et al., 2016). Therefore, it is expected that high brand credibility will have a positive effect on purchase intention. Based on these findings the following hypothesis is formulated:

H3: High brand credibility has a more positive effect on purchase intention than a low

2.3. THE ROLE OF SOCIAL IDENTIFICATION

Social identity theory is defined as “the individuals’ knowledge that he or she belongs to certain social groups together with some emotional and value significance to him or her of the group membership” (Tajfel, 1986, p.283). This theory explains individuals identify more with certain groups who they feel connected to and why individuals are willing to engage with this group (Tajfel & Turner, 2004). This is summarized in the concept of social identification. By both the connectedness and engagement the individual’s level of identification will grow even further (Kim & Kim, 2018). However, this theory is not limited to the group level. A later definition by Tajfel, the founder of social identity theory, included that individuals can both identify with other groups **or** individuals (Tajfel & Turner, 1986). Cameron (2004) operationalizes social identification in a three-dimensional construct of *Centrality*: time spent thinking about being part of following; *Ingroup Affect*: positive feelings regarding being part of the following and *Ingroup Ties*: “perceptions of similarity, bond, and belongingness with other group members” (Cameron, 2004, p.241).

In social identification a distinction is made between the in-group and the out-group. The consumer together with the other followers of the influencers, the so-called fandom, are part of the in-group. These followers give themselves a name, for example the followers of Jake Paul call called Logangsters (Tait, 2018). Shared values, beliefs, norms, and attitudes are internalized and consequently individuals aim to uphold positive social identity. This positive social identity is achieved by comparing the in-group with the out-group and conforming to in-group behavior (Tajfel & Turner, 1986), for example, by promoting the influencer or celebrity and/or the in-group or behaving in accordance with the influencer/celebrity or the influencers’/celebrities’ in-group (influencers’/celebrities’ followers) (An et al., 2019). Finding identity in this way increases self-esteem. This self-esteem is built up by the individual identity through group membership, which contributes to the self-concept; worthiness as a group member; the value that others give the group; and own evaluation of worth of the group (Luhtanen & Crocker, 1992). In this way the individuals’ self-esteem is increased from four different standpoints.

Through influencers the consumer finds an online friend which offers an effective manner of information sharing. Together with other consumers who actively engage in the influencers’ network, the consumers form a strong social network (Thoumrungroje, 2014). The information is a shared resource created by both the consumer and the influencer

(Cheung & Lee, 2012). Consumers attach a lot of meaning to these networks (Djafarova & Rushworth, 2017). Social identity theory explains that individuals identify and endorse social groups who are appealing to them (Tajfel and Turner 1985). Therefore, individuals are more likely to identify with individuals when these individuals' characteristics align with their own self-concept (Kim & Kim, 2018). This is because social identification is a tool used by the individual to increase self-esteem (Tajfel & Turner, 1986).

According to Breves et al. (2019) a distinction should be made between social media influencers and traditional celebrities, for example actors and athletes who use their social media sites to promote commercial content. Both celebrities and influencers serve as a reference group to their followers, which is defined as "a person/group of people who serve as a reference to an individual in forming values and attitudes" (Schiffman, Hansen, & Hanuk, 2012, p.2). Values and attitudes are a big part of identity formation and role models also play a big part in this (McLean & Price, 2019). As social media influencers are experienced as more reliable and relatable (Djafarova & Rushworth, 2017), it is expected that it is easier to identify with influencers than celebrities. Based on these findings the following hypothesis is formulated:

H4: There is a higher degree of social identification between consumer and influencer than between the consumer and celebrity endorser

The degree of social identification has a positive relationship with purchase intention and price premiums. As individuals who have high degrees of social identification are more willing to pay buy and pay higher prices for certain products (Salem & Salem, 2018). This is predominantly the case in the context of luxury products (Salem & Salem, 2018), however it is expected that this effect will also hold in the context of a product such as toothpaste. Since values and norms of the brand are central in social identification (McLean & Price, 2019). This is a bigger determinant in the identity formation process than the product characteristics itself. Based on these findings, the following hypothesis is formulated:

H5: A high degree of social identification leads to a more positive effect on purchase intention than a low degree of social identification

2.4. BRAND CREDIBILITY AND SOCIAL IDENTIFICATION

Individuals are more likely to identify with a brand with higher credibility (An et al., 2019). Brands with high credibility have the means to create the connection between the brand and the individual consumer more effectively. Individuals identify with brands who are a good reflection of themselves (Mittal, 2006). As already mentioned, one of the reasons individuals identify with certain groups is to increase self-esteem (Luhtanen & Crocker, 1992). Individuals want to identify with groups that have positive evaluations and high credibility (An et al., 2019, p.161). As these evaluations will also become part of their identity (Luhtanen & Crocker, 1992). Therefore, it is more likely that individuals identify with brands that have high brand credibility. Additionally, individuals are more likely to promote these brands as part of their self-concept (Chaplin & John, 2005). Furthermore, consumers want to be part of a group which have a good reputation, are attractive and unique, because this improves their self-image (Tajfel & Turner, 1985).

Brands with high brand credibility are often seen as more attractive and more reliable to be part of. Being part of this credible ‘group’ will increase consumers’ self-esteem and willingness to connect with other group-members (An et al., 2019). On the contrary, it is more difficult for consumers to connect with other brand users when the consumers do not think the brand is trustworthy or can fulfil its promises (An et al., 2019). Based on these findings the following hypothesis is formulated:

***H6:** A high degree of brand credibility leads to stronger social identification than a low level of social identification*

Based on literature the prediction is that social identification mediates the relationship between brand credibility and purchase intention.

***H7:** The effect of brand credibility on purchase intention is mediated by the level of social identification*

2.5. CONCEPTUAL MODEL

Based on the literature, the prediction is that brand credibility and social identification mediate the effect of influencer marketing/celebrity endorsement on purchase intention.

H8: *The effect of influencer marketing on Instagram on purchase intention is mediated by the level of social identification and brand credibility*

Hypotheses 1–8 are graphically depicted in Figure 1.

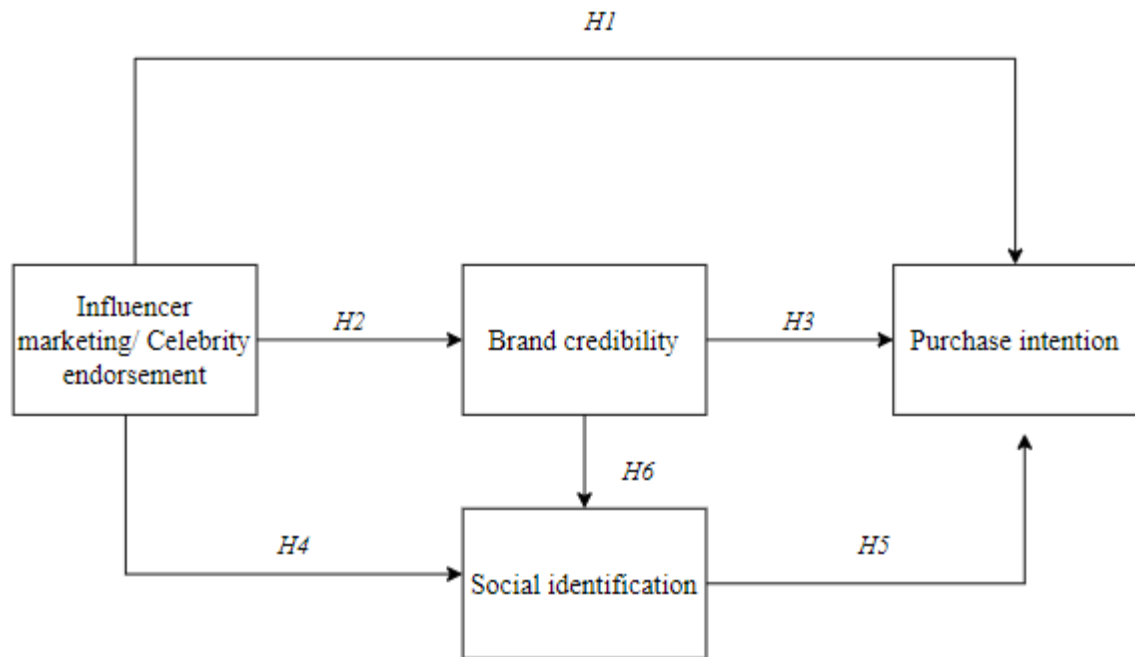


Figure 1. Conceptual model

3 METHODOLOGY

In this chapter the research methodology will be presented. First, the research design of this study will be explained. Second, the methodology surrounding the pilot study under which the procedure, selection process, and background characteristics of the sample of the pilot study, will be dealt with. Third, the procedure followed by the materials used, the measures of the key variable's *social identification*, *brand credibility* and *purchase intention* and the research ethics will be explained. Lastly, the data analysis strategy will be discussed.

3.1. RESEARCH DESIGN

This research employed a 2×2 between-subject's design with two conditions, each with two levels, male and female (Hair, 2014). The brand endorsed in these Instagram posts is Colgate, a sub-brand of Colgate-Palmolive (Colgate-Palmolive, 2020). Colgate provides products for oral dental healthcare (Colgate-Palmolive, 2020). The target market of Colgate is between 25–34 years old (Numerator, 2020). Colgate brands are sold internationally across 20 countries, including the Netherlands (Colgate-Palmolive, 2020).

Products are often categorized as being utilitarian or hedonistic. Toothpaste was chosen as toothpaste is a utilitarian product. Utilitarian products are defined as “products that primarily provide functional and instrumental value, and consumers mainly focus on their necessity, usefulness and practicality” (Shang, Jin, & Qiu, 2020, p.2). In contrast, hedonistic products are chosen because of the experience a specific product provides for the consumer (Lu, Lui, & Fang, 2016). Therefore, toothpaste seemed the best option as this is a necessity for most people and the purchase intention will be mainly affected by the choice of influencer or celebrity and less by the product choice. We believe that the choice of a utilitarian product has increased the validity of this research.

The dependent variable in this research was purchase intention. The independent variables were Instagram posts of an influencer endorsing a Colgate toothpaste or a celebrity on Instagram endorsing the same product, social identification, and brand credibility. Through Qualtrics the respondents were randomly divided between the four conditions. The four conditions were the experimental condition in which participants saw an Instagram post of an influencer, male or female, endorsing a Colgate toothpaste, and a control condition in which participants saw an Instagram post of a celebrity, male or female, endorsing a Colgate toothpaste. All Instagram posts had good lighting in the picture and the individuals endorsed similar Colgate products. After seeing the Instagram posts first, the brand credibility was measured, followed by social identification and purchase intention.

The influencers and celebrities were selected based on a pilot survey that preceded the questionnaire.

3.2. PILOT SURVEY

3.2.1 Procedure

A pilot survey preceded the questionnaire. This pilot was conducted and finalized three weeks before the questionnaire. The sample size of this pilot was 31 people gathered through various nonprobability sampling techniques under which snowball sampling, by first asking two respondents to fill it in and to share it again with their friends. To ensure an adequate sample size the pilot survey was also distributed through an online survey share platform with other students across the Netherlands. This platform consists of other students that are in their final year of higher education. In exchange for filling in surveys points could be gained which increased the ranking of the survey. This caused more students to see the survey. There was an option to specify target age, gender, and language of participants. For language “*Dutch*” was chosen, target age: “*18-20*,” “*21-25*” and “*26-30*” *years old*, and for gender both “*Female*” and “*Male*” were selected.

After clicking on the link, the participants were directed to the introduction screen of the questionnaire, explaining what the research was about, and how long answering would take. In this pilot the respondents were exposed to images of various influencers and celebrities promoting Colgate toothpaste.

The pilot survey started with asking the respondents general questions regarding socio-demographical factors as gender and age. For age, the age categories *18-24* and *25-30* were available. For gender “*Male*” or “*Female*” were the options available. Furthermore, the respondent was asked to indicate the amount of time spent on Instagram. The three answer categories were “*<10 hours a week*,” “*10-30 hours a week*,” “*31-50 hours a week*.” The latter information was asked to ensure that the respondents answering the questionnaire were active Instagram users and therefore could validate which influencers and celebrities were adequately known to put in the questionnaire. Next, respondents were exposed to Instagram images of various female and male influencers and celebrities. First, respondents were asked to indicate if they knew a certain influencer or celebrity. Second, respondents were asked to order these influencers and celebrities separately on popularity from most popular to least popular. Lastly, respondents were asked to match the influencer with the celebrity who seemed most similar. The former was asked through a multiple-choice

question using a 5-point Likert scale ranging from 1 (*definitely yes*) to 5 (*definitely not*). The latter two questions were asked through a ranking question in which the respondent could drag the influencer or celebrity to the self-designated spot.

The pilot served to indicate which influencers were most known among Instagram users and which influencers and celebrities were most similar and equally appreciated. This pilot served as a basis for the selection of influencers and celebrities in the questionnaire. To ensure that most respondents of the questionnaire would be familiar with the influencers and celebrities seen in the questionnaire, influencers and celebrity would be of equal perceived popularity, and to limit the effect of factors such as familiarity and number of followers on the results of this research. Appendix 7.2 shows the English version of the pilot survey. However, to ensure that respondents could answer the survey in their own language, a translation button was added to the survey. This enabled respondents to answer the survey in either Dutch or English. Both translations were manually created through the Translate tool via Qualtrics. The grammar was checked by the researcher and by a test panel consisting of 2 participants and no errors were found. Consequently, the grammar of both surveys was correct.

3.2.2. Selection process

In this section the selection process of influencers and celebrities for the pilot study will be discussed. From the Colgate Instagram channels Instagram posts of both celebrities and influencers were selected. In the selection of the influencers and celebrities' variation in age, gender, descent, and number of followers was taken into account as much as possible. This resulted in a list of six female influencers, seven female celebrities, four male celebrities and four male influencers (*Appendix 7.3- Table 2*).

3.2.3. Background characteristics pilot study

The questionnaire was available in both English and Dutch. 29% Of the respondent filled in the survey in English while 71% filled in the survey in Dutch. The target group of the pilot study were both men and women between the ages of 18 and 30 years old. The questionnaire was filled in by 31 respondents. 71% Of respondents were between 18 and 24 years old, while 29% were between 25 and 30-year-old. The majority of respondents spent between 10 and 30 hours (54.8%) a week on Instagram, followed by 38.7% who spent less than 10 hours a week on Instagram and 6.5% of the respondents who spent between 31 and 50 hours a week on Instagram. These descriptive statistics can be found in *Appendix 7.3- Table 3*.

3.3. SAMPLE

The survey participants were Dutch Instagram users between the age of 18 and 34 years old as Instagram is the most used social media platform among this age group (Djafarova & Trofimenko, 2019). According to Wilcox and Stephen (2013) women are more likely to be influenced by social media posts than men. This is because females generally have less trust in their own decision-making ability and trust others more than men (Djafarova & Rushworth, 2017). Sheldon and Bryant (2016) found that half of Instagram users are women who fall into this age category of 18-30 years of age. However, because the target group of Colgate ranges till 34 years old and most Instagram users fall within this age range, the target group of this sample were men and women between the age of 18 and 35 years old. This survey was made available only in Dutch as also Dutch influencers and celebrity were included in the sample and it can be assumed these were not famous internationally. Both Dutch-speaking men and women were included in this sample, to be able to address potential differences in gender.

This questionnaire was filled in by 107 respondents. All respondents fell into the age range between 18 and 31 years old with the average age of the respondent being 23.5 years old. 71% Of the respondents were female, while 29% of the respondents were male. The majority of respondent were students (83.2%), while 9.4% of respondents were employed. 1.9% being full-time employed, 4.7% part-time, 0.9% being flex workers, 1.9% entrepreneurs and finally 7.5% of respondents were unemployed.

The vast majority of respondents were born in the Netherlands (91.6%). Most respondents were of University Bachelor level educational level (39.3%), followed closely by HBO (applied sciences) level (23.4%), with the lowest representation in MBO (intermediate vocational education) (4.7%).

29.9% Of respondents earned between 0 and 999 euros per month, 36.4% between 500 and 999 euros, 14% between 1000 and 1999 euros, 1.9% between 2000 and 3000 euros and 2.8% more than 3000 euros per month. 8.4% Of respondents indicated to not want to respond to this question. To test for differences between conditions, these demographic variables were tested using a chi-square distribution. To adhere to the rules set by Field (2015) of chi-square distributions, some categories were merged, to prevent frequencies of less than 5 per cell (p. 723). The sample characteristics are all summarized in *Appendix 7.5-Table 1*, which served as the basis for the data analysis.

This survey consisted of two conditions with each two levels. The experimental condition had a size of 55, from which 26 exposed to a female influencer and 29 to the male

influencer. The control condition had a size of 52 from which 27 were exposed to the female celebrity and 25 to the male celebrity. The unequal distribution in the groups was due to the higher non-response rate in the control condition than in the experimental condition.

3.4. PROCEDURE QUESTIONNAIRE

Both men and women were exposed to fictitious Instagram messages of two types of influencers: social media influencers who were famous on Instagram and celebrities. Therefore, one group was exposed to an influencer endorsing a Colgate toothpaste and the other group to a celebrity endorsing the same product. Both were promoting the same product to ensure that type of product did not affect the purchase intention. Afterwards the participants were asked to fill in a questionnaire. This questionnaire was created through Qualtrics.

The questionnaire was spread through Instagram by snowball sampling technique. Individual followers of the researcher were sent Instagram direct messages with a link to the questionnaire. Additionally, the questionnaire was posted on Instagram Story to ensure that the followers would see the message. This Instagram message was only sent to followers within the age limit of this research, in total there were 84 followers. Since the researcher's followers were mainly women, and to ensure that the sample was equally distributed on gender, all female respondents were asked to send the questionnaire to another male. In this Instagram message participants were asked to share the questionnaire with at least three other friends who could also share it with their friends. Furthermore, the survey was distributed through the online survey exchange platform with other students across the Netherlands. This platform consists of other students that are in their final year of higher education doing their thesis. There was an option to specify target age, gender, and language of participants.

By filling in the surveys of other students, ranking of the survey increased and more students would see the survey and fill it in. To attract more male respondents the accompanying Facebook group was used. In this Facebook group a survey could be filled in and in exchange the author of the survey would fill in your survey. In this Facebook group the researcher filled in the majority of the male surveys available to gain more male respondents in return. In this way quota sampling was also used during the data gathering process.

3.4.1. The questionnaire

After clicking on the link the participants were directed to the introduction screen of the questionnaire, explaining what the research was about, and how long answering would take. Also, ethical issues such as anonymity and other important instructions to ensure successful completion of the questionnaire were given. The age limit of this data set was also indicated with explanation and respondents outside the target group were kindly asked to leave the questionnaire. After seeing this screen, the respondents were asked if they would give permission for the use of their answers to the questionnaire in this research. After giving permission the respondents were directed to the beginning screen where first general questions were asked, regarding socio-demographic factors, the so-called control variables (see 3.6.1.). Next, respondents were directed to the Instagram post of the influencer or the celebrity. Screen shots of the Instagram posts were taken, and these were included in the questionnaire. In this way the respondent could remain in the same screen while answering the questionnaire. Before asking the questions about the post the respondents were asked if they saw the Instagram post to ensure the questions were answered honestly. After seeing the Instagram post they answered questions regarding purchase intention, brand credibility and social identification. After these questions' respondents were asked if the picture quality was clear and if they knew the influencer or celebrity shown in the pictures. The former was questioned through a multiple-choice question using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The latter, by a two-option "yes" or "no" question. Finally, the respondents were asked if they had seen this ad before. Answer options were "Yes" or "No." Both positively and negatively worded items were included to increase the validity of this research and easily detect invalid answers.

The answers to this questionnaire were used to test the hypotheses and draw conclusions regarding purchase intention. The full questionnaire can be found in *Appendix 7.4*.

3.5. MATERIALS

Instagram posts of influencers or celebrities endorsing Colgate toothpaste were the materials in this research. These posts were derived from the individual Instagram profiles of these celebrities and influencers, but all shared under the hashtag of #colgatepartner and therefore owned by Colgate. Screenshots of these posts were made and included in the questionnaire on Qualtrics. Further details about the content of these posts were available after selection in the pilot study.

3.6. MEASURES

3.6.1. Socio-demographic variables

The first question was “*What is your gender?*” where the option “*Male*” or “*Female*” could be chosen. The age of the respondents was asked as well, by an open question in which respondents could fill in their age. Furthermore, the income level per month of the respondent was also asked. The answer options were “*€0-499*,” “*€500-999*,” “*€1000-1499*,” “*€1500-1999*,” “*€2000-3000*,” “*More than €300 per month*” or “*I prefer to not answer this question.*” As Instagram has a diverse audience, from students with side jobs to full-time workers, various income levels were included. To discover more background characteristics of the respondents, the employment status of the respondents was also questioned. Options were “*Unemployed*,” “*Student*,” “*Full-time*,” “*Part-time*,” “*Self-employed*,” “*Fixed contract*,” and “*Flexible contract*.” The highest completed level of education was asked through a multiple-choice question. The answer options were “*Primary school*,” “*High School*,” “*intermediate vocational education*,” “*HBO (college)*,” “*Wo Bachelor (University)*,” “*WO Master*,” or “*Doctorate*.” Lastly the country of origin of the respondent was asked. The answer options were “*Netherlands*,” “*North-Europe*,” “*Eastern-Europe*,” “*South-Europe*,” “*Asia*,” “*Africa*,” “*North America*,” “*South America*,” “*Other, namely*,” or “*I prefer to not answer this question.*”

The questions regarding age, income, education, and employment status were included in the analysis as control variables. However, questions regarding country of origin and employment status were not controlled for as these variables were not expected to tell a lot in relation to the results of this analysis as 91.6% of the respondents were Dutch and 83.2% were student, because of their unequal distribution.

3.6.2. Social identification

For the measurement of social identification the scale of Cameron (2004) was used. This scale consisted of nineteen items. These items were all measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale was adjusted to the Instagram influencer marketing context. Examples of items were “*I have a lot in common with other followers of influencer X or celebrity X*,” and “*In general being follower of influencer X or celebrity X is an important part of my self-image*.” In social identification a distinction should be made between items relating to formation of the self-concept and connection to other group members (An et al., 2019). As it is possible that an individual

relates to the influencer or celebrity, but not to other followers (the group) of this influencer or celebrity, extra items were added relating more to the connection at an individual level, indicated with a star * (Appendix 1-Table 1). Lastly, some items were deleted or merged as various items seemed to measure similar characteristics within the construct. Therefore, ten items remained. For example “*I feel strong ties to....*,” “*I do not feel a sense of being connected....*,” and “*I find it difficult to form a bond...*” these were all summarized in the item “*I feel strongly connected with influencer X or celebrity X....*”.

To ensure validity, factor analysis was used to check whether all these items loaded highly on the same factor. The reliability analysis measured the internal consistency of the measure used by Cronbach’s alpha (Field, 2015). To ensure reliability Cronbach’s alpha was checked to be at a sufficient level of minimally 0.7. The higher the score on the Likert scale, the higher the social identification was. See *Appendix 7.1- Table 1* for full measures.

3.6.3. Brand credibility

For the measurement of brand credibility the scale of Erdem and Swait (2004) was used. This scale consisted of fifteen items. These items were all measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). However, for the purpose of this research only the items of expertise and trustworthiness were used, as these are important elements of brand credibility. Therefore, five items remained. Examples of items were “This brand reminds me of someone who is competent and knows what he/she is doing” and “This brand does not pretend to be something it is not.” As some items seemed to measure similar characteristics, these items were deleted. For example, “*This brand can deliver what it promises*” was deleted as the item “*This brand delivers what its promises*” seemed to measure the same thing. In the end five items remained.

To ensure validity, factor analysis was used to check whether all these items loaded highly on the same factor. To ensure reliability Cronbach’s alpha was checked to be at least 0.7. The higher the score on the Likert scale, the higher the brand credibility was. See *Appendix 7.1- Table 2* for full measures.

3.6.4. Purchase intention

For the measurement of purchase intention the scale of Kizgin et al. (2018) was used. This scale consists of four items. These items were all measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples of items were “*It is very likely that I will buy the product/service.*” All items were included in the questionnaire.

To ensure validity, factor analysis was used to check whether all these items loaded highly on the same factor. To ensure reliability Cronbach's alpha was checked to be at least 0.7. The higher the score on the Likert scale, the higher the purchase intention was. See *Appendix 7.1- Table 3* for full measures.

3.7. ETHICS

This research document adhered to a great extent to the ethical considerations set by Bryman and Bell (2007). These were summarized in the following five points of ethical consideration.

1. The information provided by the respondents was kept anonymously and an adequate level of confidentiality was ensured. Including the protection of the privacy of the respondent.
2. The respondents participated voluntarily; no incentives were given, and respondents could withdraw from the research at any moment.
3. The respondents were respected and not harmed within the entire duration of this research experiment.
3. All communication between researcher and respondents was open, honest, and transparent regarding the experiment. All questions of respondents regarding the experiment were answered and no misleading or biased information was shared.
4. The primary data shared in this research was shared with full permission of the respondents who participated in this research experiment.
5. The primary data in this research was presented in an unbiased manner.

3.7.1. Copyright

Fair use is a law that in many Western countries enables the use of images on the internet for educational purposes (Stanford University Libraries, 2020). However, this law seems not to apply in the Netherlands, therefore formal approval was asked from Colgate to use their images for the purpose of this research. Colgate-Palmolive Netherlands granted permission; therefore, the screenshots of these Instagram images could be included in the questionnaire on Qualtrics. This permission document can be found in *Appendix 7.6*.

3.8. DATA ANALYSIS

To clean the data, the procedure of missing data analysis by Hair (2014) was used.

Respondents out of the age limit, respondents who did not see the post and respondents who did not finish the complete questionnaire were eliminated. Before proceeding with further data analyses the negatively worded items were reverse coded. Next, a variable was made called *Role*, which included the two conditions: the *influencer* condition labelled 1 and the *celebrity* condition labelled 2. Additionally, a variable named *role_gender* which consisted of two groups the female role (female celebrity or influencer) and the male role (male celebrity or influencer). Afterwards, the data analysis could begin.

First, the normal distribution of the variables was checked. The skewness and kurtosis of all the items of *brand credibility*, *social identification* and *purchase intention* was checked. To be normally distributed the variables kurtosis and skewness must fall between the value of -2 and 2 (Field, 2015).

Second, factor analysis was conducted for each scale to ensure that the items all loaded on the same factors. The variables *brand credibility*, *social identification* and *purchase intention* were all measured using existing scales, which were proven to be reliable. However, still a factor analysis was done as a check. Before conducting the factor analysis, the assumptions were checked. First the Kaiser-Meyer-Olkin (KMO) needed to be above 0.5 and the Bartlett's test needed to be significant at an alpha level of .05 (Hair, 2014). The eigenvalue needed to be higher than 1, and the variance explained above 60%. Then, the assumptions were met.

Third, a randomization test was executed to check if the control variables and socio-demographic variables (*gender*, *age*, *income*, *education*, *employment status* and *country*) were equally distributed across the roles/treatment conditions (*influencer* or *celebrity*) and therefore did not influence the interrelationships between the variables tested by the hypotheses. A Pearson-chi square test was executed for *gender*, *age*, *Income*, *education*, *employment status* and *country*. These variables needed to be higher than the alpha level of .05, to ensure that the unsystematic variance in the treatment conditions (control- & experimental condition) was minimal (Field, 2015). Fourth, the hypotheses 1, 2, and 4 were tested through ANCOVA controlling for *gender*, *age*, *income*, *education*, and *employment level*. The assumptions for ANOVA were met. The dependent variable(s) tested were of metric measurement level, the assumptions of normality were met (*Appendix 7.9-Table 1*). Finally, the variances among groups needed to be equal and therefore a Levene's test to test homogeneity of variance was conducted. Hypothesis 1–6 was tested by means of an ANCOVA. A median split was made for the variables *brand credibility* and *social identification* in order to clearly differentiate the effects on low and high levels of these

variables. These results can be found in Chapter 4 *Results*. If hypotheses H1–H3 were all confirmed, the full mediation model would be tested (H8) through the Process function by Hayes (2014). If H4, H5, H6 were significant were significant, the mediation model with brand credibility, purchase intention and social identification (H7) would be tested by means of model 4 of PROCESS by Hayes (2014).

All results of hypotheses testing are summarized in Chapter 4 *Results*, *Figure 3 Summary of hypothesis test results*.

4. RESULTS

In this section the results of the analyses described in Chapter 3 will be shown. First, the choice of influencers and celebrities, based on the pilot study, will be presented. Secondly, the results from the questionnaire will be presented including factor analysis and reliability analysis of the scales and lastly the results of the ANOVA which tested the hypotheses. The model was tested by step by step conducting an ANCOVA, including control variables, for each hypothesis separately. Lastly, a hypothesis was tested by means of a mediation model by Hayes (2014).

4.1. Results pilot survey

The pilot survey was filled in by 31 respondents. Based on the pilot survey results two celebrities and influencers were selected as stimuli for the final survey. The celebrities Vanessa Anne Hudgens and Michael Phelps were selected as most respondents knew these celebrities. For the influencers, the female influencer Nochtli was selected as this was the female influencer where most respondents answered '*definitely yes*' to the question of knowing this influencer. For the male influencers, most of the respondents indicated to not know any of them. This could be explained by the fact that all male influencers presented were American and most respondents that filled in the survey were Dutch. Therefore, no male influencer was selected out of the options presented in the survey. Consequently, new Instagram posts of the Colgate Netherlands Instagram were analyzed, that came out after the pilot survey was distributed. Eventually, Jelle Derckx was the male influencer the Dutch influencer selected. Jelle Derckx seemed a good fit as he and his work gained large popularity among Dutch twenty- and thirty-year olds (Ploeger, 2018). The statistical analysis can be found in *Appendix 7.8*.

4.2. Descriptive statistics of the survey

139 Participants began the questionnaire. However, after data cleaning 107 respondents remained. Five respondents did not grant permission to use their data for this research and seven respondents did not answer this question and terminated the questionnaire. Therefore, these respondents were removed from the dataset and 132 respondents remained. 12 Respondents indicated to not be Instagram users, although these were the target group for

this study. Therefore these 12 respondents were removed from the questionnaire, so 120 respondents remained. Next, respondents were removed who were not included in the sample target age of the questionnaire. Finally, respondents were removed using the *Progress* table provided by SPSS through Qualtrics, which showed the percentage of the questionnaire the respondent had completed. All respondents with percentages other than 100% were manually checked; these respondents often had only filled in demographics but skipped large parts of the questionnaire (>10%). Therefore, these respondents were removed. Consequently, the final sample size of this study came down to 107. The questionnaire was made through the Qualtrics condition function and assigned respondents randomly across the groups. However, in the end the control condition was slightly smaller than the experimental condition. More respondents had stopped completing the questionnaire in the control condition than the experimental condition. The experimental condition consisted of 55 (51%) participants and the control condition consisted of 52 (49%) participants. However, since the control group was not significantly larger, the difference in group size could be disregarded.

The missing value analysis was omitted as, after the data removal described above, there were no missing values within the data set. The data was checked on routings, codes and response sets and did not show strange patterns.

4.2.1. Normality check

The normal distribution of the variables and items of the variables *Brand credibility*, *Social identification* and *Purchase intention* was checked. The Shapiro-Wilk normality test was significant for three of the items. However, as these were variables at interval measurement level this test is robust to non-normally distributed data. Therefore, histograms, boxplots and Q-Q plots were checked on normal distribution and outliers. Several outliers were found for *Brand credibility* and *Purchase intention*; however, no extreme outliers were found and therefore the sample seemed normally distributed. The skewness and kurtosis can be found in *Appendix 7.9- Table 1*.

4.3. Factor analysis and reliability analysis

For all five items that measured *Brand credibility* the Kaiser-Meyer-Olkin (KMO) had a *p*-value of .813 and Bartlett's test of sphericity, was significant ($p < .05$). The explained variance by the single factor was 56.58 percent with an eigenvalue of 2.829. All communalities were above .20. The results showed Cronbach's alpha for brand credibility was .783, well above the recommended threshold of 0.7 and therefore Brand credibility was

considered a reliable construct. All five items were combined into an average score named brand credibility.

For all nine items that measured *Social identification* the Kaiser-Meyer-Olkin (KMO) had a p -value of .912 and Bartlett's test of sphericity, was significant ($p < .05$). The explained variance of the single factor was 68.56 percent with an eigenvalue of 6.171. All communalities were above .20. The results show Cronbach's alpha for these items was .942, and therefore it was concluded that social identification was a reliable construct. All nine items were combined into an average score named social identification.

For all four items that measured *Purchase intention* the Kaiser-Meyer-Olkin (KMO) had a p -value of .827 and Bartlett's test of sphericity, was significant ($p < .05$). The explained variance of the single factor was 76.22 percent with an eigenvalue of 3.049. All communalities were above .20. The results show Cronbach's alpha for these items was .894, and therefore it was concluded that purchase intention was a reliable construct. All four items were combined into an average score. The factor loadings of each individual item on the construct can be found in *Appendix 7.9- Table 2-4*.

Table 1. Summary of factor-analysis and reliability analysis of the scales

Factor	KMO	Bartlett's test of sphericity	Cronbach's alpha
Brand credibility	.813	< .001	.783
Social identification	.912	< .001	.942
Purchase intention	.827	< .001	.894

4.3.1. Factor analysis familiarity with Instagram

At the end of the questionnaire general questions regarding the Instagram posts were asked to ensure factors such as lightning or quality of the photo would not influence the relationships tested. These answered were compared through cross tabulations across the different conditions. These results are summarized in *Appendix 9-Section 5*. The items labelled with a star were put into a factor analysis to see if they loaded on the same factor. It became clear that *I know the influencer/celebrity on the picture*, and *I follow the*

influencer/celebrity on the picture both loaded highly on factor 2 and *the other three items* on factor 1. Therefore, two average scores were created. Factor 1 named *active user* and factor 2 *familiarity*. Factor 1 measured how active the participant was on Instagram and factor 2 how familiar the participant was with the influencer/celebrity shown. These two variables were included as control variables in the hypothesis testing. These results can be found in *Appendix 7.10*.

4.4. Randomization test

A randomization test was conducted to ensure that the socio-demographic variables were randomly distributed across the condition groups. A Pearson Chi-square test was conducted for the categorical variables *Gender, Income, Education, Age, Employmentstatus* and *Country*. The relationships between role (influencer or celebrity) and the control variables *Age, Gender, Income, Education, Employment status* were not significant. For the variables *Income* and *Country*, one of the cell frequencies was at the threshold of five observations and therefore Fisher's Exact test was also checked. This test result was also not significant. The randomization for the socio-demographic variables was therefore considered successful, and full results can be found in *Appendix 7.11*.

Table 2. Randomization test results

Variable	Pearson Square	Chi- Test	Fisher's Exact	P-value
GENDER	.159			.690
INCOME	.217	.762		.641
EDUCATION	1.845			.397
AGE	.712			.701
EMPLOYMENTSTATUS	.828			.661
COUNTRY	3.349	.087		.067

4.5. Hypothesis testing

4.5.1. Hypothesis 1

Hypothesis 1 states that influencer marketing had a more positive effect on purchase intention than paid celebrity endorsement on Instagram. A two-way ANOVA was conducted to test this hypothesis. Levene's test for homogeneity of variances was not significant ($p=.164$), which means that the variances among groups were considered equal. Therefore, an ANCOVA could be conducted with a Bonferroni post-hoc test.

Within this ANCOVA analysis the control variables *Gender*, *Income*, *Education*, *AGE*, *familiarity* and *activeuser* were included. Two dummy variables were made for *Education*: HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for *AGE* two dummies were created for 22-25 years old (*AGE2*) and 26+ (*AGE3*) with 18-21 as reference category.

The results showed an insignificant effect (.763) for the condition **Role** (influencer or celebrity) on purchase intention. $F(1, 92) = .092, p = .763$. Apparently, influencer marketing did not have a more positive effect on purchase intention than celebrity endorsement. Furthermore, the results showed that the control variable *Activeuser* was significant ($<.001$). *Activeuser*: $F(1, 92) = 17.904, p < .001$ (*Appendix 7.12- Table 1*).

A person's degree of purchase intention was significantly influenced by their active use of Instagram. However, this covariate did not make the relationship between role (influencer or celebrity) and purchase intention significant. Consequently, hypothesis 1 was not supported. The results are shown in *Appendix 7.12*.

4.5.2. Hypothesis 2

Hypothesis 2 states that influencer marketing had a more positive effect on brand credibility than celebrity endorsement on Instagram. Levene's test for homogeneity of variances was not significant ($p = .302$). Therefore, an ANCOVA with a Bonferroni post-hoc test was conducted.

Within this ANCOVA analysis the control variables *Gender*, *Income*, *Education*, *AGE*, *familiarity* and *activeuser* were included. Two dummy variables were made for *Education*: HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for *AGE* two dummies were created for 22-25 years old (*AGE2*) and 26+ (*AGE3*) with 18-21 as reference category.

The results showed an insignificant effect ($p=.178$) for the condition: **role** (influencer or celebrity) on brand credibility. $F(1, 92) = 1.840, p = .178$ (*Appendix 7.12- Table 2*).

Influencer marketing did not have a more positive effect on brand credibility than celebrity endorsement. Furthermore, the results showed that both dummy variables of AGE, AGE2 (.013), and AGE3 (.043) did have a significant effect. AGE2: $F(1, 92) = 6.350$, $p = .013$; AGE3: $F(1, 92) = 4.192$, $p = .043$ (*Appendix 7.12- Table 2*). A person's degree of brand credibility was statistically significantly influenced by their age. The profile plot showed that both age groups (22-25 and 26+) had lower brand credibility than the reference group (18-21). Therefore, it seemed the higher the age, the lower the brand credibility (*Appendix 7.12- Figure 1-2*). However, this covariate did not make the relationship between role (influencer or celebrity) and brand credibility significant. Consequently, hypothesis 2 was not supported. The results are shown in *Appendix 7.12-Table 2 and Figure 1-2*.

4.5.3. Hypothesis 3

Hypothesis 3 stated that high brand credibility had a more positive effect on purchase intention than low brand credibility. Levene's test to test homogeneity of variances was not significant ($p = .144$), which means that the variances among groups were equal. Therefore, an ANCOVA with a Bonferroni post-hoc test could be conducted.

Within this ANCOVA analysis the control variables *Gender*, *Income*, *Education*, *AGE*, *familiarity* and *activeuser* were included. Two dummy variables were made for *Education*: HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for AGE two dummies were created for 22-25 years old (AGE2) and 26+ (AGE3) with 18-21 as reference category.

The results show a significant effect (.020) for brand credibility on purchase intention. $F(1, 84) = 5.660$, $p = .020$ (*Appendix 7.12-Table 3*). Therefore, it can be assumed that a brand credibility had a positive effect on purchase intention. The profile plot shows that high brand credibility values were associated with higher values of purchase intention (*Appendix 7.12- figure 3*). The mean of purchase intention for low brand credibility (4.8) was lower than high brand credibility (5.6). Furthermore, the results showed that the control variable *activeuser* ($< .001$) was significant. *Activeuser*: $F(1, 84) = 15.590$, $p < .001$ (*Appendix 7.12-Table 3*). Therefore, it can be concluded that a person's degree of purchase intention was significantly influenced by their active use of Instagram.

Consequently, hypothesis 3 was supported. The results are shown in *Appendix 7.12-Table 3 and Figure 3-4*.

4.5.4. Hypothesis 4

Hypothesis 4 assumed a higher degree of social identification between consumer and influencer than between the consumer and the celebrity endorser. First, Levene's test for homogeneity of variances was not significant ($p=.152$), which means that the variances among groups were equal. Therefore, an ANOVA with a Bonferroni post-hoc test was conducted.

Within this ANCOVA analysis the control variables *gender*, *income*, *education*, *age*, *familiarity* and *activeuser* were included. Two dummy variables were made for *Education*: HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for *AGE* two dummy variables were created for 22-25 years old (*AGE2*) and 26+ (*AGE3*) with 18-21 as reference category.

The results showed an insignificant effect (.141) for the two conditions: **role** (influencer or celebrity) on social identification. $F(1, 92) = 2.208$, $p = .141$ (*Appendix 7.12-Table 4*). The profile plot shows that social identification was lower for the influencer role than the celebrity role, however this effect was not significant (.141) (*Appendix 7.12-Figure 4*). Therefore, it can be assumed that influencer marketing did not have a more positive effect on social identification than celebrity endorsement. Furthermore, the control variable familiarity (.040) did show a significant relationship. Familiarity: $F(1, 92) = 4.327$, $p = .040$ (*Appendix 7.12- Table 4*).

A person's degree of social identification was significantly influenced by their familiarity with the influencer or celebrity. However, this covariate did not make the relationship between role (influencer or celebrity) and social identification significant

Consequently, hypothesis 4 was not supported. The results are shown in *Appendix 7.12-Table 4*.

4.5.5. Hypothesis 5

Hypothesis 5 stated that a high degree of social identification lead to a more positive effect on purchase intention than a low degree of social identification. Levene's test for homogeneity of variances was significant ($p=.019$), which means that the variances among groups were considered unequal. However, because the group sample sizes are quite equal, the ANOVA is said to be robust to unequal variances in the case of equal group sizes (Blanca et al., 2018). Therefore, an ANCOVA with a Bonferroni post-hoc test was conducted.

Within this ANCOVA analysis the control variables *gender*, *income*, *education*, *AGE*, *familiarity* and *activeuser* were included. Two dummy variables were made for *Education*:

HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for AGE two dummy variables were created for 22-25 years old (*AGE2*) and 26+ (*AGE3*) with 18-21 as reference category.

The results showed a significant effect (.002) for social identification on purchase intention. $F(1, 92) = 9.830, p = .002$ (*Appendix 7.12- Table 5*). The profile plot shows that higher social identification was associated with higher purchase intention (*Appendix 7.12- figure 5*). Therefore, it can be assumed that a higher degree of social identification had a more positive effect on purchase intention than a low degree of social identification. Furthermore, the results showed that the control variables Income (.039), Gender (.033), Active use (< .001) did show a significant relationship. *Income*: $F(1, 92) = 4.403, p = .039$; *Gender*: $F(1, 92) = 4.706, p = .033$; *Activeuse*: $F(1, 92) = 22.183, p < .001$ (*Appendix 7.12- Table 5*). The profile plot shows that females have higher purchase intention in this relationship than males (*Appendix 7.12- Figure 6*). Next, the profile plot shows that participants who earn more than € 1500, - have higher purchase intention in this relationship than participants than earn € 0-1499, - (*Appendix 7.12- Figure 7*).

A person's degree of purchase intention was significantly influenced by their income, gender and active use on Instagram and a significant effect was found between social identification and purchase intention. Consequently, hypothesis 5 was supported. The results are shown in *Appendix 7.12- Table 5 and figure 6-7*).

4.5.6. Hypothesis 6

Hypothesis 6 stated that a high degree of brand credibility lead to a stronger social identification than a low level of brand credibility. First, Levene's test to test homogeneity of variances was significant (.242) for an alpha level of .05, which means that the variances among groups were equal. Therefore, an ANCOVA with a Bonferroni post-hoc test was conducted.

Within this ANCOVA analysis the control variables *gender*, *income*, *education*, *age*, *familiarity* and *activeuser* were included. Two dummy variables were made for *education*: HBO APPLIEDSCIENCE and UNIVERSITY with Vocational education as the reference category. Similarly, for AGE two dummy variables were created for 22-25 years old (*AGE2*) and 26+ (*AGE3*) with 18-21 as reference category. A median split of brand credibility was made, in order to use this variable as a fixed factor in ANCOVA analysis. Two categories were made based on the median of 3.4; low which included all values under the median of 3.4 (51 participants) and high which contained all values of 3.4 and higher

(56 participants).

The results showed a significant effect for brand credibility on social identification ($F(1, 83) = 9.131, p = .002$) (*Appendix 7.12- Table 6*). The profile showed that low brand credibility is associated with lower levels of social identification and high brand credibility with higher levels of social identification (*Appendix 7.12- figure 8*). The median of low brand credibility was 5.3 with a standard deviation of 1.25, while high brand credibility had a mean of 5.9 with a standard deviation of .98. Therefore, it can be assumed that a higher degree of brand credibility had a more positive effect on social identification than a low degree of social identification.

Furthermore, the results showed that the control variable *activeuse* (.049) did show a significant effect. *Activeuse*: $F(1, 83) = 4.008, p = .049$ (*Appendix 7.12- Table 6*).

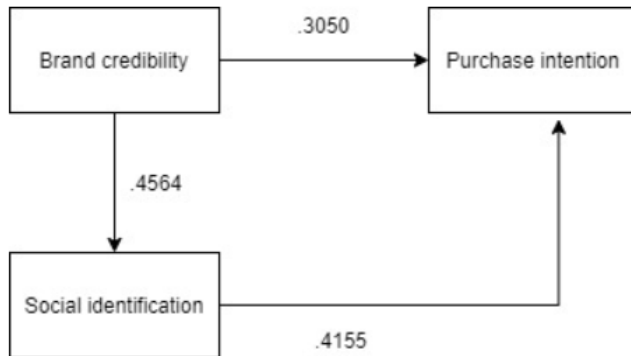
Consequently, hypothesis 6 was supported. The results are shown in *Appendix 7.12- Table 6 and figure 8*.

4.5.7. Hypothesis 7

Hypothesis 7 tested the relationship between brand credibility and purchase intention with social identification as a mediator including the control variables *Gender*, *Income*, *Education*, *AGE*, *familiarity* and *activeuser* in the analysis. To test this hypothesis the PROCESS model by Hayes, model 4, was applied. The results show that in first regression line that brand credibility was a significant (positive) predictor ($b = .4564, s.e. = .1125, p = .01$) social identification within the path model. The control variables did not show significant relationships.

In the second regression both the direct effects of brand credibility ($b = .3050, s.e. = .1068, p = .01$) and social identification ($b = .4155, s.e. = .0891, p < .001$) were significant, positive predictors of purchase intention. The covariates *Income* ($b = .1113, s.e. = .0503, p = .03$) and *active user* ($b = .2909, s.e. = .0739, p = .0002$) were also significant predictors in this relationship. The coefficient of income ($-.0837$) indicated that participants in the income group of €>1500, - had a stronger effect than €0-1499, -.

Figure 2 Mediation analysis by PROCESS



The overall model was significant $F(9,97) = 5.56, p < .001$. The total effect ($b = .4947, s.e. = .1088, p < .001$) and the direct effect ($b = .3050, s.e. = .1068, p < .001$) of brand credibility on purchase intention were both significant. However, the indirect effect via social identification was just not significant. However, since the interval between the lower (LLCI) and the higher confidence (ULCI) bounds did not include zero, we assume that the mediation effect had occurred.

Table 3 Mediation relationship brand credibility and purchase intention through social identification

Effect bootstrap = 5000	Regression coefficient b	P-value	Boot LLCI	Boot ULCI
Y= Purchase intention X = Brand credibility M= Social identification				
X on M	.4564	.01	.2331	.6798

M on Y	.4155	< .001	.2387	.5924
Total effect X on Y	.4947	< .001	.2788	.7106
Direct effect of X on Y	.3050	.01	.0931	.5170
Indirect effect of X on Y	.1897	.0674 (BootSE)	.0744	.3449

4.5.8. Hypothesis 8

Hypothesis 8 stated the effect of influencer marketing on Instagram on purchase intention was mediated by the level of social identification and brand credibility. The results of H1, H2 and H4 showed that there was no significant effect between influencer marketing and purchase intention; influencer marketing and brand credibility; and influencer marketing and social identification. Therefore, hypothesis 8 has not been tested as the mediation effect was not applicable. Social identification and brand credibility did not mediate the relationship of influencer marketing on purchase intention. Consequently, hypothesis 8 was not supported.

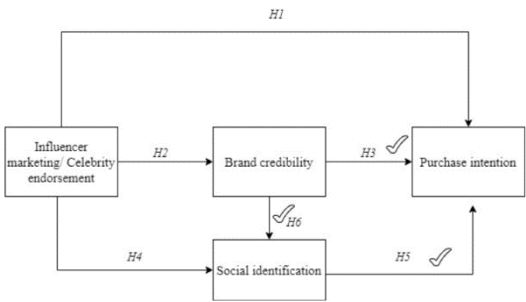
4.5.9. Exploratory analyses

In the next section the results of the supplementary exploratory analyses will be presented. These concerned variables measured in the dataset, which could be a basis for further research. Literature mentioned that appearance is an important part of social identification (Wiederhold, 2019), therefore the gender of the influencer or celebrity (role_gender) was tested in relation to the hypotheses. The following tests were conducted: effect of role_gender and interaction effect between role_gender and gender were tested (H4 and H5). One significant effect was found relating to hypothesis in the relationship between brand credibility and social identification of the interaction effect role_gender * GENDER (.020) (*Appendix 7.12- Table 6*). The social identification of males exposed to a female influencer/celebrity with low brand credibility (5.4) was higher than that of female (5.1). The social identification of males exposed to a female influencer/celebrity with high brand credibility (6.0) was higher than female (5.6). However, the male social identification with the male influencer/celebrity (3.9; 5.9 respectively) was lower than with the female influencer/celebrity. The full plots can be found in *Appendix 7.12- Figure 9 and 10*.

Therefore, a significant effect was found, but not in the expected direction as the social

identification for male participants was higher with the female influencer/celebrity than with the male influencer/celebrity. Therefore, other factors seemed to play a role. This will be discussed more in *Chapter 5 Conclusion and Discussion*. All results can be found in *Appendix 7.12-Table 1-6* and *Figure 9 and 10*.

Figure 3 Summary of hypothesis test results



5. CONCLUSION AND DISCUSSION

This section draws a conclusion based on the empirical results and provides the implications of this study. First, the conclusion will be stated. Next, the managerial and theoretical implications of this research will be discussed and the limitations of this research.

5.1. Conclusion

The aim of this research was to study the effect influencer marketing on Instagram has on purchase intention and the potential effect of brand credibility and social identification in this relationship. An online experiment was the research tool used to answer this research question. In this online experiment both men and women were exposed to Instagram posts, in which a Colgate product was endorsed.

Wiley (2014) stated that Influencer marketing is a more powerful tool than celebrity endorsement. This is explained by the rise of social media with multiple influencers arising, which created infinite opportunities for brands to communicate with consumers and endorse products through these influencers (Lee, 2019). Nevertheless, this relationship came out negative, meaning that influencer marketing did not have a more positive effect on purchase intention than celebrity endorsement on Instagram (H1). This outcome was surprising based on literature as it was expected that influencer marketing would have a bigger and more positive effect on purchase intention and multiple literature confirmed this (Wiley, 2014; Jin et al., 2018; Djafarova and Rushworth, 2017). A possible explanation could be the fading distinction between celebrities and influencers.

According to UniMedia (2020) celebrities were the influencers before the rise of social media. This influence is often discredited in recent research. Influencers are becoming celebrities and celebrities are sharing more personal pieces of their lives and therefore having more close and personal relationship with their followers. In this way celebrities could reap the benefits of influencers.

Next, no significant effect of influencer marketing on brand credibility was found (H2). Djafarova and Rushworth (2017) found that influencers are often perceived as more reliable endorsers than celebrities as they often have personal experience with the product and followers feel they know them personally. However, it could be that the celebrities selected for this research are also perceived as reliable as they also have a personal relationship with their followers/ future consumer.

The relationship between influencer marketing and social identification was also not

significant (H4). Based on the research of Kim and Kim (2018) individuals are more likely to identify with individuals who align with their self-concept. As influencers are often just 'normal' human beings, it was expected that the social identification with influencers would be higher. Celebrities recently started sharing more parts of their personal lives, for example their quarantine routines (Willen, 2020). This could cause more identification with celebrities.

Significant effects were found between brand credibility and purchase intention (H3); social identification and purchase intention (H5); and brand credibility and social identification (H6). The relationship between brand credibility and purchase intention mediated by social identification also was significant (H7).

To conclude, higher degrees of social identification and brand credibility create higher purchase intention and this higher brand credibility also positively affects social identification. However, the choice of letting an influencer or celebrity endorse a brand's product is not the determining factor in this relationship. For influencer marketing to affect purchase intention, other factors should be considered in the selection process of influencers or celebrities for product endorsement on Instagram.

5.2. Theoretical implications

Influencer marketing has been a widely researched concept in marketing. Multiple researchers have studied influencer marketing in relation to purchase intention (Johansen & Guldvik, 2017; Lim et al., 2017; Singh & Banerjee, 2019; Sokolova & Kefi, 2020; Trivedi & Sama, 2020). An interesting distinction was made by Jin et al. (2018) between the Instagram celebrity and the traditional celebrity. This relationship was studied across different platforms for example comparing YouTube videos to television. The researched aimed to differentiate by studying the relationship between influencer marketing and purchase intention comparing it to celebrity endorsement on the same platform, so both on Instagram.

5.3. Managerial implications

The results of this study show that the generally perceived notion that using influencers in the marketing strategy will cause higher purchase intention than using celebrities is not always applicable, at least not in the context of this research. The choice of influencer or celebrity endorsement does not directly, nor indirectly—through mediating variables brand credibility and social identification—affect the consumers' purchase intention. As multiple researches suggest another outcome, other factors must be affecting this relationship.

First, some general facts can be attributed as the visibility of the product that is endorsed, age, gender, familiarity with the influencer or celebrity and the active use of Instagram.

Second, social identification does not only have to do with the gender of the celebrity or influencer, but also with other interests, for example: a consumer who loves sports identifies more with a celebrity or influencer who loves sports. This could explain why male identified most with the female celebrity or influencer which in this case were a famous fitness model/coach and an actress. Someone who likes exercise is more likely to identify with a fitness model and coach and an actor is more likely to identify with another actress.

Marketers could take this data and implement it into their marketing strategy, concerning the selection process of influencers to work with for utilitarian product endorsement. This selection is not only based on the choice of influencer versus celebrity, but also with their fit with the brand's followers/consumers. A brand could first start with getting a good image of who their consumer is on their Instagram by creating an online brand persona. Instagram has, as already mentioned, various functions in which a brand could connect with their customer (Lee, 2019). For example, *Instagram story* could be used to ask the consumer questions about him/herself, for example *Do you like sports?* Or *What are your plans for the week (end)?* Once the brand identifies the consumer, the brand can look for an influencer or celebrity who best fits this consumer and therefore has the highest chance of convincing the consumer to purchase their product.

5.4. Research limitations

This research had some limitations. First, the choice of a utilitarian product as Colgate toothpaste may be the reason why the relationship between influencer marketing and purchase intention was not found, as this Colgate product is a low involvement product and these products often reflect routine purchases and therefore require limited thinking by the consumer (Wang et al., 2019). While high involvement products require well-informed decision making by the consumer.

Second, in this research the distinction was made by the institution from which the influencer or celebrity gained their popularity. However, it would be better to create a better distinction between influencer and celebrity, for example, by how active a certain person is on Instagram measured by how many personal messages that person posts on Instagram. For example, an influencer being an individual who often promotes products on their Instagram profile and has a personal relationship with his/her followers.

Third, for the construct *brand credibility* the explained variance of the factor was below 60%. For this construct the existing scale by Erdem and Swait (2004) was used, however as some items were deemed similar to other items in the same scale, these were excluded from the questionnaire. Additionally, one of the items *This brand does not pretend to be something it is not* (.514) had a quite low factor loading which may explain the low explained variance of this construct. This was not anticipated beforehand; however, it was an existing scale which was largely quoted by other researchers.

Fourth, most missing values were found on the ranking questions in the pilot survey. The researcher did not anticipate if the respondent answered to not knowing a certain influencer or celebrity in previous questions, he/she would also not be able to rank order these influencers. To improve in the future it could be helpful to add an option "*I don't know this influencer*" or "*I don't know this celebrity*" to decrease missing values, as some respondents in the current pilot questionnaire have filled in the ranking questions without paying close attention, because they indicated in the previous survey questions to not know certain influencers and/or celebrities.

Fifth, the representativeness of this survey. This survey was distributed on, among other things, a survey exchange platform for students. This led to the majority of respondents being students (83%), this made it difficult to make statements regarding representativeness of this sample. Therefore, the representation of the general population could be improved.

5.5. Future research

Various ideas for future research can be developed. First, the same study can be executed using a hedonic product and high involvement product (for example fashion clothing) instead of a utilitarian, low involvement product such as toothpaste, to research if a direct and mediation effect can be found between influencer marketing and purchase intention.

Second, a different distinction between influencer and celebrity (such as suggested above) could be made to how this influences the relationship with purchase intention.

Third, personality traits of consumer or brand personality can be included as a mediator, as this influences the level of social identification and this strongly influences the purchase intention. As personality or brand personality are difficult concepts to measure, a good measurement scale should be found, for example the brand personality model by Aaker or the Big Five Personality Traits.

Fourth, the significant items of the general questions asked *I know the influencer/celebrity on the picture* together with items such as *I follow influencer/celebrity*

on Instagram, I follow a lot of people on Instagram, I follow a lot of influencers/celebrities on Instagram and I am aware of the most famous influencers/celebrities could all be combined in one factor, for example familiarity with Instagram. This could serve as an IV or control variable in future analyze studying the relationship between influencer marketing and purchase intention.

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7. APPENDIX

APPENDIX 7.1|Measures key concepts

Table 1 Measurement items of social identification

Construct	Item
Ingroup Ties	I have a lot in common with other followers of influencer X or celebrity X
Ingroup Ties*	I have a lot in common with influencer X or celebrity X
Ingroup Ties	I feel strongly connected to other followers of influencer X or celebrity X
Ingroup Ties*	I feel strongly connected to influencer X or celebrity X
Ingroup Ties*	My personality really fits with influencer X or celebrity X
Ingroup Ties	In a group of followers of influencer X or celebrity X I really feel that I belong
Centrality	In general, being a follower of influencer X or celebrity X is an important part of my self-image
*	Influencer X or celebrity X reflects who I am
Centrality	In my everyday life, I often think about what it means to be a follower of influencer X or celebrity X
Ingroup Affect	In general, I am glad to be a follower of influencer X or celebrity X

*relating to individual level

(Cameron, 2004)

Table 2 Measurement items of brand credibility

Construct	Item
-----------	------

Expertise	This brand reminds me of someone who is competent and knows what he/she is doing
Trustworthiness	This brand delivers what it promises
Trustworthiness	This brand's product claims are believable
Trustworthiness	This brand has built a name you can trust
Trustworthiness	This brand does not pretend to be something it is not

(Erdem & Swait, 2004)

Table 3 Measurement items of purchase intention

Construct	Item
Purchase intention	It is very likely that I will buy the product/service
Purchase intention	I will purchase the product/service next time I need the product/service
Purchase intention	I will try the product/service
Purchase intention	I will recommend the product/service to my friends

(Kizgin et al., 2018)

APPENDIX 7.2|Pilot Survey

Pilot Survey Which influencer do you know?

Start of Block: Default Question Block

Q1 What is your gender?

☐ Male (1)

☐ Female (2)

Q2 How old are you?

☐ <18 years old (1)

☐ 18-24 years old (2)

☐ 25-30 years old (3)

☐ 30-40 years old (4)

☐ >40 years old (5)

Q3 How many time do you spent on Instagram?

- ☐ <10 hours a week (1)
 - ☐ 10-30 hours a week (2)
 - ☐ 31-50 hours a week (3)
 - ☐ 51-70 hours a week (4)
 - ☐ >71 hours a week (5)
-

In the following questions you will see images taken from Instagram profiles of celebrities or influencers. You will first see a picture that you can watch and then on the next slide, please answer a question about the picture. Please answer honestly, there are no right or wrong answers.

Vanessa Anne Hudgens



OR

Meredith Foster



OR

Nochtli



OR

Nikki Bella



OR

Isadee Jansen



OR

Carolien Spoor



OR

Ellen Hoog



OR

Sisi Bolatini



OR

Demi Burnett



41.356 vind-ik-leuks
demi_not_lovato Teeth whitener – but make it classy. A

OR

Nikki Phillippi



3.162 vind-ik-leuks
nikkiphillippi You all know by now that I love trying new

OR

Candice King



OR

Stefanie Giesinger



OR

Mike Johnson



OR

Brent Rivera



OR

Alex Wassabi



OR

Michael Phelps



OR

Soufyan



OR

Shaun T. Fitness



OR

Chelsea Crockett and Nick Hurst



OR

Gregg Sulkin



Do you know the celebrity / influencer on the picture you just saw?

- ☐ Definitely yes (1)
 - ☐ Probably yes (2)
 - ☐ Might or might not (3)
 - ☐ Probably not (4)
 - ☐ Definitely not (5)
-

In the following questions you will be asked to compare the influencers and celebrities. First, you will be asked to rank them individually and then to link them to which you find most similar. Please answer honestly, there are no right or wrong answers.

Q48 Rank these female celebrities from most to least popular by placing the number 1 next to the most popular, 2 next to the second-most popular, etc.

- _____ Vanessa Hudgens (1)
 - _____ Stefanie Giesinger (2)
 - _____ Nikki Bella (3)
 - _____ Carolien Spoor (4)
 - _____ Ellen Hoog (5)
 - _____ Demi Burnett (6)
 - _____ Candice King (7)
-

Q49 Rank these female influencers from least to most popular by placing number 1 next to the most popular, 2 next to the second-most popular, etc.

- _____ Meredith Foster (1)
 - _____ Nochtli (2)
 - _____ Isadee Jansen (3)
 - _____ Sisibolatini (4)
 - _____ Nikki Philippi (5)
 - _____ Chelsea Crockett (6)
-

Q50 Rank these male celebrities from least to most popular, by placing number 1 next to the most popular, 2 next to the second-most popular, etc.

- _____ Mike Johnson (1)
 - _____ Soufyan (2)
 - _____ Michael Phelps (3)
 - _____ Gregg Sulkin (4)
-

Q51 Rank these male influencers from least to most popular, by placing number 1 next to the most popular, 2 next to the second-most popular, etc.

- _____ Nick Hurst (1)
 - _____ Alex Wassabi (2)
 - _____ Brent Rivera (3)
 - _____ Shaun T. Fitness (4)
-

Q53 Which female celebrity best fits this female influencer? Click on the box you find most fitting.

	Meredith Foster (1)	Nochtli (2)	Isadee Janssen (3)	Sisibolatini (4)	Nikki Philippi (7)	Chelsea Crockett (8)
Vanessa Hudgens (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stefanie Giesinger (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carolien Spoor (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nikki Bella (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ellen Hoog (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demi Burnett (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candice King (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q54 Which male celebrity best fits this male influencer? Click on the box you find most fitting.

	Nick Hurst (1)	Alex Wassabi (2)	Brent Rivera (4)	Shaunt T. Fitness (5)
Mike Johnson (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soufyan (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Michael Phelps (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gregg Sulkin (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Default Question Block

APPENDIX 7.3| Data analysis tables pilot survey

Table 1 Pre-selection influencers and celebrities pilot survey

Name	Type	Gender	Age	Country	Instagram	Number of followers
Nochtli	Influencer	Female	28	Dutch (Persian descent)	https://www.instagram.com/nochtli/?hl=nl	1,1M
Meredith Foster	Influencer	Female	24	American	https://www.instagram.com/meredithfoster/?hl=nl	1,9M
Isadee Jansen	Influencer	Female	21	Dutch	https://www.instagram.com/isadeejansen/?hl=nl	109K
Sisi Bolatini	Influencer	Female	UNKNOWN	Dutch (Moroccan descent)	https://www.instagram.com/sisibolatini/?hl=nl	214K
Nikki Phillipi	Influencer	Female	33	American	https://www.instagram.com/nikkiphillippi/?hl=nl	469K
Chelsea Crockett	Influencer	Female	22	American	https://www.instagram.com/chelseakayhurst/	500K
Vanessa Hudgens	Celebrity	Female	31	American (Filipino native &	https://www.instagram.com/vanessahudgens/?hl=nl	38,8M

				American descent)		
Nikki Bella (Nicole Garcia)	Celebrity	Female	36	American	https://www.instagram.com/thenikkibella/?hl=nl	9,3M
Carolien Spoor	Celebrity	Female	32	Dutch	https://www.instagram.com/carolienspoor/?hl=nl	98,2K
Ellen Hoog	Celebrity	Female	34	Dutch	https://www.instagram.com/ellen_hoog/?hl=nl	201K
Demi Burnett	Celebrity	Female	25	American	https://www.instagram.com/demi_not_lovato/?hl=nl	1,3M
Candice King	Celebrity	Female	33	American	https://www.instagram.com/candiceking/?hl=nl	7,4M
Stefanie Giesinger	Celebrity	Female	23	German	https://www.instagram.com/stefaniegiesinger/?hl=nl	3,8M
Mike Johnson	Celebrity	Male	32	American (African American descent)	https://www.instagram.com/mikejohnson1/?hl=nl	646K
Michael Phelps	Celebrity	Male	34	American	https://www.instagram.com/	3,3M

					m_phelps00/?hl=nl	
Soufyan	Celebrity	Male	21	Dutch (Moroccan descent)	https://www.instagram.com/soufyangnini/?hl=nl	42,5K
Gregg Sulkin	Celebrity	Male	28	British	https://www.instagram.com/greggsulkin/?hl=nl	4,7M
Brent Rivera	Influencer	Male	22	American	https://www.instagram.com/brentrivera/?hl=nl	19,6M
Alex Wassabi	Influencer	Male	30	American	https://www.instagram.com/alexwassabi/?hl=nl	3,5M
Shaunt	Influencer	Male	42	American (African American descent)	https://www.instagram.com/shaunt/?hl=nl	1,1M
Nick Hurst	Influencer	Male	22	American	https://www.instagram.com/officialnickh/	21,2K

Table 2 Definitive selection influencers and celebrities pilot survey_

Name	Type	Gender	Age	Country	Instagram	Number of followers
Vanessa Hudgens	Celebrity	Female	31	American (Filipino)	https://www.instagram.com/vanessahudgens/	38,8M

				& native American n descent)	m/vanessahudgens/?hl=nl	
Michael Phelps	Celebrity	Male	34	American	https://www.instagram.com/m_phelps00/?hl=nl	3,3M
Nochtli	Influencer	Female	28	Dutch (Persian descent)	https://www.instagram.com/nochtlii/?hl=nl	1,1M
Jelle Derckx (growthinkers)	Influencer	Male	36	Dutch	https://www.instagram.com/growthinkers/	15,5K

Table 3 Descriptive statistics pilot survey

Table 1 Descriptive statistics pilot survey		
	N	%
Sample size	31	100
User language		
English	9	29.0
Dutch	22	71.0
Gender		
Male	13	41.9
Female	18	58.1
Age		
18-24 years old	22	71.0

25-30 years old	9	29.0
<i>Time spent</i>		
<10 hours a week	12	38.7
10-30 hours a week	17	54.8
31-50 hours a week	2	6.5

APPENDIX 7.4 QUESTIONNAIRE

Participants were exposed to one of the four versions: Nochtli (influencer female), Jelle Derckx (influencer male), Vanessa Anne Hudgens (celebrity female) or Michael Phelps (celebrity male). All versions contained the same questions.

Influencer Marketing

Start of Block: Welcome questions

Beste deelnemer aan dit onderzoek,

Allereerst wil ik u bedanken dat u ervoor heeft gekozen om aan dit onderzoek deel te nemen. Dit onderzoek is onderdeel van mijn Master scriptie op de Radboud Universiteit Nijmegen over influencer marketing. U krijgt verschillende Instagram posts te zien en hierover mag u vragen beantwoorden. Bekijkt u de foto's goed voordat u de vragen invult en wees eerlijk in het beantwoorden van de vragen. Geen antwoord is goed of fout. Al uw antwoorden zullen anoniem verwerkt worden en dus op geen enkele manier naar u herleidbaar zijn. Aangezien u vrijwillig deelneemt, bent vrij om op elk moment de vragenlijst te verlaten. In het geval dat u vragen, opmerkingen heeft m.b.t. deze vragenlijst kunt u een mail sturen naar: m.jones@student.ru.nl. De vragenlijst zal ongeveer 15 minuten in beslag nemen.

Nogmaals, bedankt voor de deelname! Voor de Instagram, vraag ik u eerst om nog wat algemene informatie in te vullen.

Geeft u toestemming voor het gebruik van uw data met het oog op dit onderzoek?

☐ Ja (1)

☐ Nee (2)

Start of Block: Vanessa Anne Hudgens

Je krijgt nu een Instagram foto te zien afkomstig van het Instagram profiel van een bekendheid OR influencer.

Nochtli (female influencer)



OR

Vanessa Anne Hudgens (female celebrity)



OR

Michael Phelps (male celebrity)



OR

Jelle Derckx



Bekijk de foto goed en beantwoord daarna de vragen.

In de Instagram foto's werden producten van het merk Colgate gepromoot. De volgende vragen zullen over het merk Colgate gaan. Klik op het bolletje dat uw mening het best weerspiegelt.

Colgate laat mij denken aan een iemand die competent is en weet wat hij/zij doet.

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Colgate doet wat het belooft

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

De productclaims van Colgate zijn geloofwaardig

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Colgate heeft een naam opgebouwd waarop je kan vertrouwen

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Colgate doet niet alsof het iets is wat het niet is.

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

De volgende vragen gaan over de mate waarmee u zichzelf identificeert met de bekendheid/
influencer die u zag op de Instagram foto's.

Ik heb veel gemeen met Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Ik heb veel gemeen met andere volgers van Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Ik voel mij sterk verbonden met Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Ik voel mij sterk verbonden met andere Instagram volgers van Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Mijn persoonlijkheid past echt bij Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (68)
- ☐ Mee eens (69)
- ☐ Beetje mee eens (70)
- ☐ Neutraal (71)
- ☐ Beetje mee oneens (72)
- ☐ Mee oneens (73)
- ☐ Zeker mee oneens (74)

In de groep van volgers van Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx heb ik echt het gevoel dat ik thuishoor

- ☐ Zeker mee eens (22)
- ☐ Mee eens (23)
- ☐ Beetje mee eens (24)
- ☐ Neutraal (25)
- ☐ Beetje mee oneens (26)
- ☐ Mee oneens (27)
- ☐ Zeker mee oneens (28)

Over het algemeen is een volger van Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx zijn een belangrijk deel van mijn zelfbeeld

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx
weerspiegelt wie ik ben

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Over het algemeen ben ik blij dat ik een volger ben van Nochtli / Vanessa Anne Hudgens / Michael Phelps / Jelle Derckx

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

In de Instagram posts die u hebt gezien werden foto's getoond van een bekendheid/ influencer die een Colgate product aanpreekt. De volgende vragen zullen gaan over hoe dit uw gedrag beïnvloedt als consument. Lees de vragen goed en antwoord eerlijk. Geen antwoord is goed of fout.

Na het zien van de Instagram post is het zeer waarschijnlijk dat ik het Colgate product zal kopen

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Na het zien van de Instagram post zal ik het Colgate product de volgende keer kopen als ik het nodig heb

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Na het zien van de Instagram post zal ik het Colgate product proberen

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Na het zien van de Instagram post zal ik het Colgate product aanbevelen aan mijn vrienden

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Tot afsluiting van deze vragenlijst zullen jouw nog wat algemene vragen over de foto's worden gesteld.

Hebt u de Instagram posts al eerder gezien (voor de enquête)?

☐ Ja (23)

☐ Nee (24)

De foto's in de vragenlijst waren duidelijk te zien.

☐ Zeker mee eens (1)

☐ Mee eens (2)

☐ Beetje mee eens (3)

☐ Neutraal (4)

☐ Beetje mee oneens (5)

☐ Mee oneens (6)

☐ Zeker mee oneens (7)

Het Colgate product was duidelijk in beeld

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Ik kende de celebrity/ influencer op de foto

- ☐ Ja (1)
 - ☐ Nee (2)
-

Ik volg de celebrity/ influencer op de foto

- ☐ Ja (1)
 - ☐ Nee (2)
-

Ik volg veel mensen op Instagram

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Ik volg veel celebrities/ influencers op Instagram

- ☐ Zeker mee eens (1)
- ☐ Mee eens (2)
- ☐ Beetje mee eens (3)
- ☐ Neutraal (4)
- ☐ Beetje mee oneens (5)
- ☐ Mee oneens (6)
- ☐ Zeker mee oneens (7)

Ik ben echt op de hoogte van wie de populairste celebrities/ influencers zijn

- ☐ Zeker mee eens (1)
 - ☐ Mee eens (2)
 - ☐ Beetje mee eens (3)
 - ☐ Neutraal (4)
 - ☐ Beetje mee oneens (5)
 - ☐ Mee oneens (6)
 - ☐ Zeker mee oneens (7)
-

Ik gebruik Colgate producten

- ☐ Altijd (1)
 - ☐ Meestal (2)
 - ☐ About half of the time (3)
 - ☐ Soms (4)
 - ☐ Nooit (5)
-

APPENDIX 7.5| Descriptive statistics control variables

Table 1 Descriptive statistics control variables

Table 1 Descriptive statistics control variables		
	N	%
<i>Sample size</i>	107	100
<i>Age</i>		
18-21	17	15.9
22-25	74	69.2
26+	16	15.0
<i>Gender</i>		
Male	31	29.0
Female	76	71.0
<i>Income</i>		
€0-1499	86	80.4
> €1500	12	11.2
I prefer not to answer	9	8.4
<i>Education</i>		
Vocational education (High school + MBO)	27	25.2
HBO (applied sciences)	25	23.4
University (Bachelor, Master, Doctorate)	55	51.4
<i>Employment status</i>		
Unemployed	8	7.5
Student	89	83.2

Employed, (Full-time, Part-time, flexible contract, entrepreneur)	10	9.3
<i>Country of origin</i>		
Netherlands	98	91.6
Other than Netherlands (North-Europe, Eastern Europe, Africa, South America, Belgium, Antilles)	9	8.4
	M (SD)	Min - Max
<i>Age</i>	23.47 (2.24)	18 - 31
<i>Gender</i>	1.71 (.46)	1 - 2
<i>Income</i>	2.56 (1.77)	1 - 7
<i>Education</i>	4.18 (1.32)	1-7
<i>Employment status</i>	2.14 (.81)	1 - 7
<i>Country of origin</i>	1.33 (1.38)	1 - 9

APPENDIX 7.6| Permission Colgate

Permission Colgate Netherlands

Colgate-Palmolive Ref:178586627A



global_consumer_affairs_team@colpal.com <global_consumer_affairs_team@col
23-3-2020 17:00



Aan: marleondiasjones@outlook.com

:marleondiasjones@outlook.com
Consumentenservice<
Gratis Nummer 00-800-321-321-32<

Betreft: uw email

Geachte Mevrouw Jones,

Wij danken u voor het indienen van uw vraag. Tevens waarderen wij de interesse die u toont voor ons bedrijf en onze producten. Met plezier zullen wij u verder helpen.

Wij hopen dat u begrijpt dat wij wekelijks een groot aantal aanvragen ontvangen van studenten die naar gedetailleerde informatie over verschillende producten vragen. Helaas, kunnen wij niet aan ieder van hen de gewenste informatie bezorgen.

De informatie die u online kunt vinden via onze website of social media kanalen, zijn beschikbaar voor gebruik van persoonlijke doeleinden. Uw project lijkt ons uiterst interessant en daarom wensen wij u alvast veel succes toe.

Wij danken u voor de tijd die u genomen heeft om ons te contacteren. Wij hopen dat deze informatie u van dienst kan zijn.

Met vriendelijke groet,
Colgate-Palmolive Nederland B.V.

APPENDIX 7.7| Project plan

Table 1 Project plan

Week	Task	Deadline
University-set deadlines Personal deadlines		
13	Finish Research Proposal	Hand-in Research Proposal
14	Distribute Pilot Survey	
15	Make questionnaire + send to thesis supervisor to check Process feedback research proposal	Summarize results pilot survey 10 April: Feedback Research Proposal
16	Distribute questionnaire	Finalize questionnaire
17	Distribute questionnaire	

18	Analyses in SPSS	
19	Analyses in SPSS + start writing Chapter 4	SPSS analyses done
20	Write Chapter 4 + Begin Chapter 5	Chapter 4 finish writing
21	Write Chapter 5	
22	WRITING (filling gaps)	Chapter 4 & 5 finish writing
23	WRITING (filling gaps) + Final check-up	
24	Process last feedback supervisor + final check	Hand-in Master Thesis to supervisor. Date tba.
25		June 15: Hand-in Master Thesis

APPENDIX 7.8| SPSS OUTPUT PILOT SURVEY

VANESSAANNEHUDGENS-CELEBRITYFEMALE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely yes	29	93,5	93,5	93,5
	Probably yes	1	3,2	3,2	96,8
	Probably not	1	3,2	3,2	100,0
	Total	31	100,0	100,0	

MICHAELPHELPS-CELEBRITYMALE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely yes	16	51,6	51,6	51,6
	Probably yes	5	16,1	16,1	67,7
	Might or might not	1	3,2	3,2	71,0
	Probably not	1	3,2	3,2	74,2
	Definitely not	8	25,8	25,8	100,0
	Total	31	100,0	100,0	

NOCHTLI-INFLUENCER-FEMALE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely yes	14	45,2	45,2	45,2
	Probably yes	1	3,2	3,2	48,4
	Might or might not	3	9,7	9,7	58,1
	Definitely not	13	41,9	41,9	100,0
	Total	31	100,0	100,0	

APPENDIX 7.9| SPSS OUTPUT DATA ANALYSIS QUESTIONNAIRE

Table 1 Normal distribution parameters of the scales

Factor	Skewness	Kurtosis
Brand credibility	1.35	-0.07
Social identification	-3.39	-0.39
Purchase intention	-2.08	-1.27

Table 2: Factor analysis results for brand credibility

Item	Factor loading
This brand reminds me of someone who is competent and knows what he/she is doing	.653
This brand delivers what it promises	.850
This brand's product claims are believable	.845
This brand has built a name you can trust	.838
This brand does not pretend to be something it is not	.514
KMO	.813
Bartlett's test of sphericity	< .001
Cronbach's alpha	.783
Eigen value	2.829
Explained variance	56.576%
Mean	3.486
Standard deviation	.998

Table 3: Factor analysis results of social identification

Item	Factor loading
I have a lot in common with influencer X or celebrity X	.805
I have a lot in common with other followers of influencer X or celebrity X	.822
I feel strongly connected with influencer X or celebrity X	.904
I feel strongly connected with other followers of influencer X or celebrity X	.813
My personality really fits with influencer X or celebrity X	.808
In a group of followers of influencer X or celebrity X I really feel that I belong	.879
In general, being a follower of influencer X or celebrity X is an important part of my self-image	.807
Influencer X or celebrity X reflects who I am	.843
In general, I am glad to be a follower of influencer X or celebrity X	.761
KMO	.912
Bartlett's test of sphericity	< .001
Cronbach's alpha	.942
Eigen value	6.171
Explained variance	68.563%
Mean	5.631
Standard deviation	1.154

Table 4: Factor analysis results of purchase intention

Item	Factor loading
-------------	-----------------------

It is very likely that I will buy the product/service	.916
I will purchase the product/service next time I need the product/service	.899
I will try the product/service	.882
I will recommend the product/service to my friends	.789
KMO	.827
Bartlett's test of sphericity	< .001
Cronbach's alpha	.894
Eigen value	3.049
Explained variance	76.220%
Mean	5.215
Standard deviation	1.225

Appendix 7.10| Factor analysis results of familiarity with Instagram

Table 1 Cross tabulations

	N INFLUENCER	N CELEBRITY	Pearson Square	Chi-
Did you see the Instagram posts before filling in this questionnaire?	90.7% (not)	96.2% (not)	.262	
The pictures in the questionnaire were clearly visible	80% (agree)	75% (agree)	.230	
The Colgate product was clearly visible	56.4% (agree)	28.8% (agree)	.043	
I know the influencer on the	20% (yes)	67.3% (yes)	< .001	

picture/ I know the celebrity on the picture *			
I follow the influencer on the picture/ I follow the celebrity on the picture *	98.1% (no)	98% (no)	.956
I follow a lot of people on Instagram *	29.1% (agree)	25% (agree)	.853
I follow a lot of influencers on Instagram/ I follow a lot of celebrities on Instagram *	21.8% (agree)	15.4% (agree)	.353
I am aware of the most famous influencers/ I am aware of the most famous celebrities *	34.5% (agree)	50% (agree)	.269
I use Colgate products	21.8% (often)	21.2% (often)	.997

Table 2 Matrix of factor loadings

Item	Factor 1	Factor 2	Loading after extraction
I know the influencer on the picture/ I know the celebrity on the picture	.209	.778	.762 (factor 1)

I follow the influencer on the picture/ I follow the celebrity on the picture	.203	.617	.762 (factor 1)
I follow a lot of people on Instagram	.808	-.390	.843 (factor 2)
I follow a lot of influencers on Instagram/ I follow a lot of celebrities on Instagram	.897	-.174	.909 (factor 2)
I am aware of the most famous influencers/ I am aware of the most famous celebrities	.752	.245	.719 (factor 2)
Eigen value		2.108	
Explained variance		42.157%	
KMO		.580	
Bartlett's test		< .001	

Appendix 7.11| Randomization tests

Table 1 Gender

			1,00 Influencer	2,00 Celebrity	Total
GENDER	1 Male	Count	15	16	31
Met welk geslacht identificeer je jezelf		% within GENDER Met welk geslacht identificeer je jezelf?	48.4%	51.6%	100.0%

		% within Role	27.3%	30.8%	29.0%
GENDER Met welk geslacht identificeer je jezelf	2 Female	Count	40	36	76
		% within GENDER Met welk geslacht identificeer je jezelf?	52.6%	47.4%	100.0%
		% within Role	72.7%	69.2%	71.0%
Total		Count	55	52	107
		% within GENDER Met welk geslacht identificeer je jezelf?	51.4%	48.6%	100.0%
		% within Role	100.0%	100.0%	100.0%
Pearson Chi-Square	.159	P-value	.690		

Table 2 Age

			1.00 Influencer	2.00 Celebrity	Total
--	--	--	--------------------	-------------------	-------

AGEX Age with three groups	1 18-21	Count % within Role	8 14.5%	9 17.3%	17 15.9%
	2 22-25	Count % within Role	40 72.7%	34 65.4%	74 69.2%
	3 26+	Count % within Role	7 12.7%	9 17.3%	16 15.0%
Total		Count % within Role	55 100.0%	52 100.0%	107 100.0%

Table 3 Income

			1.00 Influencer	2.00 Celebrity	Total
INCOMEX Income with 2 groups	1 0-1499	Count % within INCOMEX Income with 2 groups % within Role	44 51.2% 86.3%	42 48.8% 89.4%	86 100.0% 87.8%
	2 >1500	Count % within INCOMEX Income with 2 groups	7 58.3% 13.7%	5 41.7% 10.6%	12 100.0% 12.2%

		% within Role			
Total		Count	51	47	98
		% within INCOMEX Income with 2 groups	52.0%	48.0%	100.0%
		% within Role	100.0%	100.0%	100.0%
Pearson Chi-Square	.217	P-value	.641	Fisher's Exact Test	.762

Table 4 Education

			1.00 Influencer	2.00 Celebrity	Total
EDUCATION with three groups	1 Vocational education	Count	14	13	27
		% within EDUCATION with three groups	51.9%	48.1	100.0%
		% within Role	25.5%	25.0%	25.2%
	2 HBO (college)	Count	10	15	25
		% within EDUCATION with three groups	40.0%	60.0%	100.0%

		%within Role	18.2%	28.8%	23.4%
	3 University (Bachelor, Master)	Count	31	24	55
		%within EDUCATION with three groups	56.4%	43.6%	100.0%
		%within Role	56.4%	46.2%	51.4%
Total		Count	55	52	107
		%within EDUCATION with three groups	51.4%	48.6%	100.0%
		%within Role	100.0%	100.0%	100.0%
Pearson Chi-Square	1.845	P-value	.397		

Table 5 Employment status

			1.00 Influencer	2.00 Celebrity	Total
EMPLOYMENT STATUS	1 Unemployed	Count %within Role	5 9.1%	3 5.8%	8 7.5%
	2 Student	Count	44 80.0%	45 86.5%	89 83.2%

		%within role			
	3 Employed	Count % within role	6 10.9%	4 7.7%	10 9.3%
Total		Count % within role	55 100.0%	52 100.0%	107 100.0%
Pearson Chi-Square	.828	P-value	.661		

Table 6 Country of origin

			1.00 Influencer	2.00 Celebrity	Total
COUNTRY of origin	1 Netherlands	Count % within Role	53 96.4%	45 86.5%	98 91.6%
	2 Other than the Netherlands	Count % within Role	2 3.6%	7 13.5%	9 8.4%
Total		Count % within Role	55 100.0%	52 100.0%	107 100.0%
Pearson Chi-Square	3.349	Fisher's Exact Test	.087	P-value	.067

APPENDIX 7.12 OUTPUT DATA ANALYSIS

Table 1 ANCOVA hypothesis 1

Dependent variable: <i>Purchase intention</i>					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected model	40.461	14	2.890	2.240	.012
Intercept	29.257	1	29.257	22.672	< .001
Influencer role	.118	1	.118	.092	.763
GENDER	2.606	1	2.606	2.019	.159
INCOME	2.177	1	2.177	1.687	.197
HBOAPPLIEDSCIENCE	2.057	1	2.057	1.594	.210
UNIVERSITY	.448	1	.448	.347	.557
AGE2	1.940	1	1.940	1.503	.223
AGE3	1.084	1	1.084	.840	.362
Familiarity	.242	1	.242	.188	.666
Activeuser	23.105	1	23.105	17.904	< .001
Role_gender	2.503	1	2.503	1.940	.167
Role_gender * GENDER	.114	1	.114	.088	.767
R Squared: .254, Adjusted R Square: .141					

Table 2 ANCOVA Hypothesis 2

Dependent variable: <i>Brand credibility</i>					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected model	3.641	14	.260	1.038	.424
Intercept	2.194	1	2.194	8.757	.004
Influencer role	.461	1	.461	1.840	.178
GENDER	.255	1	.255	1.019	.315
INCOME	.068	1	.068	.270	.604
HBOAPPLIEDSCIENCE	.001	1	.001	.003	.959
UNIVERSITY	.025	1	.025	.099	.753
AGE2	1.591	1	1.591	6.350	.013
AGE3	1.050	1	1.050	4.192	.043
Familiarity	.184	1	.184	.736	.393
Activeuser	.014	1	.014	.057	.812
Role_gender	.466	1	.466	1.861	.176
Role_gender * GENDER	.015	1	.015	.060	.807
R Squared: .136; Adjusted R Squared: .005					

Figure 1 Profile plot significant covariant age on brand credibility (AGE3)



Figure 2 Profile plot significant covariant age on brand credibility (AGE2)

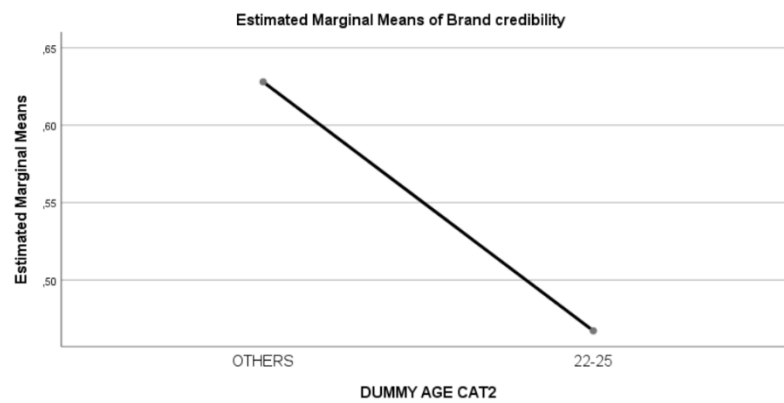


Table 3 ANCOVA OUTPUT Hypothesis 3

Dependent variables: <i>Purchase intention</i>					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected model	58.136	22	2.643	2.197	.006
Intercept	15.469	1	15.469	12.860	.001
BRAND_CREDIBILITY	6.808	1	6.808	5.660	.020

GENDER	3.189	1	3.189	2.651	.170
INCOME	1.115	1	1.115	.927	.338
AGE2	.586	1	.586	.487	.487
AGE3	.181	1	.181	.150	.699
HBOAPPLIEDSCIENCE	1.816	1	1.816	1.510	.223
UNIVERSITY	.509	1	.509	.423	.517
Familiarity	.142	1	.142	.118	.732
Activeuser	18.753	1	18.753	15.590	< .001
Role_gender	1.551	1	1.551	1.290	.259
Role_gender * GENDER	.000	1	.000	.000	.990
R Squared: .365, Adjusted R Square: .199					

Figure 3 Plot brand credibility on purchase intention



Table 4 ANCOVA Hypothesis 4

Dependent variable: <i>Social identification</i>					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected model	3.571	14	.255	1.015	.446
Intercept	.091	1	.091	.361	.550
Influencer role	.555	1	.555	2.208	.141
GENDER	.524	1	.524	2.087	.152
INCOME	.807	1	.807	3.211	.076
AGE2	.072	1	.072	.287	.593
AGE3	.003	1	.003	.011	.915
HBOAPPLIEDSCIENCE	.002	1	.002	.008	.928
UNIVERSITY	.010	1	.010	.040	.841
Familiarity	1.087	1	1.087	4.327	.040
Activeuser	.011	1	.011	.042	.838
Role_gender	.213	1	.213	.847	.360
Role_gender * GENDER	.000	1	.000	.002	.968
R Squared: .134, Adjusted R Square: .002					

Figure 4 Plot role on social identification

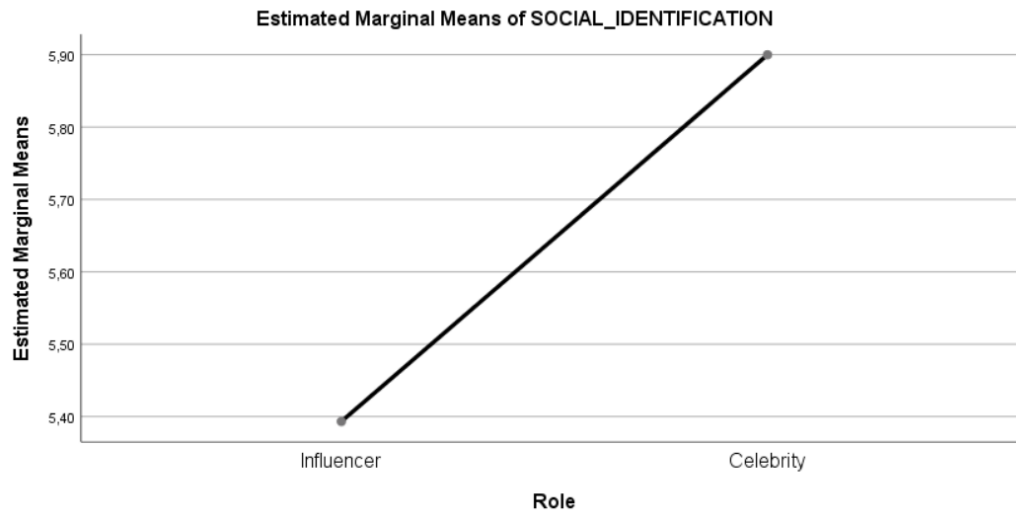


Table 5 ANCOVA OUTPUT Hypothesis 5

Dependent variable: <i>Purchase intention</i>					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected model	56.563	14	4.040	3.622	< .001
Intercept	51.999	1	51.999	46.619	< .001
SOCIAL_IDENTIFICATION	10.965	1	10.965	9.830	.002
GENDER	5.249	1	5.249	4.706	.033
INCOME	4.911	1	4.911	4.403	.039
AGE2	.867	1	.867	.778	.380
AGE3	.747	1	.747	.670	.415
HBOAPPLIEDSCIENCE	2.281	1	2.281	2.045	.156
UNIVERSITY	.612	1	.612	.549	.461

Familiarity	3.827	1	3.827	3.431	.067
Activeuser	25.446	1	25.446	22.813	< .001
Role_gender	1.699	1	1.699	1.523	.220
Role_gender * GENDER	.066	1	.066	.060	.808
R Squared: .355, Adjusted R Square: .257					

Figure 5 Plot social identification on purchase intention

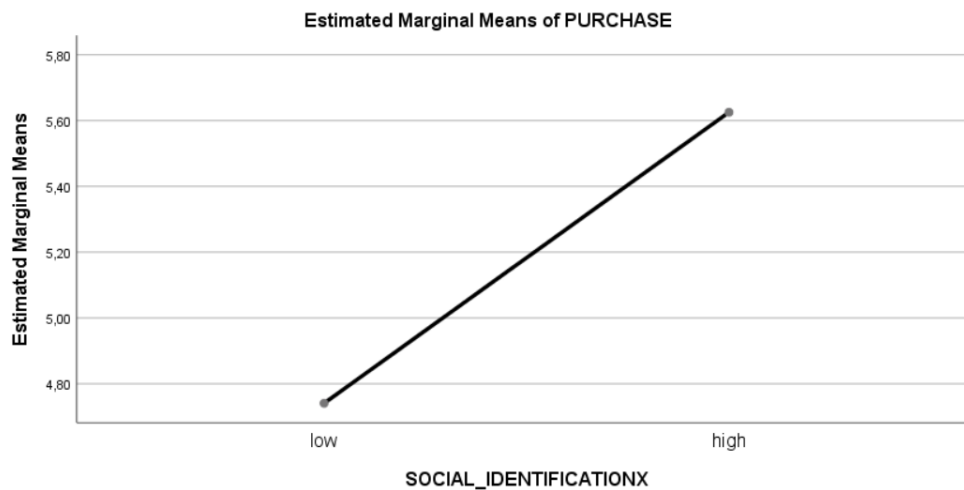


Figure 6 Plot gender on purchase intention

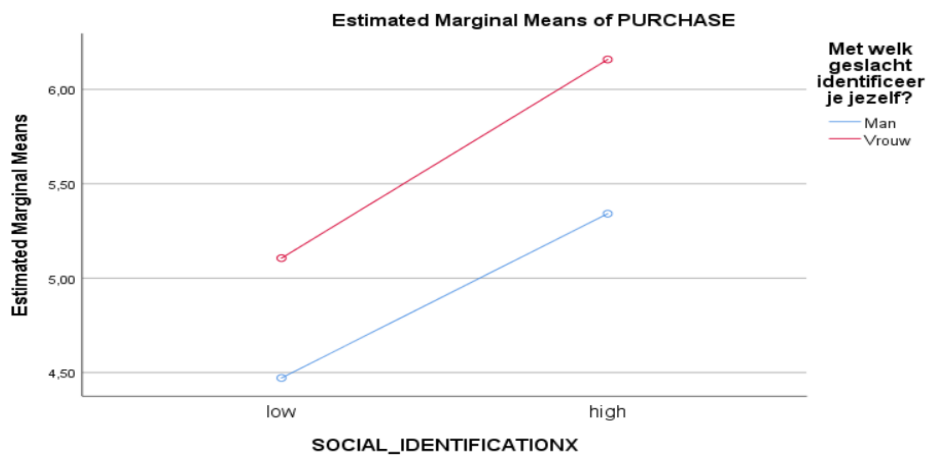


Figure 7 Plot income on purchase intention

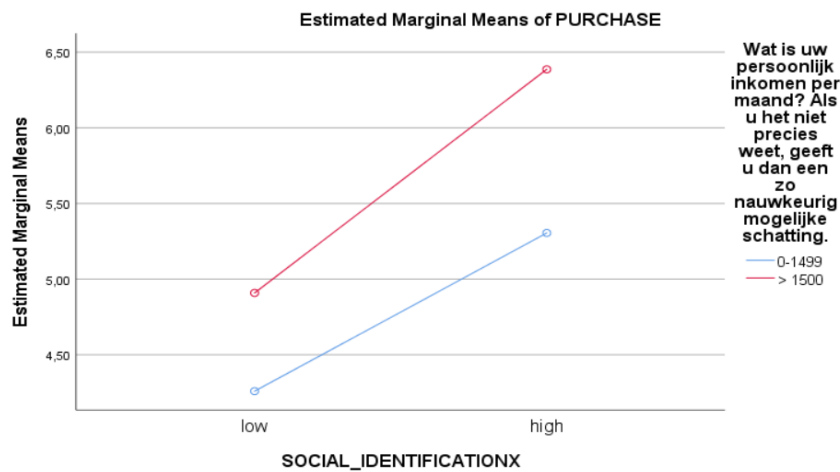


Table 6 ANCOVA OUTPUT Hypothesis 6

Dependent variable:					
<i>Social identification</i>					
Source	Type III Sum of Squares	df.	Mean Square	F	Sig.
Corrected model	29.013	14	2.072	1.636	.086
Intercept	33.287	1	33.287	26.285	< .001
BRAND_CREDIBILITY	11.563	1	11.563	9.131	.003
GENDER	1.858	1	1.858	1.467	.229
INCOME	.038	1	.038	.030	.862
AGE2	1.707	1	1.707	1.348	.249
AGE3	1.041	1	1.041	.822	.367
HBOAPPLIEDSCIENCE	1.249	1	1.249	.987	.323
UNIVERSITY	2.607	1	2.607	2.058	.155
Familiarity	.170	1	.170	.134	.715
Activeuser	5.076	1	5.076	4.008	.049
Role_gender	.140	1	.140	.110	.741

Role_gender * GENDER	7.134	1	7.134	5.633	.020
R Squared: .216, Adjusted R Square: .084					

Figure 8 Plot brand credibility on social identification

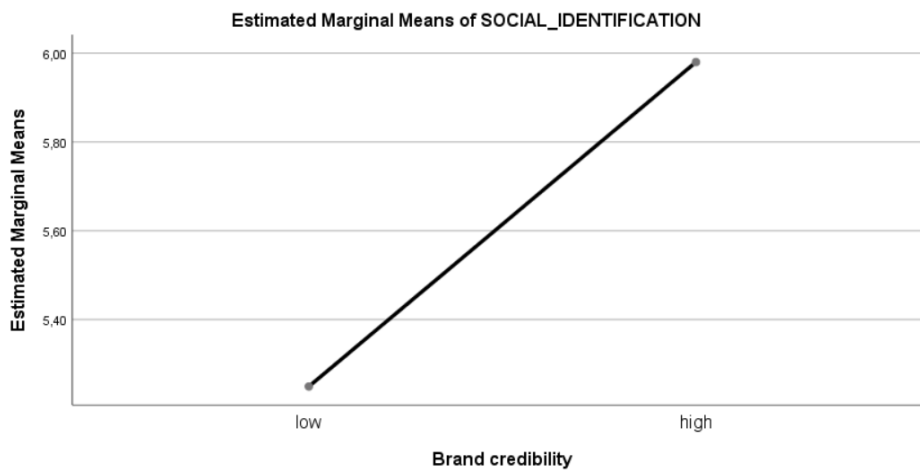


Figure 9 Plot interaction role_gender * GENDER on social identification/ Male

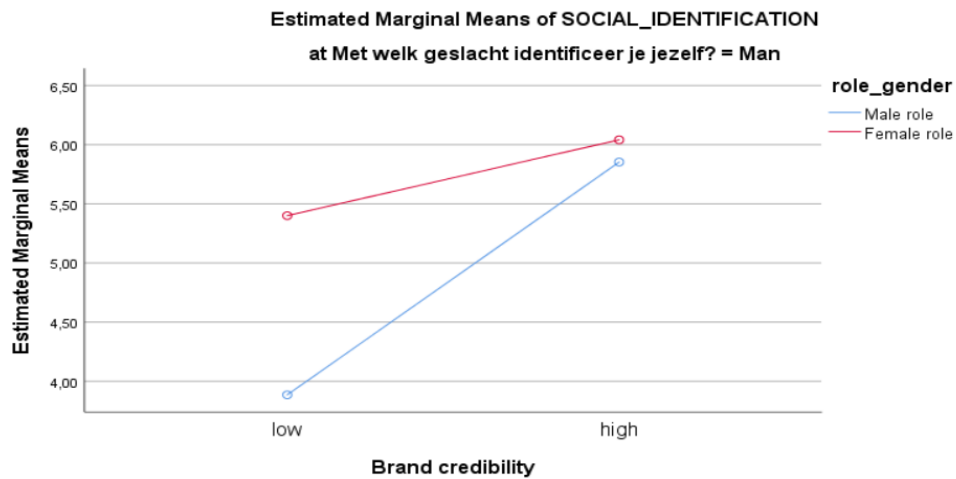
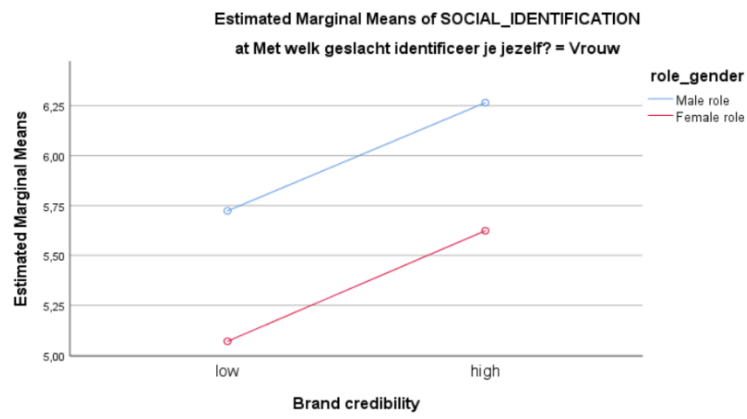


Figure 10 Plot interaction rôle_gender * GENDER on social identification/ Female



Research Integrity Form - Master thesis

Name: Marleon Dias Jones	Student number: S4747747
RU e-mail address: m.jones@student.ru.nl	Master specialisation: Marketing

Thesis title: The effects of paid Instagram posts on purchase intention through social identification and brand credibility
Brief description of the study: This study investigated the relationship of influencer marketing on Instagram on purchase intention and the mediating role of brand credibility and social identification.

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

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

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

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

Student's Signature: _____ Date: 11-8-2020



To be signed by supervisor

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

Supervisor's Signature: _____ Date: 12-8-2020

