Effect of country image on trust in social media companies

Case TikTok

Master's thesis

The countries behind various technology companies are currently driving high level decision making and restrictions around the globe. Particularly Chinese tech companies like Huawei and TikTok have faced restrictions and being locked out of foreign markets because of their relationship with the Chinese government. In consumer behaviour countries-of-origin (COO) have been long research as drivers of behaviour. A research gap however exists in COO or country image (CI) research with regard to digital services.

In this research the goal was to find out whether the COO of a social media service effects the level of trust consumers place on that service and the extent that they are willing to engage with it. Being able to establish this connection would not only open up a new are of research within CI and trust fields of research but could also have practical implications for the marketing efforts of companies and whole countries. It could also help governments in driving efforts to restrict the use of services of undesirable origin.

To figure out whether this possible connection exists quantitative research methods were utilized. A theory of reasoned action (TRA) based framework was created utilizing prior literature on CI and online trust. An online survey was then created based on this framework and answers were gathered from Finnish university students. This data was then analysed using structural equation modeling.

Evidence was found in favour of previously established connections between trust, subjective norms and information sharing. However quite little evidence was found for the theorized connection between these and CI. However evidence was found for a partial mediated effect. As a result it can be concluded that CI does play some kind of effect into trust towards social media services and willingness to share information on them. These findings could possibly encourage further research and model development efforts into this are of study.

Key words: Country image, country-of-origin, trust, privacy, information sharing, social media.

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Introduction

1.1 Background

We have recently seen mounting tensions between the east and the west on the geopolitical stage. There has been rising concern on the part of governments about Chinese technology companies harvesting increasing amounts of user data and giving access to it to the Chinese government. In recent history we have already seen examples of action being taken on this, such as with the Chinese telecom company Huawei, in the form of the United States restricting trade with the company (Reuters 2019). As well in Europe, discussions and restrictions have been ongoing about using Huawei supplied components in 5G networks (CEPA 2023). Now the most recent topic has been the popular Chinese social media service TikTok. China's long time regional rival, India completely banned it in their country in 2020 (Forbes 2023). More recently western governments have also begun banning the use and installation of the app on government provided official devices, among them the United States, Canada, and the European Commission (The New York Times 2023). It is therefore fairly clear that Politicians over the world are wary of privacy and security risks posed by companies due the country of their origin. What is not as readily apparent however, is how the actual consumers feel about these companies and their connection to their origin country and do they feel and weigh these risks in the same way.

Ever since humans began trading cross borders, country-of-origin (COO) has played an important role in conveying information about products to consumers. This has spawned a very popular research topic in the form of the COO effect. COO can play a similar role and elicit emotional responses in the minds of consumers as any other factor that does not directly affect the quality of a product, such as branding. (Wegapitiya & Dissanayake 2018, 12). In COO effect research, the term country image (CI) or country-of-origin image is also often used when studying the same phenomenon. (Lu et al. 2016a, 825). CI is the outward representation in the minds of consumers that a country projects of itself. CI is affected by factors such as the economical development or politics of a country. (Buhmann & Ingenhoff 2015, 103.) For the sake of simplicity and consistency, for the rest of this thesis we will mainly be using the term CI to refer to this effect and area of study.

1.2 Research gap

CI is a long-researched topic with a history spanning multiple decades beginning in 1965 (Lu et al. 2016a, 825). It being such a mature topic, there is no shortage of research and papers written on it, with millions of results on Google Scholar with just the search term "country-of-origin effect" (Durand 2016, 50). This does not even include the further millions of hits that search term "country image" produces. Much of this research however focuses on purchasable consumer products as well as tourism and travel (Wegapitiya & Dissanayake 2018; Lu et al. 2016a). Yet not as much attention has been given to digital services and products. Although increasing research has been done on CI and e-commerce in recent years (see Bao & Zarifis 2022; Brand & Baier 2022; Camacho et al. 2022) research on digital services is still lacking. It is also worth noting as secondary research gaps that CI research has often been criticized for being too US centric and atheoretical (Lu et al. 2016a, 826). This thesis both looks at Finnish consumers and uses an established theoretical framework as its basis.

Even with the shift to digital transactions, the core action of purchasing something still remains the same. In our modern age however we encounter many services, which do not have the monetary exchange of goods or services as their core function. Social media services are an excellent example of this. Even though social media companies do not typically make money through direct transactions with consumers, it is clear that a sort of consumer-service provider relationship still exists between the users and the social media company. Andéhn and L'espoir Decosta (2018) argue that CI research should not be limited to consumable products and should rather also be extended to other objects, such as brands. Therefore a research gap would seem to remain to be filled with regard to these sorts of services and the effect that CI might have on them. As well like mentioned in chapter 1.1, we already see trends similar to that of a CI playing a role in the decision making of national and international governing bodies, so it would be pertinent to examine whether this also extends to consumers in similar ways. It is well documented that CI can have real tangible effects on consumer behaviour, and concerted efforts should be made to leverage this to companies' benefits (Roth & Diamantopoulos 2009, 726). Therefore companies and countries could also benefit from the findings of this study in boosting their appeal. It might also be beneficial for governing bodies to know whether consumers are aware and share, and if so to what extent, the same security concerns that guide their decision making.

1.3 Research questions

The aim of this thesis is to find out whether CI has an effect on the brand image and namely the trust image that consumers associate with a social media platform, specifically in this case TikTok, and whether they have an effect on the engagement intention of consumers with that platform, in the form of sharing their truthful personal information with and on that platform. The thesis will also address whether subjective norms play a role in consumers' engagement intention with TikTok. The four research questions therefore are the following:

1. Does the CI of China affect consumer trust in TikTok?

2. Does the CI of China affect consumers' engagement intention with and on TikTok?

3. Does consumer trust in TikTok affect consumers' engagement intention with and on TikTok?

4. Do subjective norms affect consumers' engagement intention with and on TikTok?

All of the research questions are answered by conducting a quantitative study in the form of a survey. The target group was Finnish speaking university students to limit the scope of the study as well as to target an audience, namely younger people, that would likely have previous familiarity with TikTok. Use of student samples is also quite common in CI research (Lu et al. 2016a, 839).

1.4 Theoretical framework

As the connection between CI, trust and social media has not really been studied in prior research, there does not exist a framework that readily draws all these constructs and their connections together. We can however build on previous research and adapt previously used frameworks for the purposes of this thesis.

The Theory of Reasoned Action (TRA) posits that an action taken by a person is affected by their intention to engage in that action. The key components that influence that intention are attitudes and subjective norms. Attitudes are comprised of a person's beliefs related to engaging in the particular activity that is being examined. Subjective norms are

beliefs about how a certain outside actor or actors would feel about the person engaging in that activity. (Fishbein & Ajzen 1975). For the purposes of this thesis and what is feasible to measure using a survey we will mainly be looking at the intention component of engagement with TikTok. To align these constructs with the research questions and topic of this study, we can utilize prior literature on the subjects of CI, trust, and information sharing.

TRA is a fitting theoretical framework basis for CI research and this thesis as it has been previously utilized in research to look at why consumers buy certain products relating to other factors than just quality (Brodowsky et al. 2017, 256). It is also generally a popular theoretical framework in theory-based CI research (Lu et al. 2016a, 837). Whilst this thesis does not directly concern the purchase of a certain product or service, like mentioned in chapter 1.3, direct monetary transactions are not what modern digital services such as TikTok really aim to achieve, yet a similar transactional process has to take place when consumers engage with such a service. Arguments have been made that the act of consuming should not be viewed as simply the act of making product evaluations or purchasing them and should be viewed as a more general act of engaging (see Andéhn & L'espoir Decosta 2018; Roth & Diamantopoulos 2009). There are many ways that users can engage with a social media platform, one of which is varying degrees of information sharing (Lu et al. 2016b). With TikTok, the case being that even the most basic forms of engaging with that social media service entail some degree of information sharing, whether the users are actively aware of it or not. TikTok will collect certain information about people who use their platform even if they are not registered users (TikTok). Engaging in this case would therefore manifest as sharing information with and on TikTok and product evaluations as the evaluation of the trustworthiness of TikTok. This trust relates both to TikTok as a social media service and the company behind it (Lo & Riemenschneider 2010, 4).

In the context of CI and TRA we can consider the beliefs relating to attitudes to be comprised of the CI that consumers form relating to the further image component. (Buhmann & Ingenhoff 2015, 114). In this case the image component would be consumer trust in TikTok.
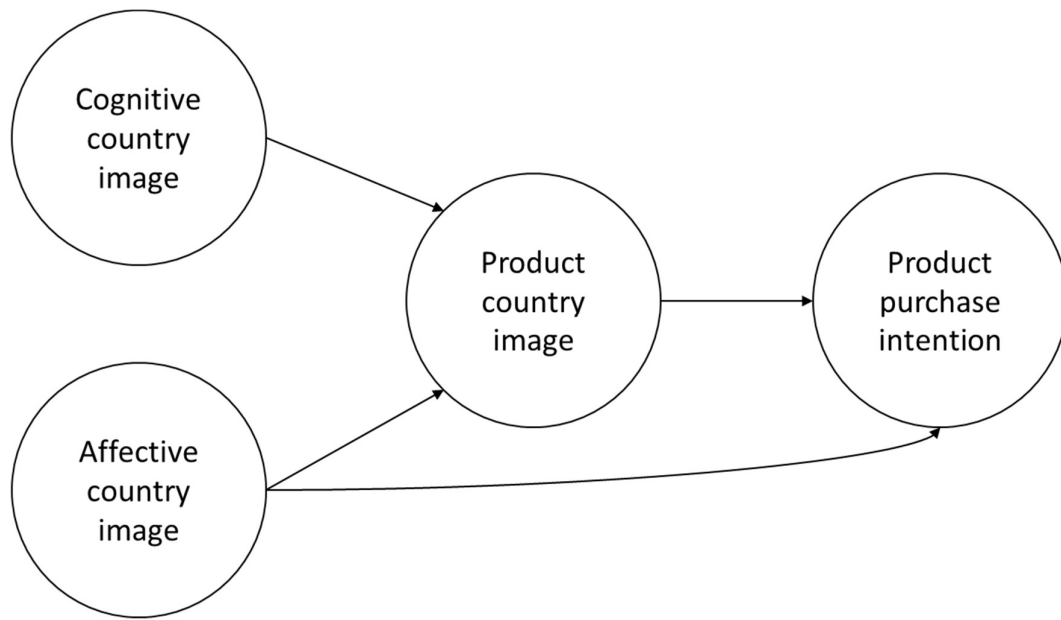
Figure 1 Cognitive and affective country image framework

For the CI component of our framework, we can use the research of Wang et al. (2012). They studied the effect of CI on product purchase intention, or how likely consumers would be to purchase a product from a certain country. They posited that CI should be split into cognitive and affective CI. This is due to consumers being able to hold conceptions about the quality of products from a certain country whilst having a differing emotional reaction to that country. An example of this would be consumers believing American products to be of high quality but disliking American politics and foreign policy. In their study they put forward and found evidence for the hypotheses that cognitive CI and affective CI have an effect on consumers' product CI which in turn effects their product purchase intention, as well as affective CI directly effecting product purchase intention due to emotional factors having a chance of playing a strong effect on consumer decision making. (Wang et al. 2012). The theoretical background of Wang et al.'s (2012) research can be seen visualized as a framework in figure 1.

As established previously, the second image component of the attitude construct is trust in TikTok. Previous research has found evidence that users perceive less risk to information sharing and are more likely to share increased amounts of information on sites they trust (see e.g., Dwyer at al. 2007; Zimmer et al. 2010; Lo & Riemenschneider 2010). This gives us the connection between trust in TikTok and engagement intention with TikTok. For the purposes of this thesis, we can refer to the trust that consumers have

in TikTok as trust image. Combining the CI components and trust image under the TRA framework we can formulate the following hypotheses for our thesis.

- **H1a:** Cognitive CI has a direct effect on trust image.

- **H1b:** Trust image has a direct effect on engagement intention.

- **H1c:** The effect of Cognitive CI on engagement intention is mediated by trust image.

- **H2a:** Affective CI has a direct effect on trust image.

- **H2b:** Affective CI has a direct effect on engagement intention independent of trust image.

- **H3:** Subjective norms have a direct effect on engagement intention.

As in Wang et al.'s (2012) research, hypothesis 1c is added due to the different nature with which consumers utilize cognitive and affective CIs. This difference is further elaborated on in chapter 2.1. We can see our hypotheses and components as well as their relationships modelled in figure 2.
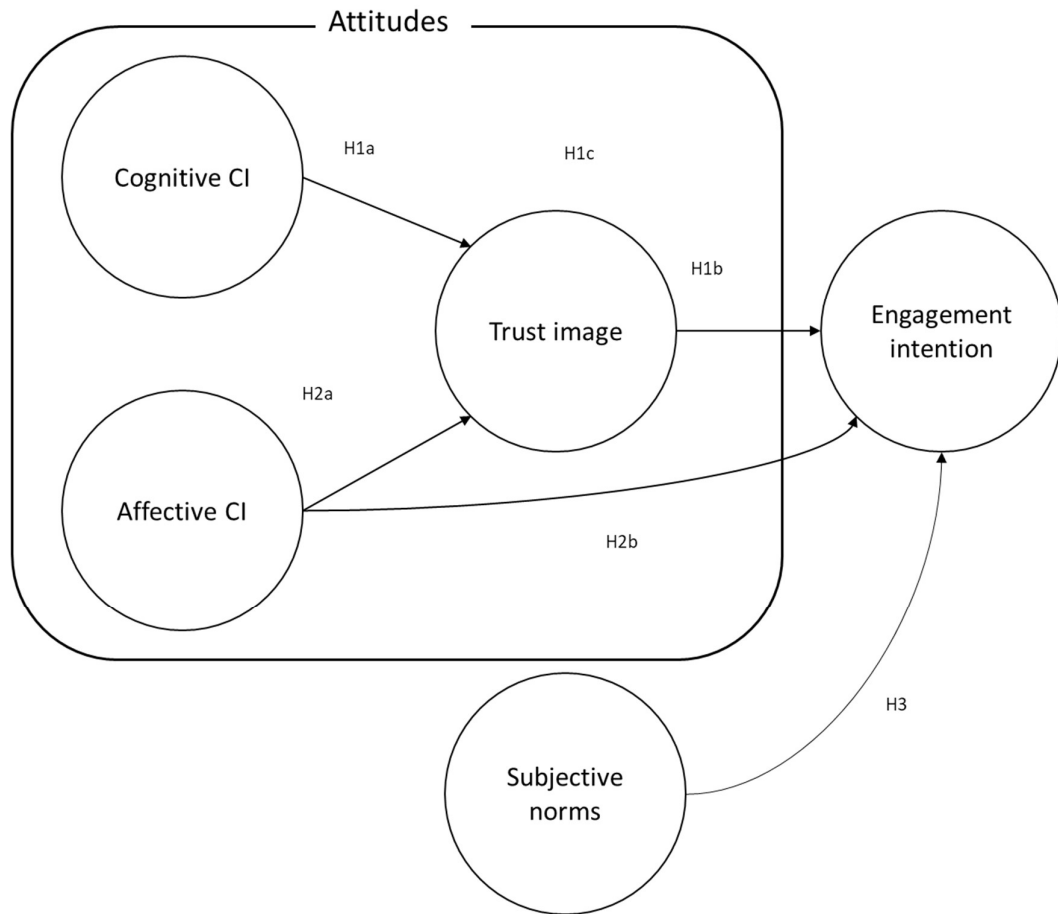
Figure 2 TRA based theoretical framework

1.5   Thesis structure

This thesis will be structured in the following way. In chapter 2 we will examine prior literature and expand upon the concepts of CI as well as trust and engagement with a focus on social media. In chapter 3 we will go over the research method that will be utilized in this thesis, including methodology as well as data collection and analysis methods and practicalities. In chapter 4 we will examine and analyse the collected data, present our findings and discuss them. Finally in chapter 5 we will discuss the limitations of our research, theoretical implications of our findings and summarize our thesis.

2 Literature review

2.1 Country Image

In chapter 1.1, we briefly touched on what CI is, but it is worth shortly going into a bit more detail on the term. The origin of CI as a research topic lays in Schooler's (1965) research on the consumer biases towards foreign products within the Central American Common Market. Schooler (1965, 396) found that consumers would evaluate identical products differently based on their COO labelling. Since Schooler's original paper on the topic, the effect has grown into a popular area of research, with various researchers attempting to define it more clearly. Whilst in this thesis COO effect and CI are used somewhat interchangeably as they both related to the study of the same effect, CI is in fact an evolution of COO effect research. CI stems from the desire to create a more complex and multifaceted concept than just the effect of COO labelling. (Roth & Diamantopoulos 2009, 726). Wang et al. (2012, 1041) define CI as mental image that a consumer holds of a country and its people, including cognitive factors about the country's level of technological and economical development as well as affective evaluations of its political and social actions and leanings. As our theoretical framework is heavily based on their research, this is the definition that we are mainly using in this thesis as well. The benefit of shifting focus from COO effect to the CI concept is it allows us to look at its antecedents and changes in them more effectively (Roth & Diamantopoulos 2009, 726). What then are the factors that comprise CI? Roth and Diamantopoulos (2009) divide the topic of CI into four different components: Country cognition, country affect, country conations and country related norms. For structure's sake we can categorize these into components of CI and effects of CI, which we will look at in the following two chapters.

2.1.1 Components of CI

What are then the factors that comprise and affect CI in the minds of consumers? As mentioned, these can be divided into country cognition and country affect or cognitive CI and affective CI. Going forwards we will use the latter two terms to maintain consistency.

Cognitive CI relates to the factual information a consumer believes they know about a country, such as economic, political, or technological factors (Roth & Diamantopoulos 2009, 736). Cognitive CI has a more pronounced effect in situations where consumers

make rational decisions, consciously weighing the pros and cons of their decision (Li et al. 2014).

Affective CI relates to the emotional reactions a consumer has towards a country (Roth & Diamantopoulos 2009, 737). Such emotional reactions can include things like the disposition of a country and its people towards the country of the consumer. More so than cognitive CI, affective CI can have direct effect on the target object, especially in cases where information to form a robust cognitive CI and knowledge of the target object is lacking. (Wang et al. 2012.) Whilst cognitive CI is a fairly simple concept, the same cannot be said for affective CI, and quite a lot has been written about it.

A special category of affective CI are country stereotypes which most people are doubtless familiar with. Country stereotypes are a fixed and shared emotionally driven set of associations that a consumer can make with a country, whether based in reality or not. Due to their shared nature, stereotypes can, but do not have to have basis in first hand experiences. Like with other dimensions of affective CI, stereotypes typically take hold when a consumer does not have a strong cognitive CI of a country to base evaluations on. (Herz & Diamantopoulos 2013, 402). Some country stereotype focused research has gone even further and divided stereotypes into types of affective and cognitive dimensions. Consumers can hold stereotypes relating to for example quality, but also to the friendliness a country. The degree to which a choice is deliberated affects which types of stereotypes have a stronger effect. When more though is put into the decision, cognitive dimensions take a stronger hold (see Diamantopoulos et al. 2017.)

There are possibly many other factors closely related to affective CI that still remain little explored. Andéhn and L'espoir Decosta (2018, 888) describe for example a sort of mythology aspect that may be related to products or product categories of certain countries. These may not be strict quality assessments but rather other types of strong associations. They use the example of Russian vodka, as not necessarily being considered the best quality, but nonetheless having a positive association with the country creating an effect of preference. In other words Russia is seen as the country for vodka, even if they do not necessarily produce the most high quality products.

2.1.2 Effects of CI

When talking about effects of CI, we will both look at what follows from CI in the minds of consumers and what sorts of factors play into why these consequences may occur. In the simplest sense CI may either lead to consumers desiring to engage more or less strongly or have little to no effect. Country conations cover the consumer perceived consequences of interacting with a country in some way (Roth & Diamantopoulos 2009, 737). Country related norms are the perceptions about others' reactions, and the value placed upon those reactions towards interacting in some way with something of a particular COO (Roth & Diamantopoulos 2009, 737). To put it simply, country conations are the perceived personal consequences whilst country related norms are the perceived consequences or actions from a valued singular or group of others.

Traditionally country conation actions have mainly referred to the evaluation and purchase of products (Andéhn & L'espoir Decosta 2018, 887). However country conations can also include things such as visiting, investing in, or doing deals with a country (Roth & Diamantopoulos 2009, 737). Really, they can cover any sort of action taken, or evaluation done on anything that can be associated with a place (Andéhn & L'espoir Decosta 2018, 887). In the case of this thesis, the target action of the conation that is examined is engagement intention with a social media service from a specific country.

The components of CI presented in chapter 2.1.1 do not necessarily act the same way in the minds of consumers when it comes to country conations. Consumers actively make cognitive evaluations of a country and then consciously apply these to products, services etc. from that country (see Bloemer et al. 2009). However, country conations do not necessarily have to happen consciously. Consumers can draw associations between products and particularly of an affective CI unconsciously (Herz & Diamantopoulos 2013, 411).

A sometimes possible issue with country conations is the trouble with placing the object possibly effected by a CI. Consumers often do not know where certain brands are from (Samiee et al. 2005). Although some brands may have and leverage stronger country associations as others. Of note is indeed as well, whether the association is with the brand or the origin of the object (Andéhn and L'espoir Decosta, 887). Certain countries may be associated with high quality products of some category (Demirbag et al. 2010, 147).

However, the country of manufacture could well have the opposite quality association as the COO of the brand. Fashion products for example is often not manufactured in the country that the brand is originally from. It is also entirely possible for COOs to get completely misassociated to another country or misassociated with a group of countries that they in reality have little to do with (Ahmed & Astous 2001). Companies may also intentionally attempt to utilize a sort of false CI in their marketing, such as in the case of the US based ice cream brand Häagen-Dazs picking a Danish sounding name to capitalize on the positive Danish CI within the dairy product category (Brodowsky et al. 2018, 251).

The type of product or service that is being interacted with, also effects the way in which country conations function. When dealing with high involvement products consumers tend to put more though into their decisions. With CI this is no different and it has been found that CI plays a bigger role with high involvement products (see Adenan et al. 2018).

In CI research, country related norms are often manifested in the form of consumer animosity, ethnocentrism, or cosmopolitanism (Roth & Diamantopoulos 2009, 737). Additionally materialism could be included in this list. Consumers can feel themselves as a part of some type of collective that guides their actions. Country related norms are liable to overrule country conations in cases where a consumer may highly value a product of certain origin but feel a normative pressure to avoid it (Herche 1992, 261). In this thesis the normative factors that are directly measured are the perceived attitudes of those in the immediate social and familial circle of respondents. However factors playing into these attitudes are still measured and it is important to briefly go over the previously mentioned concepts often used in CI research focused on normative factors, as they can provide insights into the results of this study.

Consumers exhibiting animosity or ethnocentrism are likely to eschew products manufactured or associated with foreign countries. In the case of consumer animosity, consumers exhibit hostile attitudes towards specific countries leading them to avoid products from them, such as the relationship between US and China. In response companies may opt to try and disguise their origins and market under a separate local brand. (Fong et al. 2014, 62.) Ethnocentric consumers tend to place increased value on their own culture above that of others' and look to avoid influence from and contact with members of any out-group. Ethnocentric consumers may not simply avoid foreign products to, for example support their local economy, but because they view foreign

products as a threat to their preferred cultural collective and values. (Cleveland et al 2009, 120-121.) Out of the two, consumer animosity can be seen as the one with more severe consequences with regards to specific brands and products. Unlike with ethnocentrism, consumers exhibiting animosity do not simply value foreign products less, but actively avoid purchasing certain products. (Fong et al. 2014, 64.) In the case of this thesis' object of focus, TikTok, it is unlikely for ethnocentrism to be a significant factor as local Finnish alternatives for it do not really exist, however consumer animosity may well play some kind of a role.

Unlike the previous concepts, cosmopolitanism and materialism may moderate the effect of CI ways that increase the likelihood of engagement with foreign products. Cosmopolitanism has traditionally been defined as travelling and actively seeking to be in contact with foreign peoples and cultures. However, within CI research a consumer exhibiting cosmopolitanism may not necessarily have to leave their country but may simply actively seek to interact with foreign things in other ways, such as purchasing foreign products. (Cleveland et al. 2009, 119-120.) Cosmopolitan people can therefore place increased value on foreign products. Unlike cosmopolitanism, materialism may not necessarily have a positive effect on foreign CIs but can mediate the value effect that foreignness may have. Consumers high in materialism seek satisfaction and social approval through the acquisition and ownership of material goods. Consumers exhibiting materialism will therefore seek to obtain goods that are perceived as having high value. These products may or may not be foreign in origin or association. Generally it has been found that for example products from the developed world are perceived as having higher value than those from the developing world. (Demirbag et al. 2010, 147.) Specific and typical examples of favourable product-country associations are French fashion or German automobiles (Apil & Kaynak 2010, 172).

2.2 Trust and engagement

Trust is strange in that it grows with the lack of evidence to the contrary (Boyd 2003, 392). In other words, trust is created when there is no indication of untrustworthiness. Whilst trust might seem like a common and self-explanatory concept, it has a lot of research put behind trying to define it. Unfortunately there has not been a single unanimous conclusion reached on the definition (Beldad et al. 2010, 858). According to Lewicki and Bunker (1996) trust definitions in research can be categorized into three

different groups: trust as an individual feature, trust as an institutional phenomenon, and trust as an expectation. Trust as an individual feature means that trust is a quality that people have and they as individuals can be trusting. Trust as an institutional phenomenon on the other hand means that trust is a community shared concept that allows us to function as a society and facilitates commerce and other interactions. (Beldad et al. 2010, 858-859.) However, the definition and research are we are really interested in for this thesis is trust as an expectation. In this view trust is manifested as the expectation of a certain outcome from an interaction with another entity and can also be conceptualized as the acceptance of putting oneself in a vulnerable position (Beldad et al. 2010, 858). In this way Mayer et al. (1995) describe trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party". Indeed this quite well describes the dynamic that can be observed on social media, where users have certain expectations for what will happen to the information they share and have a certain level of confidence in the social media provider to fulfil those expectations. This expectation is based on the trustworthiness of the object of trust, and is comprised of competence, benevolence and integrity (Mayer et al. 1995). This definition has already seen use in social media related trust research (see Dwyer et al. 2007; Lo & Riemenschneider 2010).

2.2.1 Online trust

Now whilst we already have a general definition of trust, offline trust and online trust can be quite different in nature. In an offline context, the object of trust is usually an entity like a person. Online trust on the other hand can be rather impersonal, as the object of trust is not always so readily apparent (Boyd 2003, 395). Additionally an online context includes the extra component of the technology used, with the company deploying it combined as the object of trust. (Männiste & Masso 2018, 26.) Indeed confidence in utilizing that technology correctly and successfully is an important component of online trust (Zimmer et al. 2010, 116). Online trust is also especially crucial in that a level of uncertainty is inherent in nearly all online interactions (Boyd 2003, 393). As well, like with trust in general, a degree of vulnerability exists (Mesch 2012, 1471). If the information is of no consequence, then it would stand to reason that it is not worth protecting, thus possible negative consequences need to exist for the undesirable use of the information. Typical risks that people perceive online are the loss of money and loss

of privacy (Beldad et al. 2010, 860). Considering the typical daily choices a person makes using social media, the loss of privacy seems like the more pressing risk, whilst the loss of money is more of a concern in ecommerce transactions. Not to say that actions taken on social media can not carry monetary risks, for example in the form of scams or a privacy loss significant enough to lead to monetary losses.

People are often told to limit risks online by only interacting with trustworthy actors, but discerning what actors fall into this group may not be an easy task for most (Boyd 2003, 393). This would seem to emphasise the importance of building trust and communicating trustworthiness for actors wishing to operate in the online space. Yet this may not be an easy task either. The uncertainty online stems from three key features: security failures, data misuse and reliability failures. (Boyd 2003, 393, 395.) Trust on the other hand is based on the three components introduced in chapter 2.2. The trustor needs to be confident in the online actor's ability to act in ways that the trustor expects. This means that it needs to be clear that information provided is properly secured, will not be accessed by outsiders and will not be maliciously utilized by the actor itself (Boyd 2003, 395; Zimmer et al. 2010, 116). Due to the nature of trust objects in the online context, factors that weigh into the trustworthiness of actors operating in the online space are varied and so are the ways in which they need to be communicated. In practice they include reputation, but also technology dependent factors like performance and website appearance (Beldad et al. 2010, 860). In the case of this thesis we also hope to see if there is evidence whether the CI of the COO is also included in those factors. Privacy policies may be one the most commonly encountered ways actors seek to communicate trustworthiness. Although increasing trust may not be the only way to reduce uncertainty, which can also be achieved by communicating relevancy. Users may be less apprehensive to divulge information that seems clearly relevant to the interaction. (Zimmer et al. 2010, 116.)

2.2.2 Trust and information sharing

When in this thesis, we talk about engagement intention, we are talking about the intention of a user to share truthful personal information about themselves to another party online. What then is the connection between trust and engagement intention? Most people have a desire for privacy, but the evolving digital landscape is making controlling your personal information increasingly difficult. Privacy however should not be confused with a state of being completely closed off from the outside world, and most people seek to

strike some sort of a desirable balance between what to disclose and what not. Thus, when sharing information on social media, users must consider things like how much and with whom they want to share that information, which are all trust decisions (Männiste & Masso 2018, 24-26). Curiously however, it would seem that people are more willing and ready to share personal information online as they are in face-to-face interactions. This could be due to the layer of protection afforded by the initial anonymity online, as well as a feeling of needing to share more private information to build trust and connect with other people in the absence of nonverbal cues present in face-to-face interactions. As with trust, privacy does not have one clear definition in literature, but consensus seems to reign on the fact that it is at its core about control and disclosure of private information. (Mesch 2012, 1471.)

For people disclosing information online there would seem to be two key factors related to the nature of information that is being disclosed. The degree to which the information is private, and the degree to which the information can be identified as relating to the person. In the context of trust, the identifiability factor is key. There are two ways that information can be attributed to a person, discursive and visual. Discursive information is typically information in the form of text. Sharing of visual information may not be seen as damaging to anonymity as discursive. Pictures or video are not always as readily attributed to a person as for example a name or an address are. The attribution of a picture or video to a person would require prior knowledge about the appearance of that person as well as high enough visual quality. The concern over that information is also twofold. People are concerned about how easily their information is found and how easily it can be abused. (Mesch 2012, 1471.) To put it simply the availability and criticality of their information.

In an optimal situation, the information shared, and information gathered should bolster the function of online services and create a win-win situation for both the user or customer and the service provider. Part of how information disclosure is perceived may be due to the nature of the information gathering. Information may be elicited explicitly by asking the user or implicitly via tracking. Although explicit should not be confused as always necessarily voluntary, as a degree of information disclosure might need to take place to access a good or service, and without this requirement, that information might not necessarily be given. (Zimmer et al. 2010, 115.) Because the other way is implicit, the mere possibility of it may create that feeling of uncertainty that is spoken of in connection

to online trust. Although some of these concerns may be increasingly alleviated with the bolstering of legislation such as the GDPR, which seeks to give more control to users over their own information. Aside from actions by the trusted party, the skills or the internet literacy of the internet user has been found to lessen their privacy concerns online and make them more confident in sharing information. Acting anonymously, for example behind a made-up username, can also increase confidence in sharing personal information. (Mesch 2012.) As TikTok is a service that allows you to operate under a pseudonym this is something to consider for this thesis. It is important to keep in mind when looking at the types of personal information the respondents to the questionnaire might be willing to divulge. Certain types of information can lessen the veil of anonymity or possibly get rid of it completely. Obviously if you share your real name, then the anonymity afforded by the made-up username is clearly gone, however you could reasonably expect your anonymity to be able to remain if you, for example share real information about your hobbies or interests.

2.2.3 Trust across borders

Whilst the theoretical background to this thesis is focused on CI and not direct trust towards another nation or people, it is still beneficial to look at the various conceptualizations of trust across borders that exist in literature. The reason that we are not using these as the theoretical basis for this research instead of CI research, is that in the literature the sort of holistic concept of evaluation a person conducts about a whole country does not seem to have been examined as thoroughly as CI, and so there does not really exist a theoretical basis to easily build on for research such as this. Cross-border trust research is often focused on the trustworthiness evaluations of other peoples (see Delhey & Newton 2010; Genna 2017; Kleiner 2016) or the perceived trustworthiness of foreign nations and governments towards your own nation or government (see Brewer et al. 2005; Brewer 2004; Brewer et al. 2004). Yet the relationship between the individual and a foreign country seems to remain somewhat untouched by cross-border trust theory and literature. A further problem is the lack of basis for measure building. Many papers use precollected data such as results from surveys conducted by the EU (see Delhey & Newton 2010; Genna 2017; Roth 2009). Another issue is that they often seem to not dive into the antecedents of trust and rather just directly measure self reported trust (see Kleiner 2016; Brewer et al. 2005), as do the oft cited Eurobarometer surveys. Regardless

of this criticism, the literature on transnational trust may provide some insights into the possible connection between trust and CI.

There are a few concepts identified under the umbrella of what in this thesis is called cross-border trust, the main ones seemingly being transnational trust and international trust. Transnational trust is the trust that individuals place on the peoples of other nations as a collective (Genna 2017, 358). This refers to for example how Finnish people might think that Swedish people or other Scandinavian people are generally trustworthy. International trust on the other hand refers to the trust between nations as a collective (Brewer et al. 2004, 93). A good example of this could be how many Europeans might feel right now that the state of Russia can not be trusted by European nations. Although these two definitions do not seem to be set in stone in literature. Kleiner (2016, 87) simply refers to transnational trust as the trust individuals place in other nations. We will however use the previously mentioned definitions to structure this chapter.

Transnational trust has been of particular interest with relation to international co-operation and integration. In a way, transnational trust is just an extension of trust in your fellow man and is quite similar to that of the trust one places in their neighbours (Wals et al. 2015, 538). This research into trust in the context of increased co-operation has been of particular interest in the EU. In fact EU regularly measures the trust that people from member states have in each other with the previously mentioned Eurobarometer surveys (European Union). International co-operation requires fair and equitable treatment of others, yet humans have a tendency to place less value on members of an out-group, in this case foreign nationals. Increased trust and a positive mental image can alleviate this negative behaviour towards out-group members, and therefore transnational trust is key in making international co-operation work. (Genna 2017, 359.) People with high levels of trust in the peoples around them tend to show stronger support for co-operative policy like trade agreements (Wals et al. 2015). Whilst many factors can play into transnational trust, such as culture, economic success tends to be a fairly strong and clear predictor in nearly all cases. People place value on the social position of a foreign individual and thus people tend to place more trust in people from economically advanced foreign nations than those from not so advanced ones. (Genna 2017, 359.) Although a case can be made that fulfilling an ideal standard or mould for cultural development, such as linguistic proximity or similar religion, is also a very significant factor (Kleiner 2016, 86). It might be likely that filling a certain cultural prerequisite is required for other factors like

economic development to play that significant role. Genna (2017), who focused on the importance of economic development, focused on nations within close proximity of one another meaning that they would have a certain level of cultural similarity. For our thesis, we are looking at China and attitudes that Finnish people hold. China is a culturally very dissimilar nation to Finland, yet economically and technologically quite developed. It will be interesting to see how this might affect respondents' perceptions.

The second type of cross-border trust that often crops up in literature is called international trust. Paul R. Brewer has been particularly interested in this concept. Brewer et al. (2004, 93) define international trust as a form of generalized trust in other people, specifically people of another nation, that form the beliefs that a particular individuals hold about how much their nation can trust other nations. They then use these perceptions to guide their views and opinions on foreign policy and whether as well as in which way their nation should engage with other nations. In a way international trust is quite similar to transnational trust but examines a quite more general view on foreign nations rather than any specific nation. We will not delve too deep into this topic as even though international politics have partially spurred on the topic of this thesis, it is not really the focus. We will however briefly go over the causes and effects of it.

Similarly to how CI research sees CI perceptions as forming sort of short cuts for people to make assessments on products and services when specific information is lacking, so does international trust function as shortcut for people to form opinions on foreign relations without having in-depth knowledge on world politics (Brewer et al. 2004, 94). There are many ways in which international trust can be formed. International trust may not necessarily be formed on specific assumptions about foreign peoples but may rather be a result of more general beliefs. A generally distrusting person may feel that strangers in general should not be trusted, and thus foreign nations should not be trusted. They may also have general feelings of cynicism about politics or power structures and thus extend these feelings of cynicism to the politics and power structures of foreign nations, leading them to believe that the intentions of those nations are not benevolent. (Brewer et al. 2004, 97.) However specific events or a general zeitgeist of an era, such as the capitalist-communist divide of the Cold War can also greatly influence international trust. A notable example in the US were the September 11th attacks, that saw a great increase in international distrust in the US. (Brewer 2004, 317-318.)

The effects of international trust may be partially responsible for forming public opinion on different policies. A distrusting public possibly feeling threatened by foreign nations for example might be quite supportive of military spending and foreign intervention. On the other hand distrust could just as easily manifest in support for isolationism. (Brewer et al. 2004, 98.) In other words trust could well play a role in determining if and how foreign nations should be dealt with. Generally Brewer et al. (2004) divide these attitudes into preferring isolationism, co-operative internationalism or militant internationalism.

3   Research method

3.1   Quantitative approach

As mentioned in chapter 1.3, this thesis utilizes a quantitative method for answering the research questions. Quantitative methods are used in systematic investigation of social phenomena (Watson 2015, 44). In this thesis, social phenomena in the form of the effect of CI is exactly what we are concerned with. Quantitative methods are indeed a very tried and true as well as overwhelmingly popular ones in empirical CI research (Lu et al. 2016a, 835). Quantitative methods are also very suited for testing theories by formation of hypothesis and statistical analysis (Watson 2015, 45). We have our theoretical framework adapted from the TRA as well as Wang et al.'s (2012) research and have presented our hypothesis in chapter 1.4. Since we are also examining the possibility of a completely new phenomenon, the deep dive approach of qualitative methods may also not be very suited.

3.2   Data collection

3.2.1   Collection method and sampling

There are many different ways to conduct a survey (Watson 2012, 52). An electronic questionnaire was chosen for this thesis. As opposed to other methods such as interviews or other forms of questionnaires, an electronic questionnaire will allow us to easily and cost effectively reach our sample group. Under quantitative methods in CI research, surveys are a very common methodology used for data collection (Lu et al. 2016a, 836).

As already mentioned in chapter 1.3, the sample was limited to Finnish speaking students. Even though student samples are common in CI research, they have drawn some criticism in how often they are used. There is however not much inherent in student samples to cause doubt in validity. Some of the criticism could stem from student samples being used in research where it is quite clearly unsuited, such as the purchase intention of automobiles. (Lu et al. 2016a, 842-843.) As our research concerns the use of a social media service, we believe the use of a student sample to be valid. Generally the age of social media users skews to the younger side (Gambo & Özad 2020). This would seem to fit quite well with the general age range of students. Additionally unlike with the

presented example of purchasing of automobiles, there is no cost threshold that would keep students from engaging with the object of inspection.

3.2.2 Measures

By its very nature, quantitative research involves the measurement of phenomena, so we have to gather and/or develop measures for our survey. Not all items are equally easy to measure, and what people think, and feel can be quite difficult ones. (Watson 2015, 44-45.) For that reason we are avoiding as best we can the creation of completely new measures and attempt to rely on previously developed and used ones. As presented in figure 2, we have six items that we have to measure. These items are cognitive CI, affective CI, trust image, subjective norms, and engagement intention. Additionally we chose to measure whether respondents had ever used TikTok and to what extent. Even though this thesis focuses mainly on the engagement intention, measuring previous engagement helps us gauge the familiarity respondents have with TikTok and may provide additional insights. Furthermore, age was also chosen to be measured as a demographic factor. The final measures used for the six items in Finnish can be found in appendix 1.

For affective and cognitive CI the measures are mainly from Wang et al.'s (2012) research. In the original paper these measures use a 5-point Likert scale. For the purposes of this thesis however, this was changed to the 7-point Likert scale used for the other measures as well. A 7-point Likert scale gives more freedom to the respondent to choose the option that most closely aligns with their opinions and feelings, and in cases where no extreme seems appealing, offers more nuance for the respondent to utilize. A 7-point scale is seen as the upper limit of choices a respondent can properly process at a time. (Joshi et al. 2015, 398-399.) The initial measures were rather general and further three measures for cognitive CI were decided to be added from Martínez and Alvarez' (2010) research. These concerned specifically human rights and international law. It was seen as important to add measures that gauged perceived levels of factors that could lead to the abuse of personal data by government actors. Respondents were asked to rate on a scale statements about the economic level, politics, technological development, quality of life, foreign relations and appeal of China. The scale ranged from strongly disagree to strongly agree.

For trust image, the measures were adapted from Lo and Riemenschneider (2010). In their research the questions concerned Facebook and for this thesis Facebook was simply swapped out for TikTok. Respondents were asked to rate statements about their beliefs on the likelihood of how well and truthfully TikTok would handle and protect their personal data. The scale ranged from strongly disagree to strongly agree.

For subjective norms the measures were adapted from Brodowsky et al.'s (2017) as well as Lin and Xu's (2021) research. The measures from Lin and Xu (2021) were added as Brodowsky et al.'s (2017) research only measured subjective norms very narrowly. Respondents were asked to rate statements about the attitudes of their loved ones and friends towards their use of TikTok. The scale ranged from strongly disagree to strongly agree. Loved ones and friends were landed on as the chosen translation due to the possible ambiguity of the Finnish translations of "social circle" and "people important to me" used in the original papers.

Finally for engagement intention, measures were adapted from Lo and Riemenschneider (2010). Respondents were asked to rate the how likely they are to share various truthful pieces of information about themselves with TikTok. A few items from Lo and Riemenschneider's (2010) research were dropped as they were deemed to be outdated, such as home phone number. Additionally six new measures were developed based on the type of information that TikTok admits to collecting as well as what is typically shared on TikTok (see TikTok 2023). The added possible pieces of information were age, gender, contacts stored on a mobile device, technical information of the device such as OS version and language settings, location information as well as video material of the respondent. The scale ranged from very unlikely to very likely.

Aside from the measures newly created for this questionnaire, all of the other measures were originally in English. These were decided to be translated to Finnish as the chosen sample are Finnish students. Doing the survey in Finnish both decreases the likelihood that non-Finnish respondents are attracted, and helps respondents give responses that more accurately describe their opinions and feelings. Not needing to have the respondents translate the questions and options for themselves also decreases the likelihood that they would interpret the questions differently from each other. The questions were translated by the author and then went between multiple rounds of revisions with the thesis supervisors to refine them to more unambiguous and understandable states.

3.2.3 Collection practicalities

The actual electronic questionnaire was created in the Webropol survey tool. The owners and administrators of various email distribution groups within the University of Turku were approached about distributing the survey. Out of the ones contacted, the questionnaire was successfully distributed through the mailing lists of the student office of the Turku School of Economics, future studies students, information systems science students, and the student organization for computer science students. Additionally to reach a larger group of respondents, it was decided after the data collection had already begun, to share the questionnaire through the author's personal Facebook and LinkedIn profiles. The accompanying description for the questionnaire link clarified that respondents should be students, but there was no other way to control for the sample. An additional question was added to ask through which channel a respondent had gotten the questionnaire link. This was due to the concern that there was a higher likelihood of non-students taking it, when sharing it outside of university channels. Adding this questions allowed for analysis of possible differences between the two samples reached through the different channels.

When conducting a quantitative study, confidentiality and ethics need to be considered (Goertzen 2017, 17). One of the main limiting factors for collecting data from real people is the European General Data Protection Regulation (GDPR), which sets rules for collecting, storing, and processing personal data. The Finnish Office of Data Protection Ombudsman defines personal data as all data related to an identified or identifiable person (Office of the Data Protection Ombudsman). The only piece of data that could fall under this category in our questionnaire is age, but as this is the only item of this type, we feel that it can not be used to identify any specific individual and thus does not in fact fall under the umbrella of personal data. The questionnaire is answered completely anonymously, and a public web link was used to distribute it. This means that respondents did not have to enter their email addresses to access it. Respondents were also made aware that answering was anonymous, responses would be analysed confidentially, and the results published according to the common procedure for Turku School of Economics graduate theses. Respondents were also explicitly asked whether they agreed to this before starting the questionnaire, if they disagreed the questionnaire would end. Furthermore, the email address for the researcher was provided at the beginning of the questionnaire should any concerns or questions arise related to it.

One of the disadvantages of quantitative methods in general is that they can be very time consuming and collecting a sufficient amount of data can take a long time (Goertzen 2017, 13). Indeed this was a problem with this thesis as well. Due to timing and planning issues data collection could not be initiated until early summer, and so little time was left for it, and students became harder to reach due to many possibly already having been done with school for the year. This was a partial cause of deciding to also share the questionnaire outside of university channels.

3.3   Data analysis

To analyse our data, structural equation modelling (SEM) was chosen as the method. SEM consists of statistical analysis techniques used for examining the relations between various constructs just as we are looking to do in this thesis. SEM is suited as it allows the simultaneous analysis of relationships between multiple variables. (Ullman & Bentler 2012.). It is therefore quite a good fit for testing out the hypothesis and related framework presented in this thesis. One weakness in using SEM for this thesis is our sample size as smaller samples can lead to less stable models (Ullman & Bentler 2012, 666). This is therefore something that must be kept in mind when analysing the reliability, validity and limitations of this study.

To assess model fit as well as the reliability and validity of our data, a confirmatory factor analysis (CFA) was conducted using SPSS Amos, and multiple commonly used indicators of reliability and validity were calculated. CFA is a method within SEM that is used to assess the structure of constructs within a model which in this case is the TRA based framework shown in figure 2. Often and exploratory factor analysis is conducted prior to CFA to assist in constructing the model. As we have used prior literature and models found in those to construct our framework, we are able to skip this step and conduct just the CFA. A theoretical background of some kind to justify the grouping and modelling of items is generally required to do this. (Humble 2020, 79.)

No items or measures were dropped based on the CFA but to improve goodness of fit error covariance was modelled between the residual errors of CC1 and CC2, EI10 and EI11 as well as EI12 and EI13.[1] The residual errors consist of the unique and random errors that affect a set variable (Humble 2020, 81). It is however poor practice to correlate

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[1] Measure abbreviations used here and in further chapters can be seen in appendix 1

residual errors without proper justification (Hermida 2015). Error covariance can be explained if the measures are similarly worded or are measuring near similar things (Hermida 2015; Hoyle 2022, 262). In this case CC1 and CC2 have quite similar wording and are both concerning the level of wealth within a nation, EI10 and EI11 are both asking about sharing a visual depiction of the respondent, and finally EI12 and EI13 are both related to personality characteristics of the respondent. With these in mind it was felt these residual errors could be correlated. It is also possible that model fit improving error covariances are due to sampling error, but this will be further touched on in chapter 5.1 (Hermida 2015).

4 Results

4.1 Reliability and validity of the measurement model

Because we are trying to accurately measure the reality of human behaviour, we must ensure the reliability and validity of our measurement model (Drost 2011, 105). For the sake of table structure the core concepts of the measurement model will be abbreviated in the tables as follows: Subjective norms (SN), trust image (TI), engagement intention (EI), cognitive CI (CC) and affective CI (AC).

4.1.1 Reliability

Reliability concerns the repeatability of the measurement and the stability of the measures under different conditions. The most popular way to measure the reliability of test components is by using Cronbach's Alpha. (Drost 2011.) Cronbach's Alpha was calculated for all of the five factors used in the measurement model using SPSS. Most of the values were above the generally used acceptable level of 0.7 with the exception of subjective norms. However a Cronbach's alpha value higher than 0.6 can still be seen as acceptable. (Taber 2018.) The alphas for the factors can be seen in table 1.

Table 1 Cronbach's alpha for factors

Factor	Items	α
SN	3	0.61
TI	6	0.93
EI	13	0.92
CC	8	0.75
AC	4	0.74

Additionally to Cronbach's alpha, composite reliability (CR) was also calculated. For CR, values higher than 0.6 are desirable (Bagozzi & Yi 1988, 80). We can see in table 2 that the values for CR are all above this and with the exception subjective norms, quite a bit higher. With these values we can consider reliability established to a satisfactory level.

4.1.2 Validity

When talking about validity, we are concerned about whether we are in actuality measuring what we are claiming to measure (Drost 2011, 114). For example do our questions TI1- TI6 actually measure the construct that we are calling trust image.

To establish convergent validity, average variance extracted (AVE) was calculated for the five different factors. Convergent validity concerns how closely measures are related to other measures that measure the same thing as well as how dissimilar they are to measures that measure completely different things (Krabbe 2016, 113). The AVE values can be seen in table 2. An AVE higher than 0.5 is recommended to establish good convergent validity (Fornell & Larcker 1981). We can see that from our factors only trust image passes this threshold. However an AVE lower than that can be considered adequate if CR is higher than 0.6 (Fornell & Larcker 1981). Taking this into account convergent validity could be considered established.

Table 2 AVE and CR for factors

Factor	AVE	CR
SN	0.45	0.69
TI	0.70	0.93
EI	0.45	0.91
CC	0.30	0.72
AC	0.43	0.74

To establish discriminant validity, heterotrait-monotrait (HTMT) ratio of correlation was calculated. Discriminant validity concerns whether the factors used in our research are truly distinct from each other and are not representing the same thing. There are multiple different criterions for establishing discriminant validity but of those HTMT is seen as quite a good one compared to the older methods. (Ab Hamid et al. 2017.) The HTMT values for our factors can be seen in table 3. A threshold for HTMT can be seen as set under 0.85 (Ab Hamid et al. 2017, 3). We can see that all our values fall quite a bit under that in which case we can consider a good level of discriminant validity to have been achieved.

Table 3 HTMT values for factors

	SN	TI	EI	CC	AC
SN					
TI	0.162				
EI	0.681	0.552			
CC	0.224	0.517	0.351		
AC	0.272	0.512	0.356	0.582	

Multiple model fit indices are calculated when conducting a CFA during SEM. Of these indices commonly reported ones are root-mean-square error of approximation (RMSEA),

comparative fit index (CFI), goodness of fit index (GFI), Tucker-Lewis index (TLI) as well as Chi-square and degrees of freedom (df) (Jackson et al. 2009, 14). The values for these as well as reference thresholds can be seen in table 4.

Table 4 CFA Model Fit Indices

Index	Value	Reference value	Reference
RMSEA	0.08	<0.08 Good fit 0.08-0.10 Mediocre fit	MacCallum et al. (1996, 134)
CFI	0.83	>0.9 Good fit 0.8-0.9 Acceptable fit	Humble (2008, 85)
GFI	0.68	>0.9 Good fit	Hair et al. (2010)
TLI	0.81	>0.9 Good fit	Bentler (1990)
Chi-square/df	1.74	<5	Schumacker & Lomax (2004)

As we can see, none of the model fit indices with the exception of chi-square/df obtained from the CFA indicate a truly good model fit. There can be a multitude of reasons that would produce less than ideal model fit indices, and not everyone agrees that model fit indices should always be interpreted with such rigid cut off points, and that they should rather be seen as rules of thumb (see Perry et al. 2015). As mentioned in chapter 3.3 with error covariances, sampling may also be the cause of some of the model fit problems experienced as some of the model fit indices can be quite sensitive to sample size and will tend to reject the model when small samples are used (Perry et al. 2015, 13). Whilst all of our measures and factors were generally collected and adapted from previously validated models, some of which used CFA, some new connections were theorized but importantly all the measures were translated. Sometimes translations can create unexpected issues with model fit (Fenn et al. 2020, 313). Both of these possible issues are applicable to our model and measures and may therefore be the cause of the less than ideal model fit indices. These are all important factors to keep in mind when assessing the validity and generalizability of the final conclusions and will be further addressed in chapter 5.1.

Generally however we can see that we were able to produce some fairly compelling evidence for the validity and reliability of our results and model. We can therefore move to analysing the data and testing our proposed hypotheses.

4.2   Sample profile

The demographics of the sample can be seen in table 5. Whilst respondents were able to report their exact age withing the confines of less than 18 to over 100, the respondent ages are grouped in the table for clarity. In the end 110 respondents were reached but one respondent objected to the confidential handling of their data leading to the termination of their survey session. This record was dropped from any analysis so 109 total valid responses were left.

Table 5 Sample demographics

	Number	Percentage
Age		
18–24	52	48%
25–29	38	35%
30–39	11	10%
40–49	5	5%
50 and up	3	3%
Previous TikTok use		
Has used TikTok at least once in their life	Yes: 91 No: 18	83% 17%
Has downloaded TikTok on some personal device	Yes: 69 No: 23	63% (75%) 21% (25%)
Has created a personal TikTok user account	Yes: 66 No: 26	61% (72%) 24% (28%)
TikTok use frequency		
Multiple times a day	27	25% (29%)
Daily	16	15% (17%)
Multiple times a week	6	6% (7%)
Weekly	8	7% (9%)
Sporadically	35	32% (38%)
Source of survey link		
University email	6	6% (19%)
Other	25	23% (81%)

No respondents reported of being under 18 years of age. It is also important to note that additional questions about TikTok use were not posed to those respondents who reported never having used the service hence why the answers for those questions do not add up to the total of 109 responses. The percentages in brackets are within the sub-group of recipients that actually were presented with the questions. Also of note is that the question

about where the respondents had received the link to the survey from was only added after the questionnaire was decided to be shared outside of university channels. Whilst prior to the addition of this question the survey was only shared through university email mailing lists there is a small possibility that it could have been shared outside of those recipient lists by third parties before the addition of the outside channels.

From the sample demographics we can see that we have been able to mainly reach a target sample quite suitable for this research. Our respondents were mostly young people with some degree of first-hand familiarity with TikTok. Indeed only 17% of the respondents reported never having used TikTok in their life.

An independent samples T-test was conducted in SPSS to see if there were any significant differences in answers between the respondents reached via different channels. For the sake of the test, it was assumed that any respondents reached before the link was shared outside of university channels had indeed received it through their university email. The results of the test can be seen in table 6.

We can see that aside from the TI2 and CC2, the values are all above the generally accepted significance threshold of 0.05. Using a strict threshold of 0.05 has received critique and calls for lowering it (Wasserstein et al. 2019). Considering this, and the fact that only two measures fall outside of the generally accepted threshold it might be safe to assume that there are really no significant differences between the two samples gathered via different channels. It should also be kept in mind that in all cases, respondents received the same message with the survey asking for only students to take it.

Table 6 Independent samples T-test

Measure	significance (2-tailed) threshold
TI1	0.25
TI2	**0.02**
TI3	0.51
TI4	0.24
TI5	0.60
TI6	0.40
EI1	0.64
EI2	0.85
EI3	0.18
EI4	0.76
EI5	0.97
EI6	0.70
EI7	0.52
EI8	0.37
EI9	0.16
EI10	0.21
EI11	0.06
EI12	0.95
EI13	0.28
SN1	0.84
SN2	0.95
SN3	0.15
CC1	0.85
CC2	**0.04**
CC3	0.90
CC4	0.25
CC5	0.08
CC6	0.63
CC7	0.50
CC8	0.69
AC1	0.15
AC2	0.77
AC3	0.23
AC4	0.41

4.3 Hypotheses testing

4.3.1 Hypotheses 1c and 2b

The hypotheses that we were interested in testing were presented in chapter 1.4. We will first address hypotheses 1c and 2b as these both deal with mediating effects. Namely that the effect of cognitive CI on engagement intention is mediated by trust image and that the effect of affective CI on engagement intention is not mediated by trust image. To test for the mediating effects, bootstrap estimation was conducted in SPSS Amos. In bootstrap estimation a large number of samples are drawn at random to test for the statistical significance of mediating effects. In this case, the recommended bootstrap sample amount of 10 000 was used. (see Mallinckrodt et al. 2006, 373-374.) The values for the analysis are reported in table 7. The values reported in the table are unstandardized as is common practice in mediation testing (see Mallinckrodt et al. 2006). The p-values for direct effect are shown in brackets next to the unstandardized regression weights.

Table 7 Mediation analysis summary

Relationship	Direct effect	Indirect effect	Confidence interval		Two-tailed P-value
			Lower bound	Upper bound	
AC->TI->EI	-0.309 (0.059)	0.254	0.004	1.011	0.049
CC->TI->EI	1.118 (0.105)	0.761	-0.046	3.089	0.060

Quite interestingly the mediation analysis would seem to provide evidence to the contrary of both hypothesis. We can see that the p-values for both direct effects are greater than 0.05 suggesting that these direct effects are not significant. Furthermore we can see that zero falls between the confidence intervals of cognitive CI and that the two-tailed p-value is non-significant, suggesting that there is no significant effect between cognitive CI and engagement intention, mediated or otherwise. On the other hand zero does not fall between the confidence intervals of affective CI and its two-tailed p-value is less than 0.05 suggesting that the effect of affective CI on engagement intention is fully mediated by trust image. (see Mallinckrodt et al. 2006.) This evidence thus does not support hypotheses 1c and 2b.

4.3.2 Hypotheses 1a-b, 2a and 3

The final four hypotheses all concern direct effect. From the findings of chapter 4.3.1 we can already find evidence against hypothesis 2a, or affective CI having a direct effect on trust image. All the standardized regression weights and p-values are shown in table 8.

Table 8 Factor relationship summary

Relationship	Standardized regression weight	P-value
CC->TI	0.329	0.059
AC-TI	0.320	**0.022**
CC->EI	0.211	0.105
AC->EI	-0.17	0.144
SN-EI	0.61	**0.001**
TI->EI	0.436	**≤0.001**

As already suggested by the findings in chapter 4.3.1, if the effect of cognitive CI is not mediated by trust image then it is likely not going to have an effect on trust image at all. As shown in table 8, the relationship between cognitive CI and trust image is indeed not significant. This is evidence to the contrary of hypothesis 1a. As for hypothesis 1b, we can see that trust image indeed has quite a significant positive effect on engagement intention, providing evidence for this hypothesis. For hypothesis 3 we find evidence for, as subjective norms having a positive and significant effect on engagement intention.

4.3.3 Control variables

To see if the demographic factors that were gathered in the survey, namely age and previous experience with TikTok affect the results, we control for these variables. As we can see in table 9 neither of these variables really have a significant effect on either trust image or engagement intention. Controlling for these variables also does not affect the significance of the other relationships in a meaningful way.

Table 9 Control variables

Relationship	P-value
TikTok experience->TI	0.54
TikTok experience->EI	0.97
Age->TI	0.12
Age->EI	0.49

4.3.4   Hypotheses summary

In summary we can see that whilst the relationships between subjective norms as well as trust image and engagement intention follow the pattern identified in previous research, the hypothesized relationship between country image and engagement intention is possibly not quite there or does not translate over to the concept of trust and information sharing in a similar fashion as it functions in previously studied contexts. The possible causes and explanations for this will be further discussed in chapter 4.4.

- **H1a**: Cognitive CI has a direct effect on trust image. -> **Not supported**

- **H1b**: Trust image has a direct effect on engagement intention. -> **Supported**

- **H1c**: The effect of Cognitive CI on engagement intention is mediated by trust image. -> **Not supported**

- **H2a**: Affective CI has a direct effect on trust image. -> **Not supported**

- **H2b**: Affective CI has a direct effect on engagement intention independent of trust image. -> **Not supported**

- **H3**: Subjective norms have a direct effect on engagement intention. -> **Supported**

4.4   Discussion on the findings

Quite unsurprisingly hypotheses 1b and 3 were supported by the data. These connections have already been established in previous research and it would make sense that these results would be repeatable. However surprising was that 1a, 1c, 2a and 2b were not supported by the data. Establishing evidence for these connections would have been the main theoretical contribution of this thesis. Although it should be mentioned that even though in this study we were not able to find compelling evidence for these connections between CI as well as trust image and engagement intention existing in the way that was theorized, that does not mean that we can consider these connections clearly not existing. In fact evidence was found for affective CI having a fully mediated effect on engagement intention through trust image. Some kind of connection could well therefore exist.

Affective CI having a direct unmediated effect was theorized due the previously established increased role affective CI plays when knowledge of the object of assessment

is lacking (Wang et al. 2012). In this case that would have meant that if consumers lacked sufficient knowledge to assess whether TikTok was trustworthy then they may have defaulted on a general affective image they held of China. Perhaps however stronger evidence was found on affective CI having an effect due to affective CI generally having an effect more readily or strongly in the minds of consumers than cognitive CI (see Herz & Diamantopoulos 2013).

The generally weak connection could also be due to the involvement level of the decision in focus. CI has a stronger effect in high involvement decisions (see Adenan et al. 2018). Perhaps the respondents did not see the decision to share data on TikTok as such a crucial one and therefore CI did not factor in as strongly. It is also entirely possible that the association between China and TikTok was not as strongly felt in the minds of the respondents. This was not controlled for in the questions and the connection was not explicitly brought up in the questionnaire or the messages it was shared with. It has been established that consumers often do not know to associate brands to specific or correct countries-of-origin (Samiee et al. 2005).

However the effect manifests itself, some evidence was able to be provided for the connection between CI and trust image as well as engagement intention existing. This would lead us to answer all of our research questions with a cautious "yes".

5   Conclusions

5.1   Limitations and further research

The most obvious limitation of this study is that it was restricted to only Finnish students and a single country as well as social media service. This means that the results cannot be generalized easily. Especially across different social media services, vast differences exist in the way they function and what kind of engagement they seek to elicit. This makes comparisons between these services quite difficult and hinders using a single model for measuring these effects with all of them. The companies behind these services also have varying reputations and it is possible that in different cases the brand reputation and CI work in a different balance. Facebook for example is an easy example of a social media service that has quite a strong brand reputation that could possibly easily cloud any sort of CI behind it.

The sample size for this study was also quite small. This both hurts the generalizability of the study and along with the translations of the measures hinders the assessment of the measurement model. The model fit indices for the theorized model were less than ideal. This could be due to the model not being quite optimal for measuring what was set out to be measured but could also be at least partially due to the sample and translation issues (see Perry et al. 2015; Fenn et al. 2020).

Suggestions for further research would be to try and reach a larger and possibly more representative sample. Additional efforts are also required on developing the actual model and framework. With a larger sample, more accurate model fit assessments can be gained and then adjustments can be made to the model with the help of exploratory factor analysis or other such technique if required. Once more efforts are spent on refining a fitting model, better assessments could be made on whether, how strongly and possibly in which different way the connection between CI, trust image and engagement intention exists. It may also be necessary to control for more factors than was done in this study. For example as mentioned in chapter 4.4, it may be useful to control on the association that respondents make between the social media service in question and its COO as well as how crucial respondents actually find the decision of sharing their information on the social media service.

5.2 Theoretical contributions

Because of the weak evidence that we were able to produce in favour of our research questions and hypotheses, we can not really extend these findings into too big of a practical contribution yet. As for a theoretical contribution however, we have been able to establish some evidence for a yet to be researched connection existing, providing some incentive for further research into the topic. As mentioned in chapter 1.2, not much research in general has been done on the connection of CI to digital services or digital anything in general. The connection between CI and social media specifically has seemingly yet remained completely untouched prior to this thesis. This thesis was an attempt to bridge that gap. Whilst it cannot be said to be nearly closed yet, the first steps have now been taken and the door has been opened for further research.

5.3 Summary

5.3.1 Research problem

In this thesis we set out to find out whether and in which way country image, referred to in this thesis as CI, affects the trust that consumers place in social media services in specific countries and their willingness to engage with those services in the form of sharing truthful personal information on them. The scope was decided to be narrowed down a specific social media service and country. TikTok and China were chosen for this purpose. Partially because the connection between these two has been on the surface in recent times and has driven high level decision making and partially because it was deemed difficult to examine multiple social media services in a comparable way, as many function in substantially different ways. To examine this, a framework was constructed using prior literature on CI as well as trust and information sharing and the theory of reasoned action as a basis. The following specific research questions were formulated:

1. Does the CI of China affect consumer trust in TikTok?

2. Does the CI of China affect consumers' engagement intention with and on TikTok?

3. Does consumer trust in TikTok affect consumers' engagement intention with and on TikTok?

4. Do subjective norms affect consumers' engagement intention with and on TikTok?

The effect of trust on information sharing is already a well established concept in prior literature. The concept boils down to users attempting to find a good balance between what sort of information they are willing to disclose and what not in order to maintain a desired level of privacy whilst obtaining the desired results from engaging with a certain service (Männiste & Masso 2018). When sharing private information, users are putting themselves in a vulnerable position as they are running the risk of their data being misused. Trust is then required for users to be willing to place themselves in this situation (Beldad et al. 2010, 858).

The connection between trust and country-of-origin or COO is where the research gap lies in. CI research has previously addressed this COO connection with product and service evaluations. CI is a mental image composed of various attributes that a person applies to a specific country and uses to help them evaluate products and services from and in that country (Wang et al. 2012). CI research however has been quite centred on purchasable products and services, with the latter being mainly focused on tourism (Wegapitiya & Dissanayake 2018; Lu et al. 2016a). Not as much attention has been paid to ecommerce and especially digital services. Trust has also not been a very central concept to CI. On the other hand a separate field of research exists in transnational or international trust. However these areas of research have been mainly concerned with the interaction between nations and not so much with individuals and nations (see Delhey & Newton 2010; Genna 2017; Kleiner 2016; Brewer et al. 2005; Brewer 2004; Brewer et al. 2004). A clear gap therefore exists in research with regard to CI and trust.

5.3.2 Findings

As mentioned, a theoretical framework was constructed based on prior theory and literature. A questionnaire was then constructed around this framework from previously existing questionnaires addressing the various components and relationships within the framework. This questionnaire was further translated into Finnish as the chosen target group were Finnish students. This was chosen for a few reasons. The scope was desired to be narrowed to the people of a set nation, as nationality can play a part in CI perceptions (see Lu et al. 2016a). It was also felt that younger respondents were likelier to have familiarity with TikTok. The translated questionnaire was shared mainly through

university email lists and later through the author's personal social media profiles in order to reach a slightly larger sample as the email method did not have the desired reach.

After the data was collected it was analysed using structural equation modeling or SEM in SPSS as well as SPSS Amos. Various indicators of reliability and validity were calculated for the data, giving quite positive results. A confirmatory factors analysis or CFA was also conducted on the data and model. Typically an exploratory factor analysis is conducted prior to a CFA to help formulate the model and relationships to begin with. However as this was not a completely new model and was based on previously validated ones, this step was skipped. The CFA produced less than ideal model fit indices. This may not necessarily indicate poor model fit and can also possibly be due to issues with sample size (Perry et al. 2015) or translations (Fenn et al. 2020).

Sample factor effect on the results was tested for. It was found that there was nearly no significant difference between the samples gathered through university email and social media. Age or previous TikTok use of respondents also seemed to have no significant effect on the other factors or the relations.

When analysing the data evidence was found for the previously established connections between engagement intention as well as trust image and subjective norms existing in the model. However surprisingly little evidence was found for the theorized connection of CI with trust image and engagement intention. Evidence was only found for affective country image having a fully mediated effect on engagement intention through trust image. This would still seem to provide evidence for a positive answer to all of our research questions. The connection that CI has to the rest of the constructs is just perhaps not as strong or does not function exactly in the way as theorized in this thesis.

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Appendices

Appendix 1 Questionnaire questions

Item	Variable	Measure	Source
Trust image		Arvioi seuraavia väittämiä:	Lo & Riemenschneider 2010
	TI1	Uskon, että TikTok toimii etujeni mukaisesti käsitellessään henkilötietojani.	
	TI2	TikTok pyrkii käsittelemään henkilötietojani valitsemieni asetusten mukaisesti.	
	TI3	TikTok antaa minulle totuudenmukaista tietoa ja pitää kiinni lupauksistaan liittyen antamiini henkilötietoihin.	
	TI4	TikTok käsittelee henkilötietojani vilpittömästi ja asianmukaisesti.	
	TI5	TikTok käsittelee käyttäjiensä henkilötietoja ammattimaisesti.	
	TI6	TikTok onnistuu käsittelemään henkilötietojani yksityisyysasetusteni mukaisesti.	
Engagement intention		Kuinka todennäköisesti jakaisin TikTokille seuraavia totuudenmukaisia tietoja:	Lo & Riemenschneider 2010
	EI1	Nimeni	
	EI2	Syntymäaikani	
	EI3	Sähköpostiosoitteeni	
	EI4	Matkapuhelinnumeroni	
	EI5	Ikäni	New items
	EI6	Sukupuoleni	
	EI7	Mobiililaitteelleni tallennetut yhteystiedot	
	EI8	Mobiililaitteeni teknisiä tietoja (esim. laitemalli, käyttöjärjestelmän versio, kieliasetukset)	
	EI9	Sijaintitietoni	
	EI10	Kuvan itsestäni	Lo & Riemenschneider 2010
	EI11	Videomateriaalia itsestäni	New item
	EI12	Tietoja kiinnostuksenkohteistani	Lo & Riemenschneider 2010
	EI13	Tietoja persoonallisuudestani	
Subjective norms		Arvioi seuraavia väittämiä:	
	SN1	Haluan toimia kuten läheiseni ja ystäväni toivoisivat.	Brodowsky et al. 2017
	SN2	Läheiseni ja ystäväni eivät olisi pettyneitä, jos käyttäisin TikTokia.	Lin & Xu 2021

Item	Variable	Measure	Source
	SN3	Läheiseni ja ystäväni hyväksyisivät päätökseni käyttää TikTokia.	
Cognitive CI		Käsitykseni mukaan:	Wang et al. 2012
	CC1	Kiina on varakas.	
	CC2	Kiina on taloudellisesti edistynyt.	
	CC3	Kiinassa on korkea elintaso.	
	CC4	Kiinassa on kehittynyttä teknologiaa.	
	CC5	Kiinassa on puitteet hyvälle elämälle.	
	CC6	Kiina kunnioittaa yksilönvapauksia.	Martínez & Alvarez 2010
	CC7	Kiina kunnioittaa ihmisoikeuksia.	
	CC8	Kiina kunnioittaa kainsainvälistä lainsäädäntöä.	
Affective CI		Koen, että:	Wang et al. 2012
	AC1	Kiina on rauhaa rakastava.	
	AC2	Kiina on ystävällismielinen Suomea kohtaan.	
	AC3	Kiina on yhteistyöhaluinen Suomea kohtaan.	
	AC4	Kiina on miellyttävä.	

Appendix 2 Data management plan

Research data management plan for students

1. Research data

Research data type	Contains personal details/information*	I will gather/produce the data myself	Someone else has gathered/produced the data	Other notes
Data type 1: *questionnaire answers*		x		

* Personal details/information are all information based on which a person can be identified directly or indirectly, for example by connecting a specific piece of data to another, which makes identification possible. For more information about what data is considered personal go to the Office of the Finnish Data Protection Ombudsman's website

2. Processing personal data in research

I will prepare a Data Protection Notice** and give it to the research participants before collecting data ☐

The controller** for the personal details is the student themself ☐ the university ☐

My data does not contain any personal data ⊠

** More information at the university's intranet page, [Data Protection Guideline for Thesis Research](#)

3. Permissions and rights related to the use of data

3.1. Self-collected data

You may need separate permissions to use the data you collect or produce, both in research and in publishing the results. If you are archiving your data, remember to ask the research participants for the necessary permissions for archiving and further use of the data. Also, find out if the repository/archive you have selected requires written permissions from the participants.

Necessary permissions and how they are acquired

Data type 1: Questionnaire

- No personal data is collected
- Participation is voluntary and anonymous
- Participants are informed how the data is collected and processed, if they do not consent the questionnaire is terminated

4. Storing the data during the research process

Where will you store your data during the research process?

In the university's network drive ☐
In the university-provided Seafile Cloud Service ☐
Other location, please specify: ⊠

Personal university profile OneDrive

5. Documenting the data and metadata

5.1 Data documentation

To document the data, I will use:

A field/research journal ☐
A separate document where I will record the main points of the data, such as changes made, phases of analysis, and significance of variables ⊠
A readme file linked to the data that describes the main points of the data ☐
Other, please specify: ☐

5.2 Data arrangement and integrity

How will you keep your data in order and intact, as well as prevent any accidental changes to it?

I will keep the original data files separate from the data I am using in the research process, so that I can always revert back to the original, if need be. ☒

Version control: I will plan before starting the research how I will name the different data versions and I will adhere to the plan consistently. ☒

I recognise the life span of the data from the beginning of the research and am already prepared for situations, where the data can alter unnoticed, for example while recording, transcribing, downloading, or in data conversions from one file format to another, etc. ☒

5.3 Metadata

Will you require metadata?

I will save my data into an archive or a repository that will take care of the metadata for me. ☐

I will have to create the metadata myself, because the archive/repository where I am uploading the data requires it. ☐

I will not store my data into a public archive/repository, and therefore I will not need to create any metadata. ☒

6. Data after completing the research

What happens to your research data, when the research is completed?

The data will be stored for as long as it is required to complete the thesis and have it accepted after which it will be destroyed.