Erasmus School of Economics

The influence of hand gestures in an online promotion video in a B2B environment

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Abstract

During the COVID-19 pandemic, the economic system of the world changed due to several social restrictions. Having online meetings, promotions, and visits instead of having offline have become almost the new socializing business situation. Research on verbal and non-verbal communication offline reveals that more than 80% of communication done by man is nonverbal. But in what way does this also count for online communication? Therefore, the goal of this research is to investigate whether hand gestures in business-to-business online promotion videos would affect the click-through rate. This has been done by a field study and binary logistical regression analysis. The study was conducted on a European business-to-business case with a focus on the foods and cosmetics market. The results show a positive relationship between the usage of hand gestures during an online promotional video and the click-through rate on a website. There also appeared to be a relationship between the device being used and the country of watching the video toward the response rate on the website.

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Contents

1. Introduction

Nowadays, running new businesses and acquisitions is getting more difficult due to the current COVID-19 pandemic (World Health Organization, 2019). Due to this outbreak, there have been many cancellations of all kinds of social business activities for companies, such as trade shows, conferences receptions, and more. Besides that, there are social distancing rules implemented by a lot of governments that ensure that the number of physical appointments is drastically reduced. Due to the pandemic, many businesses were forced to close their operations fully and/or partly, leading to a commercial disruption in lots of industry sectors.

The importance of online marketing communication has increased for creating awareness and new businesses. The demand for online events has increased dramatically. The market is growing, and it is expected that it will reach a value of almost $80 billion by 2030, which would mean annual growth of almost 40% each year, starting from 2019 (Prescient & Strategic Intelligence Private Limited, 2020). Also, the usage of the social media LinkedIn has increased by up to 722 million members (Social Media Today, 2020). People are trying to find other ways to communicate with their prospects and customers.

The decrease in physical social contact has had negative effects on businesses. Online communication could lead to misinterpretation and misunderstandings that are not desirable in a business industry (Gustafsson & Donthu, 2020). Promoting yourself via a text message could therefore lead to a misinterpretation by the receiver. Daft and Lengel have created a media communication model wherein the communication types and their richness are being ranked. Face-to-face meetings are considered the richest tool according to this model, and it is characterized by simultaneous response or feedback, multiple cues, appropriate use of language, and non-verbal communication (Lengel & Daft, 1989).

According to Noam Ebner, online negotiation and communication therefore could lead to a reduction in trust. Body language plays an important role in communication. Expression, hand gestures, and other non-verbal factors are already also playing an important role in online video meetings; they can be of great value in negotiation and could support sensations of rapport, trust, and empathy (Ebner N., Trust-building in e-negotiation, 2007).

From a marketing communication perspective, it is not always possible to have an online meeting and start negotiating with people; therefore, sending an online video message to your

prospects could be way more valuable than sending just an e-mail. Would body language factors be important in such a communication video message?

2. Theoretic Framework

2.1 Media richness

Media richness is an important factor in communication (Lengel & Daft, 1989). Daft and Lengel argued that communication media used in an organization determines the richness of information that is being processed. They have created a model where the communications tools are ranked. Starting with the leanest communication tool and ending with the richest tool – face-to-face communication (Lengel & Daft, 1989).

Visual communication could influence the effectiveness of communication. Media richness is the ability of information to change understanding within a time interval (Lengel & Daft, 1989). Communication media differs in their effectiveness. A higher and therefore richer medium is characterized by the simultaneous, multiple cues and use of language. The way of communication has been changed over the years. It is influenced by the tools used and therefore the model has been changed. A lean communication tool for instance is sharing information in bulk e-mails (Lengel & Daft, 1989).

According to a study by Christine T. Kydd and Diane L. Ferry, video conferencing can be considered a rich medium of communication (Kydd & Ferry, 1994). They also noticed that the length of these meetings was very important to avoid the possibility of lack of communication. According to this study, e-mails are being considered as lean in richness. Could a video message, therefore, be more effective? According to Lengel and Richard: "face-to-face communication is presented as the medium with the highest potential level of richness; it can be characterized by the following five key elements" (Lengel & Daft, 1989):

- It has a high degree of co-location, which would allow the individuals engaged in a communication interaction to see and hear each other
- High degree of synchronicity, immediacy, or feedback - Ability to convey and observe facial expressions
- Ability to convey and observe body language
- Ability to convey and listen to a speech

Video conferencing, compared to communication via e-mail, is way richer. While using video conferencing, body language can be interpreted, as well as eye contact, facial expressions, and hearing of the content of the conversation. Phone conversations also

provide some of these elements. E-mailing or texting does not incorporate these contextual elements. So, how could ‘’E-empathy’’ be created into communication?

2.2 Online negotiation and trust

There are different definitions of trust. There is also no exact way to define trust. Professor Ebner posited that uncertainty and risk are important during trust in negotiation. Research has also shown that during online negotiation there is a reduction in trust (Ebner N., Trust-building in e-negotiation, 2007).

Webster defines trust as follows: *"confidence in an exchange partner's reliability and integrity"* (Webster, 2014). Over time, trust reduces complexity and improves confidence. We often speak of a truster A that trusts a trustee B, concerning some behavior X in context Y at the time. Adding time clarifies that trust may change over time. These parameters could be replaced with different real-life trustees, behaviors, and contexts (Uslaner, 2018).

There are three different types of trust. The first one is the *calculus-based trust*. In this type of trust, there is common knowledge about the potential reputational loss and that it could lead to limited behavior of the other person. The second type is *identification-based trust*. This is more focused on the sympathy and emotional aspects of group feeling even though members of the group do potentially not know each other very well. Intuition is very important, and this is being used during the transfer of information. The third type is focused on *knowledge-based trust*. This type of trust is focused on information. *"Calculus-based trust depends on deterrence; and identification-based trust depends on selection"* (Lewicki, 1995). Risk, uncertainty, and expectations need to be taken away for better trust (Ebner N., Trust-building in e-negotiation, 2007). At the introduction of a new company via online media channels, the appearance should be that it looks reliable. In what way can nonverbal communication influence the reliability of a company?

2.3 Non-verbal communication

The first important notice about communication and negotiation is that what is said or written (how and when) during the negotiation is only 7% of its total communication. The other 93% of this is nonverbal (Mehrabian & Ferris, 1967), where 55% of this 93% is focused on the visual such as body language, hand gestures, and attitude. The other 38% of this is coming from the vocal part, focusing on the intonation and tone (Mehrabian & Ferris, 1967).

It is easier to focus on the verbal aspect, but the effect of the nonverbal part is seen as vitally important for good interactions and the professionality of the conversation (Feldman & Rimé, 1991). These findings have been supported by further research, indicating that nonverbal communication has a greater impact on social interactions versus verbal communication (Patterson, 2011).

Language is a powerful part of verbal communication to transfer specific information to the receiver. Its nonverbal part is not limited to *face-to-face* interactions. Media, such as television, social media, the internet, and videos could be added to vehicles for nonverbal communication.

Therefore, nonverbal communication is not limited to situations where others are physically present. The images we see, the voices we hear over the phone, television, and the internet also constitute nonverbal communication. Thus, any medium that carries visual and vocal information necessarily engages nonverbal communication. Vocal cues can be referred to as characteristics of speech, within the loudness, pitch, and intonation that is being used in this conversation (Patterson, 2011).

Body language

As visuality conducts 55% of the communication, body language can be very important during conversations (Mehrabian & Ferris, 1967). During 'live' face-to-face conversations, either off- or online, body language can be interpreted as well as the tone, eye contact, and facial expressions in addition to hearing the content of the conversation.

Hand gestures

Hand gestures are contributing to a variety of issues, depending on their uses. For instance, open-handed gestures with palms facing up could contribute to immediacy and rapport. Gesturing with the palms facing and moving toward another person could be used as a speech regulator, helping one control or regulate conversational turn-taking. They could also be described as serving to replace verbal commands, or as a function to empathize a point, such as slamming your hand on the table (Ebner, Thompson, & Giddings, 2018).

Gestures are an important part of effective (public) speaking. They are likely to be judged as more dynamic if you use well-timed and appropriate gestures. People who rarely use

gestures are typically seen as stiff and unexpressive. Gestures also aid speakers in memory retrieval and the facilitation of the flow in a certain speech (Patterson, 2011).

2.4 Communication via e-mail

One of the big differences of face-to-face (either on- and/or offline) is that this conversation is simultaneous; turns can be taken, questions can be asked, and responses make it easier to create a dialog. However, while communicating via e-mail, particularly when one of the parties is at meetings or otherwise unavailable, the communication can stack up (Andrea Kupfer Schneider; Sean A. McCarthy, 2017). Another important notice on communication via e-mail is that we tend to read e-mails from most recent to least recent, meaning that we read it in the opposite order. The asynchronicity of E-mailing also means that this communication can continue throughout the usual working hours (Andrea Kupfer Schneider; Sean A. McCarthy, 2017).

To get a good interpretation of the counterparty, much ability is needed. Via e-mail, mirroring skills and other nonverbal communications are not possible. When sending an e-mail, much less context is added to the conversation. Therefore, an email can be interpreted in the wrong way (Andrea Kupfer Schneider; Sean A. McCarthy, 2017). During e-mail communication, lots of assumptions are being made about the context. During formal work situations, people are more likely to assume wrong and bad intentions in e-mails. The reading is more focused on literality since this is the only context that is given (Ebner N., Trust-building in e-negotiation, 2007). Assumptions are being made often compared to "real-time", ambiguities, asking questions and explanations cannot be done directly (Andrea Kupfer Schneider; Sean A. McCarthy, 2017).

2.5 Online non-verbal communication

The METTA model of nonverbal communication (Ebner, Thompson, & Giddings, 2018) represents the most important factors of non-verbal communication. It represents movement, environment, touch, tone, and appearance. Using this model, negotiators can become more aware of their nonverbal communication skills as well as that of their counterparts. This could assist in increasing the effectiveness of achieving their goals (Ebner N., Negotiation via Videoconferencing, 2017).

The movement in the METTA model includes most of the elements that can be named as "body language". This model was focused on more Western cultures. One of the key aspects of this dimension is *body orientation and posture*. The positing and direction of the body

can play a pivotal role in creating a positive interaction between two or more people and contribute to a "being with" the other. Generating this can be of great value in negotiation, it could support sensations of rapport, trust, and empathy. *Hand gestures* could contribute to a variety of issues, depending on the uses. Open hand gestures could lead to a positive interaction between two or more people. It could also function to emphasize a point, such as slamming with your hand on the table (Thompson, Ebner, & Giddings, 2017). While using a video to communicate a certain message, the media richness of an online video could increase when using hand gestures prominently. The usage of richer media would mean that the message from the sender has reached the receiver more clearly. If hand gestures are influencing this positively during offline standard communication, it could also influence an online promotion video positively. Therefore, the first hypothesis is:

H1: Online promotion videos with hand gestures will increase the response rate compared to online videos without hand gestures.

Response rate

The *response rate is a measurement of the number of people who respond to a certain call-to-action* (Verhage, 2018). The call to action can differ from itself. It relates to the next step that a marketeer wants the consumer to take and could therefore be as direct as the following click-throughs (CTR): 'read more' or 'buy now' (Verhage, 2018).

Use of device

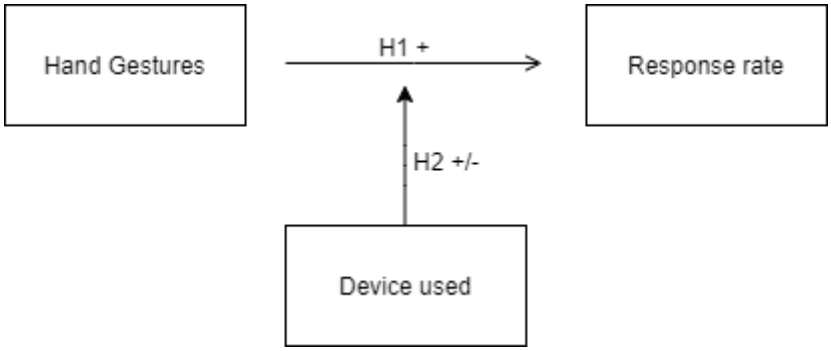
SeoClarity has analyzed a CTR's database of used devices 2 billion impressions and almost 3 million clicks were collected over 90 days from approximately 400 Google Webmaster tool accounts. There is a difference in the behavior of clicking through on online media channels within the devices that are being used.

Mobile and desktop devices were compared. According to this study, the average percentage of the first CTR is 8,4% higher when using a Desktop versus a phone or tablet (SeoClarity, 2020). The type of devices could influence the click-through rate positively or negatively; positively when a desktop is used and negatively when a phone or tablet is being used. The type of device could therefore be of influence on the CTR. But does it have so much influence that it will moderate the effect of hand gestures?

To test this moderator on this study, the following second hypothesis is:

H2: The device that is being used during the online video will moderate the effect of hand gestures on the response rate to an online video.

2.6 Conceptual framework



3. Methodology

The main goal of this research is to determine if including hand gestures in a promotion video would increase the dependent variable: the number of clicks through to the new blog. To carry out this research, two hypotheses are formulated based on past research. A field experiment is carried out on companies in the food and cosmetics industry. The responses are quantitatively analyzed. This experiment is designed and sent out using the online marketing automation program Sales Handy and monitored by Google Analytics, Sales Handy and Hotjar. The results were analyzed with the statistical analysis software SPSS. This chapter explains the research design, sample section, description, measurement of the variables, analytical technique, and the data collection process.

3.1 Natural field study

There are different ways to define field experiments. Harrison and List have introduced a classification scheme for field experiments in 2004, which can be seen in figure 1:

Introduction to field experiments in economics with applications 205

Controlled data				Modeling naturally-occurring data
LAB	AFE	FFE	NFE	NE, PSM, IV, STR

Where:

- LAB: Lab experiment
- AFE: Artefactual field experiment
- FFE: Framed field experiment
- NFE: Natural field experiment
- NE: Natural experiment
- PSM: Propensity score matching
- IV: Instrumental variables estimation
- STR: Structural modeling

Figure 1: Introduction to field experiments in economics with applications (Harrison & List, 2004)

3.2 Research design

Two promotion videos are made: one with and one without hand gestures. This would be a 1x2 between-subject design. The response rate is measured using Google Analytics. The data that is gathered from this tool could be analyzed in SPSS. The moderating variable that is being tested can be analyzed in the same way. Both groups are being e-mailed about the promotion video. This marketing campaign is focused on cold leads. The participants are randomly assigned, receiving the same e-mail, but with another link to the video. The first video link is the link of the control group, a promotion video without hand gestures, and the second is the promotion video with hand gestures.

The following videos were made:

1. (control group) - https://sigmaoilseeds.eu/promovideo/

2. (treatment group - https://sigmaoilseeds.eu/promovideo1/

There is a screenshot of both promotion videos in appendix 3.

In terms of the descriptive statistics, the following statistics are measured: country and device used, as well as whether the respondents have opened the e-mail and clicked on the link of the video. The most important part of this part is the particular group that has seen the video, including the fact that they have seen the video, and have clicked through the link – or not.

All data can be measured via Google Analytics. Google Analytics can gather data via a link and could therefore measure the click-through, the device that is being used as well as even more information that could be relevant in this matter. This data could be exported to SPSS to further analyze the data and eventually conclude the answers on the hypotheses.

3.2 Sample

This research is focused on businesses that are operating in the field of the food and cosmetics industry, using vegetable oils and fats in their products, mostly in Western-Europe. A database of cold leads from the company Sigma Oil Seeds is used for this marketing campaign. Sigma Oil Seeds is a young new company that is operating in the organic food and cosmetic business.

The oils and fats industry is a multibillion business, only in the 27- EU member states have an export value of more than 2,3 billion Euros and an import value of 1,19 billion Euros (Wageningen Economic Research, 2021).

The campaign started on the 18th of May 2021. The e-mail with the promotion video was distributed into 2 different groups at the same time and day. The total group of companies that are involved in the marketing campaign is 635 (n=635). Not all of these companies have opened the link. Therefore, the device that is used including the number of opens could not be measured. 318 respondents were distributed to the Hand Gestures promotion video and 317 respondents to the promotion video without Hand Gestures (n=635).

Of the total group of 635, 257 have opened their mail, which is 40,47% (n=635). The other 59,53% (n=635) have not opened the e-mail.

Looking to the countries that have not opened the mail or invalid (n=635), the NON-EU countries have the highest percentage of this in their group. 81% of this group have not opened this e-mail (n=32), followed by the Swiss group (72%) (n=43) and Belgium (68%) (n=25).

Of the total 257 (n=257) companies, 123 (n=123) companies are in the control group, and 134 (n=134) are in the treatment group. According to the Wageningen Economic Research on oils and fats, the biggest European export markets for the Netherlands are Germany, France, Belgium, Poland, and Italy (Wageningen Economic Research, 2021). The tables in appendix 2 show that Germany and France are the most common e-mails that are sent out to.

There are 46 companies with their headquarters in the Netherlands (n=46), 68 in Germany (n=68), 22 from France (n=22), 8 from Belgium (n=8), 12 from Switzerland as well as from Italy (n=12), 23 from the UK (n=23), 50 from other EU countries (n=50) and 6 from NON-EU countries. The Dutch (53%) (n=87), France (49%) (n=45) and the German (47%) (n=145) group have opened the cold-introduction e-mail.

19,45% (n=50) of the respondents have opened the e-mail with their phone or tablet. Within the theoretical research, the assumption of opening an e-mail and clicking through per phone differs from opening it from a desktop in a negative way. The highest percentage of opening their e-mail over the phone was the Swiss and NON-EU companies (n=4) and (n=2). But this group is also much smaller compared to the Dutch and German groups.

The total respondents that have clicked on the promotion video link in the e-mail and watched the video at least one second are 257 respondents (n=257). From this group, 126 respondents are in the control group and 134 are in the treatment group. Not all of these

3.3 Measurement of variables

Dependent variable: response rate/clicks-through: This is the total number of click-throughs on the website after watching the promotion video because the number of cancelations can only be taken in two values – clicked through the video or not clicked through; this is considered as a binary variable. As it is divided into categories and does not have a ranking or measurable distance, it is also a nominal variable, where 0=not-clicked through and 1= clicked through. In this research, the response rate is measured as clicking through or not.

Independent variable: Hand gestures used in promotion video: In this variable, the control group and treatment group are being defined. There are two videos made and sent out, where the control group has watched a video without using hand gestures and the treatment group has watched a video with hand gestures. This is considered as a binary variable, divided into two categories, with no ranking or measurable distance and being nominal scale, where 0=No Hand gestures used and 1= Hand Gestures used.

Moderation variable: Device used: During watching the promotion video, the device that is being used, is measured. Three different types of devices can be used to watch the video: desktop (computer), mobile (smart) phone, or tablet. Where tablet is used very little, this is being clustered with the mobile phone. Therefore, there are two different groups considered as binary variables. The first variable created is Desktop Used, where 1=desktop and 0=mobile phone or tablet.

Control variable: Country of origin: During watching the video, the country of the person/company that is watching the video can be measured as well as compared with the company that the respondent is working for. In this research, the headquarters of the company is being seen as the country of origin of the respondent. This variable is considered a nominal variable. The countries are represented by numbers: 1= the Netherlands, 2=Germany, 3=France, 4=Belgium, 5=Switzerland, 6= Italy,7=Poland, 8=United Kingdom, 9= Other EU countries and 10=non-EU countries. Countries do not have an undisputable order, and therefore it is considered as a nominal categorical variable. Therefore, there are dummies created to check the relation within adding the country variable. Where, for instance "NL" is 1 and all other values 0.

3.4 Model equation

In this research, logistic regression is used to analyze the effect of using hand gestures in a promotion video on the clicking-through (response rate). Applying the logistic model is to examine if the variables are suitable significant predictors of the dependent response rate variable. It also shows if the predictors affect the dependent variable positively or negatively (on the sign of β). The following logistic model us used, assuming an α of 5% (Field, 2018):

Hypothesis 1: Using only Hand Gestures.

$Probability\ of\ clicking\ trough\ the\ website\ while\ using\ hand\ gestures = Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\ \left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + ε

Hypothesis 1 Controlled by device and/or country.

$Probability\ of\ clicking\ trough\ the\ website\ while\ using\ hand\ gestures\ is\ controlled\ by\ devi$ce and country NL

$= Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\ \left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + β2Device + β3Country(NL)+ ε

Hypothesis 2: The device that is being used moderates the effect of hand gestures on the response rate.

$= Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\ \left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + β2Device * (β3HandGestures) + ε

3.5 Assumptions in logistic regression sample

1. When binary logistic regression is used, the dependent variable is required to be binary. The dependent variable: *clicking through the website is considered as a binary variable:* 0= Not-clicked through and 1=clicked through (IBM, 2021).

2. As a second, when logistic regression is used, the observations are required to be independent of each other. They are not allowed to originate from repeated measures or matched data (IBM, 2021).

3. *In logistic regression, there has to be very little or no multicollinearity among the independent variables. The independent variables should not be too highly correlated with each other, where the Pearson Correlation shows a perfect positive correlation at +1 and a perfect negative correlation at -1* (Field, 2018). The correlation table in appendix 2 shows that there is a very low correlation found between the variables.

4. Logistic regression assumes within the independent variables and log odds, there is linearity. The independent variables are required to be linearly related to the log odds. The model also assumes that there is a linear relationship between the outcome and predictors. The outcome in logistic regression is categorical and therefore also seen as a violated assumption. The log of the data is used here. *The assumption is that there is a linear relationship between any continuous predictors and the logit of the outcome variable. This can be tested by looking at whether the interaction term between the predictor and the log transformation is significant* (Hosmer & Lemeshow, 1989), which can be seen in the output of the logistic regression.

5. Lastly, when logistic regression is used, a large sample size is needed. A guideline is that there is a minimum needed of 10 cases with the least frequent outcome for each independent variable in the model. In this case, it would mean that for 3 independent variables, and an expected probability of the least frequent outcome is .10, a minimum sample size of 300 is needed (10*3/.1) whereas the current sample group has a total of 635 respondents (Field, 2018).

4. Results

In this chapter, the hypotheses will be tested. This will be done due to binary logistic regression analysis. The SPSS outputs will be provided in this chapter as well as in the Appendix. Based on the results of the analysis, it will be determined whether the hypotheses should be accepted or rejected.

The model equations are specified in paragraph 3.4. The first model shows the independent variable of used Hand Gestures in the model, wherein in the second model (table 8) the independent control variables Country NL and Device are added. There is also an interaction effect being tested on model one in table 5. The first model classification classifies 89,3% correct, and in the model including the control variables, this is 74,7%. The third model classifies 73,5% correct.

4.1 Hypothesis 1: Effect of hand gestures in online promotion on click-through rate

To evaluate the first hypothesis, the following independent variable Hand Gestures is being considered. According to the first model, Hand Gestures have a positive effect on the click-through (response) rate on the website. This means that using hand gestures in a promotion video leads to a slight increase of the response rate. The odds increase by 1,590-1= 59%. The effect is very close to significance: .076, but is not significant (P>0,05).

N=635	**Model 1**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures	.464	.262	.076	1.590
Constant	-2.374	.201	.000	.093

Table 1

Looking into the probability of clicking through when using Hand Gestures, the following equation can be made:

"What is the probability of clicking through the website when using hand gestures?"

Also, mathematically formulated as:

$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1HandGestures

For logit models, the probability of choosing an option is (sigmoid function):

$$Log\left(\frac{Pi}{1-Pi}\right) = \frac{e^z}{1+e^z}$$

$\frac{e^z}{1+e^z}$, where z = β0 + β1Hand Gestures

Z = -2.374 + 0.463

Z = -1.911

Probability = $\frac{e^{-1.911}}{1+e^{-1.911}} = \frac{0.14793238}{1.14793238}$ = 0.128868549 = 0.128 = 12.8%

Equation 1: Probability of clicking through the website when using hand gestures.

This means that using hand gestures while watching a promotion video increases the probability of clicking through the website by 12.8%.

During the test, the country where the video is seen was also measured as a control variable. When adding the independent variable "DE", which means that the value 1, the respondent has watched the video in DE and 0 are all others, the following model is being considered:

N=635	**Model 1 + DE**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures	.463	.262	.077	1.589
DE	.034	.304	.910	1.035
Constant	-2.382	.213	.000	.092

Table 2

The model shows that the odds of clicking through while using hand gestures and coming from Germany are non-significant: .910 (P>0.05). The P-value and Exp(B) of variable Hand Gestures almost remains the same when adding Germany as a country variable versus model 1.

When adding the Netherlands as a country variable, the variable in the model becomes very close to significance: P=.052. The hand gestures variable shows an increase in odds: 1–

1.678=67,8% of clicking-through to the website. Hand gestures as well as coming from the Netherlands increases the odds of clicking through the website, when watching the promotion video.

N=635	**Model 1 + NL**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures	.518	.267	.052	1.678
NL	1.256	.296	.000	3.512
Constant	-2.657	.224	.000	.070

Table 3

When asking the following question: "*What is the probability of clicking through the website when using hand gestures while being Dutch?*" The following equation can be made:

"What is the probability of clicking through the website when using hand gestures while being Dutch?"

Also, mathematically formulated as:

$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + β2CountryNL

For logit models, the probability of choosing an option is (sigmoid function):

$$Log\left(\frac{Pi}{1-Pi}\right) = \frac{e^z}{1+e^z}$$

$\frac{e^z}{1+e^z}$, where z = β0 + β1Hand Gestures + β2CountryNL

Z = -2.657 + 0.516 + 1.256

Z = -0.885

Probability = $\frac{e^{-0.885}}{1+e^{-0.885}} = \frac{0.412714173}{1.412714173}$ = 0.292142728 = 29.2%

Equation 2: Probability of clicking through when using hand gestures and being Dutch.

The probability of clicking through the website when using hand gestures while being Dutch is 29,2%.

According to the descriptive statistics, the German group was the largest, followed by the Others EU, Dutch, and the UK. If all the Country variables are added to the model, the Hand Gestures variable becomes significant: .048 (P<0.05). Another important notice is that the country variable NL also remains significant: .003 (P<0.05). The odds of clicking through the website, when coming from the Netherlands increases. All other countries do not give a significant correlation as can be seen in table 4. Although the P-values of most countries might

not be significant according to this data, the odds towards clicking through the website increases for almost each country, except for the UK and Switzerland. This would mean that the odds of clicking through the website while watching the video decreases when coming from the UK or Switzerland.

N=635	**Model 1 + Country**			
Variable	**B**	**SE**	**P**	**Exp(B)**
HandGestures	.528	.267	.048	1.696
NL	1.383	.469	.003	3.988
DE	.187	.657	.776	1.205
FR	.402	.476	.398	1.495
BEL	.085	.838	.919	1.089
CH	-.580	.826	.483	.560
Others EU	.153	.498	.759	1.165
UK	.162	.651	.803	.850
Constant	-2.789	.431	.000	.061

Table 4

When looking into an interaction effect of the independent variables Country NL and Hand Gestures, there is no significant interaction effect: .861 (P>0.05).

N=635	**Model 1 + Interaction effect NL * HandGestures**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures	.489	.313	.118	1.631
NL	1.199	.444	.007	3.316
Hand Gestures by NL	.104	.595	.861	1.110
Constant	-2.639	.244	.000	.071

Table 5

When adding the device that is being used to the model, excluding the country, the following independent variable: “Desktop Used” is being added:

N=635	**Model 1 + Desktop Used**			
Variable	**B**	**SE**	**P**	**Exp (B)**
Hand Gestures	.414	.290	.153	1.513
Desktop Used	.726	.417	.082	2.066
Constant	-1.855	.414	.000	.156

Table 5

When adding the Desktop variable, the independent variable of Hand Gestures becomes non-significant: .153. The increase in odds of clicking through on the website is still around 50% (1,513-1). The desktop variable increases the odds of clicking through, although not significant: .082 (P>0,05). Therefore, in this model, the variable DesktopUsed has a lower P-value versus the HandGestures variable.

When adding the other devices that are being used, the following independent variable is also added: "Phone Tablet Used". The odds and significances remain at the same versus the Desktop Used variable. However, when using a Phone or Tablet, the odds decrease of clicking through the website. It decreases the odds by -51.6% (.484-1).

N=635	**Model 1 + Phone or Tablet Used**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures	.414	.290	.153	1.513
Phone Tablet Used	-.726	.417	.082	.484
Constant	-1.129	.229	.000	.323

Table 6

After testing the different independent variables individually and on potential interaction effects, the controls can be tested. The Cox & Snell R square, as well as the Nagelkerke R Square, increases.

Firstly, the model shows that being Dutch shows a significant effect of clicking through the website: .001 (P<0.05). The variables Hand Gestures and Desktop have no significant effect

on the dependent variable, whereas all independent variables show a positive effect on the dependent variable. The hand gestures variables increases the odds of clicking through by 61.3% (1.613-1), although not significant .108 (P>0.05).

N=635	**Model 1 + Desktop and Country NL**			
Variable	**B**	**SE**	**P**	**Exp (B)**
Hand Gestures	.478	.297	.108	1.613
Desktop Used	.688	.424	.105	1.989
NL	1.097	.345	.001	2.996
Constant	-2.091	.432	.000	.124

Table 7

When computing the following hypothesis, the following question could be asked:

"What is the probability of clicking through the website when using hand gestures, using a Desktop as well as coming from the Netherlands?"

Therefore, the following mathematical equation is being used:

$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + β2DeviceDesktop + β3Country (NL) + ε

For logit models, the probability of choosing an option is (sigmoid function):

$$Log\left(\frac{Pi}{1-Pi}\right) = \frac{e^z}{1+e^z}$$

$\frac{e^z}{1+e^z}$, where z = β0 + β1Hand Gestures + β2Device + β3Country (NL)+ ε

Z = -2.091 + 1.097 + 0.688 + 0.478

Z = 0.172

Probability = $\frac{e^{0.172}}{1+e^{0.172}} = \frac{1.187677833}{2.187677833}$ = 0.542894303 = 0.543 = 54.3%

Equation 3: Probability of clicking through while using hand gestures and being Dutch

The probability of clicking through the website when using hand gestures, using a Desktop as well as coming from the Netherlands is 54.3% according to the second model. When performing a bootstrap binary logistic regression on the second model with 1,000 samples including a 90% confidence interval level, all the variables in the model become significant as can be seen in table 9 (P<0.1), below. However, the independent variable Hand Gestures is slightly above the significance level.

4.1.1 H1 with bootstrap and 90% confidence interval level

When changing the confidence interval level 90% including a bootstrap sample size group of 1,000 respondents (n=1,000) instead of 635 respondents, the following model is being presented:

N=1,000 bootstrap samples	**Bootstrap Model 1 with 90% confidence interval level**			
Variable	**B**	**SE**	**P (2-tailed)**	**Exp(B)**
HandGestures	.464	.290	.076	1.590
Constant	-2.374	.229	.001	.093

Table 8

The current model shows that the independent variable of using hand gestures while watching a promotion video has a significant positive effect on clicking through the website: .076 (P<0.1). The odds of clicking through the website is: 59% (1.59-1). The probability of clicking through is: 12.9% versus 12.8% (equation 2), which is slightly higher than the first model.

"What is the probability of clicking through the website when using hand gestures?"

Also, mathematically formulated as:

$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1HandGestures

For logit models, the probability of choosing an option is (sigmoid function):$Log\left(\frac{Pi}{1-Pi}\right) = \frac{e^z}{1+e^z}$

$\frac{e^z}{1+e^z}$, where z = β0 + β1Hand Gestures

Z = -2.374 + 0.464

Z = -1.91

Probability = $\frac{e^{-1.91}}{1+e^{-1.91}} = \frac{0.148080386}{1.148080386}$ = 0.128980852 = 0.129 = 12.9%

Equation 4: the probability of clicking through while using hand gestures.

When asking the following question when using model 1 including the control variables: *"What is the probability of clicking through the website when using hand gestures and using a Desktop?"*

$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = Log\left(\frac{Pi}{1-Pi}\right)$ = Zi = β0 + β1Hand Gestures + β2DeviceDesktop + ε

For logit models, the probability of choosing an option is (sigmoid function):

$$Log\left(\frac{Pi}{1-Pi}\right) = \frac{e^z}{1+e^z}$$

$\frac{e^z}{1+e^z}$, where z = β0 + β1Hand Gestures + β2DeviceDesktop + ε

Z = -2.091 + 1.097 + 0.688

Z = -0.306

Probability = $\frac{e^{-0.306}}{1+e^{-0.306}} = \frac{0.736386619}{1.736386619}$ = 0.424091392 = 0.424 = 42.4%

Equation 5: Probability of clicking through while using hand gestures and watching via a desktop

The probability of clicking through while using hand gestures and watching the promotion video via a desktop but not being aware of the country is lower versus knowing that the person is coming from the Netherlands. However, the variable of using hand gestures shows the lowest increase in odds of all three variables.

4.1.2 H1 with control variables with bootstrap and 90% confidence interval level

When performing a bootstrap binary logistic regression on the second model with 1,000 samples including a 90% confidence interval level, all the variables in the model become significant as can be seen in table 10 (P<0.1). The probability of clicking through as well as the increase in odds of clicking through the website remains at the same level versus the model without using a bootstrap.

N=1,000 bootstrap samples	**Bootstrap Model 1 + control variables with 90% confidence interval level**			
Variable	**B**	**SE**	**P (2-tailed)**	**Exp(B)**
hand gestures	.478	.301	.094	1.613
NL	1.097	.364	.002	2.996
Desktop Used	.688	.765	.099	1.989
Constant	-2.091	.784	.001	.124

Table 9

4.2 Moderation effects of independent variables on using hand gestures

The second model hypothesis is claimed that there is a moderation effect between the usage of Hand gestures in a promotion video and the device that is being used. The device is stated as the moderator in this matter. The table below shows the data output from SPSS:

N=635	**Model 2 (Desktop)**			
Variable	**B**	**SE**	**P**	**Exp(B)**
Hand Gestures(1)	-.320	.793	.687	.726
Desktop(1)	.327	.550	.553	1.386
Desktop(1) by Hand Gestures(1)	.853	.853	.318	2.346
Constant	-1.526	.493	.002	.217

Table 10

The second model shows no significant moderation effect between the usage of Hand Gestures and the device that is being used: .318 (P>0.05) (Table 10), which is the Desktop in this model. When testing the model and using the Phone or Tablet as a dummy variable, the following table also shows no significant effect towards the dependent variable: .318 (P>0.05) (Table 11).

N=635	**Model 2 (Phone or tablet)**			
Variable	**B**	**SE**	**P**	**Exp(B)**
HandGestures	.533	.315	.090	1.704
Phone Tablet Used	-.327	.550	.553	.721
Hand Gestures by Phone Tablet Used	-.853	.853	.318	.426
Constant	-1.199	.243	.000	.301

Table 11

When testing the variables while using a bootstrap sample size of 1,000 with a 90% confidence interval level, the model still not becomes significant: .276 (P>0.1). However, the model shows that the moderation effect is positive.

N=1,000 bootstrap samples	**Bootstrap Model 2 with 90% confidence interval level**			
Variable	**B**	**SE**	**P (2-tailed)**	**Exp(B)**
hand gestures	-.320	4.423	.623	.726
NL	.327	1.635	.534	1.386
Desktop Used by Hand gestures	.853	4.437	.276	2.346
Constant	-1.526	1.603	.002	.217

Table 12

5. Conclusion

The way of doing business has changed during the COVID-19 pandemic because of governmental restrictions (World Health Organization, 2019). People, especially companies were not allowed to visit each other and all offline promotion tools, such as trade shows were canceled during this period. Companies have to react to this by promoting themselves in another way. The goal of this research was to investigate the potential of using hand gestures during promotion videos in order as advice for online video promotion material. To achieve this, the following hypothesis was made*: Online promotion videos with hand gestures will have a significant positive effect on the response rate of prospects compared to an online video without hand gestures.* To test this question, the second hypothesis is also made: *The device that is being used during the online video will moderate the response rate of an online video.* Furthermore, there are some controls added to the model to test it, such as country of origin. The expectation that hand gestures will have a positive significant effect on clicking through the website is explained by the literature review in chapter 2. Moreover, the usage of a desktop would also moderate the click-through rate. According to the different theoretical backgrounds, more than 90% of its total communication is being done non-verbally, but again, does this also count when having online promotion videos?

Altogether, there is a positive relationship between the usage of hand gestures and clicking through the website. When performing the bootstrap analysis to increase the sample size, it also shows a positive significant effect on clicking through the website. The current data is tested and analyzed due to a binary logistic regression model.

Hence, the first hypothesis: *Online promotion videos with hand gestures will have a significant positive effect on the response rate of prospects compared to an online video without hand gestures.* will be accepted according to the data in paragraph 4.1.2. The probability of clicking through the website also referred to as the response rate in this paper, increases by 12.9% of the total variance. According to the data results, when adding the control variables in the first model, the model becomes more significant according to table 7, where the country variable NL had a very strong, even stronger effect on the click-through rate. This is possible because the brand awareness of the company in the Netherlands is way stronger versus other countries. After all, the testing company comes from the Netherlands. When using the country Germany as a control variable, it decreases

the strength of significance in the model slightly, besides the data also shows that coming from Germany, has no significant relation towards the click-through rate. There is also no interaction effect between the usage of hand gestures and the variable country NL in this model.

When adding the device as a control variable in the model, the following hypothesis is being tested: *The probability of clicking through the website while using hand gestures is controlled by the user device.* When performing a bootstrap, the model becomes very close to significance. This means that the variables device Desktop, as well as Country NL, could control the effect of clicking through the website while using hand gestures. the probability even increases a lot when adding these variables, to 54.3%. Therefore, the second hypothesis will also be supported according to this data.

The second hypothesis is focused on a moderation effect between the usage of hand gestures and the device that is being used during watching the promotion video.

Hence, the second hypothesis: *the device that is being used moderates the effect of hand gestures on the response rate*. According to the results given in paragraph 4.3, there is no significant moderation effect between the variables; therefore, the second hypothesis is rejected. There is no significant moderation effect stated in the second model.

To conclude, the answer to the problem could be stated as follows: When creating a business-to-business online promotion video, the advice would be to use hand gestures to increase the response rate on clicking through a website. The probability would increase in this matter when the receiver watches the video on their Desktop instead of their phone or tablet.

5.1 Limitations and further research

First of all, this paper does have several limitations. The first limitation is that a variable bias could occur as it could be hard to correct for all variables. This could lead to biased coefficient estimations, and therefore an over or underestimation of the strength of an effect. Therefore, the analyzing tool IBM SPSS is sensitive to its sample size, and therefore a larger sample size would automatically generate better modeling results.

Also, the sample is focused on a particular industry. Hence, this could mean that the conclusion of this paper is focused on the food and cosmetics industry of Europe, besides the fact that this sample is also focused on a business-to-business industry. The way that the current promotion video is presented, was by e-mail. The respondents had firstly to click through the video link before watching the video. This could also influence the results of the dataset. More than 50% of the respondents have not clicked on the video at all and could therefore also not have seen the video.

The paper and topic allow possible further research. For further research, perhaps a different industry or the consumer could be tested (the segment) to evaluate a potential difference within the target audience of the promotion video. Another potential further research could be the usage of hand gestures during a video. The current paper only investigated the usage of hand gestures during promotion videos versus no usage of hand gestures. Different ways of usages could also be tested to optimize the usage of nonverbal communication during the promotion video.

Appendix

Appendix 1: Campaign design

Since Sigma Oil Seeds (SOS) is highly committed to the usage of new raw materials and providing their customers with the latest info. In this promo video, more inside information could be told about different sustainability projects of SOS. SOS has a direct e-mail list where this promo video could be sent to. The videos will be sent out in the same period and time.

All the data must be administrated properly by using the analytic tools. The dependent variable, which is a click-through the website, will be analyzed by Sales Handy and Google Analytics. The moderator variable will also be administrated via Google Analytics.

The videos can be seen via clicking on a picture of the video. This picture is linked to YouTube or the website, where further clicks can be measured.

Since it is a between-subject design, the promotion video message is going to be the same, the only difference is the usage of hand gestures in the video. The literature review will give input on the hand gestures that are going to be used in the study. The goal is to have 30 seconds to the 1-minute promo video.

Both videos will show examples of the commitment to sustainability.

1st video (no hand gestures) (control group)

The video will show and tell examples of SOS's new product blog, Sacha Inchi oil. In this video, no hand gestures will be used, only zoom into the speaker where someone will tell something about these goals.

2nd video (using hand gestures) (treatment group)

The second video will be the same. The only difference is the usage of hand gestures within the video.

*Important notice is that the videos have to be the same, excluding the use of hand gestures.

Appendix 2: SPSS- output

Descriptive statistics

		Country										
		NL	DE	FR	BEL	CH	IT	PL	UK	Others EU	NON-EU	Total
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
Device	Desktop	39	54	21	7	8	11	8	16	39	4	207
	Phone or tablet	7	14	1	1	4	1	2	7	11	2	50
	Total per country	46	68	22	8	12	12	10	23	50	6	257

	Country										
	NL	DE	FR	BEL	CH	IT	PL	UK	Others EU	NON-EU	Total
	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
Unknown/ not opened e-mail	41	77	23	17	31	22	14	39	88	26	378

		Group	
		Control group (no hand gestures in the video)	Treatment group (no hand gestures in the video)
		Count	Count
Seen video	No	26	21
	Yes	97	113

		Group	
		Control group (no hand gestures in the video)	Treatment group (no hand gestures in the video)
		Count	Count
Click through	No	96	95
	Yes	27	39

Output Logistic Regression Model 1

Block 0: Beginning Block

Classification Table [a,b]					
			Predicted		
			Click through		Percentage Correct
	Observed		No	Yes	
Step 0	Click through	No	567	0	100.0
		Yes	68	0	.0
	Overall Percentage				89.3

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-2.121	.128	273.111	1	.000	.120

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	hand gestures	3.179	1	.075
	Overall Statistics		3.179	1	.075

Block 1: Method = Enter

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	3.200	1	.074
	Block	3.200	1	.074
	Model	3.200	1	.074

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	429.084[a]	.005	.010

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Classification Table [a]					
			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 1	Click through	No	567	0	100.0
		Yes	68	0	.0
	Overall Percentage				89.3

a. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	HandGestures	.464	.262	3.138	1	.076	1.590
	Constant	-2.374	.201	139.213	1	.000	.093

a. Variable(s) entered on step 1: HandGestures.

Output logistic regression + DE

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 0	Click through	No	567	0	100.0
		Yes	68	0	.0
	Overall Percentage				89.3

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-2.121	.128	273.111	1	.000	.120

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	HandGestures(1)	3.179	1	.075
		DE	.021	1	.885
	Overall Statistics		3.192	2	.203

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	3.212	2	.201
	Block	3.212	2	.201
	Model	3.212	2	.201

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	429.071[a]	.005	.010

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	HandGestures(1)	.463	.262	3.130	1	.077	1.589
	DE	.034	.304	.013	1	.910	1.035
	Constant	-2.382	.213	125.532	1	.000	.092

a. Variable(s) entered on step 1: HandGestures, DE.

Output logistic regression + NL

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 0	Click through	No	567	0	100.0
		Yes	68	0	.0
	Overall Percentage				89.3

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-2.121	.128	273.111	1	.000	.120

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	HandGestures(1)	3.179	1	.075
		NL(1)	19.014	1	.000
	Overall Statistics		22.725	2	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	19.251	2	.000
	Block	19.251	2	.000
	Model	19.251	2	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	413.032[a]	.030	.060

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Classification Table[a]

			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 1	Click through	No	567	0	100.0
		Yes	68	0	.0
	Overall Percentage				89.3

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	HandGestures(1)	.518	.267	3.772	1	.052	1.678

	NL(1)	1.256	.296	18.043	1	.000	3.512
	Constant	-2.657	.224	140.859	1	.000	.070

a. Variable(s) entered on step 1: HandGestures, NL.

Output Logistic Regression Model 2

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 0	Click through	No	189	0	100.0
		Yes	68	0	.0
	Overall Percentage				73.5

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.022	.141	52.257	1	.000	.360

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	HandGestures	2.464	1	.117
		DesktopUsed	3.490	1	.062
		NL	10.607	1	.001
	Overall Statistics		15.978	3	.001

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	15.704	3	.001
	Block	15.704	3	.001
	Model	15.704	3	.001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	281.288[a]	.059	.087

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Classification Table[a]

			Predicted		
			Click through		Percentage
	Observed		No	Yes	Correct
Step 1	Click through	No	181	8	95.8
		Yes	57	11	16.2
	Overall Percentage				74.7

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	HandGestures	.478	.297	2.586	1	.108	1.613
	DesktopUsed	.688	.424	2.632	1	.105	1.989
	NL	1.097	.345	10.093	1	.001	2.996
	Constant	-2.091	.432	23.420	1	.000	.124

a. Variable(s) entered on step 1: HandGestures, DesktopUsed, NL.

Correlations

Correlations

		HandGestures	Click through	NL
HandGestures	Pearson Correlation	1	.071*	-.033
	Sig. (1-tailed)		.037	.205
	N	635	635	635

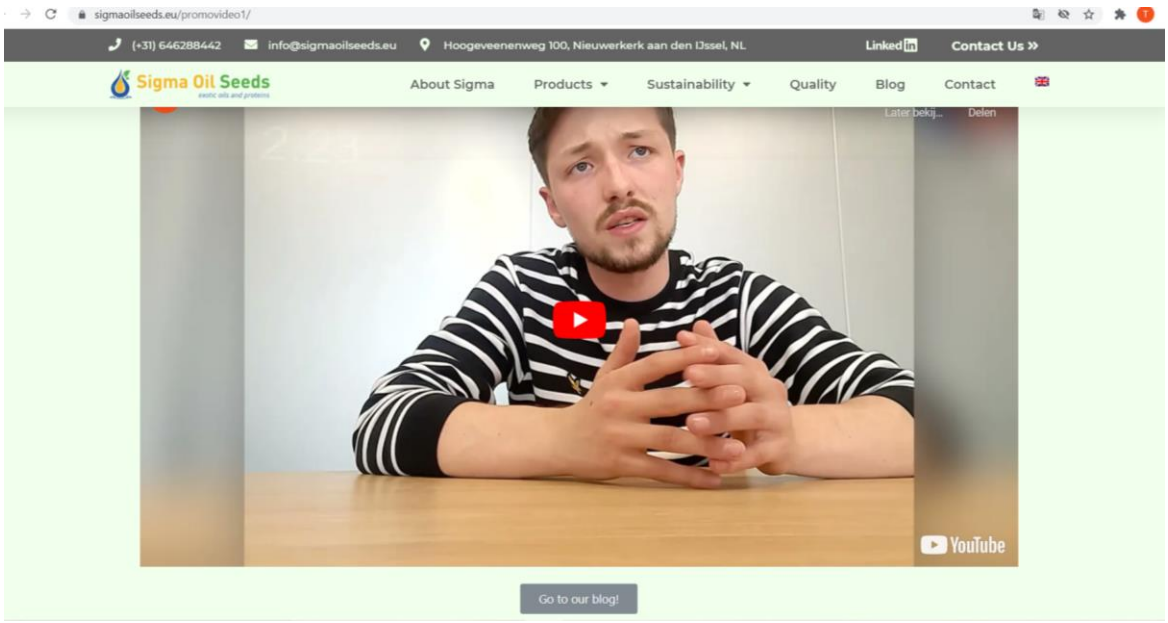
Click through	Pearson Correlation	.071*	1	.173**
	Sig. (1-tailed)	.037		.000
	N	635	635	635
NL	Pearson Correlation	-.033	.173**	1
	Sig. (1-tailed)	.205	.000	
	N	635	635	635

*. Correlation is significant at the 0.05 level (1-tailed).

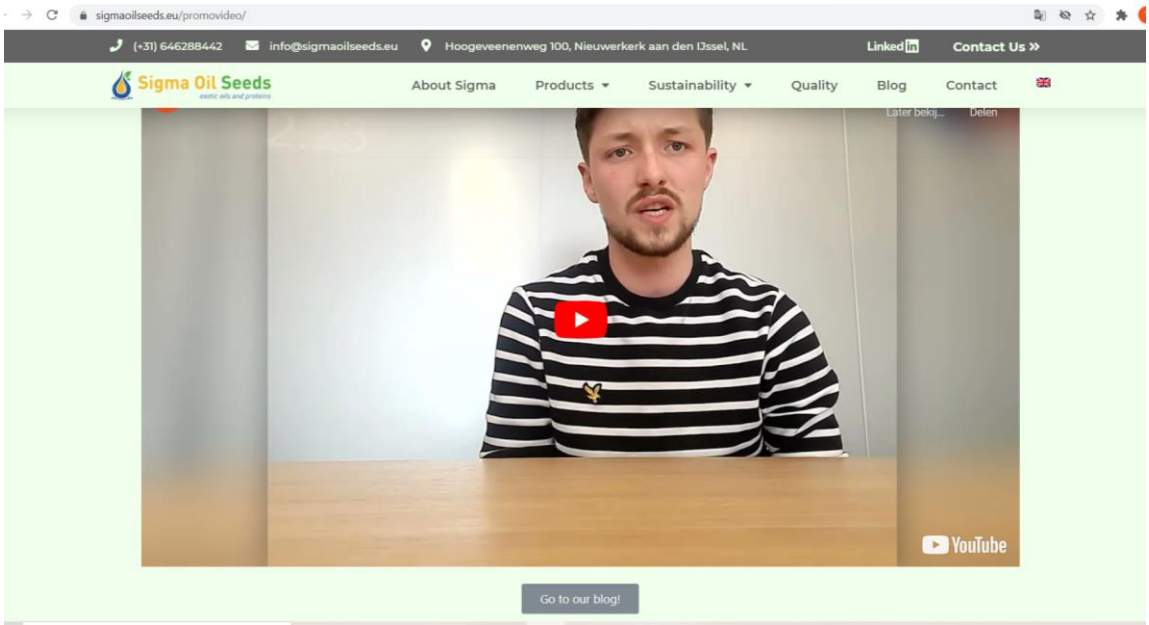
**. Correlation is significant at the 0.01 level (1-tailed).

Appendix 3

Promotion video with HandGestures:



Promotion video without HandGestures:



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Appendix 4: practicals of the research

Practicals of the research:

Tools for the measurement of the study/technicalities

Google Analytics:

First of all, via Google Analytics, clicks, location, acquisition (via where are they on the website?), device (including tablet) can be measured and analyzed. With this tool, goals such as contacting via the info mail or replying on the e-mail can be measured. Also, the time on the website and the behavior of this can be measured. This data can be exported to Excel/SPSS.

Sales Handy:

The second useful tool that is already used by the company (Sigma Oil Seeds) is Sales handy. This is an e-mail track and tracing tool that can be used to measure the clicks on links (such as a video link to the website or YouTube) as well as the replying, times of opening the e-mail, and more. This data can be exported to Excel/SPSS.

Hotjar:

Another tracking tool for a website is Hotjar. Heatmaps of website behavior can be made by using this tool. This could extra help within the behavior on the website during looking at the video.

Option 1: Cold acquisition e-mail with a promotion video

This idea could also be to start with a list within the cosmetics/foods industry and send an introduction e-mail including a promotion video link. The click-through of this can be measured via Saleshandy. Once being on the website link with the video, Google Analytics can measure and analyze the time on the website, device, and location. Hotjar could assist in tracking the behavior live on the website while watching the video.

Sales Handy could measure response rate and click on the link afterward. A reply in this matter could mean different things. It could be positive, negative, or nothing at all.

In this case, the positive response rate on the e-mail would be used as the dependent variable.

The idea could also be to start with a list of companies in the cosmetics/food industry in Europe (or a specific country/region).

Option 2: Promo video in the e-mail (need to double-check if it is possible)

In this case, a promotion video would be sent to the target audience and measured via Sales Handy. Sales handy can measure the respondent's response rate on the e-mail. The response rate is the dependent variable here, again. This needs to be a positive response rate. Beforehand, the demographic background of the respondents can be measured. It is only more difficult to investigate the device that they are using.

The advantage of option 1 would be the fact that more tools can be used to analyze the target audience, but, to measure the target audience, the respondent has to click on a link before watching the video.

The advantage of option 2 would be the fact that the respondent directly can click on the promo video to start, if possible. The downside would be that the measurement can only be done via Sales Handy.

1. So what's exactly your way of operationalizing the response rate? Have you decided what will it be? Claiming promo code? Subscribing? That's a really important part.

The response rate in the option above would be a reply with interest in the company. This can be measured via Saleshandy. Defined as ''response rate on e-mail''. In these e-mails, the text has to be the same.

Of course, the respondents have to click on another button before replying to the email, so what would happen...?

Also, can you know what device they were using without asking them? How do you want to classify devices? Mobile vs desktop? In which category would a tablet fall?

Tablets can be measured as well. In general, tablets are used very much and could be measured as mobile as well or separately as a third option.

Finally, have you decided where will you show the video? Will it be in the email? Then you can additionally measure whether people click on watching the video? Will it be on a platform that plays it automatically? (ex: YouTube) Then check if you can get data on how many seconds people watched before clicking through.

The easiest measurement would be a link with a video on the website. In this case, all the tools above can be used for tracking and analyzing the behavior of the potential customer.

You don't need a third hypothesis, this is more than enough, especially if you also include some of the controls that you might have (like country). **Some of these would definitely of interest**

So, I suggest that you elaborate on the technicalities and send me another update soon (does not need to be elaborate, just answers to the questions above). And then you can start designing the campaign.

I added three very useful tools on the page above: Google Analytics, Sales Handy, and Hotjar.

Via Sales Handy, a cold-email campaign could be started and analyzed properly. Data can be exported to a CSV file and therefore also be analyzed in SPSS.