



BACHELOR THESIS

# UNDERAGE AND UNDER INFLUENCE

A quantitative study on the effects of online alcohol mentioning on Instagram by influencers on the consumer responses of underage children

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# Abstract

## *Objectives*

This research aims to find out whether influencers posting pictures containing alcoholic drinks on their Instagram account have an effect on the purchase intention and alcohol consumption of underage children. Underage children seem to drink alcohol sooner and sooner in life and influencers keep mentioning alcoholic drinks in their posts on Instagram. Alcohol can cause serious damage, short-term and long-term. Therefore, alcohol consumption at a young age can be dangerous.

## *Method*

A  $2 \times 2$  between-subjects experimental design (influencer vs. no influencer; Bacardi vs. Moët & Chandon) was conducted in order to find an answer to the research question. 146 sixteen- and seventeen-year-olds participated in this study. Next to answering general questions about alcohol- and Instagram-use, the participants were confronted with an Instagram post, containing an alcoholic drink, by either the company from the brand itself, or an influencer holding and mentioning the drink. After that, the participants were asked to indicate their agreement on statements measuring 'consumption' and 'purchase intention'.

## *Results*

The results among the answer to the research question were not significant. This research did show that the use of alcohol and Instagram does have a positive effect on the interest in the alcoholic drinks portrayed. Most of the participants indicated that they are confronted with posts on social media containing alcohol on a very regular basis.

## *Conclusions*

Participants who had more experience with alcohol and Instagram, were more likely to consume or purchase the drink they were confronted with. Why there were no significant results among the research question, could be because of the limitation of having a small sample. Also, children who do not have experience in drinking alcohol, participated in this study. This could have influenced the results as well, as they are naturally less interested in the drink, even when an influencer is showing it.

## **Key words:**

influencers – alcohol – purchase intention – consumption – underage children – Instagram.

# Table of Contents

Abstract .....	2
Table of Contents .....	3
1. Introduction .....	5
1.1 DRINKING AMONG YOUTH .....	5
1.2 INFLUENCERS .....	6
1.3 RESEARCH QUESTION .....	6
1.4 OUTLINE .....	6
2. Theoretical framework .....	8
2.1 THE USE OF SOCIAL MEDIA AMONG YOUTH .....	8
2.2 SOCIAL MEDIA MARKETING .....	9
2.3 INFLUENCERS INFLUENCING .....	9
2.4 UNDERAGE CHILDREN AND ALCOHOL .....	11
2.5 ALCOHOL MARKETING ON SOCIAL MEDIA .....	12
2.6 THEORIES .....	13
2.7 THIS RESEARCH .....	15
3. Method and instrument .....	18
3.1 A QUANTITATIVE STUDY .....	18
3.2 RESEARCH DESIGN .....	18
3.3 THE PROCEDURE .....	20
3.4 THE INSTRUMENT .....	20
3.5 THE PRE-TEST .....	22
3.6 CORRELATION AND RELIABILITY .....	22
3.7 THE PARTICIPANTS .....	24
4. Analyses and results .....	26
4.1 GENERAL FINDINGS AND ANSWERS CONCERNING THE MODERATORS .....	26

4.2 EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON CONSUMPTION .....	28
4.3 EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON PURCHASE INTENTION.....	29
4.4 THE EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON WILLINGNESS TO PAY .....	29
4.5 THE EFFECTS OF MODERATORS ON CONSUMPTION AND PURCHASE INTENTION .....	30
4.6 OVERVIEW OF THE RESULTS OF THE TESTED HYPOTHESES.....	33
5. Discussion.....	35
5.1 SUMMARY OF THE RESULTS .....	35
5.2 REFLECTION ON THEORETICAL IMPLICATIONS.....	36
5.3 REFLECTION ON METHODS AND INSTRUMENTS .....	37
5.4 LIMITATIONS.....	37
5.5 FUTURE RESEARCH .....	38
6. Conclusion.....	40
7. Reference list.....	41
8. Appendices.....	46
APPENDIX A – First words from researcher in questionnaire .....	46
APPENDIX B – The questionnaire in English.....	47
APPENDIX C – The questionnaire in Dutch .....	53
APPENDIX D – Literature log.....	59

# 1. Introduction

## 1.1 DRINKING AMONG YOUTH

It is known that the consumption of alcohol has a negative effect on brain development, especially for younger people. According to Ewing, Sakhardande and Blakemore (2014), the alcohol-using youth shows a more diminished task-relevant activation, and a larger task-irrelevant activation. Additionally, according to the same study, greater alcohol use was related to a lower brain volume in several regions. Adding to that, especially during adolescence, the negative effects alcohol has on brain development are evolved (Silveri, 2012). Therefore, it is more advantageously when young people start drinking as late as possible.

Regarding alcohol problems, there are short-term issues and longer-term issues (McCreanor et al., 2013). Short-term damage includes accidents, violence, alcohol poisoning, etcetera. The longer-term issues include more health problems: heart, liver and brain damage are very common. But also, diseases like cancer, diabetes and dementia can be caused by the excessive use of alcohol. Additionally, and importantly, one can become addicted to alcohol. Furthermore, it is known that younger people are more likely to develop an alcohol dependence if they start drinking early in life (Hingson & Zha, 2009; as cited in Hendrik, Wilmsen, van Dalen, & Gebhardt, 2020). They are also more likely to suffer from severe accidents. Although there are a lot of negative effects of alcohol known, a lot of people still regularly drink it. McClure, Stoolmiller, Tanski, Engels and Sargent (2013) say that in their research, many participants agreed with statements like “alcohol is relaxing” and that alcohol made them looser and less worried.

In 2014, the minimum age for drinking alcohol in the Netherlands was increased to eighteen years old. Nowadays, many children that did not yet reach the age of eighteen, are familiar with the taste of alcohol. It is therefore not a surprise that in the Netherlands, more than half of the adolescents drank their first alcoholic drink when they were fourteen or fifteen years old (Hendriks et al., 2020). Also, binge drinking, the consumption of an excessive amount of alcohol (approximately five glasses) in a short period of time, is no longer an unknown subject for underage children. They are engaging in it sooner and sooner in life. Half of the Dutch sixteen-year olds have been, at least once in their lives, involved in binge drinking. From the children who drink alcohol with the age of seventeen or younger, more than half of them receives alcoholic drinks from their friends or from their parents (Trimbos Instituut, n.d.).

## 1.2 INFLUENCERS

Although many people know that alcohol brings a lot of negative effects, influencers still share alcohol-related posts, even though they are followed by many youngsters. Influencers gain popularity through their presence on social networking sites. They achieve fame through online media, by posting photos and videos on sites like YouTube, Facebook and Instagram (Forbes, 2016, p. 79). Influencers allow audiences to step into their personal lives, and thereby they collect more and more followers. Influencers are popular because they are seen as more 'real': they are living normal lives, and this results in their audiences feeling more related to the influencers. Considering this, influencers are often viewed as peers and therefore, they can serve as an example for young kids. Since young kids are impressionable, they might get the wrong idea when they are being confronted with an alcohol-related Instagram post by their favourite influencer. Influencers have a lot of responsibilities in what their (underage) followers are seeing on their timelines.

## 1.3 RESEARCH QUESTION

Previous studies about the subjects alcohol and Instagram mostly explored the number of posts containing alcoholic drinks, but not necessarily the effect on the purchase intention and the consumption of underage children. As explained before, considering health problems and the problems in brain development, it is safe to say that alcohol consumption at a young age can be dangerous. Therefore, the World Health Organization – WHO (2018) advises to “keep children alcohol free and delay the onset of drinking”. But with the risk of underage children being exposed to alcohol advertisement and influencers showing off their drinks, will it be possible to do so?

All in all, in this thesis, the effects of online alcohol mentioning in posts by influencers on the alcohol consumption and purchase intention of underage users of Instagram will be investigated. Therefore, the following research question will be analysed:

*What are the effects of online alcohol mentioning in posts on Instagram by influencers on the purchase intention and alcohol consumption of underage children?*

## 1.4 OUTLINE

To provide an answer to the research question, a theoretical framework will be established to provide information about the most important theories and elements of this research. Several concepts will be

explained within this section and the hypotheses will be stated. Based on these findings, a manner for data collection will be described and the research will be conducted, which can be found in the section 'methods and instruments'. After that, the results will be analysed and discussed. Furthermore, limitations of the research are discussed and suggestions for further research are given. Finally, a conclusion is drawn in an attempt to answer the research question.

## 2. Theoretical framework

In this section, information from prior studies are organized in order to provide relevant material for the current research. First, the use of social media among youth will be analysed. Secondly, social media marketing will be explained and the most frequently used methods will be elaborated on, as well as Instagram marketing. Furthermore, influencers and their work will be explained. Alcohol use and alcohol marketing on social media will be focused on after that. Then, several theories relevant to this research will be discussed. And finally, the hypotheses will be stated.

### 2.1 THE USE OF SOCIAL MEDIA AMONG YOUTH

With the use of social media being more normalized for underage children, they also get confronted with advertisement on these media more regularly. Anderson and Jiang (2018) indicate that young people spend a lot of their time online: 95% of teenagers own a smartphone or have access to one and almost 50% of them says to be online almost every minute. With the access to a smartphone, teens have the ability to download social media platforms like Instagram, Facebook and Twitter and make a personal account. For these social media platforms, there is no set age limit and everyone can access it.

It is clear that social media platforms are popular. Instagram is one of the most popular social media platforms nowadays (Influencer MarketHub, 2019). The free photo-sharing application Instagram was founded by Kevin Systrom and Mike Krieger in 2010 (Ha, 2015; as cited in Chen, 2018). On their personal accounts, people can share their photos and videos with their followers. Instagram is designed mostly for mobile use, but is also accessible via the internet on a laptop or computer. On April 9, 2012, Facebook purchased Instagram for one billion dollars. Instagram has recently been estimated to be worth 100 billion dollars (Reiff, 2019).

Influencer MarketingHub (2019) says that the popularity of Instagram has grown phenomenally over the last few years. It was the fastest growing social network in 2019. Van der Veer, Boeke and Hoekstra (2020) confirm in the 'Nationaal Social Media Onderzoek 2020' that Instagram is very popular among the youth. In fact, it is the most used social media platform after WhatsApp and YouTube right now. While in 2019, in the Netherlands, 4.9 million people used Instagram, in 2020 this has grown to 5.6 million. This is an increase of 14%. In 2020, within the group of young people from fifteen to nineteen years old, a percentage of 82 is using Instagram. This same group spends more than two hours on social media per day. Not only did the number of users increase for Instagram, it is also used more often by people.



## 2.2 SOCIAL MEDIA MARKETING

Social media is not only used for sharing pictures and updates of your life, but it can be used for marketing as well. Because of the use of the internet and online social media, consumers' consumption habits have been changed (Albors, Ramos, & Hervas, 2008; as cited in Alves, Fernandes, & Raposo, 2016). They changed because consumers have been provided with new ways of buying goods and services and new ways of choosing, assessing and looking for them. Technologies improve, and this results in people engaging more to mobile devices and social media (Huey & Yazdanifard, 2014). These developments are influencing the way marketers are operating and they affect marketing strategies.

Social media marketing is becoming more and more visible. Companies make use of social media marketing, because today, social networking is said to be an important part of our lives. "Social media marketing is a type of internet marketing that uses social networking websites as marketing tools" (Rouse, 2011; as cited in Chen, 2018). It is about the delivery of brand-related content that consumers will share with their friends and followers, which will result in the extension of the reach of the message. Alves et al. (2016) state in their literature review that most studies approach social media marketing as a network of the marketing concept practiced to social media.

Opinions on social media marketing are very divergent. Some consumers may perceive brands as unwanted guests in their interactive space, while other users expect brands to participate in social media and find it unnatural if they do not participate (Felix, Rauschnabel, & Hinsch, 2017). Some users even purposely mention the brand. Because Instagram uses a lot of visual content, that can be accessed through a mobile device, the use of the application is increasing and attractive to use for marketing (Virtanen, Björk, & Sjöström, 2017). In result, companies can easily showcase their products. Moreover, Instagram is considered to be a suitable choice for raising a feeling of engagement by customers. This makes Instagram an attractive place to let companies promote their products. Huey and Yazdanifard (2014) confirm in their study that Instagram is practicing a "visual based strategy", where everything evolves around photographs and videos. This makes Instagram marketing a very effective way to advertise products, "as it is said that a picture speaks a thousand words".

## 2.3 INFLUENCERS INFLUENCING

### 2.3.1 DIFFERENT KIND OF INFLUENCERS

As explained in the introduction, influencers play a big part in what the youth gets to see on their timeline on Instagram. Nowadays, influencers are regularly asked to promote products. They often

receive free products and they have to promote these with a nice picture and text. Sometimes, also a discount code is added and free for all their followers to apply. Anyone could be or could become a social influencer. However, influential influencers should often have a certain number of followers: users with a minimum of 5.000 to 20.000 followers are considered micro- influencers (Agrawal, 2019). Influencers with 20.000 to 100.000 followers are mid-tier influencers; macro influencers are the influencers with 100.000 to 1.000.000 followers. And finally, there are mega influencers, who have more than one million followers. According to this same article, one can already be a “nano influencer” with (only) 1.000 to 5.000 followers. Also, these influencers are approached often, because 48% of the marketers believe that the audience relationship is one of the most valuable factors when considering a collaboration with an influencer (Influencer MarketingHub, 2019).

As for companies that use influencers to promote their products, any influencer who can reach a certain amount of people is interesting to reach out to. Although Instagram influencers with a high number of followers are considered more likeable and popular (De Veirman, Cauberghe, & Hudders, 2017), the nano influencer that promotes a product can also lead to new customers for the company. These nano influencers may be perceived as trustworthy by their followers, because often the majority of their followers are their friends and they know them in real life.

### *2.3.2 INFLUENCERS SOCIALIZING WITH PRODUCTS*

Previous studies on Instagram marketing had their focus on the diplomatic use of Instagram which companies have in particular social groups or a specific industry (Ginsberg, 2015). In her study, Ginsberg found out that the five leading food brand accounts on Instagram all promoted their products by showcasing them in appealing ways. However, when people were included in the photos, they brought over a more inclusive and inviting feeling. This highlights the theme of socializing and encourages consumers to purchase products of the specific brand. When people socialize with the products, it is perceived as more attractive. Because of the social setting, people think that the food brings them the same joy as the people in the photo appear to have. As for alcohol-related posts, this could have the same effect. Drinking alcohol is also often seen as a social phenomenon, which people do with friends. Influencers can make a picture of them and their friends, drinking an ice-cold beer, and making it look like they are having the best time ever, mainly because the beer tastes incredible. Their followers will believe this and may be tempted to purchase that beer, to also have a good time.

Biaudet (2017) describes in her research that in 2013 65% of the companies use influencer-based marketing. In this report, it is stated that using bloggers for influencer marketing is a common and effective tool. It should be recognized that this was the case in 2013. Nowadays, influencer-based

marketing is used by even more companies. Considering the fact that people portrayed on Instagram pictures result in a more inclusive and inviting feeling and encourage consumers to purchase the product, the following hypotheses are proposed:

*H1: Participants will indicate a higher purchase intention when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).*

*H2: Participants will state that they are more likely to consume the drink on the picture when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).*

## **2.4 UNDERAGE CHILDREN AND ALCOHOL**

Continuing on what was written in the introduction regarding the alcohol use of underage children, that half of the Dutch sixteen-year olds have engaged in binge drinking at least once in their lives, it can be concluded that a major problem is addressed in this research. The legal age to start drinking in the Netherlands is eighteen, so there are many children that drink illegally. To make the problem more critical, it can be concluded that with the rise of Instagram, influencers, and social media marketing, underage children will be more and more confronted with alcohol-related posts. Subsequently, because social media influencers are perceived as peers, and are aspired by young people, alcohol exposure can affect young people's drinking behaviour. This is confirmed by the study of Willoh (2020). Young people often share images that portray drinking and they tell their drinking stories online. Youngsters are exposed to often intensive and novel forms of alcohol marketing (McCreanor et al., 2013). And this may result in their excessive drinking behaviour at such a young age.

For this research, it is interesting to know what drinks are most popular among children. As for boys, the most popular drink, by far, is beer, followed by mixed drinks, like soda with vodka or rum (W. van Dalen, personal communication, March 6, 2020). For girls, this is wine, also followed by mixed drinks. According to Iwamoto and Smiler (2013), research has shown that adolescent boys generally use more alcohol compared to girls. Also, the closer a person is to the legal drinking age, the more likely they are to drink. Furthermore, in the 'HBSC 2017 research', it was found that the lower the level of education of a child, the more likely it is that this child drinks alcohol (STAP, 2017). Because of these findings in research, the following hypotheses are proposed:

*H3: Boys are more likely to consume or purchase the alcoholic drink on the picture (as opposed to girls).*

*H4: Participants who are seventeen years old are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who are sixteen years old).*

*H5: Participants with a lower level of education are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants with a higher level of education).*

## **2.5 ALCOHOL MARKETING ON SOCIAL MEDIA**

Social media marketing has grown to one of the most important digital marketing techniques used today (DBS Interactive, 2017). Nowadays, it is used by every type of organization and for every type of product. With on the one hand the increase of the use of social media among youngsters, and on the other hand the increase of social media marketing, this will naturally mean that youngsters are more exposed to advertisement on social media platforms, like Instagram. Consequently, since alcohol brands also use social media marketing, underage children will be confronted with posts about alcoholic drinks as well. These thoughts are supported by Hendriks et al. (2020). In their study, they found out that youths are massively exposed to influencers' alcohol posts. De Bruijn et al. (2012) confirms this with their study on the impact of European alcohol marketing exposure on youth drinking: even eight years ago, youngsters reported to be frequently exposed to online alcohol marketing. And with the constant growth of social media marketing, these numbers will only increase over the years.

Nowadays, customers – influencers in this case – can convince their peers more effectively than traditional advertising, because 92% of consumers trust product recommendations from people they know (Katona, 2013). And, as explained earlier, influencers are often seen as peers, so this makes them trustworthy and easy to relate to. Therefore, when an influencer promotes a product, their followers are likely to assume that they are telling the truth about being enthusiastic about the product. Because of this, influencers are being more and more approached by companies to promote products.

According to Hendriks et al. (2020), among the influencers in their study, the majority (63.5%) posted about alcohol recently. Most of the influencer posts showed wine (56%), beer (20%) and cocktails (14%). It can therefore be assumed, that influencers and celebrities do post about alcohol and that it is likely that users, and therefore also underage children, will be confronted with these posts.

Young people are more likely to remember it when they see alcohol marketing. Jernigan, Padon, Ross and Borzekowski (2017) investigated the youth and adult exposure to alcohol marketing in

traditional and digital media. Results of this study showed that younger people were more likely to memorize their exposure to alcohol advertisement on television, radio, billboards and internet than older people. Also, youth recalled seeing pictures of celebrities using and promoting alcohol on the internet more often. Furthermore, Stacy, Zogg and Unger (2004) investigated the effect of the exposure to alcohol commercials in youth on their drinking behaviour. In their study, they found that this exposure was associated with an increased consumption in beer and also possibly other consumption variables. So, not only do younger people recall the fact that they have been confronted with alcohol posts, it might also have consequences for their drinking behaviour. Snyder, Milici, Slater, Sun and Strizhakova (2006) also found in their study that youth who saw more alcohol advertisements were more likely to drink more. Furthermore, the youth in markets with greater alcohol advertising expenditures were found to drink more.

De Bruijn et al. (2012) found, next to the fact that exposure to online alcohol marketing resulted in more drinking for adolescents, it also has an effect on the drinking behavior of underage adolescents. McCreanor et al. (2013) emphasize that social networking systems are positive and pleasurable for young people. However, these systems are likely to contribute to pro-alcohol environments and they seem to encourage drinking. Therefore, it can be expected that children who use a lot of social media, are more likely to drink because they are often more confronted with alcohol marketing and the following hypothesis is proposed:

*H6: Participants who use Instagram more often are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who use Instagram less often).*

## 2.6 THEORIES

In their study about alcohol-related posts by Instagram influencers, Hendriks et al. (2020), describe two theories: the social learning theory and the social norms theory. Additionally, Chen (2018) described another theory: the socially oriented media theory. These theories will be explained.

### 2.6.1 SOCIAL LEARNING THEORY

The social learning theory by Bandura and Walters (1977) suggests that behaviour can be learned from looking at other people. Through direct experience or by observing the behaviour of others, new patterns of behaviour can be developed. This relates to influencers promoting products with the result that other Instagram users, confronted with these posts, are assuming that the promoted product is a

good product. When influencers are promoting an alcoholic drink, and it seems that they are having a good time while drinking it, it should be noted that young people can copy this behaviour. Although this may not be the intention of influencers posting alcohol-related photos, they should keep in mind that the behaviour can be copied by youngsters.

### *2.6.2 SOCIAL NORMS THEORY*

The second theory, the social norms theory, suggests that how individuals experience that other members of a social group behave, influences the behaviour of these individuals (Scholly, Katz, Gascoigne, & Holck, 2005). In this same article, it is said that when students perceive that the majority of their peers on campus are drinking heavily, these students will drink more as well. If students believe that alcohol use is the acceptable norm, these students are more likely to become involved in abusive use of alcohol. The social norms theory illustrates that behaviour is often dependent on the perceptions people have of how other people behave and what they accept. This theory is quite similar to the social learning theory. According to Hendriks et al. (2020), these two theories both imply that being confronted with alcohol-related posts on Instagram may lead to the perception that others are engaging in it and thus approve of it.

### *2.6.3 SOCIALLY ORIENTED MEDIA THEORY*

Finally, the socially oriented media theory is explained. The socially oriented media theory considers media in the context of other social institutions that shape our sense of reality (Uldam & Kaun, 2017). In the article of Grundström (2018), the socially oriented media theory is described with an example that someone is going to the movies on his or her own, but subsequently presents it to other people by posting it on his or her social media and sharing with their followers what they are watching. Chen (2018) describes the theory as the media that are used to help shape social life and that what goes through social media can have social consequences.

These three theories form a base for this study, as they indicate how the underage children can react to influencers posting alcohol-related posts on Instagram. These posts might have consequences on the behaviour of children, as these children believe that what their peers do, can be seen as normal behaviour.

## 2.7 THIS RESEARCH

In the present research, the answer to the question “*What are the effects of online alcohol mentioning in posts on Instagram by influencers on the purchase intention and alcohol consumption of underage children?*” will be attempted to answer. Table 1 shows a summary of the different hypotheses that will be tested in this research. It will be investigated what the difference is between consumer responses when children are confronted with alcohol mentioning in posts by influencers or alcohol marketing by the brand itself. It is expected that children will be more interested in consuming and purchasing the drink when an influencer is present in the Instagram post (H1, H2). The effects of alcohol mentioning in posts by influencers and alcohol marketing by the brand itself are measured separately. Hypothesis 3, 4, 5 and 6 were also already stated in the text previously. Hypotheses 7 and 8 are added because they are considered moderator variables.

Table 1

*Hypotheses*

Hypotheses
<b>H1:</b> Participants will indicate a higher purchase intention when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).
<b>H2:</b> Participants will state that they are more likely to consume the drink on the picture when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).
<b>H3:</b> Boys are more likely to consume or purchase the alcoholic drink on the picture (as opposed to girls).
<b>H4:</b> Participants who are seventeen years old are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who are sixteen years old).
<b>H5:</b> Participants with a lower level of education are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants with a higher level of education).
<b>H6:</b> Participants who use Instagram more often are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who use Instagram less often).
<b>H7:</b> Participants with more drinking experience are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants with less drinking experience).
<b>H8:</b> Participants who state they like the influencer they see in the picture are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who do not like the influencer).

*2.7.1 RESEARCH MODEL*

In order to gain more understanding of the variables that will be tested and the effects thereof, a research model has been developed. Figure 1 shows the relationships between the independent variables, the dependent variables and the demographics of the participants.  $M_1$ ,  $M_2$ ,  $M_3$ ,  $M_4$ ,  $M_5$  and  $M_6$  represent the moderator variables that will be taken into account and will be tested during the analysis. The main effect that will be tested is the presence of an influencer in the Instagram post on the purchase intention and consumption of underage children. As for the moderator variables, it is expected that boys will be more likely to consume or purchase alcoholic drinks than girls ( $M_1$ ). Furthermore, the differences in age ( $M_2$ ), and education level ( $M_3$ ) and the results thereof will be



explored. Next to that, participants who use a lot of Instagram ( $M_4$ ) are more often exposed to pictures with alcoholic drinks. Therefore, it is expected that these participants are more likely to be interested in consuming or purchasing the drink. When participants of this study do not use alcohol ( $M_5$ ), it may be the case that they are less likely to purchase the alcohol drink or to consume it. And finally, the familiarity with the influencer ( $M_6$ ) and whether participants like them could results in participants being more interested in the drink.

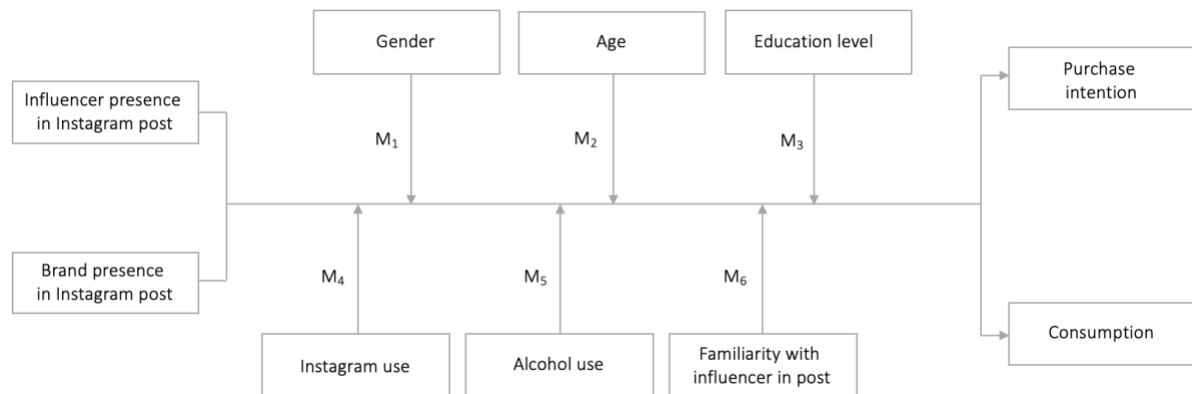


Figure 1. A model of the research design

### 3. Method and instrument

The following chapter includes the design of the method. The procedure of the research is described, as well as the instrument. The pre-test and reliability of the research are elaborated on. And finally, the demographics of the participants are portrayed.

#### 3.1 A QUANTITATIVE STUDY

In order to find out if alcohol mentioning in posts by influencers on Instagram has an effect on the consumption and purchase intention of underage children, a quantitative research design was chosen. A qualitative study could have been conducted, however, a quantitative study is more effective as it can reach more children and their opinions in the same amount of time. The benefit of having a large data sample is that the data are less influenced by bias and more explicit (Dottin, 2018). Almost all the participants in this study were Dutch. Therefore, the questionnaire is in their native language, in order to make sure that there are no misunderstandings because of language barriers.

#### 3.2 RESEARCH DESIGN

A 2 × 2 between-subjects experimental design was planned to conduct in order to test the hypotheses stated (Table 2). There is either the option of the presence of an influencer in the Instagram post, or the option of a post by the company itself, only portraying the drink. Furthermore, the Instagram post was either about the drink Moët & Chandon or about Bacardi.

Table 2

##### *Experimental conditions*

Experimental condition	Influencer presence	Type of drink
1	No	Moët & Chandon
2	No	Bacardi
3	Yes	Moët & Chandon
4	Yes	Bacardi

As mentioned before, most younger girls indicate that they are drinking wine-like drinks, and for younger boys, mixed drinks are popular. To make sure that there are options for both, the

participants were randomly assigned to a picture of the champagne 'Moët & Chandon' or a picture of the rum 'Bacardi'. Within the questionnaire, participants were confronted with only one out of the four options. On the one hand, the champagne is a more 'high class' brand, whereas the rum could be seen as a brand which younger people are interested in.

As for the pictures used without influencers (Figure 2), the posts showed a rather static photo of the bottle, without people partying or drinking the specific drink. The focus of both pictures lies with the alcoholic drink itself. Figure 3 shows the pictures that were used in the questionnaire which involved influencers. For the picture with the Bacardi, a famous rapper in the Netherlands is portrayed: Lil' Kleine. He posted the picture with Johnny de Mol (a famous Dutch actor and presenter) on his Instagram. And for the Moët & Chandon post, Koen Kardashian, a Dutch television presenter and personality, was chosen. Koen is popular among the youth, as he works for MTV Netherlands, what many young people watch

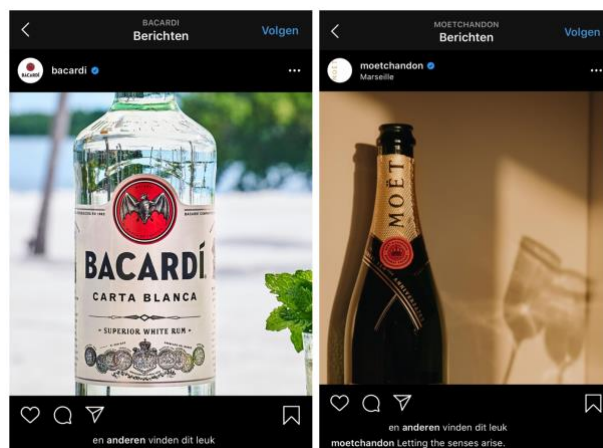


Figure 2. The marketing posts by alcohol brands



Figure 3. The alcohol posts by influencers

### 3.3 THE PROCEDURE

Before the questionnaire was made, approval for the research was given by the BMS Ethics Committee. The design of the quantitative research consisted of a questionnaire, which was made by using the Qualtrics software. This questionnaire was handed to boys and girls, with the age of sixteen and seventeen. They were approached in different ways and were asked to fill in the questionnaire truthfully and they were told that it was anonymously. Some were approached personally, some were approached via e-mail and some were approached via their parents. Most of them were sent a message containing the direct link to the survey.

Before filling in the questionnaire, the participant could read the first words of the researcher (Appendix A). He or she knew the subject was about social media and alcohol, but the exact context was still unknown. These first words also emphasized that participants may quit at any time and that their data will be treated anonymously. Also, general information about the questionnaire was provided (amount of time, number of questions, etcetera). This first page ended with an informed consent. The participants had to click on 'I agree' before they could move on with the other questions. By clicking on 'I agree', the participants stated to be sixteen years or older. The English questionnaire can be found in Appendix B. As said, for the participants, the questionnaire was translated to Dutch (Appendix C).

Because the consumption of alcohol can be a rather sensitive subject, in the end of the questionnaire, the participants were informed with the website of Tactus. Their contact page was linked, so that the participants knew where to go if they are addicted or know someone who is addicted to alcohol (or anything else). Tactus is specialized in addiction retreatment and they offer help and advice to young people and adults for any kind of addiction (Tactus, n.d.). Tactus chooses the best fitting care for every client, even though it might be remarkably difficult. Because of these reasons, Tactus was the designated organization to be mentioned in the end.

### 3.4 THE INSTRUMENT

The questionnaire consisted of three parts and had a maximum of 29 questions. The first part was to gather the demographics of the participants. The second part was used to find out what their experience is considering alcohol use and Instagram use. And the third and final part contained the actual experiment, where the participants were asked about their agreement with several statements.

In the first part, the demographic information about the participant was asked. The first question that was asked is "What is your gender?". Next, the participants were asked for their age, which country they live in, and their level of education. Apart from the country they live in, these are the demographics that are referred to as the moderators in this research model.

The second part, used to gather information about the experiences and knowledge on the subject, started with the question whether the participants use Instagram regularly or not. They indicated their answer with a 5-point Likert scale. Likert scales are used to obtain the preferences of participants or a degree of agreement with a statement (Bertram, 2007). This way, the participants were able to easily indicate how much they make use of Instagram with 1 being 'not at all', and 5 being 'very regularly'. Then the participants were asked about their familiarity with influencers and whether they follow influencers on social media. After these rather broad questions, participants were asked about their drinking behaviour and whether they drink regularly. The questions about their drinking behaviour and participation in binge drinking, and the corresponding scales for these were copied or inspired from the E-MOVO research among children (GGD Gelderland-Zuid, 2016) questionnaire.

The third part, where the actual experiment took place, was started right after. When the participants were confronted with an Instagram post with an influencer portrayed in it, they were asked to indicate how much they like this person. Participants are asked to 'grade' the person, with '1' implying that they do not like the person at all and '10' implying that they really like this person. The option 'I do not know who this person is' was included as well. This question was asked because it could have had consequences for the effect which the influencers have on the opinions of the participants. If the participant indicated that he or she does not like the person(s) in the picture, it could have been that the participant was less likely to be positive about the brand.

Then, participants were asked how much they agreed with eight statements. They had the possibility to indicate this by clicking 'Totally disagree', 'Disagree', 'Neutral', 'Agree', or 'Totally agree'. The statements were aimed to measure the 'consumption' and 'purchase intention' from the participants. A study by Mehrabian and Russell (1978) investigated alcohol consumption among their participants, and to be able to measure that, their questions included mostly 'how many glasses' or 'how often'. But because the participants in the present study were not as experienced with drinking alcohol, they were asked if they would consider trying the drink if a family member or a friend handed this drink to them. Also, if they would drink it up completely when a family member or a friend handed them the drink portrayed in the picture. These questions were used to measure the consumption. Furthermore, the statements 'This drink looks tasty' and 'This drink looks distasteful' were answered.

According to Kuo, Wu and Deng (2009), purchase intention is the tendency that consumers will purchase the goods or services from the same brand and share their experiences with family and friends. By measuring the purchase intention of the participants, the respondent's attitude toward the product can be uncovered (Hosein, 2012). The first question to measure the purchase intention, was how likely the participants were to consider buying this drink from a store. Next, they were asked if they would order this drink in a bar. These questions were again answered by the use of a 5-point Likert

scale. The final statement that was answered was the negative statement 'It is unlikely that I would buy this drink'. In order to measure the purchase intention of the participants, they were asked how much they would pay for the drink in a restaurant or bar (for only one glass).

To check if the participants paid attention to the survey, they were asked if the picture they were confronted with included people. They have to answer this question with 'yes' or 'no'. The final question was how many times they have been confronted with an alcoholic post on social media previously in their lives. This question was asked to see how easily younger people encounter alcoholic drinks on social media.

### **3.5 THE PRE-TEST**

Before the questionnaire was published and sent to potential participants, a pre-test was conducted. Three Dutch people checked the questionnaire. They were asked to fill it in and check for mistakes and see if there were misunderstandings. To make sure the questionnaire worked well on both devices and everything was displayed as it was supposed to be, the questionnaire was filled in on both a mobile device and on a laptop.

One question was misunderstood, but by changing the order, this problem was solved. At first, the question 'How often have you previously seen an alcoholic post on social media?' was asked, and the question 'Did you see people on the picture that you saw in this research?' came right after. This specific order resulted in the misunderstanding that participants could think that they are asked if there were people in the pictures they have seen in the past. By changing the order, the misunderstanding was prevented. Furthermore, some minor spelling mistakes and typos were found, which were changed within a minute. Other than that, the questionnaire had no further mistakes and was ready to be send out.

### **3.6 CORRELATION AND RELIABILITY**

#### *3.6.1 CRONBACH'S ALPHA*

As for measuring 'consumption', four questions were asked, as explained above. One of these four questions is asked in a negative way. Therefore, this construct was reverse coded. The same is done for the measuring 'purchase intention', where also one question was asked in a negative manner.

To test the consistency across the constructs 'consumption' and 'purchase intention', the Cronbach's alpha was calculated. The closer this number is to 1.0, the greater the consistency of the

items is in that scale (Gliem & Gliem, 2003). For the construct ‘consumption’, the Cronbach’s alpha was .817. This is higher than .8, so, according to Leontitsis and Pagge (2007), this score means that the answers are considered reliable. The construct ‘purchase intention’ had a Cronbach’s alpha of .869. This one is also considered a good score. Both the scores explain that there is a high internal consistency (Table 3).

Table 3

*Summary of new constructs*

Construct	Cronbach’s alpha	M (SD)	Items
Consumption	.817	14.23 (3.54)	<ol style="list-style-type: none"> <li>1. This drink looks tasty.</li> <li>2. If a family member or a friend handed me this drink, I would try it.</li> <li>3. If a family member or a friend handed me this drink, I would drink it up.</li> <li>4. This drink does not look tasty (reverse coded).</li> </ol>
Purchase intention	.869	8.55 (3.29)	<ol style="list-style-type: none"> <li>1. I would consider buying this drink in a shop.</li> <li>2. If I was at a bar and I could order this drink, I would do it.</li> <li>3. It is unlikely that I would buy this drink (reverse coded).</li> </ol>

### 3.6.2 RANDOMIZATION CHECK

For the four conditions used within this experiment (influencer vs. no influencer; Bacardi vs. Moët Chandon), a randomization check was executed. It turned out that the four pictures were considerably well divided among the different genders, ages and educational levels. Therefore, the results can be considered reliable.

## 3.7 THE PARTICIPANTS

### 3.7.1 THE SAMPLING

The participants necessary for this research were rather difficult to obtain. The target group of sixteen- and seventeen-year-olds was to be reached best if schools were included and asked to send out the questionnaire. Therefore, several people from ROC van Twente were asked to send this questionnaire to the sixteen- and seventeen-year-olds in their departments. Around 300 students were approached this way. The second way to collect participants was through connections with the parents of this specific age group. Acquaintances were asked to send the questionnaire to their children. These children were then asked to send the questionnaire to their friends, since they are mostly all the same age group.

### 3.7.2 ANALYSING

The responses on the questionnaire were collected via Qualtrics. Before this data was analysed, the data had to be imported to SPSS, the statistics program used in this study. The first step for this process was exporting the data from Qualtrics to SPSS. Afterwards, responses that could not be used (e.g., responses that were half or not filled in), were deleted.

In total, 146 responses were analysed. Because out of the 166 participants that participated in this study, some participants did not manage to complete the questionnaire, these twenty responses were deleted and excluded from the data, which left 146 useful responses.

The four options of the photos the participants answered questions about were evenly distributed. However, because some responses were deleted, these came out uneven. From the responses that were used for this research, 25.3% of participants was confronted with the Instagram post by @moetchandon, 25.3% of participants with the post by @bacardi, 26.0% of the participants saw the post by @koenkardashian and the rest (23.3%) saw the post by @lilkleine (Figures 2 and 3).

### 3.7.3 DEMOGRAPHICS OF PARTICIPANTS

Out of the 146 respondents participating in this study, 51 participants indicated to be male (34.9%) and 95 indicated to be female (65.1%) ( $SD = 0.49$ ). 48 participants were sixteen years old (32.9%), while 98 participants were seventeen years old (67.1%) ( $M = 16.67$ ,  $SD = 0.47$ ). Almost all participants live in the



Netherlands (95.9%) (SD = 0.20). Only six of the participants stated that they live somewhere else. These six participants live in Germany.

For the participants still going to high school, 8.9% of all the participants indicated that they go to vmbo, 30.1% state that they go to havo, and 25.3% goes to vwo. The rest of the participants graduated high school already. 27.4% goes to MBO (vocational education), 6.8% goes to HBO and only one person indicated to study at a university. One participant stated that she is not following any study at the moment. The complete demographic information of the participants in this research can be found in Table 4.

Table 4

*The demographics of participants*

Demographics	Options	Frequency	Percentage
Gender	Male	51	34.9
	Female	95	65.1
Age	16	48	32.9
	17	98	67.1
Residence	Netherlands	140	95.9
	Other	6	4.1
Level of education	Vmbo	13	8.9
	Havo	44	30.1
	Vwo	37	25.3
	MBO	40	27.4
	HBO	10	6.8
	WO	1	.7
	Other	1	.7

## 4. Analyses and results

### 4.1 GENERAL FINDINGS AND ANSWERS CONCERNING THE MODERATORS

#### 4.1.1 *INSTAGRAM*

##### 4.1.1.1 *INSTAGRAM USE*

Table 4 displays how often the respondents make use of Instagram. Only four respondents in this research indicated that they do not use Instagram. The participants that filled this in, explained in the following question why they do not use Instagram. The answers come down to that they do not feel like they need it. One person said that he is concerned about privacy related issues. Most of the participants (79.4%) indicate that they make use of Instagram reasonably often or very often. This is in line with the expectations and the numbers from the theoretical framework.

##### 4.1.1.2 *FAMILIARITY WITH INFLUENCERS*

Almost all respondents (95.2%) stated that they know what influencers are. Only seven of them say to not be familiar with influencers. From the 139 respondents who stated to know what influences are, 109 of them actually follow influencers on Instagram (78.4%) and 35 respondents say they have a favourite influencer (25.2%).

##### 4.1.2 *THE USE OF ALCOHOL AND BINGE DRINKING*

In order to find out if the participants have ever drunk alcohol in their lives, they were asked 'Have you ever drunk alcohol?'. The option 'Yes, a whole glass or more' was answered 134 times by the respondents. This represents 91.8% of the answers (Table 5). Five other respondents said they only had a few sips. Only seven of the participants stated that they have never drunk alcohol before. The 139 participants who did drink alcohol before, were asked about the frequency.

As can be seen in the table, many sixteen- and seventeen-year-olds drink alcohol on a regular basis. More than half of respondents (55.5%) indicate to drink alcohol more than one time a month. They were also asked about binge drinking. The final question about their alcohol use was 'How many times in the last year did you drink more than five alcoholic drinks at one occasion?'. Almost half of the participants (45.9%) stated that they have done this at least ten times in the last year.

Table 5

*Alcohol use and binge drinking*

Question	Options	Frequency	Percentage	Cumulative percent
Have you ever had an alcoholic drink?	Yes, a whole glass or more	134	91.8	91.8
	Yes, just a few sips	5	3.4	95.2
	No	7	4.8	100.0
How often do you drink alcohol?	Never	1	.7	.7
	1 time a year	3	2.1	2.9
	2 – 8 times a year	24	16.4	20.1
	1 time a month	30	20.5	41.7
	More than 1 time a month	81	55.5	100.0
	Total	139	95.2	
	Missing	7	4.8	
How many times in the last year did you drink MORE THAN FIVE alcoholic drinks at one occasion?	Never	12	8.2	8.2
	1 time	6	4.1	12.9
	2 times	13	8.9	22.3
	3 – 5 times	26	17.8	41.0
	6 – 10 times	15	10.3	51.8
	More than 10 times	67	45.9	100.0
	Total	139	95.2	
	Missing	7	4.8	

*4.1.3 BEING CONFRONTED WITH ALCOHOL POSTS ON SOCIAL MEDIA*

The question whether the participants have been confronted with posts with alcoholic drinks on social media before was asked to see how ‘normal’ it is to see posts like this nowadays. Four participants stated that they have never seen any alcohol related posts on social media before. However, the majority of the respondents (60.3%) said that they have been confronted with an alcohol post on social media more than ten times before. The rest of the answers can be seen in Table 6.

Table 6

*How many times participants saw alcohol related posts on social media*

	Frequency	Percent
Never	4	2.7
1 time before	3	2.1
2 – 3 times	18	12.3
4 – 6 times	22	15.1
7 – 10 times	11	7.5
More than 10 times	88	60.3

## 4.2 EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON CONSUMPTION

The data were analysed using a 2 (presence of influencer(s) or not) × 2 (Moët Chandon or Bacardi) design.

### 4.2.1 THE EFFECT OF INFLUENCERS

Participants of this study had four options they could be confronted with. Option one was an Instagram post with Moët Chandon, without an influencer. Option two was Bacardi without an influencer. Option three was Moët Chandon with an influencer and option four was Bacardi with influencers.

The effect of the presence of an influencer in the picture on the willingness to consume the drink was measured first. This effect was not significant ( $F(3,142) = 2.39, p = .12$ ). However, the means resulted from the data analysis are confirming the idea that the willingness to consume the drink is fuelled when an influencer is present in the Instagram post. The means indicate that participants could be more willing to try the Bacardi when it was portrayed with the influencer ( $M = 3.63, SD = .80$ ), than the Moët Chandon without the influencer ( $M = 3.59, S = .92$ ). The Moët Chandon portrayed with influencer scores highest ( $M = 3.71, SD = .78$ ). The Bacardi portrayed without influencer scores lowest on consumption ( $M = 3.30, SD = 1.00$ ).

### 4.2.2 THE EFFECT OF TYPE OF DRINK

The effect of the type of drink in the picture on the consumption of the participants was also not significant ( $F(3,142) = 1.69, p = .20$ ). However, when considering the means per picture that were

mentioned before, these results indicate that the participants were overall more interested in trying the Moët Chandon than they were in trying the Bacardi. Furthermore, the influencer holding the Bacardi could have more influence on the participants, as the means for the Bacardi are increasing more than the means for the Moët Chandon. Additionally, the interaction effect of the presence of an influencer and the type of drink on the consumption was also found not to be significant  $F(3,142) = .57$ ,  $p = .45$ ).

#### **4.3 EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON PURCHASE INTENTION**

##### *4.3.1 THE EFFECT OF INFLUENCERS*

Unfortunately, there are no significant results found for the effects the influencers had on the purchase intention of the sixteen- and seventeen-year-olds in this study ( $F(3,142) = 1.23$ ,  $p = .27$ ). However, the results indicate that the post with the influencer holding Moët Chandon, the sixteen- and seventeen-year-olds are more likely to purchase the drink ( $M = 2.87$ ,  $SD = .88$ ) than when there is no influencer present ( $M = 2.62$ ,  $SD = 1.19$ ) in the picture. Equally, the Bacardi post with influencers resulted in a higher mean for purchase intention ( $M = 3.04$ ,  $SD = 1.19$ ) than the Bacardi post without influencers ( $M = 2.88$ ,  $SD = 1.11$ ).

##### *4.3.2 THE EFFECT OF TYPE OF DRINK*

Although there are again no significant results for effect of type of drink on the purchase intention ( $F(3,142) = 1.41$ ,  $p = .24$ ), the resulting means indicate that there is a shift of interest in the two drinks. When measuring the consumption, the participants were more interested in trying or drinking the Moët Chandon, while when measuring the purchase intention, the results indicate that they were more interested in buying or ordering the Bacardi. Furthermore, the interaction effect of the presence of an influencer and the type of drink on purchase intention was also not significant  $F(3,142) = .06$ ,  $p = .80$ ). Considering this, and the other results discussed, hypothesis 1 and 2 both cannot be confirmed (Table 1).

#### **4.4 THE EFFECTS OF INFLUENCERS AND TYPE OF DRINK ON WILLINGNESS TO PAY**

In an open question, the participants were asked what they would pay for the presented drink. The amount of money mentioned, is the average of the respondents. These results were again not

significant ( $F(3,141) = .02, p = .88$ ). However, the means were calculated. For option one, the Moët Chandon without the influencer, the results indicate that participants would pay €4,14 ( $M = 4.14, SD = 2.74$ ). For the second option, the picture of the bottle of Bacardi, without influencers, participants could want to pay a little more: €4,50 ( $M = 4.50, SD = 4.04$ ). For the Moët Chandon presented by an influencer, option 3, participants indicate to be willing to pay the most, namely €4,72 ( $M = 4.72, SD = 2.86$ ). And for option four, the influencer holding a Bacardi bottle, the results indicate that the participants would pay the least: €4,07 ( $M = 4.07, SD = 2.585$ ).

## **4.5 THE EFFECTS OF MODERATORS ON CONSUMPTION AND PURCHASE INTENTION**

### *4.5.1 GENDER*

In order to be able to know if hypothesis 3, whether gender influences the results, could be confirmed or not, the means for the answers the boys and girls gave were compared. Although the results were not significant ( $F(4,141) = 1.58, p = .21$ ), the results indicate that overall boys are more likely to consume the drinks ( $M = 3.67, SD = .80$ ) than girls ( $M = 3.50, SD = .92$ ). Also, the results for purchase intention indicate that boys are more likely to consume the drink ( $M = 2.95, SD = .88$ ) than girls ( $M = 2.80, SD = 1.20$ ), but these were also not significant ( $F(4,141) = .70, p = .40$ ), so therefore hypothesis 3 is not supported.

### *4.5.2 AGE*

Hypothesis 4 can also not be confirmed. The effect of age on the answers the participants gave considering consumption, is not significant ( $F(4,141) = .84, p = .36$ ). Furthermore, the effect of age on purchase intention is also not significant ( $F(4,141) = .04, p = .85$ ).

### *4.5.3 LEVEL OF EDUCATION*

Hypothesis 5 stated that participants with a lower level of education are more likely to consume or purchase the alcoholic drinks portrayed on the pictures. This hypothesis cannot be supported. The effect of educational level on consumption is not significant ( $F(4,141) = .16, p = .69$ ). And neither was the effect of educational level on purchase intention ( $F(4,141) = .12, p = .73$ ).

#### 4.5.4 THE USE OF INSTAGRAM

The hypothesis stating that participants who use Instagram more often are more likely to consume or purchase the drink on the picture, hypothesis 6, can be confirmed. The effect of the use of Instagram on the consumption was significant ( $F(4,141) = 8.13, p < .05$ ). The more a participant uses Instagram, the more likely he or she is to be willing to consume the drink. This effect can be seen in figure 4. Likewise, the effect of Instagram-use on the purchase intention was also significant ( $F(4,141) = 4.07, p < .05$ ).

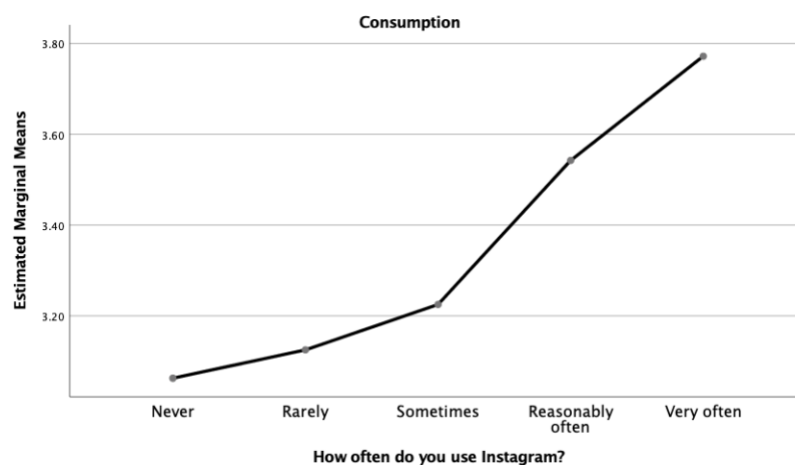


Figure 4. Moderator effect – the effect of use of Instagram on consumption

#### 4.5.5 THE USE OF ALCOHOL

##### 4.5.5.1 PARTICIPANTS WHO DRANK ALCOHOL BEFORE

Hypothesis 7, expecting that participants with more drinking experience are more likely to consume or purchase the drink, is supported as well. When the participants indicated to ever had an alcoholic drink before, they were more likely to consume the drink portrayed in the Instagram post ( $F(4,141) = 21.71, p < .05$ ). Also, their alcohol experience had an effect on purchase intention ( $F(4,141) = 9.51, p < .05$ ). This effect is shown in Figure 5. Additionally, not only 'if' participants drink, but also how often they drink showed a significant effect on consumption ( $F(4,141) = 9.73, p < .05$ ) and on the purchase intention ( $F(4,141) = 4.04, p < .05$ ), suggesting that when participants drink more often, they are more likely to consume or purchase the drinks portrayed.



Figure 5. Moderator effect – the effect of alcohol experience on purchase intention

#### 4.5.5.2 BINGE DRINKING

The effect of binge drinking had a significant effect on the consumption of the drink ( $F(4,134) = 8.77, p < .05$ ). The results thereof are shown in Figure 6. As can be seen, participants who indicated to drank more than five alcoholic drinks more than ten times in the last year, indicate to be more interested in consuming the drink. Contrary, the effect of binge drinking on the purchase intention was not significant ( $F(4,134) = 2.15, p = .145$ ).

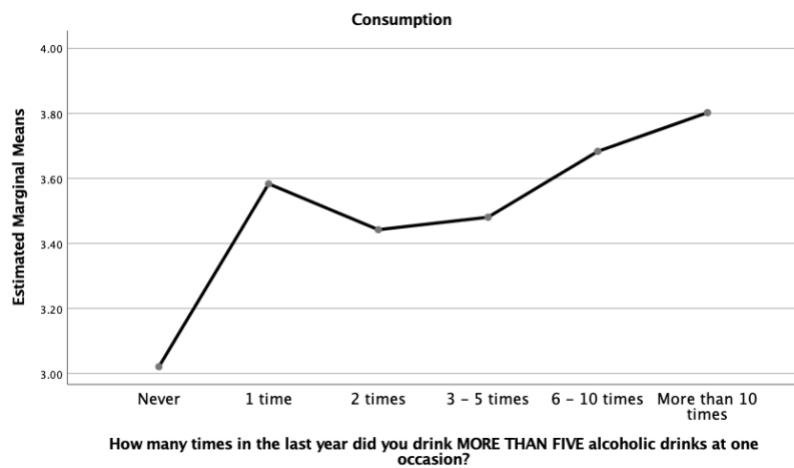


Figure 6. Moderator effect – the effect of binge drinking on consumption

#### 4.5.6 THE FAMILIARITY WITH THE INFLUENCER

Hypothesis 8 can be supported for a small part. As there were three influencers shown throughout this research, there were three different questions asking whether they like the person shown or whether



they do not like them. Expected was that when participants said they did not like the influencer, they were less likely to be willing to consume or purchase the drink. For Koen Kardashian, the influencer showing off the Moët Chandon, the results for consumption were not significant ( $F(9,28) = .57, p = .81$ ). Nor were the results for purchase intention ( $F(9,28) = .44, p = .90$ ). Furthermore, for Lil' Kleine, one of the influencers portrayed in the picture with the Bacardi, the results for consumption were also not significant ( $F(9,24) = 1.60, p = .17$ ). Also, for purchase intention there were no significant results found ( $F(9,24) = .54, p = .83$ ). Finally, the results for Johnny de Mol were analysed. The results found for consumption were significant ( $F(10,23) = 2.45, p < .05$ ). The more the participants indicated to like Johnny, the more they seemed to be interested in consuming the drink (Figure 7). For purchase intention, the results were not significant ( $F(10,23) = 1.31, p = .28$ ).



Figure 7. Moderator effect – the effect of familiarity with the influencer Johnny de Mol

#### 4.6 OVERVIEW OF THE RESULTS OF THE TESTED HYPOTHESES

Considering all the results, an overview for these is made. The results concerning the previously made hypotheses, can be found in Table 7.

Table 7

*Overview of the results of the tested hypotheses*

Hypotheses	Results
<b>H1:</b> Participants will indicate a higher purchase intention when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).	Not supported
<b>H2:</b> Participants will state that they are more likely to consume the drink on the picture when they are exposed to a post by an influencer, who mentions and shows an alcoholic drink in this post (as opposed to when they are exposed to a marketing post by an alcohol brand).	Not supported
<b>H3:</b> Boys are more likely to consume or purchase the alcoholic drink on the picture (as opposed to girls).	Not supported
<b>H4:</b> Participants who are seventeen years old are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who are sixteen years old).	Not supported
<b>H5:</b> Participants with a lower level of education are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants with a higher level of education).	Not supported
<b>H6:</b> Participants who use Instagram more often are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who use Instagram less often).	Supported
<b>H7:</b> Participants with more drinking experience are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants with less drinking experience).	Supported
<b>H8:</b> Participants who state they like the influencer they see in the picture are more likely to consume or purchase the alcoholic drink on the picture (as opposed to participants who do not like the influencer).	Partly supported

## 5. Discussion

### 5.1 SUMMARY OF THE RESULTS

The aim of this study was to find out what effect influencers mentioning alcoholic drinks in their post have on the purchase intention and alcohol consumption of children aged sixteen and seventeen. By confronting the target group with pictures of influencers with alcoholic drinks and pictures of these same alcoholic drinks posted by the companies itself, it was desired to find out which pictures resulted in more positive reactions on the drinks. The following research question was aimed to answer:

*What are the effects of online alcohol mentioning in posts on Instagram by influencers on the purchase intention and alcohol consumption of underage children?*

The effects of the presence of an influencer in the picture and the effects of type of drink on the consumption and purchase intention of sixteen- and seventeen-year-olds were found to not be significant in this study. Despite this fact, the means in the results do indicate that the participants are more interested in consuming the drink when an influencer is portrayed in the Instagram post. Overall, the means were lower for purchase intention than they were for consumption. The participants were more willing to try the drinks than to actually buy them. But again, for purchase intention, although there were no significant results, these results indicate that the pictures with influencers resulted in a higher purchase intention among the participants. Because the results were not significant, hypothesis 1 and 2 cannot be supported (Table 1). Hypothesis 3, 4 and 5 can be rejected as well, as these results were not significant either. Gender, age and level of education do not have a significant effect on the interest sixteen- and seventeen-year-olds have in the portrayed drinks.

On the other hand, hypothesis 6, expecting that the more the participants make use of Instagram will result in more interest in the drinks portrayed in the Instagram posts, is supported. The results show that the more a participant uses Instagram, the more likely they are to be willing to consume the drink. Likewise, a participant is more willing to purchase the drink. Hypothesis 7 is supported as well. Participants who have more alcohol experience showed a higher willingness to consume the drink and to actually purchase it. Participants who said they never drank alcohol before were the least likely to purchase the drink, participants who just had a few sips before were a little more likely, and the participants who stated they drank a whole glass or more were the most likely to be interested to purchase the drink. Also, when participants participated more in binge drinking in the last year had a significant effect on the consumption of the drink.

Finally, hypothesis 8 was tested and could not be supported completely, as only one of the three influencers had a significant effect on one of the two constructs. Other than the effect of how much the participants liked Johnny de Mol on the consumption of the drink, no significant effects were found.

## 5.2 REFLECTION ON THEORETICAL IMPLICATIONS

As described in the theoretical framework and introduction, most children under the legal drinking age have drunk an alcoholic drink before. These findings are supported by the results of this study. In this study, only five participants said they did not drink alcohol before. Seven of the participants stated they only had a few sips. The rest of the participant stated they drank one glass of alcohol or more before. Furthermore, almost half of the participants in this study stated that they engaged in binge drinking more than five times in the last year. This corresponds to what was found in literature and what was written in the introduction.

The moderators gender, age and level of education did not seem to result in significant effects. It is considered that this is the case because of the lack of a large sample and the wide range of level of education. Because it was desired to receive as many responses as possible, there was no opportunity to try to receive answers from the same education levels. If there were more participants with an even number of boys and girls, an even number of sixteen- and seventeen-year-olds and an equal distribution of levels of education, the results might be more reliable and accurate, and maybe even significant. This could be interesting for future research.

The two moderators Instagram use and alcohol use turned out to result in significant effects on the consumption and purchase of the drink. This was expected, because when participants are more active on social media, they are also faced with posts with alcoholic drinks more often than participants who do not use social media. Likewise, participants who have more experience in drinking alcohol, and drink alcohol more often, are more likely to be willing to try or purchase the drink, because they are already familiar with the taste.

The social norms theory and the social learning theory both suggest that when an influencer posts a picture, their followers are more likely to purchase or try that product than when the company itself posts the product. In this case, it could suggest that when children are confronted with posts containing alcoholic drinks on social media by influencers will cause the impression that others are also drinking alcohol, and that it might spark their curiosity. The results of this study do not correspond with these theories as the results were not significant. A reason for this could be because there were children who did not have experience with alcohol and/or Instagram. When someone has never been interested

in alcoholic drinks, it is less likely that they are willing to consume or purchase the drink (Bachenheimer, 2014). At the one hand, these responses could have been deleted, but at the other hand, it resulted in significant results for other hypotheses and there was no room to do so, as there was already a small number of participants.

The third theory described in the theoretical framework, the socially oriented media theory, says that media are used to help shape social life and that it might have social consequences (Chen, 2018). This could still be the case, as the social consequences include the consequences that sixteen- and seventeen-year-olds are becoming more interested in the drink when an influencer is holding it or drinking it. Because when an influencer likes the taste of the drink, the person following the influencer might think they like the taste of the drink as well. This is a theory that could be investigated further, as the 'real' effects on the children participating in this study are not investigated yet.

### **5.3 REFLECTION ON METHODS AND INSTRUMENTS**

For the present study, a questionnaire was used in the hope to be able to answer the research question. The respondents were asked to fill in their agreement with statements regarding purchase intention and consumption after being confronted with a photo of an alcoholic drink, with or without an influencer. In order to measure consumption, four questions were asked and in order to measure purchase intention three questions, and the additional question 'How much would you pay?' were asked. On closer inspection, it might be that the research would have been more interesting if more questions were asked per construct, or if even more constructs were added. For example, their overall interest in the drink could be measured. Also, when there were more children participating in this research, there might have been more significant results.

### **5.4 LIMITATIONS**

This study has a few points that could use improvement. First, because the target group was so set, only consisting of sixteen- and seventeen-year-olds, it was not the easiest to gather enough participants. There were plans made with high schools that were willing to let their students fill in the questionnaire. However, because of the corona crisis, these high schools were closed and this could no longer be done. An alternative had to be found rather quickly. This is a limitation, because the actual research took longer than expected because of this. It could have been finished earlier, since the meetings with the high schools were scheduled before the conducted research took place. The second limitation this study encountered, due to inexperience, is that there was no factor analysis used after

the results were in. This resulted in the fact that it could not be established whether the constructs were discriminating amongst each other. A factor analysis is important for the research, so for future research, it would be beneficial to determine the dimensionality of the scale (Gliem & Gliem, 2013). Thirdly, because of time pressure, the pre-test of the questionnaire was not elaborate enough. If there was to be more time left, the questionnaire would be perfect before sending out to the potential participants. Finally, after eliminating twenty responses, there were 146 useful responses left on the questionnaire used in this research. It would have been preferable if there were more participants in this research. Not only could the results have been more interesting, they would also be more reliable.

## 5.5 FUTURE RESEARCH

Within this research, and with obtaining participants to fill in the questionnaire, there was little to no attention given to the level of education. The goal was to receive as many responses from the target group as possible. For future research, it can be interesting to have an equal amount of responses from people with educational level MBO and University for example. This way, one can compare these and this may result in interesting effects, as previous studies showed that the lower the level of education, the higher the chance is of the consumption of alcohol. This comparison is also made in this study, but because there is not an equal amount of responses for every educational level, the results turned out to be not significant. For future research, one could try to find out the potential differences in purchase intention and consumption, between these two groups with different levels of education, through a questionnaire and find out the reasons behind these differences through a qualitative research, by conducting interviews or focus groups for example.

For future research, if a larger number of participants could be reached more easily, it would be more beneficial to keep the alcohol experience and Instagram use more even. This might result in less biased responses, as children who do not drink alcohol or do not like the taste, are often less interested in consuming or purchasing the drink portrayed in the picture. Likewise, when a participant does not use Instagram, it could be the case that they are less familiar with influencers and this might result in them being less interested in them, and therefore in the drink they are holding or drinking. When one excludes these responses, the results might be more reliable. Within the current study, this could not be done, as there were not enough participants to do so.

Another idea for future research that might be interesting could be with the help of virtual reality, with for example the use of eye tracking. The participants could be confronted with any kind of alcohol marketing – by influencers or by brands itself. After they are confronted with the post containing an alcoholic drink, they go to a (virtual) bar or restaurant. Their eyes are tracked in order to

find out if they are more interested in an alcoholic drink, after being confronted with a photo containing that, compared to when they were confronted with an Instagram post containing for example Coca Cola. Contrary, this could be investigated with a festival scenery or a supermarket. Or one could investigate differences across the locations.

## 6. Conclusion

Despite the fact that, because of a lack of significant results, it cannot be concluded that the presence of influencers in pictures with alcoholic drinks have an effect on the purchase intention and consumption of underage children, some other results were found. Out of the eight hypotheses mentioned in the theoretical framework, three are supported, from which one partly. It can be concluded that participants who use Instagram more often are more likely to be interested in the alcoholic drink portrayed in the Instagram post. Furthermore, participants who have more experience with the consumption of alcohol, were more likely to consume and purchase the drink in the Instagram post that was shown to them. Finally, participants who indicated they liked Johnny de Mol, were more interested in consuming the drink that was portrayed in the picture with himself. However, this was not the case with the combination of Johnny de Mol and the purchase intention of the drink. And this hypothesis was also rejected in the case with Lil' Kleine and Koen Kardashian.



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## 8. Appendices

### APPENDIX A – First words from researcher in questionnaire

Dear participant,

First of all: thank you for deciding to take your time to fill in this questionnaire! This research by Lynn Roelofs is reviewed and approved by the BMS Ethics Committee.

I want to let you know that this questionnaire is not made to test you, but I am curious about your opinion on certain posts on social media. There are no right or wrong answers. Do not think too long and pick the answer that comes to mind first.

Filling in this questionnaire will take around five minutes of your time and it will help me a lot. This survey contains about 25 questions, which are mostly multiple choice. First, your demographics are asked and after that, other questions concerning Instagram and alcohol are asked. I want to ask you to fill in this questionnaire truthfully. Your answers will be 100% anonymously. You are free to quit this study at any point in time.

If there are any questions from your side, if you want some extra information, a summary of this research, or if you have any complaints, feel free to contact me: [l.e.roelofs@student.utwente.nl](mailto:l.e.roelofs@student.utwente.nl).

By clicking on 'I agree', you state that the following applies and that you understand:

- You are sixteen years or older.
- You can quit this study at any point in time.
- The information you give, is anonymous.

## APPENDIX B – The questionnaire in English

Grey questions: questions that are not shown to everyone. Depending on the answers on previous questions, they are skipped or shown.

### 1. What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other/I would rather not say

### 2. What is your age?

- ☐ Sixteen
- ☐ Seventeen

### 3. Where do you live?

- ☐ Netherlands
- ☐ Other, namely: \_\_\_\_\_

### 4. What is your level of education?

- ☐ Vmbo
- ☐ Havo
- ☐ Vwo
- ☐ MBO
- ☐ HBO
- ☐ WO
- ☐ Other, namely: \_\_\_\_\_

### 5. How often do you use Instagram?

- | Never                 | Rarely                | Sometimes             | Reasonably Often      | Very often            |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 6. Why (not)?

\_\_\_\_\_

**7. Do you know what influencers are?**

- ☐ Yes
- ☐ No

**8. Do you follow influencers?**

- ☐ Yes
- ☐ No

**9. Do you have a favorite influencer?**

- ☐ Yes, namely: \_\_\_\_\_
- ☐ No

**10. Have you ever had an alcoholic drink?**

- ☐ Yes, a whole glass or more (Question 12 & 13)
- ☐ Yes, just a few sips (Question 12 & 13)
- ☐ No (Question 11)

**11. Why have you never drunk alcohol?**

- ☐ I am not allowed to
- ☐ I do not want to
- ☐ Another reason, namely: \_\_\_\_\_

**12. How often do you drink alcohol?**

- |                       |                       |                       |                       |                                |
|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------------|
| Never                 | 1 time a year         | 2-8 times a year      | 1 time a month        | More than<br>1 time a<br>month |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          |



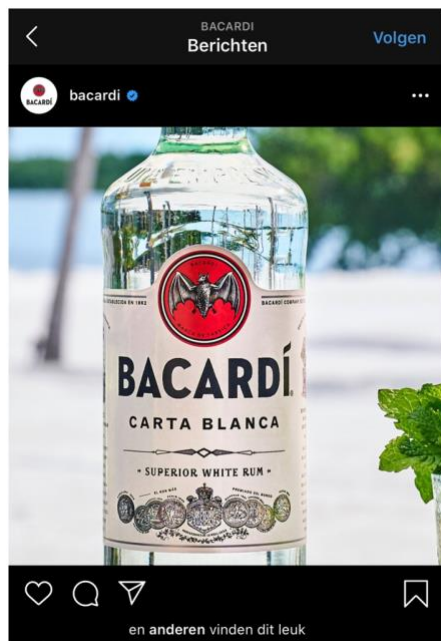
13. How many times in the last year did you drink MORE THAN FIVE alcoholic drinks at one occasion?

- ☐ Never
- ☐ 1 time
- ☐ 2 times
- ☐ 3 – 5 times
- ☐ 6-10 times
- ☐ More than 10 times

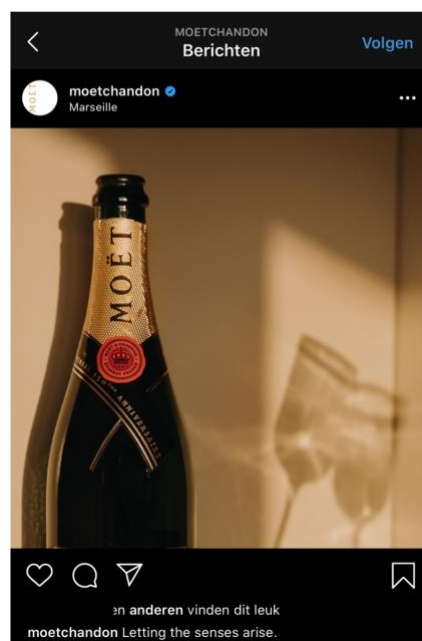
14. What is your general opinion on the consumption of alcohol?

\_\_\_\_\_

Take a moment to look at the following picture:



or





or



15. (When confronted with picture including an influencer)

(Do you like the person on the photo? Give this person a grade (1 = I do not like this person at all; 10 = I really like this person).)

- ☐ I do not know him.
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10

16. Do you know the brand in the picture?

- ☐ Yes
- ☐ No

**17. Have you ever tried this drink?**

- ☐ Yes (Question 18)
- ☐ No (Question 19)

**18. If yes, how was the taste?**

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Very gross            | A little gross        | Okay                  | A little nice         | Very nice             |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Do you agree on the following statements?**

	Totally disagree	Disagree	Neutral	Agree	Totally agree
19. This drink looks tasty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. If a family member or a friend handed me this drink, I would try it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. If a family member or a friend handed me this drink, I would drink it up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. This drink does not look tasty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I think positively about this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I would consider buying this drink in a shop.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. If I was at a bar and I could order this drink, I would do it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. It is unlikely that I would buy this drink.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**27. How much would you pay for this drink (only one glass) in a bar or restaurant (in euros)?**

\_\_\_\_\_

**28. Did you see people on the picture that you saw in this research?**

- ☐ Yes
- ☐ No

29. How often (approximately) have you previously seen an alcoholic post on social media?

- ☐ Never
- ☐ 1 time
- ☐ 2 – 3 times
- ☐ 4 – 6 times
- ☐ 7 – 10 times
- ☐ More than 10 times

30. Thank you for filling in this questionnaire. Are there other things you want to share about this subject?

- ☐ No, I am done.
- ☐ Yes: \_\_\_\_

**Final announcement**

If you suffer from alcohol addiction – or any other addiction – you can contact:

<https://www.tactus.nl/>



**Tactus**  
verslavingszorg

## APPENDIX C – The questionnaire in Dutch

Grey questions: questions that are not shown to everyone. Depending on the answers on previous questions, they are skipped or shown.

### 1. Wat is je geslacht?

- ☐ Man
- ☐ Vrouw
- ☐ Anders/Zeg ik liever niet

### 2. Hoe oud ben je?

- ☐ Zestien
- ☐ Zeventien

### 3. Waar woon je?

- ☐ Nederland
- ☐ Anders, namelijk: \_\_\_\_\_

### 4. Welk soort onderwijs volg je?

- ☐ Vmbo
- ☐ Havo
- ☐ Vwo
- ☐ MBO
- ☐ HBO
- ☐ WO
- ☐ Other, namely: \_\_\_\_\_

### 5. Hoe vaak gebruik je Instagram?

- | Nooit                 | Zelden                | Soms                  | Redelijk vaak         | Heel vaak             |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 6. Waarom (niet)?

\_\_\_\_\_

**7. Weet je wat influencers zijn?**

- ☐ Ja
- ☐ Nee

**8. Volg je influencers?**

- ☐ Ja
- ☐ Nee

**9. Heb je een favoriete influencer?**

- ☐ Ja, namelijk: \_\_\_\_\_
- ☐ Nee

**10. Heb je ooit alcohol gedronken?**

- ☐ Ja, een heel glas of meer (Question 12 & 13)
- ☐ Ja, alleen een paar slokjes (Question 12 & 13)
- ☐ Nee (Question 11)

**11. Waarom heb je nog nooit alcohol gedronken?**

- ☐ Ik mag dat niet
- ☐ Ik wil dat niet
- ☐ Andere reden, namelijk: \_\_\_\_\_

**12. Hoe vaak drink je alcohol?**

- |                       |                       |                       |                       |                              |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|
| Nooit                 | 1 x per jaar          | 2-8 x per jaar        | 1 x per maand         | Meer dan<br>1 x per<br>maand |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>        |

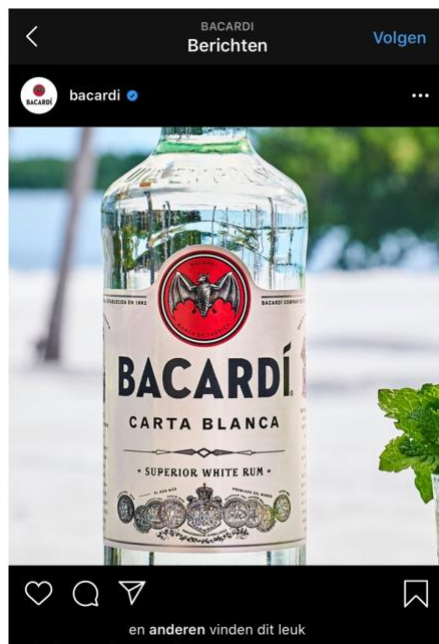
13. Hoe vaak heb je in het laatste jaar VIJF OF MEER drankjes met alcohol gedronken in één gelegenheid?

- ☐ Nooit
- ☐ 1 keer
- ☐ 2 keer
- ☐ 3 – 5 keer
- ☐ 6-10 keer
- ☐ Meer dan 10 keer

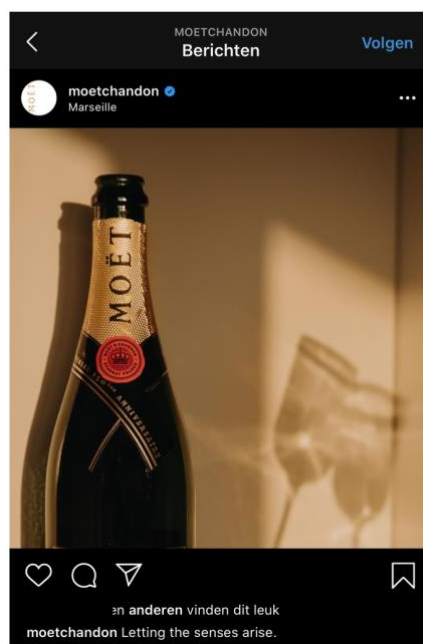
14. Wat is je algemene mening over het nuttigen van alcohol?

\_\_\_\_\_

Neem een moment om te kijken naar de volgende foto:



of





of



15. (Wanneer participant foto met influencer ziet)

Vind je de persoon op de foto leuk? Geef hem een cijfer (1 = Ik vind hem niet leuk; 10 = Ik vind hem heel leuk).

- ☐ Ik ken hem niet.
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10

16. Ken je het merk in de foto?

- ☐ Ja
- ☐ Nee



**17. Heb je dit drankje ooit geprobeerd?**

- ☐ Ja (Question 18)
- ☐ Nee (Question 19)

**18. Hoe was de smaak?**

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Heel vies             | Beetje vies           | Oké                   | Beetje lekker         | Heel lekker           |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**In hoeverre be je het eens met de volgende stellingen?**

	Helemaal mee oneens	Oneens	Neutraal	Eens	Helemaal mee eens
19. Dit drankje ziet er lekker uit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Als een familielid of een vriend mij dit drankje gaf, zou ik het proberen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Als een familielid of een vriend mij dit drankje gaf, zou ik het helemaal opdrinken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Dit drankje ziet er onsmakelijk uit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Ik denk positief over dit merk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Ik zou overwegen dit drankje te kopen in de supermarkt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Als ik aan een bar zat en ik kon dit drankje bestellen, zou ik dat doen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Het is onwaarschijnlijk dat ik dit drankje zou kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**27. Hoeveel zou je betalen voor dit drankje (één glas) in een bar of restaurant?**

\_\_\_\_\_

28. Stonden er mensen op de foto die je te zien kreeg in dit onderzoek?

- ☐ Ja
- ☐ NEe

29. Hoe vaak (ongeveer) heb je vaker een alcohol post op social media gezien?

- ☐ Nooit
- ☐ 1 keer
- ☐ 2 – 3 keer
- ☐ 4 – 6 keer
- ☐ 7 – 10 keer
- ☐ Meer dan keer

30. Bedankt voor het invullen van deze vragenlijst. Heb je verder nog opmerkingen?

- ☐ Nee, ik ben klaar.
- ☐ Ja: \_\_\_\_

#### Laatste opmerking

Als je verslaafd bent aan alcohol – of een andere verslaving hebt – dan kun je contact opnemen met:

<https://www.tactus.nl/>



## APPENDIX D – Literature log

Date	Database	Search terms and strategies	How many hits	Related terms/authors	Notes
24-2-2020	Google Scholar	Alcohol AND Marketing AND Youth	138.000 hits – first ones are useful	‘the effect of alcohol advertising’	First ones are relevant already. But search for more specific.
24-2-2020	Scopus	“alcohol advertising” OR “alcohol marketing” AND “underaged” OR “youth” OR “children”	266 hits – only 51 open access	‘internet alcohol marketing’ ‘drinking underage adolescents’	Too many closed access results.
24-2-2020	Scopus	“alcohol advertising” OR “alcohol marketing” AND “underaged” OR “youth” OR “children” AND “effects”	88 hits – only 16 open access	-	Too narrow, not a lot of useful documents. Not focused enough on alcohol advertising – put the word ‘online’ in it. All that was found in the previous one was there.
24-2-2020	Google Scholar	“alcohol advertising” OR “alcohol marketing” AND “underaged” OR “youth” OR “children” AND “effects” AND “online”	5.490 hits – whole first page useful	‘effects of alcohol advertising exposure on drinking among youth’	Useful one. Should focus on these words.
4-3-2020	Google Scholar	Hendriks AND Alcohol AND Marketing	11.600 hits	-	(I was curious to read more of Hendriks’ work)
10-3-2020	Google Scholar	Instagram AND popular* AND youth	29.900	-	Too broad; not what I was looking for, however, found one useful source for another part.

19-3-2020	Google Scholar	alcohol AND youth AND effect AND brain	199.000	'health'	Don't want to see only effect on brain – so add health.
19-3-2020	Google Scholar	alcohol AND youth AND effect AND health	760.000		Still a bit broad.
25-3-2020	Google Scholar	"benefits of a quantitative study"	25		Narrow, but exactly what I was looking for.
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