



**Aalto University
School of Economics**

Lauri Puranen

**SOCIALNESS IN ONLINE PROMOTION AND HOW IT
AFFECTS CUSTOMER TRUST IN B2B CONTEXT -
THE MEDIATING EFFECT OF BRAND PERCEPTION**

An empirical study

Master's thesis

Instructor: Kristina Wittkowski

Submission date: 27.7.2021

Author Lauri Puranen

Title of thesis Socialness in online promotion and how it affects customer trust in B2B context - The mediation effect of brand perception

Degree Master of science in Economy

Degree programme Marketing

Thesis advisor Kristina Wittkowski

Year of approval 2021

Number of pages 56

Language English

Abstract

The recent unexpected appearance and effects of the pandemic have pushed many companies to focus more on their online capabilities. This has been necessary for many due to the lack of physical interaction with their customers and has created a need to understand customer interactions in the online environment more thoroughly. However, one of the harder things to build in online environments compared to offline ones is trust. This poses numerous problems as trust is one of the important catalysts for partnering up in B2B markets.

One traditionally neglected side of B2B marketing is the emotions and social cues as it has widely been regarded as a very rational environment. Brand perceptions are integral in building trust, but the ways they are managed and influenced are still more limited than they need to be, due to the focus on rationality in these markets. This study uses warmth and competence (as defined by BIAF) as dimensions of brand perception. The purpose of this research is to find out if social cues in B2B online promotion have a meaningful impact as a trust building method. This research focuses on the relationship between socialness and trust and how it is affected by perceptions of warmth and competence generated by the interactions with the brand.

The research was set up to capture this relationship by running a scenario-based experiment comparing multiple different webinar setups in B2B webinars. The webinar manipulations included adding a webcam and multiple speakers to the webinars to add more social cues and capture the effects those manipulations have on the customers. The results were gathered using a survey that was designed to capture the different constructs suspected to be responsible for building trust in this context.

The results of the study indicate that socialness indeed is effective as a trust building method in online promotion, even in B2B markets. However, the effect is not complete in the sense that socialness seems to only be effective in influencing the warmth dimension of brand perception. The results inform companies of the possibilities and limitations of using social cues in their online promotion when functioning in a B2B context.

Keywords: Socialness, Trust, Warmth, Competence, Online promotion, B2B

Tekijä Lauri Puranen

Työn nimi Sosiaalisuus verkkopromootiossa ja kuinka se vaikuttaa asiakasluottamukseen yritysmarkkinoinnin kontekstissa – brändikäsityksen välitysvaikutus

Tutkinto Kauppatieteiden maisteri

Koulutusohjelma Markkinointi

Työm ohjaaja Kristina Wittkowski

Hyväksymisvuosi 2021

Sivumäärä 56

Kieli englanti

Tiivistelmä

Viimeaikainen yllättäen iskenyt pandemia ja sen vaikutukset ovat pakottaneet monet yritykset keskittymään enemmän verkkokyvykkyyteensä. Fyysisen vuorovaikutuksen puutteen vuoksi tämä on ollut monelle yritykselle välttämätöntä ja on luonut tarpeen ymmärtää asiakkaiden vuorovaikutusta perusteellisemmin tässäkin ympäristössä. Kun vertaa perinteisiin fyysisiin ympäristöihin, verkossa luottamuksen rakentaminen on kuitenkin yksi suurimmista kompastuskivistä. Tästä aiheutuu lukuisia ongelmia, sillä luottamus on yksi tärkeimmistä edesauttavista tekijöistä kumppanuuden luomisessa yritysmarkkinoilla.

Yksi perinteisesti laiminlyöty puoli hyvin rationaalisenä ympäristönä pidetyssä yritysmarkkinoinnissa ovat tunteet ja sosiaaliset ärsykkeet. Brändikäsitykset ovat olennainen osa luottamuksen rakentamista, mutta tapoja, joilla niitä hallitaan ja niihin vaikutetaan käytetään edelleen vähemmän kuin pitäisi, sillä yritysmarkkinoiden oletetaan usein fokusoituvan rationaalisuuteen. Tämä tutkimus käyttää lämpöä ja osaamista (BIAF:n määritelmän mukaan) brändikäsityksen ulottuvuuksina. Tutkimuksen tarkoituksena on selvittää, onko sosiaalisilla ärsykkeillä merkityksellistä vaikutusta luottamuksen rakentamiseen yritysmainonnassa verkossa. Tämä tutkimus keskittyy sosiaalisuuden ja luottamuksen väliseen suhteeseen, ja siihen, miten vuorovaikutuksessa yrityksen kanssa syntyvät brändikäsitykset vaikuttavat siihen.

Tämän yhteyden selvittämiseksi järjestettiin tutkimusasetelma, jossa useita eri webinaarityyppejä verrattiin toisiinsa. Webinaarimanipulaatioihin sisältyi verkkokameran ja useampien puhujien sisällyttäminen sosiaalisten ärsykkeiden lisäämiseksi. Näin pyrittiin saamaan selville manipulaatioiden vaikutukset asiakkaisiin. Tulokset kerättiin kyselyllä, joka oli suunniteltu selvittämään näkemyksiä erilaisista konsepteista, joiden epäillään olevan vastuussa luottamuksen rakentamisesta tässä ympäristössä.

Tutkimuksen tulokset osoittavat, että myös yritysmarkkinoilla sosiaalisuus todella on tehokas luottamuksen rakentamisen menetelmä verkkopromootiossa. Vaikutus ei kuitenkaan ole täydellinen siinä mielessä, että sosiaalisuus näyttää vaikuttavan merkittävästi vain brändikäsityksen lämpö-ulottuvuuteen. Tulokset kertovat yrityksille sosiaalisten ärsykkeiden käytön mahdollisuuksista ja rajoituksista verkkopromootiossa, kun toimitaan yritysmarkkinoinnin ympäristössä.

Avainsanat: Sosiaalisuus, Luottamus, Lämpö, Kyvykkyys, verkkopromootio, Yritysmarkkinointi

Table of contents

1. Introduction:	4
1.1 Problem definition	4
1.2 Research questions	6
1.3 Structure	7
2. Main Body:	9
2.1 The importance and meanings of trust	9
2.2 Socialness in online environments	13
2.3 Warmth and competence	15
2.4 Hypothesis development and conceptual framework	17
3. Empirical Study	22
3.1 Method and Procedure	22
3.2 Sample	24
3.3 Measures	28
3.4 Estimation and validity	29
3.5 Data analysis and results	31
4. Discussion	35
5. Conclusion	36
5.1 Theoretical implications	36
5.2 Managerial Implications	38
5.3 Limitations and Future Research Directions	40
7. References	43
9. Appendix	49

1. Introduction:

1.1 Problem definition

Companies doing business in online environments are nothing new at this point, and there are countless companies that are based exclusively on online platforms and websites. This of course presents some new possibilities for those companies along with unique challenges. However, due to the Coronavirus, even some companies traditionally based on physical environments have been forced to move to online spaces (LaFleur, 2020). For many companies such as suppliers and manufacturers of industrial devices, events such as seminars were at least a large portion of what gave them physical presence in the eyes of their customers. Many of these events are now moved online and replaced with events such as webinars. This change presents an increasing need to understand how to do business effectively in the online environments.

Online has, at last for now, become the new norm for promotion and even some traditionally physical sales and marketing functions have been switching to online platforms. The online environment is very different from the physical environment in that normal human interactions are very much restricted in many ways, even though they also allow such things as a wider reach for the promotion as well (Lieberman & Schroeder, 2020). To be able to thrive using the tools available requires some understanding of the possibilities and capabilities offered by this state of “new normal”. One of the underutilized possibilities in online environments is implementing socialness into the interactions with the customers. Socialness can be defined to be perceived human connection through human-like cues (Wang et al., 2007). The main difference between the online and offline environments in this regard is that social human-like cues such as facial features, body language and other nonverbal communication (DeLamater et al., 2015; Willis & Todorov, 2006) are constantly present in offline environments. However, these cues are not always present in online environments, and even when implemented, are limited in the sense that they need to be interpreted

through a two-dimensional screen. How this socialness in online environments might affect trust in a B2B context, especially when it comes to the dimensions of warmth and competence (Kervyn et al., 2012), is yet an under-researched topic in literature.

Because of the interaction restrictions, some of the normal trust building methods might be less effective in online environments. In online environments where social interaction is much more limited than in physical spaces, it has been argued that building trust is based more on the objective properties of both parties in the relationship (Yan & Holtmanns, 2008). This is problematic, as not surprisingly, it means that the tools companies can use to build bonds and appear more trustworthy are limited in these digital environments as well. For example, it has been shown that online retailers are on average trusted less than physical, or hybrid retailers (Vara & Mangalindan 2006). This can be caused by factors such as social interaction as a trust building method (Doney et al., 2007) being more difficult to implement or perform well at. This causes problems as trust is also a good driver for purchase intention in both online and traditional settings (Aguirre et al., 2015) and predicts a positive and profitable relationship (McKnight & Chervany, 1996). These reasons make this an important topic for a company's success in the current situation where many companies are moving online. Social cues as part of interaction are central to building trust in traditional environments, and they might be in online environments as well.

The problem is that online environments are more challenging when it comes to interacting with the customers and also complicates generating trust. How should companies go about doing those things in B2B online environments then? B2B markets are often depicted as cold and rational (Kuhn et al., 2008), with minimal focus on anything intangible. However, it has been understood more recently that even the B2B market is not unaffected by such things as emotions and brand value in decision making (Lynch & De Chernatony, 2004). Such things as brand perception dimensions, warmth and competence, are now believed to be effective in influencing B2B customers as well (Güntürkün et al., 2020). The idea that these kinds of "softer" factors such as social interaction and social cues would be valuable in B2B markets and could apply to things like building trust is one of the motivators for this research experiment.

The focus of this research is on the company's possibilities of influencing trust generated towards their brand with increased socialness in promotional online environments. Many social cues are certainly possible to implement to different online events and environments. Just a couple of examples of such possibilities are webcams and chat functionality. The restrictions outlined before can be in effect, but that does not necessarily mean that the social cues in online environments would not elicit similar feelings to normal social cues in physical environments. The effect might not be as strong, but in the world where online is the only way to operate for many companies, they have to take every opportunity they can to keep in touch with their customers and make the most of it.

Goal for this research is to expand the understanding on how effective these social cues are in online environments at building trust. Even if restricted in numerous ways, are social cues still impactful and worthy for companies to implement? Also under inspection is how socialness affects the perceived warmth and competence of the brand as viewed by the B2B customer. This knowledge can inform the possibilities provided by, and possible use cases of these social cues and if they allow brands to build trust more effectively in the online environment previously perceived as socially restructured.

1.2 Research questions

The main concepts used in this research are socialness, trust, warmth and competence. There are previous studies conducted on all these concepts, but rarely are they studied simultaneously as a part of a single framework. The focus of this research specifically lies in the mechanism through which socialness affects trust to understand the implications behind the results on a deeper level. Social interactions have been used and referred to as a trust building method (Doney et al., 2007), however in the context of the online B2B events such as the ones this research setup

is based on, it is still important to confirm that relationship. This is the reason why the first research question was formulated:

1. Does perceived socialness of online promotion increase the level of trust in the brand?

To add to the literature and the understanding of the relationship between these two concepts, warmth and competence are used as mediators between the two factors in the model. This set of interactions is still not explicitly established in literature, so based on this open problem, the following question requires an answer:

2. Is the effect of socialness on trust mediated by perceived warmth and competence?

The goal of the research is to gain more understanding on the way socialness affects trust formation in an online environment in a B2B context. There are certainly companies that aim to introduce socialness and social cues to their content even when operating online, but this research will hopefully help those companies to understand how their efforts affect their customers on a deeper level and encourage other companies to implement some social cues to their online promotion as well. The results of this study could point out some situations where social cues thrive and others where social cues might not be as beneficial, allowing companies to make educated decisions on when to use social cues and when they might not be as necessary.

1.3 Structure

As already discussed, this research is based on a few theoretical concepts and frameworks. These are trust (dependent variable), socialness (independent variable),

and perceived warmth and competence (mediators). To understand and analyze these concepts as a part of the formulated framework, these variables and frameworks are first defined and elaborated on by going through the most relevant findings in the respective fields. The concepts will be discussed in the above-mentioned order. After this literature review the hypotheses are developed by defining the relationships between these factors.

The next section of the research discusses the methods used to run the empirical study. This includes, among other things, participation data and the exact way the research was set up to capture answers to the research questions. On top of that, the formulation of the survey used for the research is discussed. After this, the next part goes through the tools used for data analysis before moving on to the results. Here the results and key figures of the experimental study are reported, and the hypotheses are accepted or rejected.

The next section is the conclusion, the first part of which is the discussion where the meanings of the results are laid out. Next, the implications. These include the most important data being used to draw conclusions about the theories and practices surrounding the topics. The section is split into two parts. First is the theoretical implications where conclusions involving the theories and concepts are drawn from the results of the research. These aim to add to the literature by clarifying different concepts and their connection to each other based on the collected data and run analysis. Second is the managerial implications that aim to give practical advice to the practitioners. These implications are still based on theory but are formulated to be more usable in practical situations and business applications.

The final part of the conclusion is the limitations and future research directions. Here an objective look at the research is taken and the limitations of the test setup, data analysis and results are discussed, while also providing some suggestions for the possible future research that could be conducted on the topic.

2. Main Body:

2.1 The importance and meanings of trust

Trust is a complex multi-level concept that has been widely acknowledged by both scholars and practitioners to be very important in many aspects of a wide range of different applications. Trust has been described to be the basis for cooperative actions (Gambetta, 1988) and a necessity for positive and harmonious interpersonal relationships (Weigert & Lewis, 1985). On top of this, the importance of trust increases during a crisis for example by increasing the willingness to collaborate both within and between organizations (Mishra, 1996). Also, especially importantly for the B2B context, trust has been shown to be an important driver of both customer loyalty and commitment in B2B relationships (Doney et al., 2007; Caceres & Paparoidamis, 2007) and one of the best predictors of a positive and profitable relationship (McKnight & Chervany, 1996). These are just a few examples of observed positive effects of trust.

However, many of these effects are not directly caused by trust itself but emerge due to some other factor. What is the mechanism that gives trust such a wide range of effects? The most direct effect of trust is related to risk taking (Mayer et al., 1995). There is inherent risk when companies initiate a partnership with some external entity because of the chance that the product, service or the company selling it will not live up to the expectations. By giving control of a situation to someone else, companies assume risk of possible negative outcomes, but through trust in the supplier they can overcome the risk aversion in that situation and commit, taking the risk (Matzler et al., 2008). This is one of the reasons the importance of trust in B2B relationships relies heavily on the perceived risk and willing risk taking in the relationship. The mechanism is such that trust makes people expect positive outcomes in risky situations (Das & Teng, 2001; Mayer et al., 1995), diminishing the negative effects of the perceived risk and making them more likely and willing to take the risk. This contributes to such effects

of trust as increasing purchase intention in both online and traditional settings (Aguirre et al., 2015).

Generally trust can be characterized as the willingness to depend on another party's reliability and integrity with a feeling of security that the actions of the trusted party will result in something positive, even when negative outcomes are possible (McKnight & Chervany, 1996; Morgan & Hunt, 1994). In a trusting relationship, the parties can comfortably rely on the other party to act with their best interests in mind and be able to follow through with that intention by relying on them in a given situation. The reason why this is important in B2B markets is that companies need to be convinced that any investment or reliance placed on another party is worth the price and there will not be negative consequences caused by the decision.

Trust is often a very broadly defined multi-level concept and is used in many ways in the scientific literature. This research utilizes the conceptualizations of trust formulated by McKnight & Chervany (1996). As an initial summary about this definition of trust; trust is not an inherent characteristic of the trusted other but the actual reliance or potential reliance on the other party in a given situation. This sort of reliance can emerge in many ways and the different conceptualizations are divided into six categories in the framework:

Trusting intention: Willingness to rely on some other party in a given situation

Trusting behavior: Voluntary dependence on another party in a given situation

Trusting beliefs: Belief that the other party would be trustworthy in a given situation

System trust: Belief that proper structure is in place for the trusting party to have successful endeavors in the future

Dispositional trust: Tendency to trust in a wide range of people and situations without considering the unique characteristics of the other party or the situation

Situational decision to trust: Intention to trust any other party in a specific situation without considering the unique characteristics of the other party

A quick clarification about the definitions of trust and trustworthiness is in place to avoid the claims that trust is used to define itself when it comes to trusting beliefs. Being trustworthy in this context means to be willing and able to act with someone else's best interests in mind (McLain & Hackman, 1999). It is a characteristic of the trusted other, making it distinctly different from the situational consideration to trust defined by McKnight & Chervany (1996).

The main antecedent of trusting intention is trusting beliefs, making it also often antecede trusting behavior (McKnight & Chervany, 1996). The function of the particular promotion tested by this research is mainly to build understanding of the subject matter and educate the customers on the tools at their disposal while simultaneously promoting the company's line of products. This kind of a promotional event will most likely not be the final interaction between the customer and the company before purchase. This means that of these trust conceptualizations, the most relevant ones for this research are the trusting intention and trusting beliefs, even though system trust (laws and contracts) and trusting behavior (commitment) are particularly important as well in the later stages of the purchase process.

The trusting intention formed towards a brand is strongly connected to the *confidence* in the trusting beliefs held for the trusted other (McKnight et al., 1996). It is the intentional stage of being ready to rely on some other party (McKnight & Chervany, 1996). This trusting intention encompasses five essential elements as proposed by the synthesized results from trust literature by McKnight & Chervany (1996). First is the potential for *negative consequences*. Some risk needs to be involved for trust to be present (e.g. Williamson, 1993). No minimum amount can be defined, but without risk and possible negative consequences, there would be no challenge that would require formation of trusting intentions to overcome that challenge.

Second, *dependence* on some other party is a central part of trusting intention, and some researchers have even defined trust as dependence or reliance (e.g., Atwater, 1988). To have an intention to depend on someone, one needs a cause for that dependence to be necessary. This makes situational dependence important for the formation of trusting intention.

Third, there needs to be a willingness to rely on another party with a *feeling of security*. This security allows the trusting party to make the commitment and depend on the other party, helping to overcome risk aversion (Rempel et al., 1985). The felt security, or comfort, is an emotional component of trust that distinguishes it from any anxious form of reliance on another party.

Fourth, this trusting intention is *situation specific*. One would not trust any one party in any given situation. These decisions and formed intentions are always based on the situation and task at hand (Sitkin & Roth, 1993). In general people would trust their mechanic to fix their car, but not their broken leg.

Fifth, the intention needs to be formulated *without an expectancy of control*. This means that the trusting party must not rely on controlling the actions of the other party to do what they want as in this situation trusting the other is not needed to achieve the desired outcome (Riker, 1971). The mechanism needs to be dependent on relying on trust instead of control to be considered trusting intention.

These are the elements of general trusting intention, but the main antecedent of those intentions being trusting beliefs, it is important to conceptualize that aspect of trust as well. One of the trust frameworks utilized in this research is the one proposed by Mayer et al. (1995), which defines the different factors of trust, or clusters of trusting beliefs (McKnight & Chervany, 1996), to be ability, benevolence, and integrity. In this context ability can be defined to be capabilities of the party that allow them to be influential in a given situation; benevolence means how much the trusted other is believed to want to do good in the situation; integrity is characterized as the belief that the trusted other functions under an acceptable set of principles as evaluated by the trusting party. This model along with several others (e.g., Doney & Cannon, 1997; Garbarino & Johnson,

1999; Sirdeshmukh et al., 2002) have come to similar conclusions about the multi-faceted nature of trust and assign similar elements to it. These are the main factors and antecedents of trust and are the focus for the trust conceptualization of this research. Sometimes the concept of predictability is added to this list of factors of trusting beliefs as well, which means that the actions of the other party need to be consistent enough for the trusting party to anticipate their actions in the future (McKnight & Chervany, 1996). However, this consistency in a longer time frame is not something this research is able to capture, so when it comes to defining trusting beliefs, the factors proposed by Mayer et al. (1995) are used.

2.2 Socialness in online environments

What socialness refers to in the context of this research is perceived human connection through social, human-like cues (Wang et al., 2007). These social cues encompass such things as facial features, body language and other nonverbal communication (DeLamater et al., 2015; Willis & Todorov, 2006) and increasing the amount of such cues can increase the perceived socialness in the situation or environment. This increase in socialness is manifested through perceptions of social dimensions that encompass such factors as being polite, helpful, informative, intelligent, and interactive (Wang et al., 2007). These are human-like characteristics that in the online contexts can be assigned to even machines (Reeves & Nass, 1996) with or without the actual interaction of a human.

The importance of socialness in B2B contexts can be observed for example in the process of building trust where it, through social interactions, aids in nurturing interpersonal relationships that represent the trusted party (Doney et al., 2007). Social cues have also been shown to have an effect on experienced socialness in an online environment (Wang et al., 2007), so it is plausible that these effects can be observed and be effective in the online B2B context as well.

To give an overview of the general social nature of online interactions, online environments offer less possibilities for nonverbal communication and more anonymity, but also, it is easier to reach and speak to a wider audience (Lieberman & Schroeder, 2020). Touch, body language and dynamic one-on-one interactions are just a few examples of the things that are very different between these two spaces, or are even absent in online environments. Though different, the online environment still offers possibilities to utilize many kinds of social cues and can be effective to build and sustain the relationships with the customers. Sometimes the next best thing after dynamic social interaction companies can aim to achieve is to inject some social cues that increase the perceived socialness of the online interaction. This is the exact situation that defines the experimental setup of this research.

Social response theory states that people elicit social rules and responses to computers when the machine possesses social cues (Reeves & Nass, 1996). This provides reason to believe these cues to be effective in an online environment where the medium people use to interact with each other is the computer. The difference to the experiment run in this research is that not only are there human-like cues, but also an actual human at the other end of the line that the viewer has a possibility to interact with. This also distinguishes this form of online socialness and interaction from concepts such as parasocial interaction, which are defined to be one-sided interactions where the other party is not even aware of the relationship partner's existence (Rubin & McHugh, 1987). This sort of interaction and relationship can be initiated with television personalities and reality show characters, but it is arguable if social relationships with large social media influencers could also be characterized as parasocial interactions, even with the theoretical possibility of direct interaction.

This form of socialness is an under-researched topic as most of the literature either discusses the social interactions and social cues in the offline environment in human-to-human relationships, or it deals with the socialness as a characteristic of a machine that demonstrates some human-like traits, but has no real human attached to it to interact with. This leaves out the kind of socialness often present in many online environments such as social media platforms or, in the case of this research, webinars.

This sort of socialness in online environments has been dubbed broadcasting social media use (Kaye, 2021; Meshi et al., 2015). In these cases the medium is a machine, but there are other people at the other end of the interaction and even though it is named after such use in social media, it can be present in other online environments that fill a similar criteria as well.

2.3 Warmth and competence

The importance of socialness in the framework used for this research relies on establishing bonds through interaction between the representatives of the company and the potential customer (Doney et al., 2007). A central part of any social interaction is social perception. “Social perception refers to identifying and utilizing social cues to make judgments about social roles, rules, relationships, context, or the characteristics (e.g., trustworthiness) of others.” (McCleery et al., 2014). For the topic at hand, it is especially important to notice that social perception deals with making judgements about the traits of the other party, meaning that it influences the way the perceiver views the other party and answers such questions as “what are they like?”.

It has also been shown that on the one hand new social cues can alter the social perception of a known entity (Keating et al., 1999), but on the other hand people also interpret new perception-altering information in the light of the pre-existing information (DeLamater et al., 2015). From this can be derived that with social cues entities are able to build consistent but malleable perceptions over time in consistent interactions with the perceiver if managed properly.

Many studies have demonstrated that relationships between brand and people resemble those that exist between people and brands (Fournier, 1998). The basis for this argumentation is that people will often assign human characteristics to brands, or in other words, anthropomorphize them (Aaker, 1997). The effect has been demonstrated for example by people becoming emotionally attached to their loved brands (Albert et al., 2008), and displaying brand loyalty and commitment that

resembles marriage (Fournier & Yao, 1997). Through this connection some social perception analysis tools originating from social psychology are used to draw parallels between brand perceptions and social perceptions between people. In this case the used framework is the Stereotype Content Model (Fiske et al., 2007; Fiske et al., 2002), which is used to analyze social perceptions through two perception dimensions, warmth and competence.

Similar principles and components as in Stereotype Content Model have been used to construct the Brands as Intentional Agents Framework (BIAF) by Kervyn et al. (2012). In this framework they establish that perceived warmth (intention) and competence (ability) capture the variance in relationships between consumers and brands effectively. These traits have been established in social psychology to be important for people interacting with each other. This stems from all the way back in human's primitive evolution when recognizing traits like this has been an important survival issue. This manifests today in people's everyday life as we are making judgements on people's character (Fiske et al., 2002; Kervyn et al., 2012.)

As defined by Fiske et al. (2007), the main functionality of the first of these dimensions, warmth of intent, is to judge if the relationship other, which in the context of this research is the brand, has our best interests in mind. The importance of this aspect is to track the perceived good nature and willingness to do good, and is described with adjectives such as well-intentioned for high warmth and ill-intentioned for low warmth. As a perception dimension, warmth is more connected to relational aspects of the relationship and is effective in creating emotional bonds (Güntürkün et al., 2020).

Warmth is often the primary dimension that will be judged first before considering competence, at least in person-to-person relationships. This again stems from evolutions as determining someone's willingness to do good or ill can be an even more important factor than their capability to do so (Fiske et al., 2002; Kervyn et al., 2012). This has been observed to be the case in person-to-person relationships, but it is still somewhat unclear if this holds true in B2B context as well. The doubt for this stems

especially from the more rational nature of the B2B markets compared to C2C or even B2C markets (Kuhn et al., 2008).

The other dimension of the relationship is the perceived competence of the relationship other. This means the degree to which they are able to act on their intentions and the two ends of this scale can be described as High-ability and Low-ability. Competence is often influencing the transactional aspects of the relationship and drives customer attraction and current operating performance more effectively than warmth (Güntürkün et al., 2020).

This dimension is often judged after the intentions of the other party have been identified to determine the potential usefulness of that intention (Fiske et al., 2007). Based on the trust literature there might even be a valid argument that suggests that in B2B contexts competence has a chance to be the primary dimension. When reflecting on the trust concepts, this could be caused by system trust (McKnight & Chervany, 1996) because contracts and other such safety nets can mitigate the need to rely on the good nature and intentions of the trusted other and instead can rely on the legal obligation enforced by the contract.

2.4 Hypothesis development and conceptual framework

Social interaction has been established to be a functional trust building method in a B2B context (Doney et al., 2007). This study focuses on social interaction and how social cues in these interactions build trust in the context of online promotion. Also, social cues have been shown to have an effect on experienced socialness in an online environment as well (Wang et al., 2007), so it is likely that this effect of increased socialness affecting trust positively can be observed and effective in the online B2B environment as well.

Social interaction's importance for the trust building process is closely tied to nurturing the interpersonal relationships that represent the company (Doney et al., 2007). Social

environments provide buyers a way to interact with the company and get information they need through the interaction to confidently predict the company's actions in the future (Doney et al., 2007). This confidence and comfort along with predictability are all factors often associated with trusting beliefs and intentions (McKnight & Chervany, 1996). These properties of socialness and social interaction provide convincing evidence of a connection to be present between socialness and trust even in online B2B contexts.

Social cognition, or the way people understand and make sense of the social world around them, is affected by socialness by helping people infer information about other people, and their intentions by the social cues they display. Just to hone in on one of the most impactful social cues and its effects in human interaction, facial features and expressions are one of the factors believed to be important in social interaction (Willis & Todorov, 2006; Frith, 2009), and therefore trust building. People can build trust on the expertise of a person, but to truly elicit feelings of trust through the interaction, emotions are also a vital part of establishing that the other party is benevolent and has the trustor's best interests in mind (Eiser et al., 2009). This feeling of secureness, also brought up by McKnight & Chervany (1996), needs to be established somehow and it has been shown that the human face has an important role while establishing that perceived trustworthiness. This holds especially true with people who are previously unfamiliar with each other. For example, Willis and Todorov (2006) show that people make many judgments extremely quickly when seeing a face. These judgements include if the person seems trustworthy. If this interaction is incomplete due to lack of the face attached to the person, it might hinder the ability of making this judgement, and thus building trust. This supports the notion that implementing a higher level of socialness through social cues such as facial features would have an impact on trust generated during that interaction.

The importance of socialness in trust building can also be seen in the results of Kreijns et al. (2003) that identify one of the possible pitfalls of socialness in collaborative environments to be restricting the social interaction to only serve as cognitive process without establishing social bonds between the collaborating parties. Without

establishing this connection, the collaboration and taking the risk to commit to the relationship is considerably more difficult (Wegerif, 1998), suggesting that a low level of socialness could lead to lower levels of trust established during the interaction.

Based on the arguments laid out here, the hypothesis is formulated that a higher level (compared to a lower level) of socialness has a positive effect on trust. However, due to the complex nature of trust and how it is affected by socialness, the next sections will explain the exact expected causality that influences the relationship between these two variables. This assists in specifying the exact effects that are expected of socialness and help to formulate the exact hypotheses.

H1: A high (vs. a low) level of socialness has a positive effect on trust

Like Kervyn et al. (2012), this research distinguishes the two components of perceptions, warmth and competence. The idea presented by their research, which states that perceptions in brand relationships function similarly to those present in human-to-human interaction, as defined by Fiske et al. (2002), guided this research to generate a hypothesis that those manifestations of socialness can affect the customer's perception of the brand as well. The process of formulating these perceptions is called impression formation and happens when interacting with people. Aspects such as facial features, appearance, tone of voice affect impression formation, and thus, our perceptions of the other party (DeLamater et al., 2015; Willis & Todorov, 2006). These are social, human-like cues and manifestations of socialness, which are inseparably a part of normal social interaction, and are a major part of formulating social perceptions, such as perceptions of warmth and competence.

There have been several studies that show that different social cues are important when formulating perceptions of warmth and competence. On the one hand, perceptions of warmth have been connected to such social cues such as body and head movement, hand motion, and especially smiling, which is indicated to be the

single strongest cue when creating perceptions of warmth (Bayes, 1972). Excluding everything from an online environment that would allow these cues to be interpreted, would most likely cause difficulties when inferring the intention of the other party.

On the other hand, social cues that are connected to competence are status cues such as economic status clothing cues influencing the perceived competence of the face (Oh et al., 2020) and expressive task cues such as posture, sure movements and eye contact having a positive effect on perceived ability and competence of the person (Fişek et al., 2005). These connections between social cues and warmth and competence leads this research to hypothesize that increasing the socialness of an online environment to a higher level (vs. a lower level) by implementing such social cues through addition of a webcam would lead to increased amounts of perceived warmth and competence as these cues seem to be significant when formulating these perceptions.

The next hypotheses are based on the significance of social cues in determining the intention and ability of the other party. Two hypotheses are proposed to account for the relationship between socialness, and warmth and competence.

H2: A high (vs. a low) level of socialness has a positive effect on perceived warmth

H3: A high (vs. a low) level of socialness has a positive effect on perceived competence

The last set of hypotheses capture the effect trust experiences as warmth and competence vary. What makes warmth and competence so well-suited for this conceptual framework is that, as dimensions, they map to trust conceptualizations with great accuracy. For example, the trust model proposed by Mayer et al. (1995) defines the factors, or antecedents, of trusting beliefs to be ability, benevolence and integrity.

To draw parallels between these conceptualizations of perceptions and trust, first, warmth is expected to have an effect on such components of trust as benevolence (Mayer et al., 1995), making someone more likely to trust the relationship other due to their perceived good nature and good intentions. This connection of intention and benevolence related constructs being antecedents of trust has been established in B2B trust literature by many studies (McKnight et al., 2002; Mayer et al., 1995; Franklin & Marshall, 2019). The benevolence of the trusted other is important for the trusting party to believe with confidence that the possible bad outcomes are not going to happen, diminishing perceived risk.

Second, competence can be interpreted to be very closely related to the ability (Mayer et al., 1995) aspect of trust indicated in the model, affecting the perceived capabilities of the trusted other and more enticing as a partner, especially in a B2B context. Competence has been established to be an important antecedent of trust in this context, especially due to more value being generated in the relationship and the trusting party putting more effort into maintaining and developing the relationship (Crosby et al., 1990; Palmatier et al., 2006). The perceived competence helps diminish the perceived risk by providing evidence that the trusted other is able to carry out the deed that the trusting party is expecting them to carry out.

Both of these connections established between the concepts of warmth and competence, and trust would indicate that the dimensions of perceptions work to mitigate the effects of risk in a given situation, but in a different way, warmth through the perceptions of benevolent intentions and competence through perceptions of ability to enact on those intentions. These arguments lead this research to hypothesize that both warmth and competence have an effect on the willingness to trust the relationship other. Based on this, these hypotheses are formulated.

H4: Perceived warmth has a positive effect on trust

H5: Perceived competence has a positive effect on trust

From these hypotheses the following conceptual framework is created (Figure 1). Based on the arguments outlined in this section there is an expected effect between a high level of socialness and trust and this relationship is mediated by the brand perception dimensions of warmth and competence. All the relationships between the factors are expected to be positive.

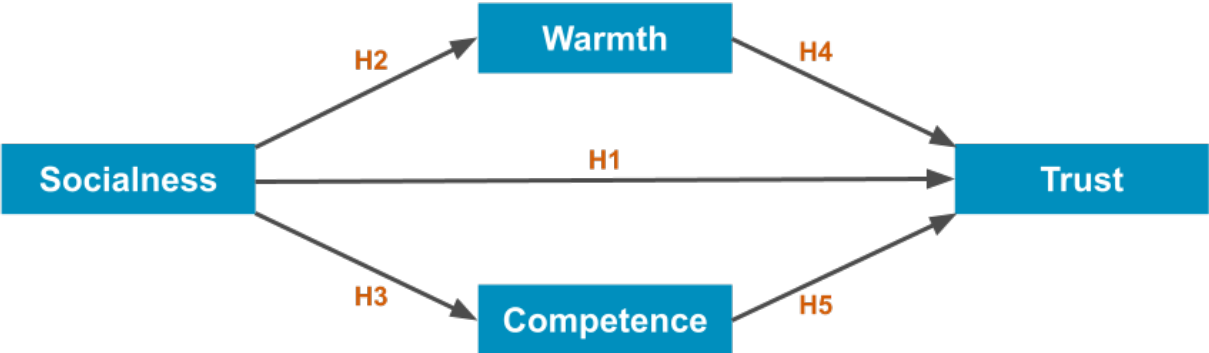


Figure 1: Conceptual framework

3. Empirical Study

3.1 Method and Procedure

Based on the established connections between socialness, warmth, competence, and trust, the aim of this research is to test the effects of higher levels of socialness on perceived warmth and competence, and finally, trust towards the brand. To achieve this, a scenario-based online experiment, similar to what some prior field studies have conducted on the topic of socialness (Wakefield et al., 2011), was set up with the company where two different test environments with varying levels of socialness (High

vs. Low) were run for separate samples of the target group. These test environments were run simultaneously for all the attendees of the particular webinar at the webinar live time.

The hypothesized effects were tested in an online environment, with socialness being manipulated by the addition of social cues in the form of a webcam to the webinar environment. This is because nonverbal communication such as faces and body language have been important in social interaction (Frith, 2009; DeLamater et al., 2015) and have been identified to be important while making judgements about others (Willis & Todorov, 2006). It was also tested if increasing the number of people increases the perceived socialness by adding another face for people to relate to and by showing additional interaction between the speakers. The two different test environments used in the research were:

Low socialness environment: Webinar with only audio from one speaker

High socialness environment: Webinar with two speakers on webcams

Whenever discussing webinar versions, they are always referred to by using the corresponding level of socialness present in the test environment: low / high level of socialness.

In practice, the main difference between the different test environments was the file in the media player of the webinar console, which included just an audio file of the one presenter speaking in the low socialness environment. The participants that were attending the webinar in the high socialness environment could see a different video file that was separately recorded. This video had both the primary and the secondary webinar speaker present. However, the content covered in all the test environments were identical.

The secondary speakers added to the high socialness environment functioned as facilitators in the webinar and they added to the webinar by asking interesting and related questions and added some of their own commentary, as well as giving some introductions and final remarks.

To isolate the effect of socialness effectively it was important to control for the other variables except the dependent variable. This was done by using identical webinar setups for all the test environments, including the content of the webinar, like slides and resource links, as well as webinar console layout (Appendix 1), invitations (Appendix 2), landing pages (Appendix 3), confirmation emails (Appendix 4) and follow up emails (Appendix 5). The only thing that was altered between these webinar versions is how the speakers were shown to the audience. By doing this, the amount of social cues included in the webinar could be varied independently from other factors and isolate the effect it has on the brand perception and trust.

Before the research could be carried out, the first step was to track down webinars that could be used as a testing ground for the conceptual framework. The experiment design had two webinars organized in cooperation with an industrial and environmental measurement device developer and manufacturer company functioning in a B2B market. These webinars were free to attend for the viewers as they were more educational and promotional in nature. Whenever referring to the different webinar from now on, the (chronologically) first webinar will be referred to as MiO webinar and the second webinar will be referred to as Modbus webinar.

3.2 Sample

The main data collection method for this research was a voluntary survey (Appendix 6) that the viewers of the webinar were prompted to fill at the end of the webinar. To incentivize viewers to fill the survey, the company pledged to donate 5€ to charity for every survey filled. The participants could choose their preferred charity they would prefer their 5€ to go towards at the end of the survey. The reasoning behind such an

incentive was that for the international B2B customers it might work better both functionally and in terms of the amount of incentive it provides compared to normal gift cards and other such incentives. The fill rate from the people attending the webinar ended up being 27.1%.

The attendees were able to access the survey at the end of the webinar but also through the attendee follow up email and on demand recording of the webinar after the live date. However, the survey was closed 48 hours after the webinar concluded. This makes the survey answers represent not always instantaneous, but most likely very recent perceptions elicited by the webinar.

One important aspect of this test setup was that the randomization of the sample across all the different test environments would be successful to avoid random sampling error (Malhotra et al., 2017). This was achieved by collecting all the webinar registrations and assigning every third registrant to each test environment (low, medium and high level of socialness). The volumes of the unique registrations were 496 in the MiO webinar and 1363 in the Modbus webinar at the time of the webinar excluding company staff. These were all divided evenly between the test environments in the manner outlined above. The list of registrants was always being updated with the new inputs and the new registrants were assigned to webinars at inconsistent times, so this method should emulate random sampling well.

The sample of this research consisted of the company's contacts that were contacted through an email invitation. The segmentation for these invitations was tailored for each webinar separately and was based on the interest areas of the contacts in the company's database. The number of invitations sent to the MiO webinar was 27 483 and for the Modbus webinar this amount was 132 629.

The participant data that is discussed here can also be found in table 1. All in all, the MiO webinar had 145 live viewers, with 67 and 78 being in the low and high socialness test environments respectively, and these viewers produced 25 and 22 answers to the survey for their respective test environment. The Modbus webinar had 433 total live viewers with 216 and 217 attendees, and 51 and 59 survey answers for the low and

high socialness test environments respectively. The Modbus webinar had a much larger target audience, which caused it to have significantly more registrants and attendees, but when it comes to the data collected about different test environments (levels of socialness), the spread of the viewers and survey answers seems to be quite comparable.

Webinar	Level of socialness		Sum
	Low	High	
Registrants			
MiO	244	252	496
Modbus	670	693	1363
Attendees			
MiO	67	78	145
Modbus	216	217	433
Form fills			
MiO	25	22	47
Modbus	51	59	110

Table 1: Registrant, attendee and form fill quantities per webinar and tested environment

Of the form fills, 29 responses failed the first manipulation check, and their answers were excluded from the dataset, which leaves the sample size to be $N = 128$. This manipulation check asked the participant to identify the number of the speakers in the webinar and if the webinar had a video of the speaker(s) as these represented the main manipulations distinguishing the different test environments from each other. This failure could have been for a number of reasons such as only listening to the webinar or not watching the webinar attentively, but by excluding the failed responses from the dataset, the possibility of such factors influencing the results is minimized.

The next test run based on the dataset was the second part of the manipulation check to confirm if the different test environments actually affected socialness in a significant way. This was done using a T-test (Student, 1908) to check if the answers to the questions in the socialness scale had statistically significant differences between the different test environments. To do this, each participant's answers to the socialness scale questions were averaged and compared across the different dataset using the T-test. The socialness was expected to be increased from low to medium socialness test environment and further from medium to high socialness environment, however, it is desirable to test the statistical significance in both directions, so a two-tailed T-test was used. The results of the manipulation check can be found in table 2.

Test environment	Mean	SD	Low	High
Low socialness	5.477	1.117	1	
High socialness	5.896	0.785	0.019*	1

Table 2: Manipulation check (T-test), Means, standard deviations and P values while comparing the perceived socialness of the environments with varying levels of socialness

The results of the T-test would indicate that the manipulations were only partially successful. There was a statistically significant difference established between the participants' perceived socialness in the high and low socialness environments ($M_{\text{Low Soc.}} = 5.477$; $M_{\text{High Soc.}} = 5.896$; $p = 0.019$). This makes these environments distinct enough in terms of perceived socialness that it is possible to use them for the purposes of this experiment and make conclusions based on the results.

3.3 Measures

The survey used for the research consists of eight sets of questions (Appendix 6) to capture different aspects of the researched phenomenon. First, there was a manipulation check, so that the participants that for any reason failed them by for example not paying attention to the webinar were excluded from the data. The manipulation check questions were as follows: “Was there a video showing the speaker’s face?” (Yes, No) and “How many people were there speaking?” (1, 2). These were chosen as these were the main manipulations in each of the test environments that separated them from each other.

After this there were four scales to capture the concepts present in the conceptual framework and other relevant questions related to familiarity with both, the company and webinars in general, to find out more about the practical implications for scholars and practitioners alike. Finally, the demographic data about the participant was gathered. In the next paragraphs all of these will be discussed with some reasoning behind why some of the scales in particular were chosen to capture their respective concepts.

All the scales measuring different constructs were evaluated on a 7-point Likert scale with the 1 being the most negative option and 7 being the most positive end of the spectrum. The scales used for the different constructs included in the conceptual framework were adapted from previously validated scales found in several other papers. The first one was used to measure socialness adapted from Wang et al. (2007) (1 = not at all to 7 = very much), then the perceived warmth was measured by scale from Fiske et al. (2002) (1 = not at all to 7 = very much), next, perceived competence was measured by a scale also defined by Fiske et al. (2002) (1 = not at all to 7 = very much), and the final construct from the conceptual framework, the trust scale was adapted from Darke et al. (2016) (1 = Strongly disagree 7 = strongly agree). To highlight the reasoning behind using this trust scale in particular was that it seemed to be especially well focused on the trusting beliefs and intentions without crossing over to trusting behavior.

On top of these scales that were used to validate and measure the conceptual framework, there was a set of questions that tracked how familiar the participant is with both webinars and the company. These questions were all evaluated with a 7-point Likert scale where 1 was “not at all familiar” and 7 was “very familiar”. The questions were “How familiar are you with Vaisala?”, “How familiar are you with webinars?” and “How familiar are you with webinars with video showing the speaker’s face?”. Additionally, the participants were asked to indicate how many webinars they attend every year on average.

The final set of questions inquired about the demographic information of the participant. These questions included their sex and age to find out if they had any effect on the trust generated by this test setup. This was to ensure that the effect of the independent variable was really the cause of the effects found by the model and not due to some other outside effect.

3.4 Estimation and validity

The primary data analysis to confirm the validity of the conceptual framework was done using structural equation modelling (SEM) with partial least squares (PLS) analysis. This was done using SmartPLS software (Ringle et al., 2005). The validity of the model was tested using several metrics. First of these was the indicator reliability (factor loadings). This tests the reliability of the independent factors used in the scale that measured each concept. This needed to be checked even when all the factors used were part of an already established and accepted scale. The acceptable level for the factor loadings was set to be 0.5 (Hair et al., 1998). As can be seen in table 3, all the used factors were satisfactory according to these statistics.

Construct	Item	Factor loading	Cronbach's Alpha	AVE
Warmth	Please indicate how much you associate the following attributes with Vaisala:		0.963	0.872
	War1: Friendly	0.928*		
	War2: Trustworthy	0.919*		
	War3: Good-Natured	0.941*		
	War4: Trustworthy	0.959*		
	War5: Helpful	0.923*		
Competence	Please indicate how much you associate the following attributes with Vaisala:		0.969	0.890
	Com1: Competent	0.958*		
	Com2: Capable	0.968*		
	Com3: Efficient	0.855*		
	Com4: Intelligent	0.967*		
	Com5: Skillful	0.963*		
Trust	Please indicate to what extent you agree with these statements:		0.955	0.882
	Tru1: I believe I could trust Vaisala	0.955*		
	Tru2: I could depend on Vaisala	0.904*		
	Tru3: I think Vaisala would be reliable in meeting its promises	0.955*		
	Tru4: Vaisala probably has high integrity	0.942*		

Table 3: Constructs, scales, and validation

Next was convergent validity (Cronbach's alpha). Here, Cronbach's alpha validity coefficient higher than 0.7 was considered acceptable. Also, average variance extracted (AVE) was used to determine the validity of the model where the acceptable limit was deemed to be 0.5 (Chin, 1998; Hulland, 1999). Table 3 presents these figures when it comes to the combined dataset¹. As can be seen in table 3, everything in the model reached the acceptable limit for all the different reliability and validity figures.

¹ Dataset was created using data from two different webinars (MiO and Modbus) on separate dates. The test setup was identical for both webinar topics, so no compatibility testing was done.

3.5 Data analysis and results

The evaluation of the model was done using R² statistics (Chin, 1998). The model with both path coefficients and R² can be found in figure 2. Additionally to what can be found from the conceptual framework, the control variables including the familiarity and demographic data are represented in the model. The figures related to statistical significance behind this model can be found in table 4.

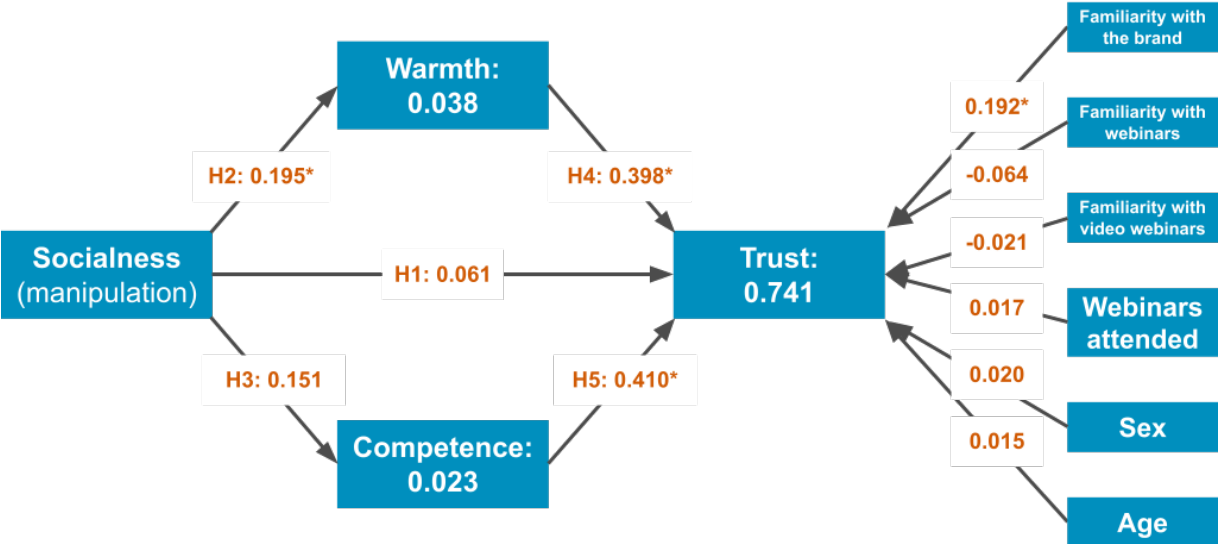


Figure 2: Path coefficients and R²

Path	T Statistic	P Value
Socialness (manipulation) → Warmth	2.353	0.019*
Socialness (manipulation) → Competence	1.813	0.070
Socialness (manipulation) → Trust	1.254	0.210
Warmth → Trust	4.019	<0.001*
Competence → Trust	4.006	<0.001*
Familiarity with brand → Trust	2.521	0.012*
Familiarity with webinars → Trust	1.000	0.317
Familiarity with video webinars → Trust	0.442	0.659
Webinars attended → Trust	0.300	0.765
Sex → Trust	0.548	0.584
Age → Trust	0.308	0.758

Table 4: Path T statistics and P values

From the analysis it appears that only three of the five hypotheses were supported by the data. H1 predicted a positive effect between high levels of socialness (when compared to a low level of socialness) and trust. The analysis of this relationship showed that the effect cannot be considered to be statistically significant ($\beta = 0.061$, $t(127) = 1.254$, $p = 0.210$). Because of this, H1 is rejected while the mediators, warmth and competence, are present. This would indicate full mediation if a statistically significant mediation effect is found from the data.

When it comes to H2, which suggested that a high level of socialness (vs. a low level) has a positive effect on the perceived warmth of the brand, the results indicated there to be a positive and statistically significant relationship between these factors ($\beta = 0.195$, $t(127) = 2.353$, $p = 0.019$) and thus H2 is supported. This result shows that a high level of socialness (vs. a low level) in an online B2B environment increases the amount of perceived warmth of the brand.

The relationship between a high, compared to a low level of socialness and competence was also expected to be positive as indicated by H3. However, the data implies a plausible connection between these two factors, but the effect is not strong or consistent enough to be statistically significant ($\beta = 0.151$, $t(127) = 1.813$, $p = 0.070$). This means that the data does not support H3 and it is rejected. This result might be explained by the social cues produced by the speaker and video might have not been the kind that would elicit perceptions of competence. Perceptions of competence have to do with demonstrating ability, skill and efficiency and could have been hindered by either non-optimal quality of the video due to lighting, framing etc., indecisive body language or facial expressions of the speaker or any other factor that would cause the added video to not elicit feelings of confidence about the brand's abilities. These sorts of factors could cause the social cues to be perceived as neutral compared to not having those social cues present (ie. the low socialness environment).

Moving onto the effects perception dimensions have on trust. The first of these relationships is the connection between perceived warmth and trust, which was anticipated to be positive by H4. For this connection the data indicated a statistically significant effect ($\beta = 0.398$, $t(127) = 4.019$, $p < 0.001$), supporting H4. These figures provide the evidence to accept H4. This result indicates that perceived warmth of the brand has a positive effect on trust felt towards that brand in online B2B promotion.

The final connection in the conceptual framework is the relationship between competence and trust, which was expected to be positive as indicated by H5. This connection was indicated by the data to have a positive and statistically significant effect ($\beta = 0.410$, $t(127) = 4.006$, $p < 0.001$). The data support the hypothesis and H5 is accepted. This result would indicate that perceived competence has a positive effect on trust towards the brand as well in these online B2B environments.

The control variables, meaning the familiarity and demographic data, suggest little effect on the dependent variable, trust towards the brand. The only variable that had any statistically significant effect on trust was familiarity with the brand ($\beta = 0.192$, $t(127) = 2.521$, $p < 0.012$). This likely just suggests that the people who are more familiar or

might even be associated with the brand are on average more likely to trust the brand. This makes sense as they have had more time to build perceptions of the brand and trust. The company has had more possibilities to demonstrate their trustworthiness through more instances of interaction, which by extension increases the trusting beliefs and intentions of the customer. This increase in trust is not dependent on the webinar or the manipulations but is generated in previous encounters with the brand.

Something to notice about the explanatory power of the model is that the manipulations used only explain a small portion of the variance in the brand perception variables, whereas the warmth and competence explain the majority of the variance in trust. The R^2 of the different constructs in the model were as follows: warmth 0.038, competence 0.023 and trust 0.741. This means that the socialness elicited by the test environment had a slight but noticeable effect on the brand perception dimension of warmth, but most likely there are many other factors at play outside of just the manipulations tested.

The mediation effect was confirmed by analyzing the indirect and total effects that socialness had on trust. These results can be found in table 5.

Path	Path coefficient	T Statistics	P Values
Indirect effects			
Socialness → Warmth → Trust	0.078	1.971	0.049*
Socialness → Competence → Trust	0.062	1.545	0.122
Total effect			
Socialness → Trust	0.201	2.652	0.008*

Table 5: Indirect and total effects of socialness on trust

The effect between socialness and trust is mediated by warmth as the indirect effect was established by the data to be statistically significant ($\beta = 0.078$, $t(127) = 1.971$, $p = 0.049$). However, the data does not support a claim that the relationship between

socialness and trust would be mediated by competence ($\beta = 0.062$, $t(127) = 1.545$, $p = 0.122$). There is a possible explanation for this in that for any reason, such as the ones outlined when rejecting H3, an increased level of socialness is not able to affect competence, and thus ineffective as a mediator. This at least seems like the most likely explanation as competence seems to have a very strong connection to trust in this model. The total effect from socialness to trust was also indicated to be statistically significant ($\beta = 0.201$, $t(127) = 2.652$, $p = 0.008$). These figures confirm that there is a mediation effect present between a high level of socialness (vs. a low level) and trust, but only through warmth. Mediation between socialness and trust can be considered full mediation through warmth as there was no statistically significant direct effect between these factors (H1 was rejected).

4. Discussion

This study was focused on the possibilities companies in B2B online environments have on building trust with their customers. The particular trust building method studied was the socialness of the environment. This sort of socialness has thus far been under-researched in this particular context, especially when speaking of the kind of online interaction where there is another person to interact with through the medium of the computer. The research results found that trust was indeed affected by socialness of the online environment. This effect however was not found to be a direct one. As the direct effect was rejected, there seems to be importance placed not only on the mere existence of social cues and socialness, but also the quality and nature of those social cues, which ultimately dictate the perceptions elicited by the interaction.

Instead, the relationship between socialness and trust can be explained by it being mediated by the perceived warmth of the brand. This relationship was expected to be mediated by both warmth and competence, but results showed there to be only meaningful mediation through warmth, not competence. Both dimensions however

could still have a great impact on the trust felt towards the brand, so even though socialness is not a proven way to affect trust through perceived competence by this research, it, along with warmth, might still be an important component in trust building process in the context of promotional B2B online environments, just through some other manipulations not tested here. This effect just was not proven in the experiments set up for this research.

The experiment setup showed that for customers in an online promotional environment social cues are effective in increasing the level of perceived socialness in line with social response theory. Specifically, the higher level of socialness in an environment seemed to make the brand appear as warmer, meaning well-intentioned, good-natured and trustworthy. This perception of warmth then had the capability to produce the trusting intention and trusting beliefs felt towards the brand.

5. Conclusion

5.1 Theoretical implications

This research touches on a research knowledge gap about the effects of socialness on trust building in an online B2B context, specifically in promotional environments. This research addresses this gap by first confirming the results of social response theory (Reeves & Nass, 1996) by showing that perceptions of socialness can be induced in online environments where display devices work as a medium of the interaction. This also confirms and expands the literature by showing that faces and other nonverbal communication can be used to build perceived socialness (e.g., Frith, 2009 DeLamater et al., 2015; Willis & Todorov, 2006; Wang et al., 2007) in the context of B2B online promotion as well. This provides a base for understanding how perceptions of socialness are generated in these environments.

Second, social interaction has been established to be one of the prominent trust building methods (Doney et al., 2007), but what this research adds to this knowledge is that this interaction works outside the offline or mixed environments that have been the focus of the previous research done on this topic. This experiment shows that the high level of perceived socialness had a positive total effect on trust even in promotional online B2B environments. However, the results also indicate that this relationship is not a direct one where just the existence of socialness would increase trust. This might indicate that the way socialness is presented in the environment could affect the outcomes of the trust building behavior by changing the perceptions the socialness elicits.

Third, this study adds to the literature of socialness and trust by introducing a mechanism through which socialness affects trust. Prior research, such as Doney et al. (2007), has focused mainly on the direct effects of social aspects on trust. However, this research presents warmth as a mediator between these two factors. High socialness in online promotion leads to increased warmth, making the relationship other appear more well-intentioned (Fiske et al., 2007). This perception is closely related to concepts often associated with trust such as benevolence (Mayer et al., 1995), which can help explain why this connection through warmth can generate trusting beliefs and intentions. This perceived warmth makes trusting them appear as a less risky action. This “softer” side of B2B interactions has not been that well documented in the B2B literature but is clearly present in the relationship between perceived socialness and trust.

Fourth, this research strengthens the notion that there is a place in the B2B markets for emotions and other softer values. This result does not disprove the statement that B2B markets are often seen as more rational than B2C markets (Kuhn et al., 2008), but it supports the perspective that even less rational factors such as emotions are still impactful in this environment as well (e.g., Lynch & De Chernatony, 2004; Wang et al., 2007; Güntürkün et al., 2020). This side of B2B interaction highlights the fact that there are still people interacting on behalf of these companies and can be affected by similar trust building methods whether they are in online or offline settings.

Additionally, the control variable in the experiment supported one additional point present in the literature, which is that people use their pre-existing knowledge to guide the perceptions they make based on newly available information (DeLamater et al., 2015). This result was supported by the effect familiarity with the company and brand had on the trust experienced towards the brand. This result demonstrates the longevity of trust building and how it can be viewed as a process.

5.2 Managerial Implications

The findings of this research have important managerial implications. Building trust has been established to be important in the B2B markets due to its many benefits. Generally speaking, managers aiming to build trust in the online B2B context have been challenged by the limitation of tools available in these environments. Also, these sorts of online environments are becoming more and more common in the age of social media and other online platforms and produce such interactions as broadcasting social media use (Kaye, 2021; Meshi et al., 2015). The results of this study show that social interactions and adding social cues through such functions as a facecam can be effective in the pursuit for more social online environments.

One of the major hurdles of functioning in online environments for managers is the problem of building trust. Whenever possible, managers should consider showing the people behind the company as representatives of the brand as this facilitates building closer bonds and trust with the customers. Many online platforms and services facilitating running online environments, such as streaming services, allow such things as social cues to be implemented through a facecam and other such functions, making it easy to add them on a technical level. The hurdle to overcome in many companies might just be that the speakers and facilitators are not yet comfortable or have not practiced presenting in front of a camera. It would be beneficial to get accustomed to showing the people behind the company to achieve better results from these events as far as perceptions of warmth and trust are concerned.

It is also valuable to understand how the relationship functions to understand the effect these manipulations have on the customer and how they ultimately build trust. The results of this research show that the relationship functions by the social cues affecting the perceived warmth of the brand. This means that, in the mind of the customer, increasing the amount of trust through introduction of social cues makes the brand appear well-intentioned, making the decisions related to that brand seem less risky. This can decrease the amount of risk-premium required for a contract to be signed or a deal to be closed, making the company more attractive during such negotiations.

What managers should gather from these results is that the rational and result based argumentation often associated with B2B markets, even though important, is not the only way to influence people in these environments even when limited to online settings. Due to the focus being placed on the rational side of B2B markets (Kuhn et al., 2008), the emotional side of B2B markets is not as saturated, especially in online environments. This might offer companies a possibility to achieve some competitive advantage by building closer bonds with the customers compared to the competition. Maybe at some point with familiarity and using high levels of socialness consistently in online promotion, online retailers can overcome the notion that online retailers are in general less trusted than their physical counterparts (Vara & Mangalindan 2006).

The results gain additional relevance in the light of the recent events that have forced companies to function in more online oriented environments due to the global pandemic (LaFleur, 2020). This is because it provides them with a framework to use to generate trust even in these environments that have been recognized as challenging in terms of trust building (e.g., Vara & Mangalindan 2006). Using the principle of showing the people behind the brand can at least help companies get started in the right direction by helping them understand the possibilities of using social cues as part of their online promotion and appeal to customers' emotions. Even if using a multi-channel approach, increased socialness in online environments can be used as a trust building function alongside normal social interactions as both work to achieve higher levels of trust. In this situation, both of these provide value due to their different capabilities, online environments having a wider reach and offline environments providing even more

possibilities for social cues and being able to provide even more personalization to the interaction (Lieberman & Schroeder, 2020).

The results show that these implications should be consistent regardless of the demographic of the participant, or familiarity with the environment. However, familiarity with the brand does have a significant effect on trust. What this means for managers is that a single event is not able to overwrite the whole relationship and previous experiences between the brand and the customer. This has its positives and negatives as on the one hand brands are able to build trust with the customer over multiple consistent interactions, and as long as the quality stays consistent, progress could be made. But on the other hand, it is less likely that one event impacts trust to any direction extremely strongly. An exception to this might be if the interaction is the first and only contact with that particular customer.

Most important takeaways for practitioners:

- **Show the people behind the brand**
- **Online B2B environments can be effective in building trust**
- **Increasing socialness of the environment makes the company appear more well-intentioned**

5.3 Limitations and Future Research Directions

This research overall functions as a steppingstone to other future endeavors to the domain of brand perceptions and trust building. First limitation of this research has to do with the test setup. The manipulations done to achieve a higher level of socialness were certainly not optimal as only one pair of the tested webinar environments had a significantly different level of socialness to each other. This means that the effects of a wider range of different socialness levels were left out, making the data unable to confirm if the results hold true across the spectrum of the levels of socialness. In the

future it would be beneficial to come up with a laboratory experiment that would be able to isolate the effect of socialness even better. This would enable coming up with even more conclusive results than what this research was able to provide.

One of the possible limitations of the test setup used is that the webinars tested are not the only way the customers have been in contact with the company. This might lead them to rely on their previous experiences while assessing their perceptions of the brand. This can be also seen in the data as familiarity with the brand had a significant effect on the trust experienced towards the brand. Another, more optimal way to run this experiment in the future would be to have a previously unknown brand tested in a similar way to find out if these results appear in a sample of people who have no previous perceptions of the company or brand.

Another limitation and possibility for future research efforts would be that this research indicates that socialness has an effect on trust towards the brand in online environments, but this research used no data to contrast these results with an offline venue. The data offers no comparison between these online promotions and the normal physical promotions. In a future experiment, there is a possibility to test if the level of socialness elicited by the online promotion is comparable or noticeably different from physical promotion, or if the results are noticeably dissimilar when it comes to perceived warmth, competence and trust.

The results of this research state that the method suggested, adding social cues to online promotion, is not a complete method to achieve a higher evaluation on both dimensions of brand perceptions. At least based on the data, other methods are needed as a support to be able to influence the ability dimension, competence. This research is not wide enough in terms of the tested methods to conclude what those additional methods might be, so a question for future studies remains: "What manipulations would affect perceived competence and maybe what else is there that affects perceived warmth?".

In the literature review it was also brought up that in human-to-human relationships warmth is often considered the primary dimension, or the dimension that is first judged.

This research cannot answer if warmth or competence is the primary dimension to be judged before the other in B2B contexts as there is no data used that could make such conclusions justified. This might also be something to look at in a future research effort.

7. References

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of marketing research*, 34(3), 347-356.
- Aguirre, E., Mahr, D., Grewal, D., De Ruyter, K., & Wetzels, M. (2015). Unraveling the personalization paradox: The effect of information collection and trust-building strategies on online advertisement effectiveness. *Journal of retailing*, 91(1), 34-49.
- Albert, N., Merunka, D., & Valette-Florence, P. (2008). When consumers love their brands: Exploring the concept and its dimensions. *Journal of Business research*, 61(10), 1062-1075.
- Atwater, L. E. (1988). The relative importance of situational and individual variables in predicting leader behavior: The surprising impact of subordinate trust. *Group & Organization Studies*, 13(3), 290-310.
- Bayes, M. A. (1972). Behavioral cues of interpersonal warmth. *Journal of Consulting and clinical Psychology*, 39(2), 333.
- Caceres, R. C., & Paparoidamis, N. G. (2007). Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European journal of marketing*.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *Journal of marketing*, 54(3), 68-81.
- Darke, P. R., Brady, M. K., Benedicktus, R. L., & Wilson, A. E. (2016). Feeling close from afar: The role of psychological distance in offsetting distrust in unfamiliar online retailers. *Journal of Retailing*, 92(3), 287-299.
- Das, T. K., & Teng, B. S. (2001). Trust, control, and risk in strategic alliances: An integrated framework. *Organization studies*, 22(2), 251-283.
- DeLamater, J. D., Myers, D. J., & Collett, J. L. (2015). *Social psychology* (Eighth edition.). Westview Press, 205-242.

- Doney, P. M., Barry, J. M., & Abratt, R. (2007). Trust determinants and outcomes in global B2B services. *European Journal of marketing*.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of marketing*, 61(2), 35-51.
- Eiser, J. R., Stafford, T., Henneberry, J., & Catney, P. (2009). "Trust me, I'm a scientist (not a developer)": Perceived expertise and motives as predictors of trust in assessment of risk from contaminated land. *Risk Analysis: An International Journal*, 29(2), 288-297.
- Fişek, M. H., Berger, J., & Norman, R. Z. (2005). Status cues and the formation of expectations. *Social Science Research*, 34(1), 80-102.
- Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in cognitive sciences*, 11(2), 77-83.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of personality and social psychology*, 82(6), 878.
- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of consumer research*, 24(4), 343-373.
- Fournier, S., & Alvarez, C. (2012). Brands as relationship partners: Warmth, competence, and in-between. *Journal of Consumer Psychology*, 22(2), 177-185.
- Fournier, S., & Yao, J. L. (1997). Reviving brand loyalty: A reconceptualization within the framework of consumer-brand relationships. *International Journal of research in Marketing*, 14(5), 451-472.
- Franklin, D., & Marshall, R. (2019). Adding co-creation as an antecedent condition leading to trust in business-to-business relationships. *Industrial Marketing Management*, 77, 170-181.
- Frith, C. (2009). Role of facial expressions in social interactions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1535), 3453-3458.

- Gambetta, D. (1988). Trust: Making and breaking cooperative relations.
- Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of marketing*, 63(2), 70-87.
- Güntürkün, P., Haumann, T., & Mikolon, S. (2020). Disentangling the Differential Roles of Warmth and Competence Judgments in Customer-Service Provider Relationships. *Journal of Service Research*, 23(4), 476-503.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Factorial analysis. Multivariate Data Analysis*. Fifth edition. New Jersey: Prentice Hall.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- Kaye, L. K. (2021). Exploring the “socialness” of social media. *Computers in Human Behavior Reports*, 3, 100083.
- Keating, C. F., Randall, D., & Kendrick, T. (1999). Presidential physiognomies: Altered images, altered perceptions. *Political Psychology*, 20(3), 593-610.
- Kervyn, N., Fiske, S. T., & Malone, C. (2012). Brands as intentional agents framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology*, 22(2), 166-176.
- Kreijns, K., Kirschner, P. A., & Jochems, W. (2003). Identifying the pitfalls for social interaction in computer-supported collaborative learning environments: a review of the research. *Computers in human behavior*, 19(3), 335-353.
- Kuhn, K. A. L., Alpert, F., & Pope, N. K. L. (2008). An application of Keller's brand equity model in a B2B context. *Qualitative Market Research: An International Journal*.
- LaFleur, K. (2020). The Pandemic Forced Businesses To Move Online — It's Time For Fundraising To Also Go Digital. *Forbes*. Available: <https://www.forbes.com/sites/forbestechcouncil/2020/12/14/the-pandemic-forced-businesses-to-move-online---its-time-for-fundraising-to-also-go-digital/?sh=47ef341d5232> Referenced: 7.7.2021.

- Leek, S., & Christodoulides, G. (2012). A framework of brand value in B2B markets: The contributing role of functional and emotional components. *Industrial Marketing Management*, 41(1), 106-114.
- Lieberman, A., & Schroeder, J. (2020). Two social lives: How differences between online and offline interaction influence social outcomes. *Current Opinion in Psychology*, 31, 16-21.
- Lynch, J., & De Chernatony, L. (2004). The power of emotion: Brand communication in business-to-business markets. *Journal of Brand management*, 11(5), 403-419.
- Matzler, K., Grabner-Kräuter, S., & Bidmon, S. (2008). Risk aversion and brand loyalty: the mediating role of brand trust and brand affect. *Journal of product & brand management*.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, 20(3), 709-734.
- McCleery, A., Horan, W. P., & Green, M. F. (2014). Social cognition during the early phase of schizophrenia. In *Social Cognition and Metacognition in Schizophrenia* (pp. 49-67). Academic Press.
- McKnight, D. H., Chervany, N. L., & Cummings, L. L. (1996). Trust formation in new organizational relationships. Minneapolis: Management Information Systems Research Center, Curtis L. Carlson School of Management, University of Minnesota.
- McKnight, D. H., & Chervany, N. L. (1996). The meanings of trust.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information systems research*, 13(3), 334-359.
- McLain, D. L., & Hackman, K. (1999). Trust, risk, and decision-making in organizational change. *Public Administration Quarterly*, 152-176.
- Meshi, D., Tamir, D. I., & Heekeren, H. R. (2015). The emerging neuroscience of social media. *Trends in cognitive sciences*, 19(12), 771-782.
- Mishra, A. K. (1996). Organizational responses to crisis. *Trust in organizations: Frontiers of theory and research*, 261, 1996.

- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of marketing*, 58(3), 20-38.
- Oh, D., Shafir, E., & Todorov, A. (2020). Economic status cues from clothes affect perceived competence from faces. *Nature human behaviour*, 4(3), 287-293.
- Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis. *Journal of marketing*, 70(4), 136-153.
- Reeves, B., & Nass, C. (1996). *The media equation: How people treat computers, television, and new media like real people*. Cambridge, United Kingdom: Cambridge university press.
- Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of personality and social psychology*, 49(1), 95.
- Riker, W. H. (1971). The nature of trust. In Tedeschi, J. T. (Ed.), *Perspectives on Social Power*, 63-81. Chicago: Aldine Publishing Company.
- Ringle, C. M., Wende, S. and Will, A. (2005), SmartPLS, University of Hamburg, Hamburg.
- Rubin, R. B., & McHugh, M. P. (1987). Development of parasocial interaction relationships.
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of marketing*, 66(1), 15-37.
- Sitkin, S. B., & Roth, N. L. (1993). Explaining the limited effectiveness of legalistic "remedies" for trust/distrust. *Organization science*, 4(3), 367-392.
- Student (1908). The probable error of a mean. *Biometrika*, 1-25.
- Vara, V., & Mangalindan, M. (2006). Web pioneers eBay and Amazon face a threat from older retailers. *The Wall Street Journal*, 16, A1.
- Wang, Liz C., Julie Baker, Judy A. Wagner, and Kirk Wakefield (2007), "Can a Retail Web Site Be Social?" *Journal of Marketing*, 71 (3), 143-157.
- Weigert, A., & Lewis, D. (1985). Trust as a social reality. *Social Forces*, 63(4), 967-985.

- Wakefield, R. L., Wakefield, K. L., Baker, J., & Wang, L. C. (2011). How website socialness leads to website use. *European Journal of Information Systems*, 20(1), 118-132.
- Wegerif, R. (1998). The social dimension of asynchronous learning networks. *Journal of asynchronous learning networks*, 2(1), 34-49.
- Williamson, O. E. (1993). Calculativeness, trust, and economic organization. *The journal of law and economics*, 36(1, Part 2), 453-486.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological science*, 17(7), 592-598.
- Yan, Z., & Holtmanns, S. (2008). Trust modeling and management: from social trust to digital trust. In *Computer security, privacy and politics: current issues, challenges and solutions* (pp. 290-323). IGI Global.

9. Appendix

1: Webinar console

The screenshot displays a webinar console for Vaisala. At the top left is the Vaisala logo. The main title is "The science of moisture in transformer oil (1/3 in series)". The central content area shows a slide titled "MOISTURE IN TRANSFORMERS webinar ep. 1/3" with a background image of transformer oil bubbles. The slide also lists the speaker: Senja Leivo, Senior Industry Expert, Member, CIGRE SC D1, dated 31 Mar 2021. The Vaisala logo is present in the bottom right of the slide.

The interface includes several side panels:

- Q&A:** A text input field with the placeholder "Enter your question *" and a "Submit" button.
- Resource List:** Two items: "Download the webinar slideset (pdf) here >>" and "Submit your question for the Q&A session (ep 3/3) here >>".
- Earn Certification:** A section titled "Criteria for Full Credit" with a radio button for "Minutes to Watch: 42" and a certificate icon.
- Slides:** The main content area showing the current slide.
- Speaker Bio:** A profile for Senja Leivo, Senior Industry Expert at Vaisala, with social media icons for LinkedIn, YouTube, and Email.
- Media Player:** A video player showing a live feed of the speaker, Senja Leivo, with the Vaisala logo in the top right corner.

2: Invitation

VAISALA



There is still time to register to

the webinar on 'Modbus 101' where our experts will answer the following questions:

- What does digital communication mean?
- How does digital communication differ from analog outputs?
- What are benefits of the digital communication compared to analog outputs?
- How to get started?

Even if you're unable to attend the live session, [register for the webinar](#) and we'll send you access to the recording.

Webinar:
Modbus 101

Presenter:
Joni Partanen, Product Engineer
Paul Daniel, Senior Regulatory Compliance Expert
This is a part of a set of webinars and will be run by one or both of the speakers

Date:
April 14
2 PM London time
9 AM New York time

Use the [time converter](#) to find out your local time.

Register Now

3: Webinar landing page

Modbus 101



Healthy Manufacturing and Processes
Industrial Measurements

Digital communication may sound complicated, expensive, and difficult to implement. Join this webinar where our experts will give an introduction to the Modbus protocol and address the questions below:

- What does digital communication mean?
- How does digital communication differ from analog outputs?
- What are benefits of the digital communication compared to analog outputs?
- How to get started?

If you attended or registered for this webinar please click here. If not, please register to access the recording.

Email Address*

First Name*

Last Name*

Work Email*

Country*

Company*

Business Phone

I authorize Vaisala to send me information about relevant products and services.

SUBMIT →

By submitting this form you acknowledge [Vaisala's Privacy Policy](#). You can manage your preferences [here](#).

Webinar speakers: Joni Partanen and Paul Daniel

This is a part of a set of webinars and will be run by one or both of the speakers



JONI PARTANEN

Product Engineer

Joni Partanen is a Product Engineer at Vaisala focusing on humidity and dew point measurement instruments. He has over 14 years of experience in process industry measurement technology and instrumentation. Joni holds a Bachelor of Engineering degree in Automation Technology.



PAUL DANIEL

Senior Regulatory Compliance Expert

Email: paul.daniel@vaisala.com

Paul Daniel is the Senior Regulatory Compliance Expert at Vaisala. He has worked in the GMP-regulated industries for over 20 years helping manufacturers apply good manufacturing practices in a wide range of qualification projects. His specialties include mapping, monitoring, and computerized systems.

At Vaisala, Paul oversees and guides the validation program for the Vaisala viewLine environmental monitoring system. He serves as a customer advocate to ensure the viewLine environmental monitoring system matches the demanding requirements of life science and regulated applications.

Paul also shares his GMP experience through regular blog contributions, webinars, and seminars around the world. Paul's expertise in the demanding GMP world is applicable to any industry where measurement is critical to product quality. Paul is a graduate of University of California, Berkeley, with a bachelor's degree in biology.



CONTACT

- Contact Us Form
- Sales and service contacts
- Support Services
- Office Locations
- Investor Relations

GET SUPPORT

- Downloads
- Contact Helpdesk
- Warranty

MEET

- Webinars
- Events
- Investor Calendar
- Training

4: Confirmation email



Hi Lauri Puranen,

Thank you for registering for our webinar "**Modbus 101**". Use the personal link below to access the webinar. You can use it 15 minutes prior to the webinar live time.

WEBINAR LINK: <https://event.on24.com/wcc/r/3068658/0AC79CE69AD286E9AB85832E19D3A19E?mode=login&email=lauri.oskari.puranen@gmail.com>

DATE: April 14, 2021

TIME: 04:00 PM EEST

Thank you and enjoy the webinar!

Best wishes,

Vaisala Webinar Team

If you wish to share the webinar with your colleagues, please direct them to visit our [webinar pages](#) and register for their own personal link to the webinar.

Add to calendar:



[Outlook/iCal](#)



[31 Google Calendar](#)

5: Follow up email (No show)

VAISALA



Your recording is available

Sorry you missed our "Modbus 101" webinar. The recording is available for you to watch at any time.

[Access the Recording »](#)

We are happy to answer any further questions you might have. Feel free to [contact us](#) anytime.

Discover [more webinars](#) from Vaisala

6: Survey

Manipulation check

Was there a video showing the speaker's face? (Yes, No)

How many people were there speaking? (1, 2)

Socialness Wang et al. (2007) (1 = not at all to 7 = very much)

Please indicate how much you associate the following attributes with the webinar:

Social1: helpful

Social2: intelligent

Social3: polite

Social4: informative

Social5: interactive

Warmth Fiske et al. (2002) (1 = not at all to 7 = very much)

Please indicate how much you associate the following attributes with Vaisala:

Warmth1: Friendly

Warmth2: Trustworthy

Warmth3: Good-natured

Warmth4: Sincere

Warmth5: Helpful

Competence Fiske et al. (2002) (1 = not at all to 7 = very much)

Please indicate how much you associate the following attributes with Vaisala:

Comp1: Competent

Comp2: Capable

Comp3: Efficient

Comp4: Intelligent

Comp5: Skillful

Trust Darke et al. (2016) (1 = Strongly disagree 7 = strongly agree)

Please indicate to what extent you agree with these statements:

Trust1: I believe I could trust Vaisala.

Trust2: I could depend on Vaisala.

Trust3: I think Vaisala would be reliable in meeting its promises.

Trust4: Vaisala probably has high integrity.

Familiarity questions

How familiar are you with Vaisala (1 = not at all to 7 = very familiar)

How familiar are you with webinars (1 = not at all to 7 = very familiar)

How familiar are you with webinars with video showing the speaker's face (1 = not at all to 7 = very familiar)

On average, how many webinars do you attend per year? (0 , 1-2, 3-5, 6-8, Over 8)

Demographics:

Sex (male, female, prefer not to specify)

Age (Under 20, 20-29, 30-39, 40-49, 50-60, Over 60)

Occupation