Music on, earplugs in!

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A study into the effectiveness of persuasion principles on the online purchase intention and attitude towards earplugs for use at festivals in the Netherlands.

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Abstract

Purpose – The Netherlands is a major player in the festival industry. Countless music festivals are organized in the Netherlands with millions of visitors. A consequence of these music festivals is that many (younger) people suffer hearing damage from overexposure to loud music. This study aims to investigate which principles have a possible effect on stimulating the purchase intention of earplugs and whether these techniques have an effect on the product value and perceived importance of earplugs. So, hopefully more people are willing to wear earplugs at festivals, which will result in a decrease of hearing damage risk. It will contribute to the field of marketing within the festival industry.

Method – In order to fill the gap of stimulating the usage of earplugs at music festivals with the help of nudges, an experimental study including an online survey is conducted in a 2 (authority nudge vs. no authority nudge) x 2 (social proof nudge vs. no social proof nudge) x 2 (low vs. high persuasion knowledge) research design to find out to what extent nudging is effective in trying to convince people to purchase and wear earplugs at festivals to protect their ears. Participants have been exposed to one of the conditions in an advertisement about earplugs to study the effect of the nudges on the purchase intention, product value and perceived importance of earplugs with the influence of high or low persuasion knowledge.

Results – The results state a social proof nudge in combination with an authority nudge should be used to achieve a high perceived importance. It is important to insert some sort of authority nudge in the advertisement together with the social proof nudge, while the advertisement has a counter-productive effect when only a social proof nudge is present and the authority nudge absent. Also, when only a social proof nudge is present and people have high persuasion knowledge, the effect of the social proof nudge is considered low. Furthermore, no significant effect of the nudges separately and no significant three-way interaction effect was detected on either purchase intention, product value and the perceived importance of earplugs.

Conclusion – This study and its findings provide new insights into the field of using online nudges. The results are beneficial for marketers in the festival industry and contradict with earlier literature, which suggested that social proof and authority both separately and collectively would affect purchase intention, product value and perceived importance. This study only states that using the principles of Cialdini 'authority' and 'social proof' are effective in achieving a higher perceived importance of earplugs. Therefore, when festival organizations are willing to inform people about the importance of wearing earplugs at festivals, marketers of festival organizations should include social proof nudges in combination with an authority nudge element. However, persuasion knowledge should be taken into account, given that the social proof nudge functions less in the presence of high persuasion knowledge. The social proof nudge works counter-productive when people have high persuasion knowledge.

Keywords

Online nudging, personal protective equipment, authority, social proof, purchase intention, music festivals

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1. Introduction

Currently, without the existence of Covid-19, there are about 1115 festivals in the Netherlands with a total of 19,5 million visitors. The theme that is mainly represented within these festivals is music. This relates to 55% of the festivals in the Netherlands (EM-Cultuur, 2019).

On outdoor stages at festivals, the volume is usually between 90 and 100 decibels. In a festival tent, this is between 95 and 103 decibels. However, a person is already at risk of hearing damage if he or she stays in sound at 80 decibels for more than eight hours. For every 3 more decibels, the length of time you can stay in it 'safely' is reduced by half (Alpine Hearing protection, 2017). However, many people are unaware of this and are not conscious of the fact that they are at risk of hearing damage when visiting music festivals.

The number of (young) people who suffer from hearing damage in the Netherlands has been increasing for years. That is why the Ministry agreed with the event industry in 2018 to limit the noise level at festivals to 103 decibels. However, this agreement assumes that visitors wear earplugs that attenuate 15 decibels of this level. Only if visitors wear earplugs, the maximum noise level of 103 decibels at festivals in the Netherlands is safe. In drawing up the 103 decibels standard, the Ministry of Health, the industry associations and experts in the field of hearing damage confirm that wearing hearing protection is the starting point.

A survey by Veiligheid NL shows that half of the visitors never wear earplugs. Organizers must provide good information about hearing protection, and this includes not only the 103-decibel limit, but also the advice to wear hearing protection (NOS, 2019). This is when nudging can become useful in tackling this problem to convince people to wear hearing protection at festivals. The principles of Cialdini (2001) are an example of such nudging techniques. Cialdini is one of the most famous experts in influencing and convincing people and is particularly known for his seven principles of influence, which is the most widely used guideline for marketers worldwide. Within this study, the authority and social proof nudge will be studied

The authority nudge refers to a person's tendency to comply with people in positions of authority. According to the authority principle, it is expected that people will make a decision based on the opinion of someone with high authority. It states that when a person makes a decision, it is generally the practice to seek expert advice from a recognized source (Seethaler & Rose, 2006). It is used within various organizations.

A social proof nudge refers to the tendency to see an action as more appropriate when others are doing it as well. When many people do something, it is usually the right thing to do (Kenrick, Neuberg & Cialdini, 2010). The power of social proof operates best when people observe the behavior of people who are similar to them (Cialdini, 2007). Social proof regularly influences people's decision-making process. It can be stated that the opinion of similar others influences the attitude of a consumer toward a product (Barrios, Bayarri, Carbonell, Izquierdo, & Costell, 2008; Cialdini, 2001).

The purpose of this study is therefore to find out how festival visitors can be encouraged to buy earplugs by using persuasion techniques and to determine how these persuasion techniques affect the product value and perceived importance of earplugs. Also, by taking into account the influence of persuasion knowledge. Hence, this study contributes by examining this gap, and addresses the following research questions:

"To what extent do Cialdini's principles authority and social proof influence the online purchase intention of earplugs and attitude (product value and perceived importance) towards earplugs for use on festivals in the Netherlands?"

This research aims to provide organizations with useful information regarding the use of persuasion techniques, which can be used to stimulate online purchase intention and determine the product value and perceived importance of earplugs. The academic relevance of this research is that the interaction effect of a social proof nudge and an authority nudge on online purchase intention and attitude toward earplugs has not been investigated before, as well as what influence persuasion knowledge has on this relationship. This relates to personal protective equipment. On top of that, it has never been researched in this context before. This summarizes the novelty of the research.

This study is relevant because the results will be beneficial to both consumers and organizations. Consumers may be persuaded to wear earplugs at music festivals, which is essential because the earplugs can prevent hearing damage. It is therefore important to make people aware of this. By using earplugs, festival visitors experience good music quality and protection of their hearing. Moreover, the results are relevant for organizations because it helps to promote the quality of the music and the overall experience of a festival. The result also helps in the compliance with the rules set by the government. Finally, it ensures that visitors run as little risk as possible.

The paper holds societal and practical relevance, as the results may provide useful implications for marketers on how to stimulate festival visitors to purchase and wear earplugs to protect their hearing. It would be interesting if this research leads to awareness regarding the importance of earplugs, thereby reducing the average number of (young) people with hearing damage. This research contributes to this goal.

2. Theoretical framework

This chapter examines the theoretical background relevant to this research. First, the online purchase intention and attitude are elaborated. In which product value and perceived importance are relevant elements within attitude. Next, the principles of Cialdini's 'authority' and 'social proof' are described as it is used as the basis for this research. Furthermore, persuasion knowledge will be discussed. Persuasion knowledge possibly influences the effect of the nudges on online purchase intention and attitude. At last, the hypotheses and conceptual model of this research are discussed.

2.1 Online purchase intention

The term online purchase intention is defined as the preceding background that stimulates and encourages the consumers' purchase of products and services (Hawkins & Mothersbaugh, 2010). It develops from the term intention, which is the subjective probability that a person has a certain will to take action (Fishbein, 1975). The intention is a plan for a person to behave in a certain way and it implies in the way of "I should do", "I am going to do," and "I will do" (Triandis, 1979). Online purchase intention is considered an element of cognitive behavior, in which the consumer is not aware of how he or she intends to purchase a specific brand (Su and Huang, 2011).

To understand someone's behavior, their intentions need to be studied (Goldsmith, 2006). Online purchase intention is an alternative to measure the consumer's buying behavior (Kim & Pysarchik, 2000). This intention is based on the so-called Theory of Planned Behavior, which is an extension of the Theory of Reasoned Action. A central factor in the Theory of Planned Behavior is the individual's intention to perform a given behavior (Ajzen, 1991). When the intentions to execute certain behaviors are firm, it is more likely that the behavior will be executed. An intention to purchase an item is full-fledged and very few restrictions exist. Intentions are seen as capturing the motivational factors that influence behavior. It indicates how hard people want to try and how much effort people want to put into the behavior. As a general rule, the stronger the intention to exhibit a behavior, the more likely it is that the behavior will be carried out. However, it must be clear that a behavioral intention can only be expressed if the person can decide whether or not to carry out the behavior (Ajzen, 1991).

The factors such as attitude, subjective norm and perceived behavioral control within the Theory of Planned Behavior all influence a consumer whether to purchase or behave in a particular manner. The persuasion principles of Cialdini can therefore be connected to elements from the Theory of Planned Behavior. The subjective norm refers to the belief that most people within someone's circle approve or disapprove of behavior and if people in their surroundings would behave in a certain way, this person is willing to behave the same.
Hence, the subjective norm corresponds with the social proof principle from Cialdini (Behavioral Change Models, 2019). The principle authority refers to the perceived behavioral control, while authority can make it easy for an individual's perceived ease or difficulty to perform a particular behavior. An authority nudge can stimulate a certain behavior (Behavioral Change Models, 2019).

The Theory of Planned Behavior does not specify how one might be able to personalize persuasion to individuals. This makes it hard to use in building persuasion messages. The theory of planned behavior can give an expectation as to why persuasion is successful or not, although this is descriptive. To understand persuading in an online environment, it is necessary to understand how persuasion works. If a person's intrinsic attitude is strong enough to perform a behavior, this person will be more likely to perform that behavior and this can result in the fact that persuasion is difficult (Ajzen, 1991).

2.2 Attitude

Attitude is distributed into two elements ‘product value’ and ‘perceived importance’ of earplugs. These two elements together form the attitude towards earplugs.

2.2.1 Product value

The first element is product value. Product value relates to the price-performance relationship according to Henard and Szymanski (2001). It is described as a product that is reasonably priced and which offers value for money. In other words, it is a good product for that price. It is based on customers' assessment of the level of benefits people get from a product compared to what people pay for it (Sweeney & Soutar, 2001). The reason this concept was selected is that it is expected that when the persuasion principles are used correctly, people are willing to pay more money for a certain product. It is therefore also expected that when the authority and social proof principles are used in conjunction, the product value increases (Cialdini, Roselle, Wissler & Schweitzer, 2002). Product value is a comparison of tangible and intangible advantages of both the generic and the complementary levels of a product and the overall expenses of production and use of a product (Morar, 2013). According to Cooper (1994), there are many ways to increase product value. If a product relieves all the issues from a customer, those customers are willing to pay about any amount the company asks for. In general, the more pain points a company can solve with a product, the more valuable the product is for the customer. Those factors influence how a product is perceived in the target market (Cooper, 1994). The perceived value is composed of the qualitative, quantitative, objective and subjective factors which form the consumer’s buying experience (Schechter, 1984). Hence, a good product value is based on a customers’ assessment of the level of benefits consumers get from a product in comparison to what people pay for it. It takes the cost, quality, convenience, and suitability for the purpose into account (Cooper, 1994). It is important to increase the product value, while it can affect the behavioral intentions of a consumer in a positive way whether to buy a certain product or not (Wang, Po Lo, Chi & Yang, 2004). A study from Kumar and Grisaffe (2004) has proven that a good product value goes together with satisfaction and this will result in a positive relationship with the purchase intention and perceived importance of a product.

2.2.2 Perceived importance

The second element within attitude is perceived importance. It includes the importance of wearing hearing protection when exposed to loud noise. It is possible to verify that people show different perceptions about the risks they are exposed to at music festivals, even though they are all exposed to loud music and all experience the same circumstances (Stewart-Taylor & Cherry, 1998). People have different points of view concerning noise exposure risk or the effects it has. These different views have serious implications for people's behavior, whether people are willing to wear hearing protection or not (Stewart-Taylor & Cherry, 1998). Kotler and Armstrong (2012) state that perceived importance and customer satisfaction go hand in hand, while customer satisfaction is the extent to which a product's perceived importance matches a customer's expectation. In this way, this is also about product value, whereas customer value is an evaluation of the benefit of a product or service. This evaluation of those benefits is compared with the perceived importance of a certain product or service that customers have. When the expectations of the perceived importance of a product are met, the product value will increase as well (Sugiarti, Thoyib, Hadiwidjojyo & Setiawan, 2013).

2.3 Nudging

People make thousands of decisions a day and this happens consciously and unconsciously (Tyers, 2018). Every choice that is made is context-dependent and is influenced by the choice environment (Thaler & Sunstein, 2008). With the support of nudges, choice environments can be established (Mirsch, Lehrer & Jung, 2017). Nudging is therefore used to manipulate people's thoughts and behavior. A nudge changes people's behavior predictably without prohibiting options or radically changing economic incentives (Thaler & Sunstein, 2008). Nudging is done in the offline and online world. Although, online is becoming more

relevant nowadays, while many decisions are made online (Mirsch, et al., 2017). Online people have access to a lot more information than offline, so people are better informed. Although, the overload of information, results in the fact that people experience difficulties in making choices. Nudging can then be useful, while it can make people aware of different options and steer the decision-making process (Mirsch et al., 2017). There exist many types of nudging and it can be applied in many contexts. Although, within this research, the focus will be on the authority nudge and social proof nudge originated from Cialdini.

2.3.1 Authority

Authority is the first principle that is used within this research. It refers to a person's tendency to comply with people in positions of authority. Someone with authority is also called an expert. People want to follow legitimate experts (Cawood, 2020). This is someone who achieved a high level of competence and works with a certain domain (Reilly, 2008). People in positions of authority are people that others tend to respect, and the principle is easy to use. When an organization offers valuable information, it builds authority, and its audience is more likely to follow its suggestions going forward (Axero, 2020). Authority positively influences people's acceptance of an opinion (Huang, Cai, Tsang & Zhou, 2011). According to the authority principle, it is expected that people will make a decision based on the opinion of someone with high authority. It states that when a person makes a decision, it is generally the practice to seek expert advice from a recognized source. The credibility of the source is an important feature of persuasive communication (Seethaler & Rose, 2006). By using this principle, people do not have to process all relevant information, because they have a sense of duty or obligation to people who are in positions of authority (Gkika & Lekakos, 2014).

Authority is a concept that has been researched for years. One of the best-known experiments within authority is the Milgram experiment (1963). This experiment is replicated many times in the last couple of years. One of those replications is done by Burger (2009). The experiment was focused on the conflict between obedience to authority and personal conscience. It showed that people are capable to perform specific actions that people would normally never perform, all because of the level of authority. In this experiment, random people were asked to give someone an electrical shock, it showed that people fictitiously killed the person, all because someone with authority told them to do so. Burger replicated the study in 2009 with little alterations like screening the participants and reducing the maximum allowable shock level that was used. The study of Burger showed the same results as the experiment of Milgram. Authority is used in many ways nowadays. For example, in political campaigns, research showed that the principles of Cialdini come in handy within election periods. When observing the authority principle within these elections, the presidential candidate uses their authority by asking the American people to reach something crucial and important to the country. The candidates persuade voters and audiences by saying instructions in directive ways. In this manner, those candidates use their authority to persuade possible voters (Arisetiyani & Yuliasry, 2017).

Nowadays, authority is used within many and various organizations, thus online marketing is using this phenomenon as well. Experts are placed on information websites to validate the content and to show the reliability. Amazon is an example of such a company. Amazon gives a consumer some sort of authority by giving it a place in the reviewer ranking list when he or she gives a review of a product they have bought. This description can help possible consumers decide whether to buy a certain product or not (Amazon, 2020). An example of a study on the influence of authority is the study by Clark, Wegener, Habashi and Evans (2012). Participants in the study were told that they would receive a written message and had to rate factors related to the readability of the information. Then, the participants' attitudes toward the possible burden of junk food were assessed. Participants received information that manipulated the expertise of the source. Participants were then presented with a series of speculative (weak) or persuasive (strong) arguments that advocated taxing junk food. After reading the message, participants reported their attitudes on a scale, completed a questionnaire related to their thoughts, and responded to a manipulation check. The results showed that when people had opposite attitudes compared to experts, experts were more motivated and

capable to get participants to change attitudes again because it was expected that experts would provide robust opposition to one's existing view (Clark et al., 2012). Another way to use the authority principle is the expert opinion technique that explains the benefits of products. The endorser's expertise in the field adds credibility to the product or service and can reduce uncertainties consumers might have about the product (Small Business, 2019) or by using a famous athlete on a website that deals with information for sports (Physioc, 2013). This use of authority nudges is very common today, therefore the corresponding hypothesis that is stated is:

H1: The presence of an authority nudge has a positive effect on the online purchase intention (a), product value (b) and perceived importance (c) of earplugs.

2.3.2 Social proof

Social proof is the second nudge within this research. It refers to the tendency to see an action as more appropriate when others are doing it as well. People will make fewer mistakes by following social proof. When many people do something, it is usually the right thing to do (Kenrick, Neuberg & Cialdini, 2010). The power of social proof operates best when people observe the behavior of people who are similar to them (Cialdini, 2007). Social proof is around us all the time and most of it is subconsciously registered in people's brains (Fast Company, 2013).

Social proof is nowadays much used within social network platforms. When shopping online, many people need proof that a seller and the product are legitimate. This proof can be obtained from reviews and recommendations (Nielsen, 2014). A market survey states that 92 percent of people worldwide trust recommendations by friends and families and 70 percent think online consumer reviews are the second most trusted source of information (Nielsen, 2014). The 'like' and 'follow' button on Instagram and Facebook are another good example of social proof. The number of followers, likes and fans are important tools to show the perception of others about a particular seller or product (Devumi, 2016). This works similarly in restaurants. When a restaurant is very crowded, people will presume that the restaurant is good (Fast Company, 2013). Social proof is therefore a commonly used tool to increase purchase intention. People are looking for social proof when in uncertain and unfamiliar situations. Social proof regularly influences people's decision-making process. So, the social proof principle states that people tend to do what others do (Gkika & Lekakos, 2014) and look at what others think to determine what is correct (Lun, Sinclair, Whitchurch & Glenn, 2007). The study by Gkika and Lekakos (2014) examined the persuasive effect of recommendation explanations about movies. Participant's movie preferences were examined, after that, a movie was recommended with the use of one of the persuasion principles to examine the effect of that principle as recommendation explanations. This showed that social proof was the only persuasive strategy that got people to have either a high or a low intention of watching the movie. Thus, someone is more likely to watch a movie when other people who have already seen the movie tell him/her that the movie is worth watching. According to Cialdini (2001) are individuals more willing to look for social proof when they are in an unfamiliar or uncertain situation. If this is the case, people tend to believe that they are less likely to behave inappropriately if they copy the behavior of those around them. 95 percent of people are imitators and only 5 percent innovators, so people are more likely to be influenced by their peers than by any other evidence that can be offered (Cialdini, 2001). Therefore, social proof works best when people observe the behavior of others like them; their actions give those people the greatest insight into what is good for them (Cialdini, 2001). The principle states that the beliefs, attitudes and actions of similar others are used as a measure of one's own beliefs, attitudes and behavior (Seethaler & Rose, 2006).

An experiment by Salganik and Watts (2008) was done, in which an artificial music market was created, and people's ratings of songs were manipulated so that some songs which had the poorest rating, appeared at the top of the list as 'most popular'. In the end, these songs were better received by users. This shows how powerful social proof is. It can even go against one's personal preference and therefore works best under uncertainty (Salganik & Watts, 2008). When people do not know what to do, people mimic or learn from

others. People do not have to investigate the detailed pros and cons of each decision. The actions of others around us are important guides in a situation when decision-makers are unclear about the value of the decision to be made (Rao, Greve & Davis, 2001). The social proof techniques are much applied in website designs and social media. Websites often use messages like 'bestseller' or ' 50 people bought this product', which indicate that others already accepted the product before you. For example, Bol.com asks readers of a particular review to rate a review by asking: 'Do you think this review is useful?' and Booking.com uses reviewers' rates to rank accommodations with a grade. The grade that is given is based on reviews. Social network sites connect online shoppers directly with others to form a social community. So, it can be stated that the opinion of similar others influences the attitude of a consumer toward a product (Barrios, Bayarri, Carbonell, Izquierdo, & Costell, 2008; Cialdini, 2001). Therefore, the social proof principle is assumed to have a positive impact on online purchase intention and the attitude towards a product, hence, the following hypothesis is developed:

H2: The presence of a social proof nudge has a positive effect on the online purchase intention (a), product value (b) and perceived importance (c) of earplugs.

2.3.3 Interaction effect

This study also aims at investigating whether there is an interaction effect between authority and social proof that affects a person's online purchase intention and attitude towards earplugs. The principles can be used individually, but according to Cialdini, Roselle, Wissler and Schweitzer (2002), the principles should be combined, as the impact is then strengthened and multiplied. It is therefore important to apply the principles collectively or sequentially. Given that authority and social proof nudges separately influence a customer's online purchase intention, product value and perceived importance, it may be expected that these two nudges combined will have an even stronger influence on someone's behavior (Cialdini et al., 2002). According to Magneds (2015), combining the principles of Cialdini is always interesting, when the goal is to see how a combination of principles can provide value to customers. In addition, by looking at which combination of principles is most effective in creating that value (Magneds, 2015). This has not been studied before, although Cialdini (2001) recommends combining the principles to get the most out of them. The principles are seen as tools that can be combined. The theory that can be used as an example of a social proof nudge and authority nudge combined is celebrity endorsement, also called influencer marketing. Celebrity endorsement occurs when a celebrity is using a product and is promoting it on social media. Celebrity endorsement is only effective when the celebrity or influencer has a large reach on social media and therefore a large number of followers. This large number of followers gives the influencer some kind of authority and the followers function as social proof (Hubspot, 2020). The correlation between these two principles results in the following hypothesis:

H3: The presence of an authority nudge in combination with a social proof nudge has a positive effect on the online purchase intention (a), product value (b), and perceived importance (c) of earplugs.

2.4 Persuasion knowledge

The personal protective equipment within this research is referred to as persuasion knowledge. Persuasion knowledge is considered as an important influential factor within this research. Consumers develop knowledge about persuasion and use this knowledge to deal with persuasion attempts because people are very often exposed to persuasive messages (Friestad & Wright, 1994). This knowledge can help a person to know how, when and why a marketer is trying to influence. This can help the consumer to react in order to resist (Friestad & Wright, 1994). It helps to explain how people develop an understanding of persuasion and how this understanding is used to interpret, evaluate and respond to it (Boerman, van Reijmersdal & Neijens, 2012). Consumers gain insight into the tactics and methods used by marketers, this emphasizes the fact that consumers can protect themselves from persuasion attempts (Friestad & Wright, 1994). Over time and through experience, consumers learn the purpose of persuasive communication messages, i.e. to convince

people to buy or do something and learn to use strategies of resistance to protect themselves. The main assumption is that the more 'knowledge' you have, the less susceptible you will be to the persuasive message and, thus, the better you can resist persuasion attempts (Livingstone & Helsper, 2006).

A study from Tutaj and van Reijmersdal (2012) has shown that people nowadays have a better understanding of the advertiser's intent in a more prominent advertisement than a subtle online advertisement format. It showed that the more consumers recognize the format, the more people understand the persuasive intention of the ad. Not all people have the same persuasion knowledge, this needs to be taken into consideration when examining the effect of advertisements (Tutaj & van Reijmersdal, 2012). The persuasion knowledge has become stronger in recent years, as people make more use of ad-block applications. On the other hand, cookies are still widely accepted on websites, in which people allow organizations to collect information about you as a user, which in return can be used to stimulate you to purchase a product or service (Datareportal, 2020). This indicates that people are aware of the fact that they are being persuaded to do or buy certain things nowadays. Therefore, the level of persuasion knowledge is included as a moderator to examine the effect of the persuaded message on the online purchase intention and attitude towards earplugs. Hence, the following hypotheses are stated:

H4: A high level of persuasion knowledge will reduce the effect of an authority nudge (a), a social proof nudge (b) and a combination (c) of those nudges on the online purchase intention of earplugs.

H5: A high level of persuasion knowledge will reduce the effect of an authority nudge (a), a social proof nudge (b) and a combination (c) of those nudges on the product value of earplugs.

H6: A high level of persuasion knowledge will reduce the effect of an authority nudge (a), a social proof nudge (b) and a combination (c) of those nudges on the perceived importance of earplugs.

2.5 Conceptual model

This research aims to investigate the role of the two different persuasion principles of Cialdini concerning the online purchase intention and product value of earplugs among festival visitors in an online e-commerce environment. A conceptual model has been created in which the various relationships are stated to support the research design.

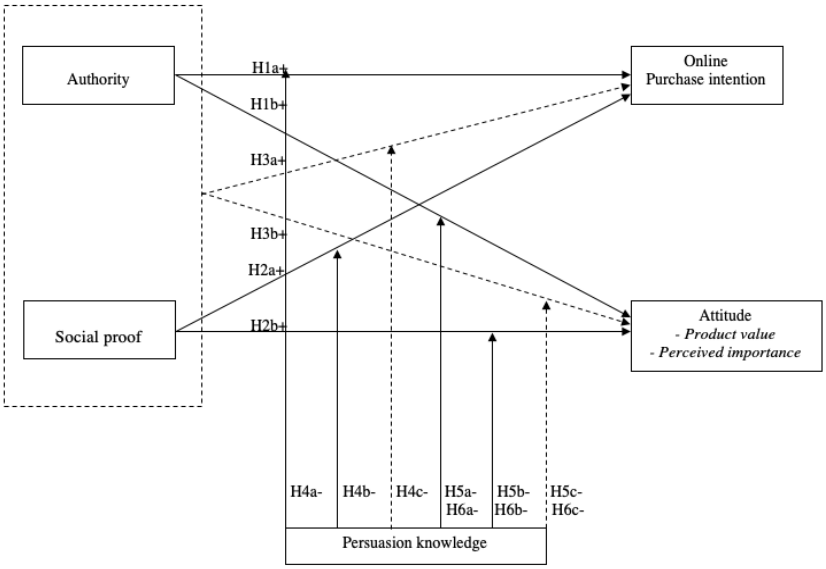

Figure 1. Conceptual model

3. Method

The study is a 2 (authority vs. no authority) x 2 (social proof vs. no social proof) x 2 (low persuasion knowledge vs. high persuasion knowledge) between-subject experimental research design. The different combinations of research conditions are shown in table 1. Before the real research design will be proposed, a pre-study is conducted to examine which authority type and social proof message will be used within the manipulations. The analysis and results of this pre-study are discussed. Subsequently, the main study will be conducted which includes the discussion of the procedure, measurements and participants.

Table 1. Conditions 2x2x2 design

Condition	Authority	Social proof	Persuasion knowledge
1	Yes	No	High
2	No	Yes	Low
3	Yes	Yes	High
4	No	No	Low

3.1 Pre-study stimulus

A pre-test has been conducted to gain insight into the type of authority and social proof that should be used. The results served as input to develop the advertisement for the main study. Only Dutch participants were permitted to participate in the research because most festivals are organized in the Netherlands in comparison with other countries with mainly Dutch visitors (Volkskrant, 2019). Therefore, the survey is distributed in Dutch (Appendix A). This is also to ensure that each question in the survey is well understood by Dutch respondents. In total, 10 participants took part in the pre-test. Participants first read a short introduction describing the purpose of the questionnaire, their anonymity and the confidentiality of their data. Furthermore, they were informed about their value for further research and contribution to new insights on the subject. An English version of the pre-test survey is stated in appendix B.

3.1.1 Authority

To test the authority nudge, respondents were asked to rank thirty authority figures based on their level of influence and familiarity, in which ten influencers, ten DJs and ten experts were presented. The choice of influencers presented within the survey was based on the top 10 most influential influencers of 2020 in the Netherlands retrieved from de media 100 (De Media 100, 2020). In table 2 an overview of these influencers is shown. The DJs were based on the ten best DJs retrieved from the top 100 DJs within the DJ Mag 2019 (DJ Mag, 2019). The DJ Mag is a British monthly magazine dedicated to electronic dance music and DJs. An overview of these ten DJs is shown in table 3. Finally, the choice of experts is based on various experts within the festival, health, sound and audiology industries. An overview of these experts is given in table 4 with a corresponding explanation of their functions. Respondents ranked 30 influencers, DJs & experts on hearing loss and health to indicate which experts have the most influence and to what extent people are familiar with those experts. The degree of familiarity functioned as a control question to see if people were familiar with the authority figures

Table 2. Influencers top 10

Ranking	Influencer	Followers
1.	Anna Nooshin	1 million
2	Nienke Plas	590.000
3	Nikkie de Jager	14,4 million
4.	Giel de Winter	1,1 million
5.	Britt Dekker	310.000
6.	Enzo Knol	1,8 million
7.	Fred van Leer	934.000
8	Tim Hofman	404.000
9.	Monica Geuze	1,2 million
10.	Dylan Haegens	907.000

Table 3. Dj-top 10

Ranking	DJ
1.	Dimitri Vegas & Like Mike
2.	Martin Garrix
3.	David Guetta
4.	Armin van Buuren
5.	Marshmello
6.	Don Diablo
7.	Oliver Heldens
8.	Tiësto
9.	Afrojack
10.	Steve Aoki

Table 4. Experts

Expert	Description
ENT-doctor	A doctor who deals with the treatment of throat, nose and ears disorders (UNC Health Talk, 2019).
Audicien	A hearing care professional in the field of audiology. It specializes in hearing aids and audiological equipment. For example, employed by Beter Horen or Schoonenberg (Beroepsonderwijs Bedrijfsleven, 2020).
Bachelor of audiology	A hearing, sound, acoustics and speech specialist with a professional medical (clinical) and a technical side (Into ears, 2020).
An expert by experience	Someone with severe hearing damage caused by too loud music (de Ervaringsdeskundige, 2011).
General practitioner	Someone who has a central role when it comes to healthcare. The GP is the first to ask if you have any questions regarding your physical and mental health (Healthcare for internationals, 2020).
Hearing protection producer	A producer of hearing protection/earplugs (Canadian Centre for Occupational Health and Safety, 2017).
Sound technician	A skilled professional who makes films, TV shows and music festivals sound amazing (All about careers, 2004).
Duncan Stutterheim	Founder ID&T (Amsterdam Dance Event, 2020)
Wouter Tavecchio	Founder Q-Dance (Amsterdam Dance Event, 2020)
Jan Smeets	Founder Pink pop (Pinkpop, 2020)

The results of the pre-test showed that the expert by experience, the general practitioner and the ENT-doctor were the three authority types with the most influence. In the control question according to familiarity, the types of authority that scored high were the general practitioner, Armin van Buuren and David Guetta and the expert by experience as well (Appendix C). To conclude, the expert by experience is chosen to be the authority nudge within the main study, while the expert by experience finished high in both questions.

3.1.2 Social Proof

To test which social proof nudge should be used, respondents ranked the social proof message according to their level of influence and to what extent the messages were seen as realistic. Ten different ways of expressing social proof were showed. Respondents ranked these different messages to indicate which messages have the most influence. The degree of realism functioned as a control question. In table 5 an overview of these social proof messages is shown.

Table 5. Social proof messages

An excellent customer review on the website.
A message saying:" Popular, today 128 fellow other festival visitors bought these earplugs."
A rating system representing 4 out of 5 stars based on customer satisfaction.
A picture of other festival visitors who wear the same earplugs and are enthusiastic about it.
A social media post with the earplugs in question that received a large number of likes.
A rating system representing 5 out of 5 stars based on customer satisfaction.
A review on a third-party website about these earplugs.
Displaying the awards and certificates which these earplugs already received.
A social media post with the earplugs in question is very often shared.
A rating system representing 4.5 out of 5 stars based on customer satisfaction.

Results show that 'displaying awards and certificates', a review on a third-party website' and 'a rating system representing 5 out of 5 stars' are the three social proof nudges with the most influence. 'A review on a third-party website about these earplugs, 'a rating system representing 4 out of 5 stars based on customer satisfaction' and 'displaying the awards and certificates which these earplugs already received' were the social proof nudges that scored highest in the control question. So, displaying certificates and awards is chosen to be the social proof nudge within the main study while it ended high in both questions (Appendix D).

3.3 Main study

In this research, a total of 422 valid responses were collected (n=422). 664 participants filled in the survey; however, 238 responses could be deleted because participants did not fulfill the conditions. Respondents from the pre-test, respondents with identical respondents' IDs or IP addresses and respondents with a too high or low response time were removed. At last, four participants were removed after starting with the multivariate analysis, because this analysis resulted in a couple of outliers. Those outliers consist of people who score higher than the standardized residuals score of -3 or +3 (ZRE score).

Regarding gender division, 306 participants were women (72.5%). Also, A Pearson's chi-square test ($\alpha = 0.05$) is performed to determine whether there is a difference in gender distribution between the four conditions. The chi-square test was statistically non-significant ($X^2(6) > 4.35$, $p = 0.63$. Thus, there was no significant difference in gender distribution between the four conditions. The age of participants ranged between 16 and 77 (M=36.6 and SD=13.4). To examine the differences in age between the four conditions, a one-way ANOVA between age and the conditions was performed. The one-way ANOVA was statistically not significant, meaning there was no significant difference in age distribution between the four conditions $F(3) = .08$, $p = .97$. The biggest group of respondents (n=159) stated to attend festivals 1 or 2 times a year, which is 37.7%. 97 participants (23%) stated to attend festivals three or four times a year. To investigate the differences in festival visits between the four conditions, a one-way ANOVA was performed between visit frequency and conditions. The one-way ANOVA was not significant, meaning there is no significant difference in the frequency of visits between the four conditions $F(3) = 4.35$, $p = .13$. The question regarding 'wearing earplugs' is only asked participants that visit festivals at least 1 or 2 times a year. So, 80 respondents did not fill in this question. 230 participants indicated to never wear earplugs (67,3%). A Pearson's chi-square test ($\alpha = 0.05$) was performed to determine whether there is a difference in usage of earplugs between the four conditions. The chi-square test was statistically non-significant ($X^2(6) > 5.95$, $p= .43$. Thus, there was no significant difference in the usage of earplugs between the four conditions. At last, participants selected their three favorite music genres. This resulted in Pop music at first place (60.4%), Dutch-language at second (50.7%) and rock at third place (26.1%). In table 6 an overview of the demographics and festival habits is given. The personal network is used to collect participants next to the snowball method and a fill-in & win method. All the participants participated voluntarily and anonymously.

Table 6. Demographics and festival habits in total and per condition

		Frequency Total	Condition 1 No nudges	Condition 2 Authority nudge	Condition 3 Social proof nudge	Condition 4 Authority/ social proof nudge
Gender	Male	115 (27.3%)	27 (27.3%)	29 (25.9%)	27 (25%)	32 (31.1%)
	Female	306 (72.5%)	72 (72.7%)	83 (74.1%)	81 (75%)	70 (68%)
	Don't want to disclose	1 (0.2%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)
Age		μ = 36.6 SD = 13.4	μ = 36.1 SD = 12.9	μ = 36.9 SD = 13.9	μ = 36.8 SD = 13.6	μ = 36.6 SD = 13.4
Frequency of festival visits per year	Never	80 (19.0%)	21 (21.2%)	26 (23.2%)	24 (22.2%)	9 (8.7%)
	1 or 2 times	159 (37.7%)	36 (36.4%)	40 (35.7%)	44 (40.7%)	39 (37.9%)
	3 or 4 times	97 (23.0%)	24 (24.2%)	26 (23.2%)	22 (20.4%)	25 (24.3%)
	5 or 6 times	36 (8.5%)	6 (6.1%)	7 (6.3%)	9 (8.3%)	14 (13.6%)
	7 or 8 times	22 (5.2%)	4 (4.0%)	7 (6.3%)	2 (1.9%)	9 (8.7%)
	9 or 10 times	18 (4.3%)	6 (6.1%)	2 (1.8%)	4 (3.7%)	6 (5.8%)
	11 or 12 times	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	13 times or more	10 (2.4%)	2 (2.0%)	4 (3.6%)	3 (2.8%)	1 (1.0%)
Wearing earplugs at festivals	Yes	66 (15.6%)	18 (18.2%)	15 (13.4%)	16 (14.8%)	17 (16.5%)
	No	230 (54.5%)	50 (50.5%)	55 (49.1%)	62 (57.4%)	63 (61.2%)
	Sometimes	46 (10.9%)	10 (10.1%)	16 (14.3%)	6 (5.6%)	14 (13.6%)
	Missing	80 (19.0%)	21 (21.2%)	26 (23.2%)	24 (22.2%)	9 (8.7%)
Music genre	Pop	255 (60.4%)	69 (69.7%)	71 (63.4%)	66 (61.1%)	49 (47.6%)
	Dutch-language	214 (50.7%)	54 (54.5%)	63 (56.3%)	48 (44.4%)	49 (47.6%)
	Rock	110 (26.1%)	30 (30.3%)	27 (24.1%)	30 (27.8%)	23 (22.3%)
	Hardstyle	94 (22.3%)	24 (24.2%)	19 (17%)	24 (22.2%)	27 (26.2%)
	Pirates	91 (21.6%)	18 (18.2%)	29 (25.9%)	24 (22.2%)	20 (19.4%)
	R&B	74 (17.5%)	19 (19.2%)	16 (14.3%)	18 (16.7%)	21 (20.4%)
	Country & Folk	60 (14.2%)	9 (9.1%)	18 (16.1%)	23 (21.3%)	10 (9.7%)
	Hip Hop	57 (13.5%)	10 (10.1%)	10 (8.9%)	15 (13.9%)	21 (20.4%)
	(Deep) House	57 (13.5%)	13 (13.1%)	18 (16.1%)	12 (11.1%)	14 (13.6%)
	Techno	56 (13.3%)	10 (10.1%)	10 (8.9%)	15 (13.9%)	21 (20.4%)
	Hardcore	51 (12.1%)	12 (12.1%)	11 (9.8%)	13 (12%)	15 (14.6%)
	Latin	44 (10.4%)	10 (10.1%)	7 (6.3%)	14 (13%)	13 (12.6%)
	Jazz & Blues	33 (7.8%)	8 (8.1%)	9 (8%)	9 (8.3%)	7 (6.8%)
	Trance	30 (7.1%)	4 (4%)	9 (8%)	5 (4.6%)	12 (11.7%)
	Electro	22 (5.2%)	3 (3%)	9 (8%)	6 (5.6%)	4 (3.9%)
	Classical music	18 (4.3%)	3 (3%)	4 (3.6%)	3 (2.8%)	8 (7.8%)

3.4 Procedure

Data has been gathered by the use of an online questionnaire, which is developed in Qualtrics. The questionnaire is distributed in Dutch but is written in English as well (Appendix E and F). The participants started the questionnaire with an introduction regarding the study. Next, demographical questions and questions regarding music festival habits were asked. After these questions, a scenario was presented in which participants were asked to imagine going to music festivals regularly. The participants were then randomly assigned to one of the four experimental conditions (Appendix G). A fully filled-in questionnaire was considered a valid response. All the data has been collected within nearly two weeks.

3.5 Measurements

Within this study, the constructs were measured with a 5-point Likert scale (1= strongly disagree to 5= strongly agree) employing related questions and statements in a questionnaire. Existing scales have been used to create a scale for this study. The dependent variable online purchase intention is measured by using

five items. Examples of these questions are: "It is likely that I will purchase these earplugs." and "there is a good chance that I would consider buying these earplugs" (Lee & Lee, 2009; Dodds, Monroe & Grewal, 1991). This scale has proven to be reliable ($\alpha = .90$) with all five items.

The second construct is 'attitude', in which product value and perceived importance are measured. The following questions are used to test product value (Dodds, Monroe & Grewal, 1991; Suri & Monroe, 2003): "The price of €10,99 for these earplugs is acceptable" and "I think the earplugs are worth the money". The scale has proven to be reliable ($\alpha = .85$) with all five items. To test perceived importance (Bosmans, Anick & Baumgartner, 2005; Dillard & Shen, 2005; Gilles & Van de Heyning, 2014; Quick & Stephenson, 2007):, the following items are used "With these earplugs, I obtain a sense of security regarding the protection of my ears" and "I think wearing earplugs negatively affects the experience at a festival." The scale was found to be reliable ($\alpha = .75$) with four of the five items.

At last, the construct persuasion knowledge (Boerman et al., 2018) is measured with the following items: "The purpose of this advertisement is to influence my opinion about these earplugs" and "I am aware that webshops use persuasion techniques to convince people to buy a product". This scale has a Cronbach's alpha of .63 ($\alpha = .63$) with three out of the five items. Although, the Cronbach's alpha level is below the threshold of α =.70, according to Nunally & Bernstein, (1994) and Netemeyer & Cudeck, (2001) it is considered acceptable when the level is above $\alpha = .60$. An overview of the constructs is given in table 7.

A factor analysis is then carried out to determine whether the questions test four separate constructs (Appendix H). Also, to continue with the main analysis, the median split for persuasion knowledge is taken to turn this continuous variable into a categorical variable. Every score below four is labeled with low persuasion knowledge and every score above four is labeled with high persuasion knowledge. In this way, a better analysis can be performed with this construct.

Table 7. An overview of the reliability of the constructs

Scale	Items	α	Items deleted	Question deleted
Purchase intention	5	.90	0	x
Product value	5	.85	0	x
Perceived importance	4	.75	2	I do not care about tool oud music at music festivals. With these earplugs I obtain a sense of security regarding the protection of my ears.
Persuasion knowledge	3	.63	2	The purpose of this advertisement is to influence my opinion about these earplugs. The purpose of this advertisement is to give people information about earplugs.

4. Results

This section of the study reports the results of the analysis. The answers to the hypotheses will be presented so that conclusions can be drawn afterward. To answer these hypotheses, a multivariate and univariate analysis of variances is conducted. With the multivariate test, it will become clear if there are differences between the groups on the multiple variables at once. The results are shown in table 8. The univariate tests will examine if there are effects between the different variables on the separate dependent variables (Table 9, 11 and 13). In the end, an overview of the hypotheses will be re-introduced, and it will be clarified whether these hypotheses can be rejected or supported.

4.1 Overall effect between the independent variables

A multivariate analysis (MANOVA) is performed with Wilk's Lambda (Λ) as the test statistic to assess the differences between two or more groups on multiple variables at once. It tests the differences overall but does not tell which two groups are different or which dependent variable differs between the groups. To start, no main effect is found for authority Λ = .99, $F(3, 412) = .54$, $p = .66$. Second, no main effect for social proof Λ = .99, $F(3, 412) = .32$, $p = .81$ and also no significant main effect for persuasion knowledge could be detected Λ = .98, $F(3, 412) = 1.49$, $p = .22$. Subsequently, authority and social proof show no significant interaction effect Λ = .98, $F(3, 412) = 1.54$, $p = .20$ and no significant interaction effect between authority and persuasion knowledge is found Λ = .99, $F(3, 412) = .27$, $p = .85$. Also, no significant interaction effect between social proof and persuasion knowledge is detected Λ = .98, $F(3, 412) = 1.92$, $p = .13$. At last no significant interaction effect of all three variables authority, social proof and persuasion knowledge could be found Λ = .99, $F(3, 412) = .64$, $p = .59$. Table 8 shows the table of the multivariate test.

Table 8. Multivariate Test for variance: Wilks' Lambda

Effect	Λ	F	Sig.
Authority	.99	.54[b]	.66
Social proof	.99	.32[b]	.81
Persuasion knowledge	.98	1.49[b]	.22
Authority * Social proof	.98	1.54[b]	.20
Authority * Persuasion knowledge	.99	.27[b]	.85
Social proof * Persuasion knowledge	.98	1.92[b]	.13
Authority * Social proof * Persuasion knowledge	.99	.64[b]	.59

4.2 Purchase intention

The results for purchase intention indicate no main effect of authority $F(3, 412) = .79$, $p = .38$. Also, no main effect for social proof and purchase intention $F(3, 412) = .25$, $p = .62$ and no main effect for persuasion could be detected $F(3, 412) = .37$, $p = .55$. Subsequently, the combination of authority and social proof on purchase intention show no significant effect $F(3, 412) = .51$, $p = .48$. Additionally, the combination of authority and persuasion knowledge have no significant effect on purchase intention $F(3, 412) = .003$, $p = .95$ and the combination of social proof and persuasion knowledge show no significant effect on purchase intention as well $F(3, 412) = .41$, $p = .52$. At last, the combination of authority, social proof and persuasion knowledge show no significant effect on purchase intention $F(3, 412) = .79$, $p = .27$. An overview can be found in table 9 with the corresponding descriptive statistics in table 10.

Table 9. Univariate analysis purchase intention

Effect	Dependent Variable	F-value	Sig.
Authority	Purchase intention	.79	.38
Social proof	Purchase intention	.25	.62
Persuasion knowledge	Purchase intention	.37	.55
Authority*Social proof	Purchase intention	.51	.48
Authority*Persuasion knowledge	Purchase intention	.00	.95
Social proof*Persuasion knowledge	Purchase intention	.41	.52
Authority*Social proof*Persuasion knowledge	Purchase intention	1.20	.27

Table 10. Descriptive Statistics: Purchase intention

Authority present	Authority absent	Social proof present	Social proof absent	Persuasion knowledge high	Persuasion knowledge low
M = 3.50 SD = 0.82	M = 3.41 SD = 0.80	M = 3.42 SD = 0.79	M = 3.50 SD = 0.83	M = 3.47 SD = 0.83	M = 3.41 SD = 0.73

4.3 Product value

Authority shows no main effect $F(3, 412) = .13$, $p = .72$. Second, social proof shows no main effect on product value $F(3, 412) = .78$, $p = .38$ and persuasion knowledge shows no main effect on product value as well $F(3, 412) = 1.54$, $p = .22$. Furthermore, there is no significant interaction effect of authority and social proof on product value $F(3, 412) = .04$, $p = .83$. Subsequently, no significant interaction effect is found of authority and persuasion knowledge on product value $F(3, 412) = .63$, $p = 43$. Social proof and persuasion knowledge also show no significant interaction effect on product value $F(3, 412) = .81$, $p = .37$. At final, no significant effect is found between authority, social proof and persuasion knowledge on product value $F(3, 412) = 1.39$, $p = .24$. An overview is given in table 11 and 12.

Table 11. Univariate analysis product value

Effect	Dependent Variable	F-value	Sig.
Authority	Product value	.13	.72
Social proof	Product value	.78	.38
Persuasion knowledge	Product value	1.56	.22
Authority*Social proof	Product value	.04	.83
Authority*Persuasion knowledge	Product value	.63	.43
Social proof*Persuasion knowledge	Product value	.81	.37
Authority*Social proof*Persuasion knowledge	Product value	1.39	.24

Table 12. Descriptive Statistics: Product value

Authority present	Authority absent	Social proof present	Social proof absent	Persuasion knowledge high	Persuasion knowledge low
M = 3.79 SD = 0.68	M = 3.79 SD = 0.59	M = 3.77 SD = 0.58	M = 3.80 SD = 0.70	M = 3.81 SD = 0.66	M = 3.72 SD = 0.55

4.4 Perceived importance

In terms of perceived importance, some interesting results were found. To start, no significant main effect of authority is detected $F(3, 412) = 1.44$, $p = .23$. Subsequently, social proof shows no main effect on perceived importance as well $F(3, 412) = .54$, $p = .46$. However, persuasion knowledge shows a marginal significant main effect on the perceived importance of earplugs $F(3, 412) = 3.84$, $p = .051$, indicating a significant difference between people with high persuasion knowledge (M = 3.86, SD = 0.60) in comparison with low persuasion knowledge (M = 3.73, SD = 0.53). Also, the combination of the authority nudge and social proof nudge shows a significant interaction effect on the perceived importance of earplugs $F(3, 412) = 4.28$, $p = .039$. So, a social proof nudge is effective when an authority nudge is present, but the difference between both nudges present and both nudges absent is very small. It is rather the presence of a social proof nudge and the absence of the authority nudge that makes the interaction. In other words, a social proof nudge is most effective when a form of authority nudge is present. When a social proof nudge is present and an authority nudge absent, it has an adverse effect on the perceived importance of earplugs. So, there must be some sort of presence of an authority nudge within the social proof nudge. The corresponding plot for this significant interaction effect is shown in figure 2. In contrast, the combination authority and persuasion knowledge shows no interaction effect on perceived importance $F(3, 412) = .002$, $p = .97$. Although on the other hand, a social proof nudge and persuasion knowledge show a marginally significant interaction effect on perceived importance $F(3, 412) = 2.91$, $p = .089$. The results show that it does not matter whether the advertisement contains a social proof nudge or not to result in higher perceived importance as long as persuasion knowledge is low. In other words, when people with high persuasion knowledge see an ad with a social proof nudge, the perceived importance scores low. The corresponding plot for this marginal significant interaction effect is shown in figure 3. At last, authority, social proof and persuasion knowledge show no significant effect on perceived importance with $F(3, 412) = .10$, $p = .75$. In tables 13 and 14 an overview is given of these effects and descriptive statistics.

Table 13. Univariate analysis perceived importance

Effect	Dependent Variable	F-value	Sig.
Authority	Perceived importance	1.44	.23
Social proof	Perceived importance	.54	.46
Persuasion knowledge	Perceived importance	3.84	.05
Authority*Social proof	Perceived importance	4.28	.039
Authority*Persuasion knowledge	Perceived importance	.00	.97
Social proof*Persuasion knowledge	Perceived importance	2.91	.089
Authority*Social proof*Persuasion knowledge	Perceived importance	.10	.75

Table 14. Descriptive Statistics: Perceived importance

Authority present	Authority absent	Social proof present	Social proof absent	Persuasion knowledge high	Persuasion knowledge low
M = 3.87 SD = 0.56	M = 3.78 SD = 0.60	M = 3.77 SD = 0.59	M = 3.88 SD = 0.56	**M = 3.86** SD = 0.60	**M = 3.73** SD = 0.53

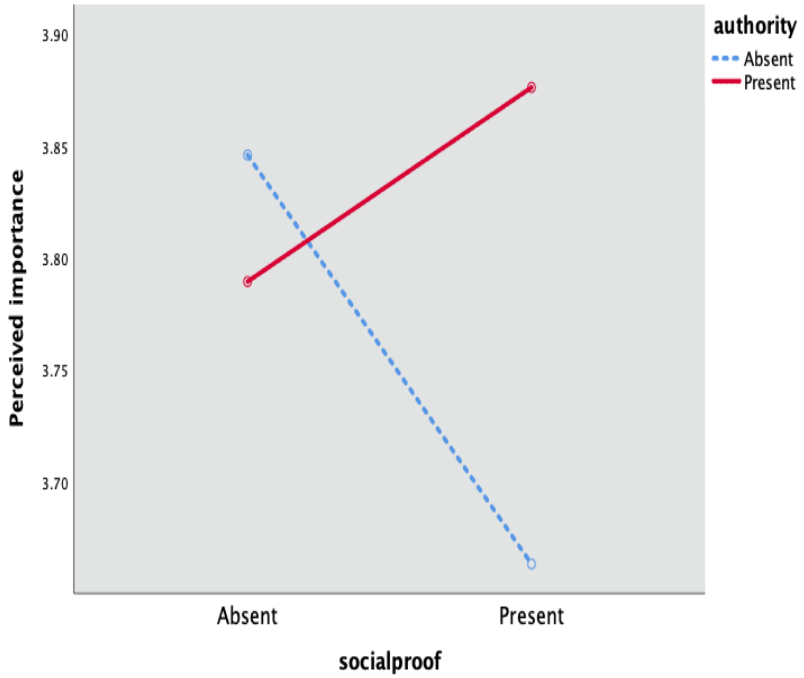

Figure 2. Interaction effect of authority and social proof on the perceived importance

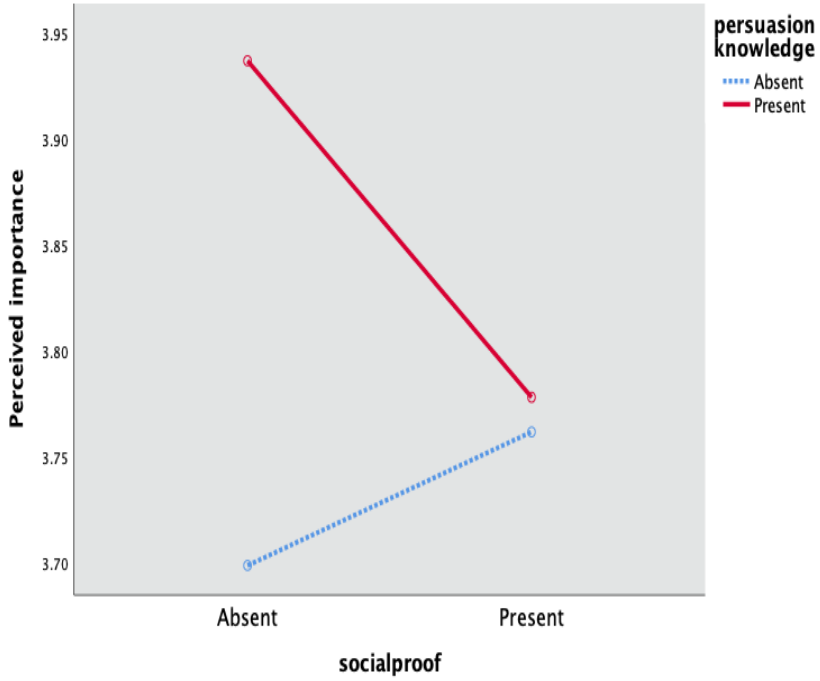

Figure 3. Interaction effect of social proof and persuasion knowledge on the perceived importance

4.5 Overview of hypotheses

After the study is performed, an overview of all hypotheses with the corresponding results is given below. Table 15 indicates if the hypotheses are supported or rejected.

Table 15. Overview of tested hypotheses

#	Hypothesis	Results
1a	The presence of an authority nudge has a positive effect on the online purchase intention of earplugs.	Rejected
1b	The presence of an authority nudge has a positive effect on the product value of earplugs.	Rejected
1c	The presence of an authority nudge has a positive effect on the perceived importance of earplugs.	Rejected
2a	The presence of a social proof nudge has a positive effect on the online purchase intention of earplugs.	Rejected
2b	The presence of a social proof nudge has a positive effect on the product value of earplugs.	Rejected
2c	The presence of a social proof nudge has a positive effect on the perceived importance of earplugs.	Rejected
3a	The presence of an authority nudge in combination with a social proof nudge has a positive effect on the online purchase intention of earplugs.	Rejected
3b	The presence of an authority nudge in combination with a social proof nudge has a positive effect on the product value of earplugs.	Rejected
3c	The presence of an authority nudge in combination with a social proof nudge has a positive effect on the perceived importance of earplugs.	Supported
4a	A high level of persuasion knowledge will reduce the effect of an authority nudge on the online purchase intention of earplugs.	Rejected
4b	A high level of persuasion knowledge will reduce the effect of a social proof nudge on the online purchase intention of earplugs.	Rejected
4c	A high level of persuasion knowledge will reduce the effect of a combination of those principles on the online purchase intention of earplugs.	Rejected
5a	A high level of persuasion knowledge will reduce the effect of an authority nudge on the product value of earplugs.	Rejected
5b	A high level of persuasion knowledge will reduce the effect of a social proof nudge on the product value of earplugs.	Rejected
5c	A high level of persuasion knowledge will reduce the effect of a combination of those principles on the product value of earplugs.	Rejected
6a	A high level of persuasion knowledge will reduce the effect of an authority nudge on the perceived importance of earplugs.	Rejected
6b	A high level of persuasion knowledge will reduce the effect of a social proof nudge on the perceived importance of earplugs.	Supported
6c	A high level of persuasion knowledge will reduce the effect of a combination of those principles on the perceived importance of earplugs.	Rejected

5. Discussion

This study was designed to answer the research question "*To what extent do Cialdini's principles authority and social proof influence the online purchase intention of earplugs and attitude (product value and perceived importance) towards earplugs for use on festivals in the Netherlands?* To study this, four manipulations were designed for an earplug's advertisement with the influence of low or high persuasion knowledge. In total 18 hypotheses (Table 15) were answered by an experimental study. After analyzing the results of the experimental study, almost all hypotheses are rejected. However, the study revealed some interesting findings which will be discussed.

5.1 General discussion of the findings

The findings of this study focused on the effectiveness of the social proof nudge and authority nudge on people's purchase intention, product value and perceived importance with or without the influence of persuasion knowledge. In short, it can be concluded that no main effect from the single nudges is found. Furthermore, the two nudges authority and social proof combined resulted in a significant effect on perceived importance. In a short intervention, it is good use a social proof nudge with some form of authority nudge present to increase the perceived importance of earplugs use. Given the presence of a social proof nudge and the absence of an authority nudge, it is counter-productive to increase the perceived importance of earplugs. So, it can be stated that a social proof nudge is most effective in achieving higher perceived importance when a form of authority nudge is present. Subsequently, an effect is found between social proof and persuasion knowledge. All the results will be discussed in the upcoming paragraphs.

5.1.1 Discussion of authority

Authority has no main effect on purchase intention, product value and perceived importance. It was expected, just like the literature depicted that authority would influence people's purchase intention, product value and perceived importance, while an authority nudge makes it easier for people to make a decision, so that people do not have to process all the information themselves (Gkika & Lekakos, 2014). Normally, when people are uncertain about a decision an authority nudge can help with making the decision (Seethaler & Rose, 2006). In this way, authority was expected to have a positive influence on online purchase intention and attitude towards earplugs. By contrast, this study showed that authority itself did not have any effect on purchase intention, product value and perceived importance. One reason for this may be because people may not have been able to identify with the person pictured to represent authority. A pre-test was conducted beforehand to find out which (type of) person could best be used to represent the authority nudge. This resulted in an authority nudge with an expert by experience in it. Although presumably, the level of expertise was not strong enough to find an effect. Perhaps many people still could not identify with the expert in question and therefore the results were not significant.

5.1.2 Discussion of social proof

Social proof has no main effect on purchase intention, product value and perceived importance. A reason for this can be that participants already have a preference for purchasing earplugs or not. A previous study showed that a social proof nudge only works and is only effective in guiding people's choices when clear preferences are lacking and when people do not know what to choose (Venema, Kroese, Benjamins & de Ridder, 2020). So, it is possible that participants already have a preference whether or not to purchase and wear earplugs at festivals. The results show that the absence of a strong preference affects the effectiveness of a social proof nudge. This is in line with the literature found earlier about social proof but is also at variance with certain literature and the hypothesis. As previously shown in the literature; people are looking for social proof when in uncertain and unfamiliar situations (Cialdini, 2001). When people do not know what to do, people mimic or learn from others. The actions of others around them are important guides in a situation when decision-makers are unclear about the value of the decision to be made (Rao, Greve & Davis,

2001). So, the results from this research confirm the statements from earlier research in which social proof nudges work best when there is an absence of clear preference or when people are unsure about certain decisions. On the other hand, the literature states that people make fewer mistakes by following social proof. When many people do something, it is usually the right thing to do (Kenrick, Neuberg & Cialdini, 2010). Within this statement from previous literature, it is not stated that a person has to be uncertain for social proof to work. It is stated that social proof regularly influences people's decision-making process and that people tend to do what others do regardless of uncertainty (Gkika & Lekakos, 2014). The social proof principle also implies that people tend to follow the opinions and behavior of people who are similar to them (Amblee & Bui, 2011). Perhaps participants could not identify themselves with the people that are represented in the social proof nudge. In summary, it was expected that social proof would affect purchase intention, product value and perceived importance. In contrast, this study found that social proof had no effect, perhaps due to the fact that participants already had some kind of preference regarding the earplugs.

5.1.3 Discussion of the authority nudge and social proof combined

No effects of authority and social proof together were found on purchase intention. Literature states that when intentions to execute certain behavior are firm, it is more likely that the behavior will be executed (Ajzen, 1991). It indicates how hard people want to try and how much effort people want to put into the behavior. As a general rule, the stronger the intention to exhibit a behavior, the more likely it is that the behavior will be carried out (Ajzen, 1991). Therefore, it can be stated that it is possible that the consumer's intrinsic attitude was strong enough not to purchase the earplugs and that the authority and social proof nudge did not have any influence on it. Subsequently, the purchase intention can be influenced by many factors, for instance by the knowledge people have about the earplugs concerned, this could be a disadvantage for the purchase intention of the earplugs. This overview of factors could influence the functioning of the social proof and authority nudges on purchase intention.

Subsequently, no effects of authority and social proof were found on product value. It was expected that when principles of persuasion were used in conjunction, people thought the product would be worth the money (Cialdini et al., 2002). One of the reasons why product value did not increase after the use of a social proof nudge and authority nudge could be that people do not see the seriousness of the situation. If a product relieves all the issues from someone, people are willing to pay about any amount of money. The more pain points a product can solve, the more valuable the customer will find the product. Although within the study, the vast majority of people probably do not have any pain points which these earplugs can solve, as a result, the product value is more difficult to influence (Cooper, 1994). It can be concluded that nudges do not necessarily influence product value. People are not per se willing to pay more when social proof nudges and authority nudges are displayed.

Also, only limited research is conducted including and combining both authority nudge and social proof nudge. There have not been many studies using both nudges and showing the effects of both nudges together on purchase intention and product value. Therefore, the novelty of the study might be a reason why outcomes did not match the assumptions of existing literature.

At last, a significant effect of authority and social proof on perceived importance is found. To achieve higher perceived importance, it is advised to use both the authority nudge and social proof nudge. Both nudges have convinced people that wearing earplugs is important to prevent hearing damage. Cialdini, Roselle, Wissler and Schweitzer (2002) emphasize the result, while they state that the principles are most effective when combined because the principles strengthen each other. Celebrity endorsement theory can support the findings. Within celebrity endorsement, it is the purpose to use one or multiple celebrities to advertise a specific product. The primary goal is to reach a greater audience, represented by the celebrity's fan base. By making use of celebrity endorsement the organizations and their products can benefit in their direct sales, awareness, confidence and loyalty (McCracken, 1989). Within celebrity endorsement, authority is used,

however, this authority is created by the public, thus social proof. Celebrities only have a lot of authority if they have a large constituency.

5.1.4 Discussion of persuasion knowledge

Within this research, persuasion knowledge is a factor that influences the relationship of the nudges and the purchase intention and attitude towards earplugs. However, it is also examined whether persuasion knowledge alone influences purchase intention, product value and perceived importance.

After this research, it can be concluded that almost no effects are visible for persuasion knowledge. In itself, persuasion knowledge only has an impact on perceived importance. So, within perceived importance, a difference is noted between people with high persuasion knowledge and low persuasion knowledge. Meaning that participants who have high persuasion knowledge score low on perceived importance as compared to participants with a low level of persuasion knowledge. Persuasion knowledge on itself has no impact on the purchase intention and product value of earplugs. Also, when authority and/or social proof nudges are present, the persuasion knowledge does not influence the purchase intention or product value.
The reason might be that no main effects of both authority and social proof nudge were found. So, this may explain why persuasion knowledge does not affect the relationship between the nudges and product value or purchase intention. When the authority nudge and social proof nudge do not influence the purchase intention or product value, it is expected that persuasion knowledge does not change anything about this relationship.

On the other hand, when looking at perceived importance, persuasion knowledge has some effect on the relationship of social proof and the perceived importance of earplugs. In contrast to the relationship between an authority nudge and the perceived importance. Within the relationship of social proof and perceived importance it can be stated that when people have high persuasion knowledge and they see an advertisement with the presence of social proof nudge, the perceived importance is low. Normally social proof is convincing people to behave in a certain way, but when people possess a high persuasion knowledge it works counter-productive. People often realize that they are being influenced, so the nudge does not work properly. Persuasion knowledge is a very important factor when using nudges to persuade people, it only works when people do not know that they are influenced. This is supported by Friestad and Wright (1994), who states that people develop knowledge about persuasion and use this knowledge to cope with the persuasion attempts. The knowledge can assist a person in responding or resisting the persuasion attempt. While over time, consumers gain insight into the tactics and methods used by marketers and this can be used by consumers to protect themselves from the attempts. This is also supported by Livingstone and Helsper (2006) who state that the more knowledge a person has, the less susceptible this person will be to the persuasion attempts. This is underlined by the results of the study. When participants know they are being persuaded, the social proof nudge will be less effective.

At last, authority, social proof and persuasion knowledge show no significant effect on perceived importance. So, the conclusion is that the social proof nudge and authority nudge work regardless of the presence of persuasion knowledge. It was expected that a high level of persuasion knowledge would reduce the effect of the combination of the nudges on the perceived importance of earplugs, but this is not the case. The level of persuasion knowledge is not of any influence for the effect of authority and social proof on perceived importance.

5.2 Practical implications

After all results of the study have been analyzed, some practical implications can be detected, which may be useful for different organizations aiming at an increase of the purchase intention, product value or perceived importance of their product. This study showed that using the principles of Cialdini 'authority' and 'social proof' is effective in achieving higher perceived importance. Therefore, when festival

organizations are interested in informing people about the importance of wearing earplugs at festivals, they should include a social proof nudge with an authority nudge element. On the other hand, when festival organizations are interested in selling more earplugs it is not advised to include an authority nudge and social proof nudge, while both nudges do not affect the purchase intention or product value. Nonetheless, it is advised to use these nudges to achieve higher perceived importance among people. Maybe this high perceived importance will result in a higher purchase intention in the end, although this can be a subject for future research.

Manipulating people with the principles of persuasion can backfire the effect and should be used with caution. Especially, by making use of the social proof nudge for reaching higher perceived importance. The study showed that social proof works counter-productive when people have high persuasion knowledge. It is therefore important for organizations to know how effective their social proof nudge would be. It is useful to pre-test different types of social proof techniques, to see what has the most positive influence on perceived importance. Also, other types of persuasion principles can be used and tested as well.

For organizations, it is not necessarily advisable to use authority nudges to increase purchase intention, product value or perceived importance. The authority nudge did not show any effect and therefore it is not advised to use this nudge. It is possible that when people are exposed to the nudge of authority for a longer period, this would have a better effect on purchase intention, product value and perceived importance. But with the current knowledge after this research, it is not something that is advised right away.

5.2 Theoretical implications

As is written in literature many times; nudging is the technique that should be used when the goal is to persuade people. Although, this research suggests that this is not the case. The authority and social proof nudges were not very effective in the context of selling earplugs to prevent hearing damage or in the context of increasing a higher product value of earplugs. These are new insights that this study contributed. However, many more principles of persuasion could be applied, which may be effective within these two contexts. Also, the authority and social proof nudge may affect in another context. Therefore, this study agrees with the literature that nudging can still help to persuade people. Nevertheless, to achieve huge differences in the purchase intention or product value of earplugs, this study does not agree that the authority and social proof nudge are the most effective to do this. Only in achieving higher perceived importance, nudges are effective. Therefore, this study still considers the persuasion principles as an approach that could be important in the marketing industry.

Also, the literature states that persuasion knowledge would harm the effect of persuasion principles. While consumers develop knowledge about persuasion and use this knowledge to cope with persuasion attempts People use this persuasion knowledge to identify when someone is attempting to influence. The more knowledge someone has, the more susceptible (Friestad & Wright, 1994). Although, this theory is only applicable for the social proof nudge with the perceived importance of the earplugs. The level of persuasion knowledge was not relevant for the other factors in this context. So according to the purchase intention and product value of earplugs, the persuasion knowledge did not play a role. Certainly, there are other persuasion techniques as well. Therefore, it is ruled out that persuasion knowledge does not influence all other persuasion principles. Maybe not all persuasion techniques within this context, but possibly in other situations or with other persuasion techniques.

5.4 Limitations and recommendations

Although this study contributes to new insights into the principles of Cialdini and its effectiveness, the research has its limitations that need to be taken into account concerning this study to draw lessons and suggestions for future research.

At first, the reliability of the construct persuasion knowledge, which had a Cronbach's Alpha level of .63. Although, literature indicated that a Cronbach's Alpha level of .6 was acceptable, still a level of .7 is more preferable. For future research, it is recommended to aim for a Cronbach's Alpha level of .7 within each construct.

Second, the division between men and women is not equally divided. 72.5% of women participated in the study. It is possible that if this distribution was proportional, the results of this study would have been different. Men and women may both react differently to certain persuasion principles or have other ideas about their persuasion knowledge. For future research it is therefore advisable that the distribution between men and women is (more) equal.

Third, some participants mentioned that they had not seen the conditions in the advertisement properly, especially the social proof nudge. Those participants mentioned this in the comments. It was also reflected in the control question about the visibility of the nudges, although within the survey was indicated that it was possible to zoom in on the advertisement. It is also possible that participants might not fully understand what was meant with the authority nudge or social proof nudge, although this is explained in full detail in the question. At last, it might be that participants did not pay enough attention or did not correctly process the manipulation in the advertisement. Despite the use of a timer when displaying the ad. So, for future research, a visibility test is advisable to test whether participants have paid attention to the manipulation.

Fourth, within this study, only one item (earplugs) was used in the stimulus material. For future research, it may be interesting to use two or more items to see if the results would be different. In this way, the results can be compared with each other.

Fifth, only Cialdini's persuasion principles 'social proof' and 'authority' are used within this study. Not all nudges have been used within the study and have been combined in the stimulus material. Although different combinations have been made, still there are more combinations possible with more persuasion principles. For future research, it may be interesting to find out which combination of persuasion techniques gives the best result.

Sixth, a scenario-based method with a self-made advertisement was used, but it is not a real buying situation. It is not clear whether participants would react similarly in real life as they did in this study. For future research, it would be interesting to implement the techniques into real websites. With a/b testing and randomly assigning visitors to different variations of the website, it could be possible to detect differences in purchase intention, product value or perceived importance between two groups.

Seventh, no effect was found for product value. Maybe a reason for this might be that an average price is given for the earplugs and questions from the Marketing Scales Handbook (Bruner, 2009) were used to test this construct. In the future, it is probably better to measure product value with a question like: "How much are you willing to pay for these earplugs?" Asking such a question in future research will probably lead to greater differences in product value.

Eighth, no main effect of social proof or authority was found, maybe this was because participants could not identify themselves with the authority principle and the fictitious people that were used in the social proof nudge. In future research, it is recommended to make the social proof nudge and authority nudge as personal as possible. So, that most people can identify with the different nudges.

Ninth, a single-shot intervention is carried out and this can be detrimental (Mongkuo and Quantrell, 2015). When an intervention occurs multiple times or for a longer period, results may differ (Di Lauro, Kiss & Miller, 2020). There is a good chance that when interventions are repeated, in which people are manipulated more often or for a longer period it will result in other outcomes. It is very influential when and how the

intervention is done. For future research, it is therefore advisable to repeat certain interventions or to expose people to a certain intervention for a longer period of time.

5.5 Conclusion

This study was designed to answer the question to what extent Cialdini's principles 'authority' and 'social proof' influence the online purchase intention of earplugs and attitude towards earplugs for use on festivals in the Netherland whether or not influenced by the effect of persuasion knowledge. An answer to this research question would fill the gap within the (festival) industry, by looking at how authority and social proof can be used most effectively to increase purchase intention, product value and perceived importance of earplugs.

A 2 (authority nudge vs. no authority nudge) x 2 (social proof nudge vs. no social proof nudge) x 2 (low vs. high persuasion knowledge) experimental design was employed to answer this question. An online questionnaire has been developed in which participants have been exposed to one of the conditions and have answered questions about the purchase intention, product value and perceived importance of earplugs to reflect the various manipulations concerning earplugs. Besides, questions were asked about the participants' persuasion knowledge.

Although many of the hypotheses were rejected, the research still provided interesting new insights. In this respect, the study came to a result in which social proof and authority both separately do not affect purchase intention, product value and the perceived importance of earplugs. This was not in line with what the literature suggested. Besides, the study concluded that social proof and authority together had a positive effect on perceived importance. Even though both nudges combined did not affect purchase intention and product value, it did affect perceived importance. Lastly, it can be concluded that persuasion knowledge is an important factor when only a social proof nudge is used. This factor determines the effect of the social proof nudge. When people have high persuasion knowledge, social proof nudge does not affect perceived importance. This persuasion knowledge made no difference to the effect of authority nudge on purchase intention, product value and perceived importance, neither did this knowledge make a difference when both types of nudges were used concerning purchase intention, product value and perceived importance.

To answer the research question, it can be concluded that using a social proof nudge and authority nudge on a website is the most beneficial when high perceived importance must be achieved. Additionally, a social proof nudge on itself can be used, but only when a low persuasion knowledge is present.

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Appendices

Appendix A – Pre-test manipulations Dutch

Beste deelnemer,
Bedankt voor je deelname aan dit korte onderzoek als onderdeel van mijn masterscriptie aan de Universiteit Twente. Het doel van dit onderzoek is om duidelijk vast te stellen welke persoon volgens jou de meeste invloed op je zou kunnen hebben om gehoorbescherming te kopen voor gebruik op festivals en met welke van deze personen jij het meest bekend bent. Daarnaast is het de vraag welk type 'social proof' volgens jou de meeste invloed op je zou kunnen hebben bij het zien van een advertentie en welk type 'social proof' volgens jou het meest realistisch is, wanneer je deze 'social proof methode' aantreft bij een advertentie over gehoorbescherming. Binnen dit onderzoek is je mening belangrijk, vandaar dat er geen goed of fout antwoord is. Jouw antwoord is van waarde voor verder onderzoek en draagt bij aan nieuwe inzichten over dit onderwerp.

Je deelname aan dit onderzoek is vrijwillig en neemt ongeveer 5 minuten in beslag. Je kunt besluiten niet deel te nemen aan dit onderzoek of je kunt je op elk gewenst moment terugtrekken. Je antwoorden zullen vertrouwelijk worden behandeld en er zal geen identificerende informatie worden verzameld.

Als je vragen hebt over het onderzoek, aarzel dan niet om contact met mij op te nemen via deze mail:
a.i.m.lentfert@student.utwente.nl

Anne Lentfert
Universiteit Twente
Communication studies

"Ik ga akkoord om vrijwillig deel te nemen aan dit onderzoek."

- Ja

Lees het onderstaande scenario aandachtig door en houd hier rekening mee bij de beantwoording van de volgende vragen/verklaringen.

Je bezoekt vaak muziekfestivals in Nederland en bent je bewust van het feit dat het geluid op deze evenementen zeer luid is en gehoorschade kan veroorzaken. Je bent in twijfel over het wel of niet aanschaffen van gehoorbescherming om je oren te beschermen tegen de harde muziek op festivals.

"Ik heb het bovenstaande scenario gelezen."

- Ja

1. Rangschik de volgende mensen waarvan u denkt dat ze de meeste invloed op u hebben om u te overtuigen oordopjes/gehoorbescherming aan te schaffen.
1 = Meeste invloed en 30 = Minste invloed.

- Anna Nooshin (influencer)
- Dimitri Vegas & Like Mike (DJ)
- KNO-arts (dokter)
- Nienke Plas (influencer)
- Martin Garrix (DJ)
- Audicien van Beter Horen of Schoonenberg (gehoorexpert)
- Giel de Winter (influencer)
- David Guetta (DJ)

- Bachelor in audiologie (specialist op het gebied van gehoor, geluid, akoestiek en spraak)
- Britt Dekker (influencer)
- Armin van Buuren (DJ)
- Ervaringsdeskundige (Iemand die gehoorschade op heeft gelopen door te harde muziek)
- Enzo Knol (influencer)
- Marshmello (DJ)
- Huisarts (dokter)
- Fred van Leer (Influencer)
- Don Diablo (DJ)
- Gehoorbeschermingsproducent (expert)
- Tim Hofman (influencer)
- Oliver Heldens (DJ)
- Duncan Stutterheim (oprichter ID&T)
- Monica Geuze (influencer)
- Tiësto (DJ)
- Wouter Tavecchio (oprichter Q-dance)
- Nikkie de Jager (influencer)
- Afrojack (DJ)
- Geluidstechnicus op festivals (expert)
- Steve Aoki (DJ)
- Jan Smeets (oprichter Pinkpop)
- Dylan Haegens (influencer)

2. Beoordeel hoe bekend jij bent met de volgende personen.

	Niet bekend	Beetje bekend	Redelijk bekend	Bekend	Heel bekend
Huisarts (dokter)	○	○	○	○	○
Enzo Knol (influencer)	○	○	○	○	○
Marshmello (DJ)	○	○	○	○	○
Ervaringsdeskundige (Iemand die gehoorschade op heft gelopen door te harde muziek)	○	○	○	○	○
Britt Dekker (influencer)	○	○	○	○	○
Armin van Buuren (DJ)	○	○	○	○	○
Bachelor in audiologie (specialist op het gebied van gehoor, geluid, akoestiek en spraak)	○	○	○	○	○
David Guetta (DJ)	○	○	○	○	○
Giel de Winter (influencer)	○	○	○	○	○
Audicien van Beter Horen of Schoonenberg (gehoorexpert)	○	○	○	○	○
Anna Nooshin (influencer)	○	○	○	○	○
Dimitri Vegas & Like Mike (DJ)	○	○	○	○	○
KNO-arts (dokter)	○	○	○	○	○
Nienke Plas (influencer)	○	○	○	○	○
Martin Garrix (DJ)	○	○	○	○	○
Fred van Leer (influencer)	○	○	○	○	○
Jan Smeets (Oprichter Pink Pop)	○	○	○	○	○
Don Diablo (DJ)	○	○	○	○	○
Oliver Heldens (DJ)	○	○	○	○	○
Gehoorbeschermingsproducent (expert)	○	○	○	○	○
Nikkie de Jager (influencer)	○	○	○	○	○
Steve Aoki (DJ)	○	○	○	○	○

Geluidstechnicus op festivals (expert)	○	○	○	○	○
Monica Geuze (influencer)	○	○	○	○	○
Tiësto (DJ)	○	○	○	○	○
Duncan Stutterheim (Oprichter ID&T)	○	○	○	○	○
Dylan Haegens (influencer)	○	○	○	○	○
Wouter Tavecchio (Oprichter Q-dance)	○	○	○	○	○
Tim Hofman (influencer)	○	○	○	○	○
Afrojack (DJ)	○	○	○	○	○

3. Rangschik de volgende berichten waarvan jij denkt dat ze de meeste invloed op je hebben om je te overtuigen om oordopjes/gehoorbescherming aan te schaffen.
1 = Meeste invloed en 10 = Minste invloed

- ○ Een uitstekende klantenreview op de website.
- ○ Een bericht dat weergeeft: "Populair, vandaag hebben 128 andere festivalbezoekers deze oordopjes gekocht."
- ○ Een beoordelingssysteem welke weergeeft 4 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.
- ○ Een foto van andere festivalbezoekers die dezelfde oordoppen dragen en hierover enthousiast zijn.
- ○ Een Social media post met de oordoppen in kwestie die een groot aantal likes heeft ontvangen.
- ○ Een beoordelingssysteem welke weergeeft 5 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.
- ○ Een goede beoordeling van de oordoppen op een website van een derde partij.
- ○ Het tonen van prijzen en certificaten welke deze oordopjes in ontvangst hebben mogen nemen.
- ○ Een Social media post met de oordoppen in kwestie die zeer vaak gedeeld is.
- ○ Een beoordelingssysteem welke weergeeft 4,5 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.

4. Beoordeel hoe realistisch jij de volgende berichten acht bij het zien van een advertentie over oordopjes/gehoorbescherming.

	Niet realistisch	Beetje realistisch	Redelijk realistisch	Realistisch	Heel realistisch
Een uitstekende klantenreview op de website.	○	○	○	○	○
Een bericht dat weergeeft: "Populair, vandaag hebben 128 andere festivalbezoekers deze oordopjes gekocht."	○	○	○	○	○
Een beoordelingssysteem welke weergeeft 4 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.	○	○	○	○	○
Een foto van andere festivalbezoekers die dezelfde oordoppen dragen en hierover enthousiast zijn.	○	○	○	○	○
Een Social media post met de oordoppen in kwestie die een groot aantal likes heeft ontvangen.	○	○	○	○	○
Een beoordelingssysteem welke weergeeft 5 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.	○	○	○	○	○

Een goede beoordeling van de oordoppen op een website van een derde partij.	○	○	○	○	○
Het tonen van prijzen en certificaten welke deze oordopjes in ontvangst hebben mogen nemen.	○	○	○	○	○
Een Social media post met de oordoppen in kwestie die zeer vaak gedeeld is.	○	○	○	○	○
Een beoordelingssysteem welke weergeeft 4,5 van de 5 sterren te hebben gekregen op basis van klanttevredenheid.	○	○	○	○	○

Appendix B – Pre-test manipulations English

Dear participant,
Thank you for participating in this short research as part of my master's thesis at the University of Twente. This research aims to establish which person you think could have the most influence on you to purchase hearing protection for use at festivals and which of these persons you are most familiar with.
Besides, which type of 'social proof' you think could have the most influence on you when you see an advertisement and which type of 'social proof' you think is the most realistic when you see this 'social proof method' next to an advertisement about hearing protection. Within this research, your opinion is important, which is why there is no right or wrong answer. Your answer is of value for further research and contributes to new insights on this subject.

Your participation in this research is voluntary and takes about 5 minutes. You can decide not to participate in this study, or you can withdraw at any given moment. Your answers will be treated confidentially, and no identifying information will be collected.

If you have any questions about the survey, please do not hesitate to contact me via this mail:
a.i.m.lentfert@student.utwente.nl

Anne Lentfert
University of Twente
Communication studies

"I agree to voluntarily participate in this study".
- Yes

Please read the scenario below carefully and take it into account when answering the following questions/statements.

You often visit music festivals in the Netherlands and are aware of the fact that the sound at these events is very loud and can cause hearing damage. You are in doubt whether or not to purchase hearing protection to protect your ears against the loud music at festivals.

"I have read the above scenario."
- Yes

1. Please rank the following people you think may have the most influence on you to persuade you to purchase earplugs/hearing protection. 1 = Most influence and 30 = Least influence.
- Anna Nooshin (influencer)
- Dimitri Vegas & Like Mike (DJ)
- ENT-doctor (doctor)
- Nienke Plas (influencer)
- Martin Garrix (DJ)
- Audicien from Beter Horen or Schoonenberg (hearing expert)
- Giel de Winter (influencer)
- David Guetta (DJ)
- Bachelor of audiology (hearing, sound, acoustics and speech specialist)
- Britt Dekker (influencer)
- Armin van Buuren (DJ)
- An expert by experience (Someone with severe hearing damage caused by too loud music)

- Enzo Knol (influencer)
- Marshmello (DJ)
- General practitioner (doctor)
- Fred van Leer (Influencer)
- Don Diablo (DJ)
- Hearing protection producer (expert)
- Tim Hofman (influencer)
- Oliver Heldens (DJ)
- Duncan Stutterheim (founder ID&T)
- Monica Geuze (influencer)
- Tiësto (DJ)
- Wouter Tavecchio (founder Q-dance)
- Nikkie de Jager (influencer)
- Afrojack (DJ)
- A sound technician at festivals (expert)
- Steve Aoki (DJ)
- Jan Smeets (founder Pinkpop)
- Dylan Haegens (influencer)

2. Please assess how familiar you are with the following people.

	Not familiar	Little familiar	Reasonably familiar	Familiar	Very familiar
General practitioner (doctor)	○	○	○	○	○
Enzo Knol (influencer)	○	○	○	○	○
Marshmello (DJ)	○	○	○	○	○
An expert by experience (Someone with severe hearing damage caused by too loud music)	○	○	○	○	○
Britt Dekker (influencer)	○	○	○	○	○
Armin van Buuren (DJ)	○	○	○	○	○
Bachelor of audiology (hearing, sound, acoustics and speech specialist)	○	○	○	○	○
David Guetta (DJ)	○	○	○	○	○
Giel de Winter (influencer)	○	○	○	○	○
Audicien from Beter Horen or Schoonenberg (hearing expert)	○	○	○	○	○
Anna Nooshin (influencer)	○	○	○	○	○
Dimitri Vegas & Like Mike (DJ)	○	○	○	○	○
ENT-doctor (doctor)	○	○	○	○	○
Nienke Plas (influencer)	○	○	○	○	○
Martin Garrix (DJ)	○	○	○	○	○
Fred van Leer (influencer)	○	○	○	○	○
Jan Smeets (Founder Pink Pop)	○	○	○	○	○
Don Diablo (DJ)	○	○	○	○	○
Oliver Heldens (DJ)	○	○	○	○	○
Hearing protection producer (expert)	○	○	○	○	○
Nikkie de Jager (influencer)	○	○	○	○	○
Steve Aoki (DJ)	○	○	○	○	○
A sound technician at festivals (expert)	○	○	○	○	○
Monica Geuze (influencer)	○	○	○	○	○
Tiësto (DJ)	○	○	○	○	○

Duncan Stutterheim (founder ID&T)	○	○	○	○	○
Dylan Haegens (influencer)	○	○	○	○	○
Wouter Tavecchio (founder Q-dance)	○	○	○	○	○
Tim Hofman (influencer)	○	○	○	○	○
Afrojack (DJ)	○	○	○	○	○

3. Please rank the following messages that you think will have the most influence on you to convince you to purchase earplugs/hearing protection. 1 = Most influence and 10 = Least influence.

- ○ An excellent customer review on the website.
- ○ A message saying:" Popular, today 128 fellow other festival visitors bought these earplugs."
- ○ A rating system representing 4 out of 5 stars based on customer satisfaction.
- ○ A picture of other festival visitors who wear the same earplugs and are enthusiastic about it.
- ○ A social media post with the earplugs in question that received a large number of likes.
- ○ A rating system representing 5 out of 5 stars based on customer satisfaction.
- ○ A review on a third-party website about these earplugs.
- ○ Displaying the awards and certificates which these earplugs already received.
- ○ A social media post with the earplugs in question is very often shared.
- ○ A rating system representing 4.5 out of 5 stars based on customer satisfaction.

4. Please assess how realistic you think the following messages are when you see an advertisement about earplugs/hearing protection.

	Not realistic	Slightly realistic	Reasonably realistic	Realistic	Very realistic
An excellent customer review on the website.	○	○	○	○	○
A message saying:" Popular, today 128 fellow other festival visitors bought these earplugs."	○	○	○	○	○
A rating system representing 4 out of 5 stars based on customer satisfaction.	○	○	○	○	○
A picture of other festival visitors who wear the same earplugs and are enthusiastic about it.	○	○	○	○	○
A social media post with the earplugs in question received a large number of likes.	○	○	○	○	○
A rating system representing 5 out of 5 stars based on customer satisfaction.	○	○	○	○	○
A review on a third-party website about these earplugs.	○	○	○	○	○
Displaying the awards and certificates which these earplugs already received.	○	○	○	○	○
A social media post with the earplugs in question is very often shared.	○	○	○	○	○
A rating system representing 4.5 out of 5 stars based on customer satisfaction.	○	○	○	○	○

Appendix C – Authority level of influence and familiarity

Level of influence

	Min	Max	Mean	SD
An expert by experience (someone with severe hearing damage caused by too loud music)	1	7	2.70	2.21
General practitioner (doctor)	1	17	4.80	4.52
ENT-doctor (doctor)	1	16	4.80	4.59
Hearing protection producer (expert)	2	15	6.30	3.50
Audicien from Beter Horen or Schoonenberg (hearing expert)	1	18	6.60	5.78
A sound technician at festivals (expert)	2	25	7.70	7.80
Bachelor of audiology (hearing, sound, acoustics and speech specialist)	2	30	9.40	8.95
Martin Garrix (DJ)	1	17	10.00	5.40
David Guetta (DJ)	5	18	11.50	4.77
Tiësto (DJ)	6	22	12.10	4.86
Armin van Buuren (DJ)	3	28	12.80	7.79
Afrojack (DJ)	4	26	13.70	6.11
Wouter Tavecchio (founder Q-dance)	8	29	14.50	6.65
Duncan Stutterheim (founder ID&T)	7	22	15.70	5.89
Don Diablo (DJ)	7	21	16.70	3.97
Jan Smeets (founder Pinkpop)	8	29	17.60	8.07
Dimitri Vegas & Like Mike (DJ)	9	27	17.70	5.89
Oliver Heldens (DJ)	3	29	17.70	8.49
Tim Hofman (influencer)	10	25	18.20	4.94
Steve Aoki (DJ)	11	30	18.60	5.72
Monica Geuze (influencer)	11	29	19.30	6.50
Marshmello (DJ)	14	28	20.00	5.08
Anna Nooshin (influencer)	10	30	21.40	8.22
Britt Dekker (influencer)	12	30	21.60	5.74
Nikkie de Jager (influencer)	9	29	22.40	6.45
Nienke Plas (influencer)	12	30	23.20	5.83
Fred van leer (influencer)	12	30	23.40	5.99
Enzo Knol (influencer)	15	30	24.60	4.60
Giel de Winter (influencer)	19	30	24.90	3.54
Dylan Haegens (influencer)	18	30	25.10	3.70

Level of familiarity

	Min	Max	Mean	SD
General practitioner (doctor)	3	5	3.80	0.79
Armin van Buuren (DJ)	1	5	3.30	1.06
David Guetta (DJ)	1	5	3.30	1.06
Tiësto (DJ)	1	5	3.20	1.14
An expert by experience (someone with severe hearing damage caused by too loud music)	1	4	3.10	1.10
Martin Garrix (DJ)	1	5	3.10	1.20
Afrojack (DJ)	1	5	3.10	1.20
ENT-doctor (doctor)	1	5	3.00	1.49
Tim Hofman (influencer)	1	5	2.80	1.32
Dimitri Vegas & Like Mike (DJ)	1	4	2.60	1.08

Audicien from Beter Horen of Schoonenberg (hearing expert)	1	4	2.50	1.43
Anna Nooshin (influencer)	1	5	2.40	1.51
Nienke Plas (influencer)	1	4	2.40	1.35
Fred van Leer (influencer)	1	4	2.40	1.17
Nikkie de Jager (influencer)	1	4	2.40	1.27
Don Diablo (DJ)	1	4	2.30	0.95
Enzo Knol (influencer)	1	3	2.20	0.79
Britt Dekker (influencer)	1	4	2.20	1.03
Steve Aoki (DJ)	1	4	2.20	1.03
A sound technician at festivals (expert)	1	3	2.20	0.79
Monica Geuze (influencer)	1	4	2.20	1.40
Duncan Stutterhelm (founder ID&T)	1	5	2.20	1.55
Wouter Tavecchio (founder Q-dance)	1	5	2.20	1.55
Hearing protection producer (expert)	1	4	2.10	1.29
Bachelor of audiology (hearing, sound, acoustics and speech specialist)	1	4	1.90	1.20
Giel de Winter (influencer)	1	4	1.80	1.03
Jan Smeets (founder Pink Pop)	1	3	1.80	0.79
Oliver Heldens (DJ)	1	3	1.70	0.82
Dylan Haegens (influencer)	1	3	1.60	0.70
Marshmello (DJ)	1	2	1.30	0.48

Appendix D – Social proof level of influence and degree of realism

Level of influence

	Min	Max	Mean	SD
Displaying the awards and certificates which these earplugs already received.	1	6	3.40	1.84
A review on a third-party website about these earplugs.	1	8	3.80	2.87
A rating system representing 5 out of 5 stars based on customer satisfaction.	1	9	3.90	2.13
A rating system representing 4.5 out of 5 stars based on customer satisfaction.	1	8	4.10	1.91
An excellent customer review on the website.	1	9	4.60	2.92
A rating system representing 4 out of 5 stars based on customer satisfaction.	3	7	5.40	1.08
A picture of other festival visitors who wear the same earplugs and are enthusiastic about it.	1	10	6.40	3.66
A message saying:" Popular, today 128 fellow other festival visitors bought these earplugs."	2	10	6.40	2.27
A social media post with the earplugs in question received a large number of likes.	3	10	8.20	1.99
A social media post with the earplugs in question is very often shared.	4	10	8.80	1.93

Degree of realism

	Min	Max	Mean	SD
A review on a third-party website about these earplugs.	3	4	3.80	0.42
A rating system representing 4 out of 5 stars based on customer satisfaction.	2	5	3.40	0.97
An excellent customer review on the website.	2	5	3.30	1.06
A rating system representing 4.5 out of 5 stars based on customer satisfaction.	2	5	3.30	0.95
Displaying the awards and certificates which these earplugs already received.	2	5	3.30	0.95
A picture of other festival visitors who wear the same earplugs and are enthusiastic about it.	1	4	2.90	1.10
A social media post with the earplugs in question received a large number of likes.	1	5	2.90	1.29
A social media post with the earplugs in question is very often shared.	1	4	2.80	0.92
A rating system representing 5 out of 5 stars based on customer satisfaction.	1	4	2.40	0.84
A message saying:" Popular, today 128 fellow other festival visitors bought these earplugs."	1	4	2.40	1.17

Appendix E – Questionnaire main study Dutch

Beste deelnemer,

Bedankt voor uw deelname aan dit onderzoek. Het doel van dit onderzoek is om nieuwe inzichten te krijgen in de verkoop van oordoppen ter bescherming van harde muziek op festivals. Het onderzoek werkt als volgt: Allereerst zullen er demografische gegevens worden gevraagd, daarna krijgt u een kort scenario en een advertentie te zien. Bestudeer het scenario en de advertentie zorgvuldig en lees alle informatie goed door. Vervolgens worden er vragen met betrekking tot het scenario en de advertentie gesteld.

Binnen dit onderzoek is uw mening belangrijk, daarom is er geen goed of fout antwoord.
Uw antwoorden dragen bij aan nieuwe inzichten in dit onderwerp. Het beantwoorden van deze vragen duurt ongeveer 5 minuten. U kunt besluiten om niet deel te nemen aan dit onderzoek, of u kunt zich op elk gewenst moment terugtrekken. Uw antwoorden worden vertrouwelijk behandeld en er wordt geen identificerende informatie verzameld.

Als u vragen heeft over dit onderzoek, aarzel dan niet om contact met mij op te nemen via dit e-mailadres: a.i.m.lentfert@student.utwente.nl

Anne Lentfert
Student Universiteit Twente
Communication studies

Ik ga akkoord om vrijwillig deel te nemen aan dit onderzoek.
- Ja
- Nee

1. Wat is uw geslacht?
   - Man
   - Vrouw
   - Wil ik liever niet zeggen.

2. Wat is uw leeftijd in jaren?
…

3. Hoe vaak bezoek je gemiddeld per jaar muziekfestivals (zonder het bestaan van Covid-19)?
   - Nooit
   - 1 of 2 keer
   - 3 of 4 keer
   - 5 of 6 keer
   - 7 of 8 keer
   - 9 of10 keer
   - 11 of 12 keer
   - 13 keer of vaker

4. Draagt u momenteel oordoppen op muziekfestivals?
   - Ja
   - Nee
   - Soms

5. Van welk muziekgenre bezoekt u momenteel muziekfestivals of is de kans het meest aannemelijk dat u een festival zou willen bezoeken? Selecteer 3 muziekgenres.

- o (Deep) House
- o Electro
- o Hardcore
- o Hardstyle
- o Pop
- o R&B
- o Rock
- o Techno
- o Trance
- o Piraten
- o Nederlandstalig
- o Klassiek
- o Country & Folk
- o Latin
- o Jazz & Blues
- o Hip Hop

Lees het onderstaande scenario aandachtig door en stelt u zich dit voor bij het zien van de advertentie en bij de beantwoording van de volgende vragen/verklaringen.

U bezoekt vaak muziekfestivals en bent bewust van het feit dat het geluid op deze evenementen vaak erg hard is en gehoorschade kan veroorzaken. U twijfelt of u wel of niet oordoppen moet aanschaffen ter bescherming van uw gehoor op festivals.

- o Ik heb het scenario gelezen.

Op de volgende pagina ziet u een advertentie van oordoppen. Bekijk/bestudeer de advertentie **goed** (U **kunt inzoomen** op de advertentie, mocht dit nodig zijn). De vragen welke achteraf gesteld worden, hebben betrekking op deze advertentie. Naderhand kunt u niet meer terug naar deze advertentie.

"Willekeurige weergave van manipulatie 1, 2, 3 of 4."

De volgende vragen hebben betrekking op de advertentie die u net heeft gezien.

6. Geef aan in welke mate u het eens bent met de volgende stellingen.

	Helemaal mee oneens	Oneens	Niet eens/Niet oneens	Eens	Helemaal mee eens
Ik ben positief over het wel of niet aankopen van deze oordoppen.	o	o	o	o	o
Ik ben van plan om deze oordoppen te kopen.	o	o	o	o	o
De kans dat ik zou overwegen om deze oordoppen te kopen is groot.	o	o	o	o	o
Het is waarschijnlijk dat ik deze oordoppen zal aanschaffen.	o	o	o	o	o
Ik zou deze oordoppen **niet** kopen.	o	o	o	o	o

7. Geef aan in welke mate u het eens bent met de volgende stellingen.

	Helemaal mee oneens	Oneens	Niet eens/Niet oneensl	Eens	Helemaal mee eens
De prijs van €10,99 voor deze oordoppen is acceptabel.	○	○	○	○	○
Ik denk dat de oordoppen het geld waard zijn.	○	○	○	○	○
Ik denk dat deze oordoppen een goede prijs/kwaliteitsverhouding hebben.	○	○	○	○	○
De prijs (€10,99) van deze oordoppen voldoet aan mijn verwachtingen.	○	○	○	○	○
Ik denk dat de prijs van deze oordoppen **te hoog** is.	○	○	○	○	○

8. Geef aan in welke mate u het eens bent met de volgende stellingen.

	Helemaal mee oneens	Oneens	Niet eens/Niet oneens	Eens	Helemaal mee eens
Met deze oordoppen zal ik een gevoel van zekerheid krijgen omtrent de bescherming van mijn oren.	○	○	○	○	○
Ik denk dat het dragen van oordoppen de ervaring op een festival **negatief** beïnvloedt.	○	○	○	○	○
Het is belangrijk voor mij om mijn gehoor te beschermen tegen harde muziek op festivals.	○	○	○	○	○
Ik geef **niets** om te harde muziek op muziekfestivals.	○	○	○	○	○
Ik zou me op mijn gemak voelen bij het dragen van oordoppen op muziekfestivals.	○	○	○	○	○
Ik maak me niet druk over wat anderen van mij vinden als ik oordoppen zou dragen op festivals.	○	○	○	○	○

9. Geef aan in welke mate u het eens bent met de volgende stellingen.

	Helemaal mee oneens	Oneens	Niet eens/Niet oneens	Eens	Helemaal mee eens
Het doel van deze advertentie is om mijn mening te beïnvloeden over deze oordoppen.	○	○	○	○	○
Het doel van deze advertentie is om de verkoop van oordoppen te stimuleren.	○	○	○	○	○
Het doel van deze advertentie is om mensen informatie te geven over oordoppen.	○	○	○	○	○
Het doel van deze advertentie is om oordoppen te verkopen.	○	○	○	○	○
Ik ben me ervan bewust dat webwinkels technieken gebruiken om mensen te overtuigen een product te kopen.	○	○	○	○	○

10. Heeft u binnen de advertentie een ervaringsdeskundige gezien? (Bijvoorbeeld: Een persoon die pijn aan zijn oren heeft en dit laat zien door met zijn handen zijn oren af te schermen.

- Ja
- Nee

11. Heeft u binnen de advertentie een kwaliteitskeurmerk gezien (Bijvoorbeeld: Nr 1. Gehoorbescherming onder festivalbezoekers)

- Ja
- Nee

12. Heeft u nog enkele op- en/of aanmerkingen met betrekking tot dit onderzoek? Zo ja, noteer dat hieronder. Mocht u geen op- en/of aanmerkingen hebben, hoeft u niets in te vullen en kunt u verder klikken.
……

13. Zou u de resultaten van dit onderzoek willen ontvangen? Zo ja, noteer hieronder uw e-mailadres. Mocht u geen resultaten willen ontvangen, kunt u verder klikken.
……

Dit is het einde van het onderzoek. Bedankt voor uw deelname. Vergeet niet om nog eenmaal op het pijltje rechtsonder te klikken.

Appendix F - Questionnaire main study English

Dear participant,

Thank you for your participation in this survey. This research aims to gain new insights into the sale of earplugs to protect loud music at festivals. The research works as follows: First, you will be asked for demographic data, then you will be shown a short scenario and an advertisement. Study the scenario and advertisement carefully and read all the information carefully. Next, questions regarding the scenario and the advertisement will be asked.

Within this study your opinion is important, therefore there is no right or wrong answer.
Your answers contribute to new insights into this subject. Answering these questions takes about 5 minutes. You can decide not to participate in this survey, or you can withdraw at any time. Your answers will be treated confidentially, and no identifying information will be collected.

If you have any questions about this survey, please do not hesitate to contact me at this e-mail address: a.i.m.lentfert@student.utwente.nl

Anne Lentfert
Student University of Twente
Communication studies

"I agree to voluntarily participate in this study".
- Yes
- No (end of the survey)

1. What is your gender?
- Male
- Female
- I would prefer not to say.

2. What is your age in years?
…

3. On average, how often do you visit music festivals each year (without the existence of Covid-19)?
- Never
- 1 or 2 times
- 3 or 4 times
- 5 or 6 times
- 7 or 8 times
- 9 or 10 times
- 11 or 12 times
- 13 times or more

4. Are you currently wearing earplugs at music festivals?
- Yes
- No
- Sometimes

5. From which genre of music do you currently attend music festivals, or is it the most likely that you would like to visit one? Select 3 music genres.

- (Deep) House
- Electro
- Hardcore
- Hardstyle
- Pop
- R&B
- Rock
- Techno
- Trance
- Pirate music
- Classical music
- Dutch-language music
- Country & Folk
- Latin
- Jazz & Blues
- Hip Hop

Please read the scenario below carefully and imagine it when viewing the advertisement and answering the following questions/statements.

You often visit music festivals and are aware of the fact that the sound at these events is often very loud and can cause hearing damage. You are in doubt whether or not to purchase earplugs to protect your hearing at festivals.

"I have read the above scenario."
- Yes

Op de volgende pagina ziet u een advertentie van oordoppen. Bekijk/bestudeer de advertentie **goed** (U **kunt inzoomen** op de advertentie, mocht dit nodig zijn). De vragen welke achteraf gesteld worden, hebben betrekking op deze advertentie. Naderhand kunt u niet meer terug naar deze advertentie.

"Random display of manipulation 1, 2, 3 or 4"

The following questions relate to the advertisement you just saw.

6. Please indicate to what extent you agree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am positive about whether or not to buy these earplugs.	○	○	○	○	○
I have the intention of purchasing these earplugs.	○	○	○	○	○
There is a good chance that I would consider buying these earplugs.	○	○	○	○	○
It is likely that I will purchase these earplugs.	○	○	○	○	○
I would **not** buy these earplugs.					

7. Please indicate to what extent you agree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The price of €10,99 for these earplugs is acceptable	○	○	○	○	○
I think the earplugs are worth the money.	○	○	○	○	○

I think these earplugs have a good price/quality balance.	○	○	○	○	○
The price (€10.99) of these earplugs meets my expectations.	○	○	○	○	○
I think the price of these earplugs is **too high.**	○	○	○	○	○

8. Please indicate to what extent you agree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
With the earplugs, I obtain a sense of security regarding the protection of my ears.	○	○	○	○	○
I think wearing earplugs negatively affects the experience at a festival.	○	○	○	○	○
It is important for me to protect my hearing from loud music at festivals.	○	○	○	○	○
I do not care about too loud music at music festivals	○	○	○	○	○
I would feel comfortable wearing earplugs at music festivals.	○	○	○	○	○
I do not care what others would think of me if I wore earplugs at festivals.	○	○	○	○	○

9. Please indicate to what extent you agree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The purpose of this advertisement is to influence my opinion about these earplugs.	○	○	○	○	○
The purpose of this advertisement is to stimulate the sale of earplugs.	○	○	○	○	○
The purpose of this advertisement is to give people information about earplugs.	○	○	○	○	○
The purpose of this advertisement is to sell earplugs.	○	○	○	○	○
I am aware that webshops use persuasion techniques to convince people to buy a product.	○	○	○	○	○

10. Have you seen an expert within the ad? (For example, a person who has pain in his ears and shows this by using his hands to shield his ears.

- ○ Yes
- ○ No

11. Have you seen a quality mark within the advertisement (For example: No. 1. Hearing protection among festival visitors)

- ○ Yes
- ○ No

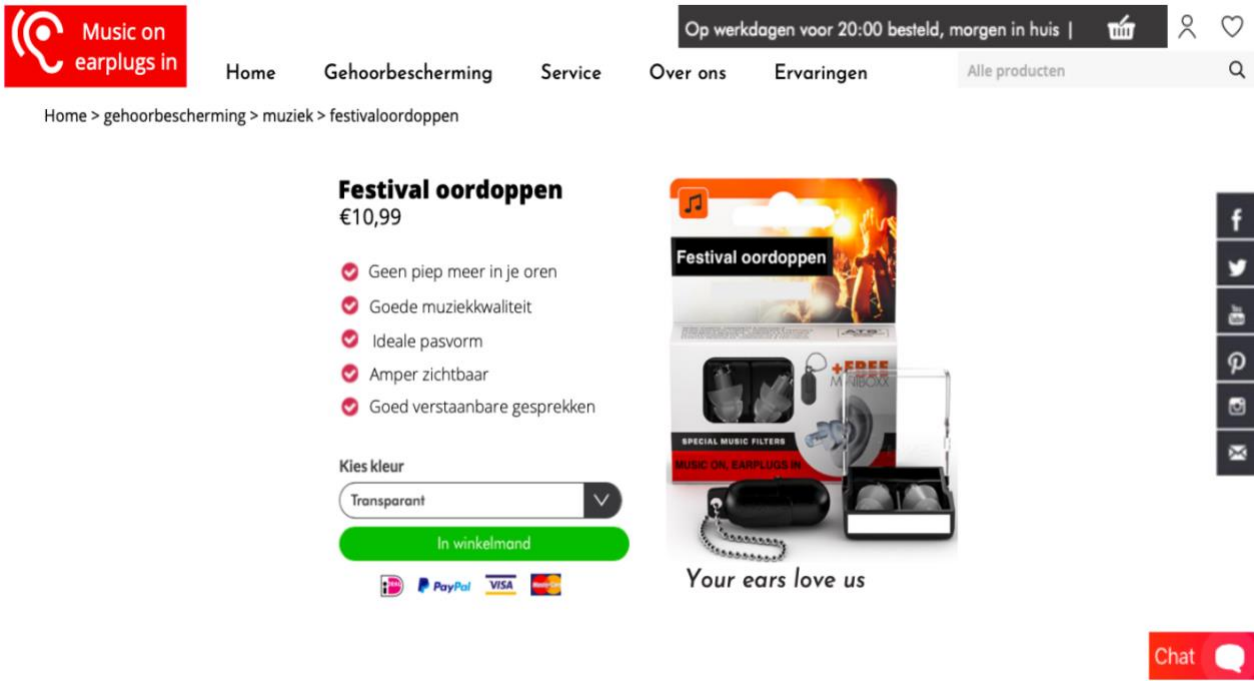
12. Do you have any comments and/or remarks concerning this research? If so, please write that down below. If you don't have any comments, you don't have to fill in anything and you can continue clicking.

13. Would you like to receive the results of this research? If so, please write down your e-mail address below. If you do not want to receive the results, you can continue clicking.

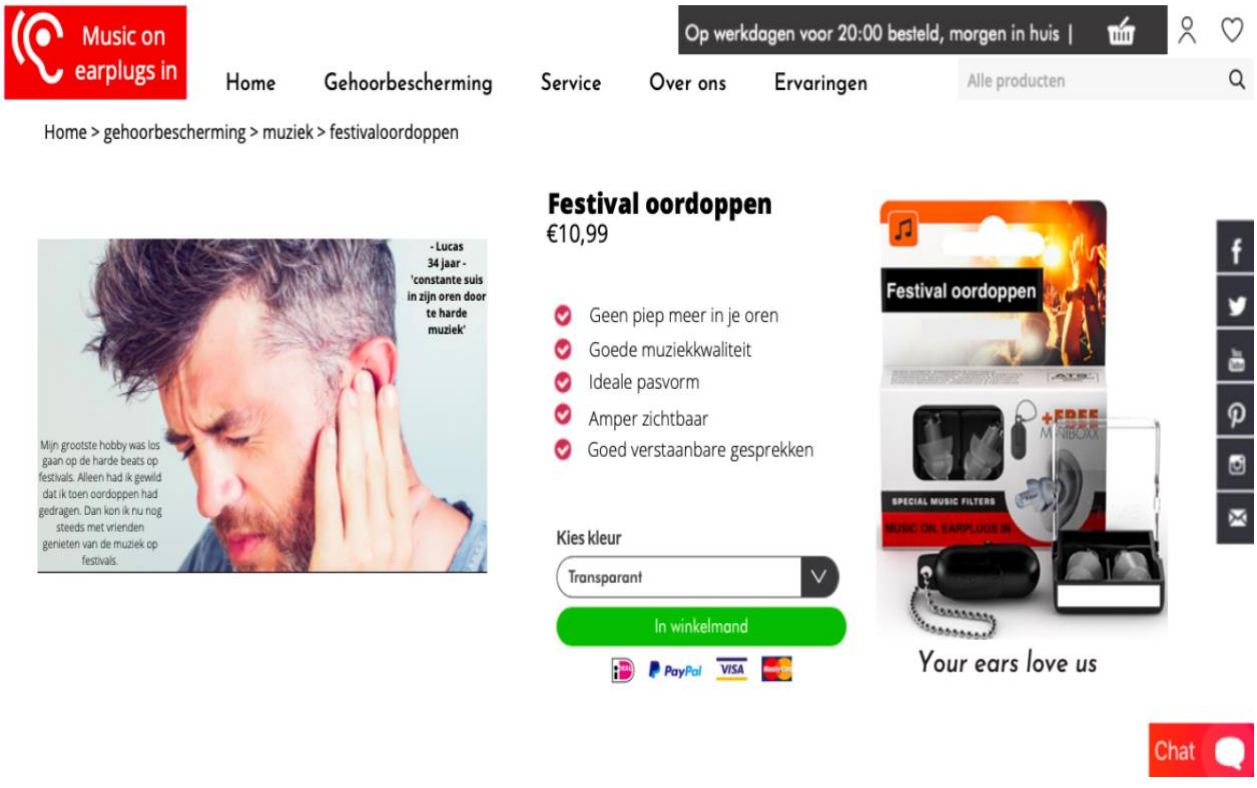
This is the end of the survey. Thank you for your participation. Don't forget to click the arrow in the lower right corner once more.

Appendix G – Manipulations

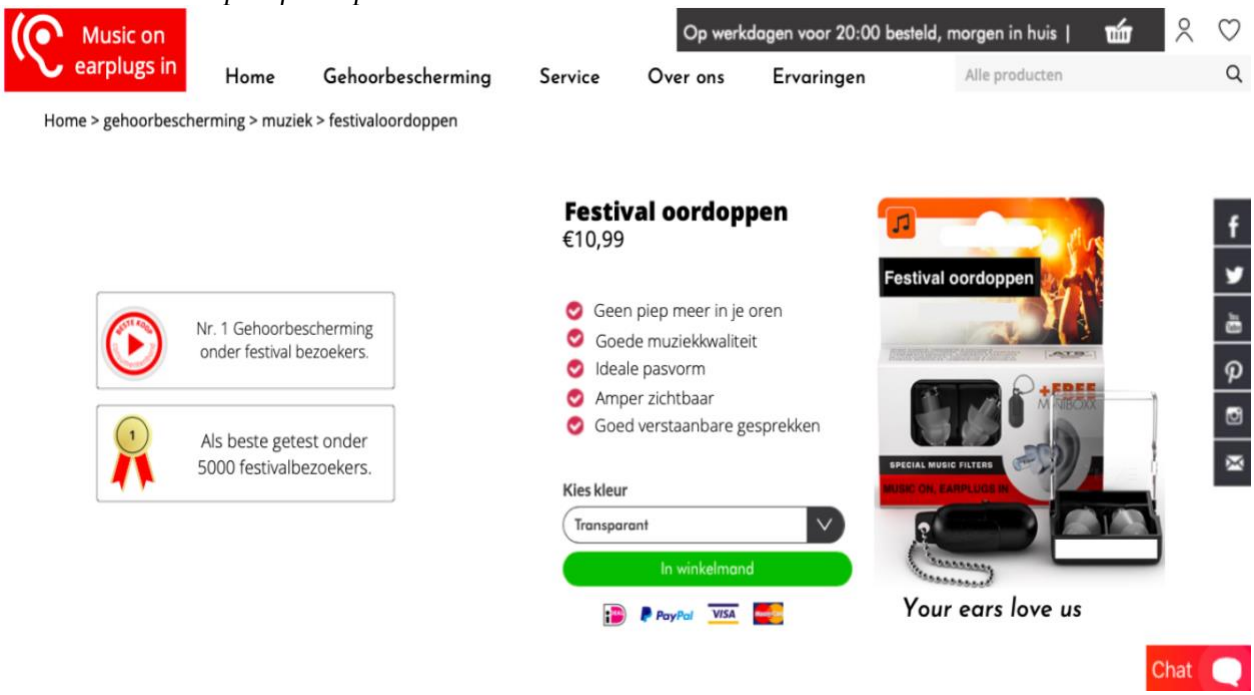
Condition 1: No manipulation



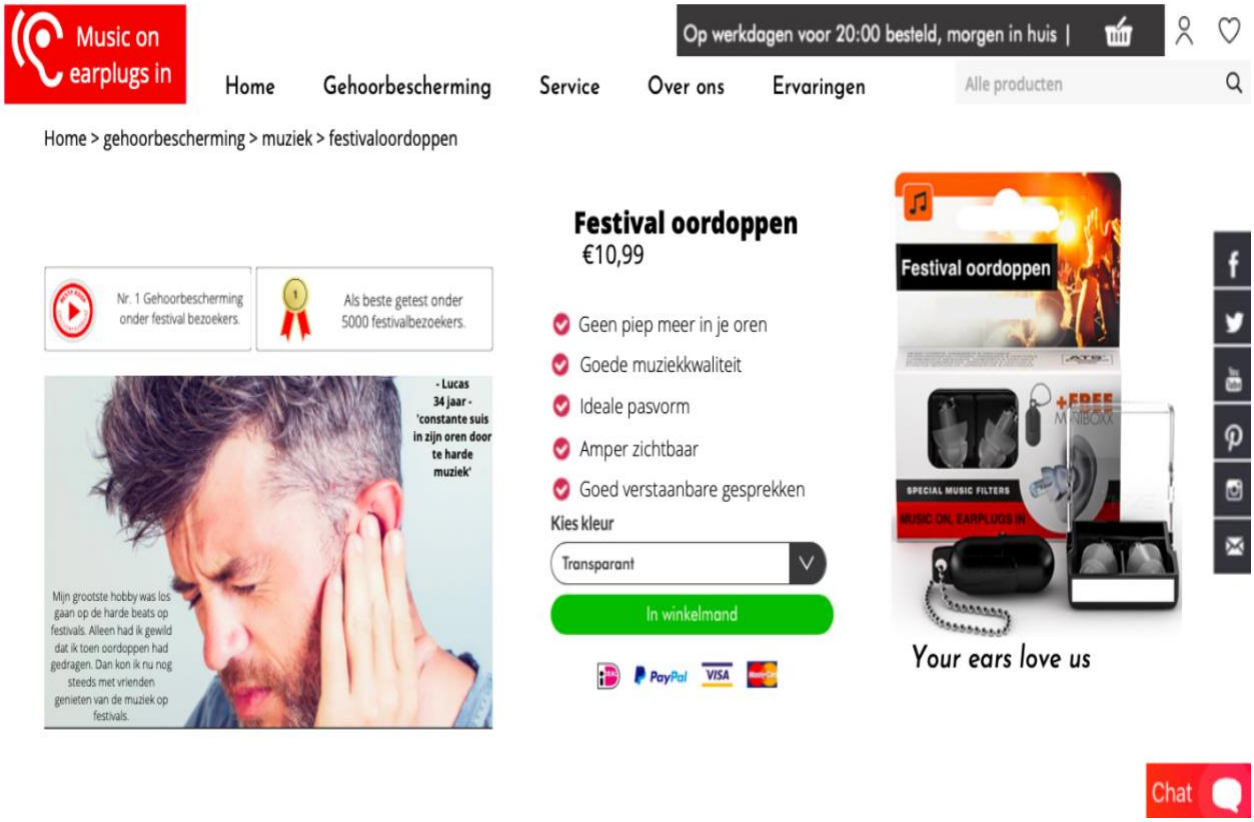
Condition 2: Authority manipulation



Condition 3 – Social proof manipulation



Condition 4 – Authority and social proof manipulation



Appendix H – Factor analysis

	Component			
	1	2	3	4
It is likely that I will purchase these earplugs.	.886			
There is a good chance that I would consider buying these earplugs.	.873			
I have the intention of purchasing these earplugs.	.859			
I would **not** buy these earplugs. (Negative)	-.815			
I am positive about whether or not to buy these earplugs.	.541			
I think the earplugs are worth the money.		.806		
The price of €10,99 for these earplugs is acceptable.		.764		
I think these earplugs have a good price/quality balance.		.764		
The price (€10,99) of these earplugs meets my expectations.		.749		
I think the price of these earplugs is **too high.** (Negative)		-.735		
I would feel comfortable wearing earplugs at music festivals.			.825	
It is important for me to protect my hearing from loud music at festivals.			.750	
I do not care what others would think of me if I wore earplugs at festivals.			.741	
I think wearing earplugs negatively affects the experience at a festival. (Negative)			-.649	
The purpose of this advertisement is to sell earplugs.				.796
The purpose of this advertisement is to stimulate the sale of earplugs.				.777
I am aware that webshops use persuasion techniques to convince people to buy a product.				.665