

The shopping street of the future

A closer look into the world of online marketplaces



Author: Jeroen Jansen (s1084843)

Word count: 9,998

Urkund reference ID: D171191537

Abstract

In a world where making purchases through online marketplaces, such as Amazon, is becoming more common, there are still reasons why people don't buy online. A fundamental issue affecting customers' decision-making in e-commerce is a lack of trust and interpersonal connection. To promote online purchases, multinationals need to create trustworthiness and legitimacy, however, this can be particularly difficult through online communication. Especially in a cross-cultural context where norms, values, and beliefs of consumers differ. This study examines the influence of social presence and trust on purchase intention, and how culture influences this relationship. The aim of the research is to provide a comprehensive understanding of consumer purchase behavior in the realm of e-marketplaces that are operating in an international context. In order to give further insight, the study conducted a free simulation experiment among a cross-cultural sample, including Dutch, German, and American respondents between the age of 18 – 40. The results from 147 responses show that trust does not influence purchase intention, whereas social presence and culture do have a significant negative influence. In doing so, this study denies the positive role of social presence, and significant influence of trust, and questions the effects of culture.

Author: Jeroen Jansen s1084843

Word count: 9,998

Urkund Reference ID: D171191537

Table of contents

Abstract.....	2
1. Introduction.....	5
1.1 Problem statement.....	5
1.2 Research gap.....	6
1.3 Research question.....	7
1.4 Methodology & findings.....	7
1.5 Outline of the thesis.....	8
2. Theoretical background and hypothesis development.....	8
2.1 The emergence of e-Marketplaces.....	8
2.2 Online purchase behavior.....	9
2.3 Social presence theory.....	9
2.4 Trust in e-commerce relationship.....	10
2.5 Culture.....	12
2.6 Conceptual model.....	14
3. Methodology.....	14
3.1 Research context.....	14
3.2 Sample and data collection.....	15
3.3 Operationalization and measures.....	16
3.4 Dependent variable.....	17
3.5 Independent variables.....	18
3.6 Moderator variables.....	18
3.7 Control variables.....	19
3.8 Common method bias.....	21
3.9 Research ethics.....	22
4. Data analysis and results.....	22
4.1 Data processing procedure.....	22
4.2 Assessment of the structural model.....	23
4.3 Hypothesis testing.....	24
5. Discussion.....	26
5.1 Summary.....	26
5.2 Theoretical implications.....	26
5.3 Practical implications.....	27
5.4 Research limitations.....	28
5.5 Future research suggestions.....	28
6. References.....	30
7. Appendices.....	45

Appendix 1	45
Appendix 2	48

1. Introduction

Recent technical developments have made it possible for brand-new business models based on digital platforms to arise. One important development can be defined as the “electronic marketplace” (e-marketplace), which refers to a virtual market on an electronic network (Grieger, 2003). E-marketplaces serve as a two-sided platform in which an intermediary matches buyers with sellers (Hagiu, 2009). New search and matching algorithms and the widespread use of mobile devices, among other recent technology advancements, have made it possible to create online marketplace business models that cater to a variety of consumer industries (Täuscher & Laudien, 2018).

Through e-commerce platforms like Amazon and eBay, buyers and sellers can easily connect online, which has the potential to be very beneficial for its users. Due to winner-take-all dynamics, e-marketplaces are particularly linked to rapid expansion and the potential to dominate a market since they cause network effects between the supply and demand sides (Hagiu & Wright, 2015). For example, in 2022, Amazon announced its biggest Thanksgiving ever, with sales up 2.3% from 2021. Independent retailers selling through Amazon have seen total sales of roughly \$1 billion (Forbes, 2022). Furthermore, eBay experiences massive growth from 92 million active users and a revenue of \$9.1 billion in 2010 to 159 million active users and a revenue of \$10.8 billion in 2021 (eBay, 2022). The Dutch business channel ‘RTL Z’ refers to the emergence of e-marketplaces as ‘platform economics’, and forecasts that this online mechanism is the shopping street of the future (RTL Z, 2019).

According to Gundlach et al. (1995), customers must trust the online mechanism in order to buy products from an e-marketplace. Platforms have to create legitimacy and come across as trustworthy, but this is not always easy. Also, social cues (such as body language or facial expression) in online settings are lost, which has a significant influence on consumer willingness to purchase online (Nadeem et al., 2019). Cyr et al., (2009) and Hassanein et al., (2009) identify the absence of human and social factors when shopping online as opposed to offline as a crucial factor that limits the development of e-commerce. Furthermore, it is important to consider socio-demographic factors that could also have a major influence on consumers’ perceived trust, social presence, and online purchase behavior. From a cross-cultural perspective, Hofstede (2023) suggests that there are big differences between countries when looking at e-commerce adaptation and purchase behavior. In order to investigate how aspects of national culture affect consumers' perceptions of an online store's trustworthiness, this study combines national culture with online trust, social presence, and purchase intention.

1.1 Problem statement

Buying through e-marketplaces is becoming increasingly common (Gawer, 2014; McIntyre & Srinivasan, 2017). However, it is not always obvious to consumers to purchase a good or service online (Ariffin et al., 2018). A fundamental issue affecting customers' decision-making in e-commerce is a lack of trust and ambiguity regarding the legitimacy of merchants. The growth of e-commerce has led to an increase in competition among companies, with trustworthiness becoming a crucial factor in the success

or failure of an e-commerce venture because high consumer trust encourages purchase intention (Gefen, 2000; Jarvenpaa et al., 2000), and its absence is the primary barrier to online shopping (Hoffman et al., 1999). It is critical to identify the variables that affect trust and purchase intention in e-commerce. Also, the influence of social presence (which refers to the 'realness' of an interaction) on purchase intention adds to the creation of trustworthiness and legitimacy, and is another element that has drawn attention recently (Gefen & Straub, 2004; Hassanein et al., 2009).

In cross-cultural contexts, it is important to consider culture since differences in national culture can affect customer behavior, online trust and social presence (Gefen & Heart, 2006). Different (national) cultures may lead to variations in cognitive processes, information seeking, and processing (De Mooij & Hofstede, 2011). It is also possible that some cultures do not need social presence and have higher levels of general trust, which makes people more likely to trust e-commerce transactions. Additionally, it may explain why certain nations may see greater success with online adaptation because trust is established through shared motivations, values, beliefs, identities, and interpretations of meanings (Doney et al., 1998). In previous research, culture and trust are discussed as interrelated (Doney et al., 1998; Downes et al., 2002; Gefen & Heart, 2006; Greenberg et al., 2008; Huang et al., 2014; Jarvenpaa et al., 1999). However, little empirical evidence, especially in the online environment, supports their association (Gefen & Heart, 2008; Huang et al., 2014; Hwang & Lee, 2012; Jarvenpaa et al., 1999; Yoon, 2009).

1.2 Research gap

Managers and academics alike are interested to learn more about the fundamental causes of the disparities between consumers who actively purchase online and those who do not (Hallikainen & Laukkanen, 2018). Previous research has shown that trust is an important factor in customer purchase intention (Hong & Cho, 2011; Lim et al., 2006; McKnight, 2002; Jarvenpaa et al., 2000). Gefen et al. (2008) highlight the dimensionality of trust and the influence of culture on trust as research issues requiring further investigation.

In order to examine how cultural factors affect trust and the intention to use e-commerce, Capece et al. (2013) conducted research on Italian and Chinese customers. They discovered that among Italian consumers, individualism and power distance had a substantial impact. Long-term orientation and the avoidance of uncertainty were the cultural characteristics that affected Chinese consumers' acceptance of internet buying. Furthermore, according to Sabiote et al. (2012), uncertainty avoidance has a moderating impact on how consumers create an overall perception of the value of a service purchased online. According to Hwang & Lee (2012), the correlations between subjective norms and the integrity and ability dimensions of online trust are moderated by uncertainty avoidance.

In spite of the growing body of literature, no research has considered the moderating effect of cultural consumer characteristics on the relationship between trust and purchase intention, and social presence and purchase intention. This is relevant, because while trust or social presence can predict

purchase intention, this relationship may be strong or absent for people with different cultural backgrounds. Even though e-commerce is expanding at an exponential rate, more theoretical and practical research is required to better understand the particular factors and mechanisms that influence the impact of social presence and trust on purchase intention, and national culture on the relationship between trust and social presence on online purchase intention.

1.3 Research question

Trends and developments show that e-commerce is increasingly important to businesses and that the marketplace business model in particular is growing significantly. In order for companies to anticipate developments within the realm of e-marketplaces, a better understanding of what factors cause consumers to buy through marketplaces is needed. Several factors such as familiarity, word of mouth, culture, reputation, and access to information have already been determined to identify influencing purchase behavior (Soleimani, 2021).

By examining customer perceptions and attitudes toward trustworthiness and purchase behavior, the research objective is to investigate the main effect of social presence and trust on the intention to purchase from e-marketplaces. Furthermore, by investigating the cultural differences, the aim of this research is to investigate the moderating effect of culture on the relationship between social presence and trust on purchase intention from e-marketplaces. The study also seeks to shed light on the theoretical foundations underlying the relationship of culture, social presence, trust, and purchase intention in an e-marketplace context. Furthermore, the study aims to offer useful insights for e-marketplaces to modify their strategies depending on the cultural preferences of their clients in order to stimulate online purchase behavior.

This study aims to answer the following question:

Given cultural differences of consumers, how do social presence and trust influence the purchase intention in online marketplaces?

1.4 Methodology & findings

The results of this quantitative study were gathered through a free simulation experiment, surveying respondents from the Netherlands, Germany, and America. The results of 147 respondents were analyzed using SPSS and structural equation modeling (SEM). Social presence was found to have a negative significant influence on purchase intention. Furthermore, trust is found to be of negative non-significant influence. Culture does not influence the relationships between social presence and trust on purchase intention, except for uncertainty avoidance.

1.5 Outline of the thesis

In the remainder of this study, chapter two examines the phenomenon of e-marketplaces and the concepts of online purchase behavior, social presence, trust, and culture. Moreover, a number of hypotheses are developed, and a conceptual model is presented. Next, in chapter three, the research context, method, and sample are examined. Moreover, the operationalization of the concepts is covered. In chapter four, the findings are presented. The analysis, conclusion, and discussion are all included in chapter five. The study concludes with suggestions for further research.

2. Theoretical background and hypothesis development

2.1 The emergence of e-Marketplaces

Since the late 1990s, the internet has encouraged buying online. Web 2.0 influenced the creation and growth of the platform-based e-commerce business (Kwak et al., 2019). Emerging technologies have accelerated the growth of online purchases through e-commerce platforms, including social media, cloud computing, big data, and artificial intelligence (AI) (Ilmudeen, 2022).

There are several benefits to buying through an e-marketplace. *First*, due to the internet's general reduction in transaction costs, there is an efficiency gain that includes the potential to significantly reduce search costs (Bakos, 1997; Kaplan & Sawhney, 2000; Klein & Quelch, 1997). Moving purchasing activities to e-marketplaces saves time through the streamlining of processes, such as lowering the time spent on analyzing options, selecting, contacting, and engaging with suppliers (Grewal & Tansuhaj, 2001; Le, 2002; Steinfield et al., 1995). *Second*, compared to non-electronic markets, e-marketplaces provide access to a wider and more varied pool of suppliers. As a result, customers can get a greater variety of goods at lower prices with higher quality (Eng, 2004; Kaplan & Sawhney, 2000; Klein & Quelch, 1997; Sashi & O'Leary, 2002). Also, greater supplier rivalry, brought on by the enhanced pricing transparency, leads to a general decline in prices (Bakos, 1997; Klein & Quelch, 1997; Smart & Harrison, 2003). *Third*, buyers have more options to choose from and may experiment with e-marketplaces to test out new procurement procedures and might, in doing so, gradually broaden their sourcing capabilities (Loginova, 2022).

Despite the fact that many individuals are making purchases online, perceived risk is seen by online shoppers as a fundamental issue in the choice-making process for online purchases (Liao et al., 2011). Concerns about the security and privacy of transactions on e-commerce platforms and the lack of actual transactions between parties have weakened consumer confidence to buy online (Kundu & Datta, 2015). Cyberspace increases the risk and uncertainty of a transaction, with buyers and sellers mostly concerned about inaccurate and distorted information and inappropriate behavior in unreliable e-marketplaces (Chang & Wong, 2010). Studies revealed that few consumers would purchase products or services online if their privacy and security were at risk (Connolly & Bannister, 2007).

2.2 Online purchase behavior

The perceived risk of uncertainty influences online purchase behavior, which can be understood as the regularity with which consumers make purchases online (George, 2004). Knowing the attitudes, assessments, and internal elements that ultimately lead to the purchase intent is crucial to predict customer behavior (Fishbein & Ajzen, 1977). Attitudes evolve as people gain new knowledge about concepts or things they are evaluating through time (Shaouf et al., 2016). The theory of reasoned action (TRA) states that intentions are the outcome of attitudes toward particular behaviors: the more positive one feels about behavior, the more intent one has to engage in that behavior (Amaro & Duarte, 2015). If the consumer's opinion of shopping online is favorable, it is then anticipated that the consumer's intention to shop online will rise.

Studies on online purchasing behavior frequently choose the variable of online purchase intention as their basis (Ajzen, 1991). Purchase intention occurs during the pre-purchase phase (Armitage & Conner, 2001) and is the idea that consumers' future attitudes can be converted into real (online) purchasing behavior (Ajzen et al., 2009; Fishbein & Ajzen, 2011; De Cannière et al., 2010; Pavlou, 2003). It can indicate the potential for consumers' perceptual responses to goods or services as well as strong brand ties, such as attachment and product purchases (Dodds et al., 1991; Esch et al., 2006). Consumers' intentions serve as a proxy for how willing they are to engage in a given behavior (Ajzen, 1991; Fishbein & Ajzen, 1977).

When looking at behavior, Mayer et al. (1995) stated interpersonal contact is a determinant of behavior. However, in e-commerce, there is a lack of interpersonal interaction (Reichheld & Scheffer, 2000). Because of technology, creating trustworthiness can be difficult since there is no direct interaction with real businesses, salespeople, or tangible goods which may cause problems with internet purchasing. As opposed to purchasing online, in traditional buying methods (like shops and markets), there is a physical connection, which is why the interaction feels more 'real'. When one wants to invoke the distinct psychological phenomenon where one views other social individuals as physically "real," one refers to "social presence" (Kreijns et al., 2021).

2.3 Social presence theory

According to Short et al. (1976, p. 65), social presence is defined as "the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships". Users of media evaluate social presence as the degree to which a medium enables a communicator to experience their communication partners – the e-marketplace – as being psychologically present (Short et al., 1976). Social presence can create a sense of "human warmth", and may project that people are "present" in the "here" and "now" (Mehrabian, 1969).

Short et al. (1976) highlight that social presence is a 'quality of the medium itself' and that some media are better at transmitting cues than others. Face-to-face interactions tend to have a high social presence, while paper-based mail and e-mail without multimedia indications tend to have a low social

presence. Social presence on a particular website might be either high or low because channel richness can vary according to the situation (Cooper & Zmud, 1990). Thus, in order to create a high social presence, online media have to create an illusion of physical contact (Lombard & Ditton, 1997). In order to mitigate the absence of social interaction and boost engagement, online platforms implement reviews, comments, and recommendations (Huang & Benyoucef, 2013; Olbrich & Holsing, 2011).

Increasing social presence can positively impact purchase intention in several ways. *First*, customers may feel more personally connected to a brand or business, which may boost engagement, strengthen their emotional attachment and enhance their likelihood of making a purchase. *Second*, by improving communication and reducing misconceptions, social presence can improve relationships. As a result, the customer may enjoy increased clarity and a more positive overall experience (Caspi & Blau, 2008). *Third*, personalization of experiences made possible by social presence can increase customer satisfaction. Consumers are more likely to have a positive experience and return for subsequent purchases when they feel valued and acknowledged. Pavlou et al. (2007) point out that perceived social distance between buyers and sellers is lowered by a website's strong social presence. *Fourth*, when there is social presence, buyers could feel more secure during an online interaction. Shin & Shin (2011) characterized social presence for marketing as a replacement for face-to-face interaction and asserted that it may improve consumers' perceptions of safety and purchasing behavior in virtual shopping centers. Thus, this leads to the first hypothesis:

Hypothesis 1: Social presence of an e-marketplace has a positive effect on online purchase intention.

2.4 Trust in e-commerce relationship

According to Mayer et al. (1995, p. 712), trust is defined 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". Trust typically refers to concepts like confidence, reliability, and honesty (Liao et al., 2011; Morgan & Hunt, 1994), and is considered one of the key success factors in customer relationships and e-commerce (Gundlach et al., 1995). The benefits of trust are that it causes people to deal better with complex situations (Arrow, 1974), reduces costs, affects customers' buying behavior, and word-of-mouth intentions (Kim & Park, 2013). Furthermore, Pirson and Malhotra (2011) offer a deeper examination of organizational trust and make an effort to conceptually and empirically analyze the foundations of trust with regard to particular stakeholder groups. Their framework distinguishes between organizational stakeholders along two dimensions: locus (internal or external stakeholders) and depth of the interaction (deep or shallow). They discovered that whereas trust among external stakeholders was significantly more based on views of technical competence, trust among internal stakeholders was significantly more based on perceptions of managerial competence. This study focusses on consumers, who are considered external stakeholders.

Trust is a context-dependent multidimensional social concept (Butler, 1991; Ganesan, 1994; Lewis & Weigert, 1985) and because of this, there is no universal definition and no unified way to estimate trust. However, according to Mayer et al. (1995), one can measure trust through the indicators “ability”, “benevolence”, and “integrity” of the trustee. (1) *Ability* can be described as “a group of skills, competencies, and characteristics that enable a party to have influence within some specific domain” (Mayer et al., 1995). If an e-marketplace doesn't appear to have the necessary knowledge and experience to create a pleasant shopping experience, deliver products well and complete an online transaction, buyers will question the ability of an e-marketplace. (2) *Benevolence* can be described as “the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive” (Mayer et al., 1995). In organizational trust theory, benevolence is based on an external locus, and a high-depth relationship of stakeholders (Pirson & Malhotra, 2011). Stakeholders in deep relationships are less likely to view themselves as “just another stakeholder”, and have a stronger need for (and access to) information that indicates an organization's benevolence (Mayer & Davis 1999; McAllister, 1995). (3) *Integrity* can be described as “the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable” (Mayer et al., 1995). In organizational trust theory, integrity is based on an external locus, and a low-depth relationship of stakeholders (Pirson & Malhotra, 2011). Uncertainty about the other party's behavior is likely to be significant in relationships that are shallow and have few exchanges between the e-marketplace and the consumer. Perceptions of integrity may be crucial in weak relationships with high degrees of uncertainty to foster the level of trust necessary for coordination and collaboration (Pirson & Malhotra, 2011).

The three dimensions of trust can be combined to give a clear picture of perceived trust in e-marketplaces. Consumers are more likely to purchase a good or service if an online marketplace manages orders and transactions well, without obvious extrinsic motivation, with honesty, and with consideration for personal safety and protection. Consumer trust can positively impact purchase intention in several ways. *First*, the fundamental underlying idea of trust is that a person ‘has to be willing to be vulnerable’ to another party (Mayer et al., 1995). In such a situation, both parties will benefit positively from lower transaction costs which may positively influence purchase intention. *Second*, trust positively influences word-of-mouth (Kim & Park, 2013). Many positive customer experiences create a good reputation for a website, which promotes credibility. Also, it creates social proof which people use as a source of knowledge to guide their own behavior when faced with ambiguity (Cialdini & Trost, 1998). *Third*, previous research has shown that reinforcing trust has a positive impact on purchasing behavior (Kim & Park, 2013). All in all, it is expected that trust has a positive impact on purchase intention. Thus, this leads to the second hypothesis:

Hypothesis 2: Trust in an e-marketplace has a positive effect on online purchase intention.

2.5 Culture

National culture defines context that all members of a nation share and is referred to as the collective mental programming that separates one group's members from another (Hofstede, 1991). Within the limits of what people want (values), what is allowed (norms), and what is possible (beliefs), people choose the behavior that is closest to what they pursue (Beugelsdijk & Maseland, 2011). Also, institutions are essential for economic behavior since they provide meaning to behavior, making social action possible. New Institutional Economics (NIE) examines the role of informal rules and institutions (culture) in shaping economic behavior. The main argument of NIE is that institutions matter and that they “define the rules of the game” (North, 1990; Richter, 2005; Furubotn & Richter, 2005). Embeddedness of institutions in culture is part of the reason that institutions are stable and shared (Williamson, 2000).

For organisations, it can be challenging to operate in many cultural contexts because the survival of firms depends on stakeholder support. In order to obtain this, organizations and their behavior need to be accepted by stakeholders, which is referred to as ‘legitimacy’. The function of this legitimacy is to confirm stakeholders' expectations, norms, values, and beliefs. Furthermore, based on environmental coercive, normative, and mimetic pressures, organisations adapt to the stakeholder expectations. Multinationals that are operating in different countries, have to take into account different stakeholder expectations, which is referred to as ‘multiple embeddedness’. Thus, environments shape organisations, which is why culture is extremely important to take into account in an international context (Beugelsdijk & Maseland, 2011).

In order to determine the influence of national culture, this research uses the Hofstede model because it provides a clear framework, as opposed to a cultural model like the World Value Survey which focuses on individual values and attitudes. Hofstede's cultural values model (De Mooij & Hofstede, 2011) is the most extensively used framework for analyzing cultural differences among marketing and management researchers and accurately captures significant differences in national culture (Smith et al., 2013). Hofstede Insights (2023) identified six universal dimensions, however, this study only incorporates the two dimensions of uncertainty avoidance and long-term orientation.

Uncertainty avoidance (UAI) is "the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these" (Hofstede Insights, 2023). People with a high UAI are risk-averse, distrust new ideas and behaviors, and become nervous in unstructured and unpredictable situations (Vitell et al., 1993). However, people living in countries with low UAI are greater risk-takers and experience less emotional resistance to change (Hofstede Insights, 2023).

According to Kim and Kim (2010), UAI has a considerable impact on behavioral outcomes, trustworthiness, and the acceptance of new technologies. UAI is a key factor in both adaptation and resistance to technology (Srite & Karahanna, 2006; Laukkanen, 2015), and studies rank UAI as one of the major cultural factors influencing trust in the (online) world (Leidner & Kayworth, 2006; Vance et

al., 2008; Hwang & Lee, 2012; Shiu et al., 2015). Because of their risk aversion, individuals with high UAI are less likely to trust information systems such as websites (Vance et al., 2008), and are less likely to use the internet (Nath and Murthy, 2004; Yenyirt and Townsend, 2003). Thus, in high UAI-societies, trust plays a more significant role in facilitating e-commerce relationships. Furthermore, it is expected that people with high uncertainty avoidance rely more on social norms and cues to guide their behavior in unfamiliar or uncertain situations. For instance, it is expected that consumers will want to know that they are not being scammed and that they are actually receiving the product they ordered. In addition, personal contact provides more security in a transaction. According to Van Noort et al. (2008), consumers' views of the risk associated with online stores can have a negative effect on their attitudes toward commercial websites. In conclusion, it is projected that those who have a high level of uncertainty avoidance will need more trust and social presence.

Hypothesis 3a: High uncertainty avoidance of consumers, as opposed to low uncertainty avoidance, negatively moderates the relationship between social presence and purchase intention.

Hypothesis 3b: High uncertainty avoidance of consumers, as opposed to low uncertainty avoidance, negatively moderates the relationship between trust and purchase intention.

Long-term orientation (LTO) deals with "how every society has to maintain some links with its own past while dealing with the challenges of the present and future" (Hofstede Insights, 2023). According to Hallikainen and Laukkanen (2018), LTO has a beneficial impact on the tendency to trust, which suggests that in LTO cultures, commercial partnerships are frequently formed on a long-term basis.

LTO entails cultivating character traits that lead to future benefits, particularly tenacity, and thrift. When looking at long term transactions, several things can be very important. *First*, customers would want to know if a sales partner is a suitable fit. Purchasing from unethical sellers could be important, which can be physically examined upfront. *Second*, more complex transactions may involve high transaction costs but these can be reduced with repeat purchases through long-term trust. According to Hallikainen and Laukkanen (2018), LTO influences the tendency to trust and exhibits a complementary mediating effect on all aspects of trustworthiness. Because the value of immediate gains from untrustworthy behavior is diminished in an LTO society, trust is encouraged. Members in an LTO society are thought to need a high level of trust in the e-commerce environment since they must be familiar with the online platform before making a purchase (Harris & Dibben, 1999). *Third*, in the long run, consumers will want to have confidence that products are delivered, private data is handled appropriately, that the seller has the right knowledge and intentions with a consumer. In conclusion, it is projected that those who have LTO will need more trust and social presence for online purchase intention.

Hypothesis 4a: Long-term orientation of consumers, as opposed to the short-term orientation, has a positive moderate relationship between social presence and e-commerce.

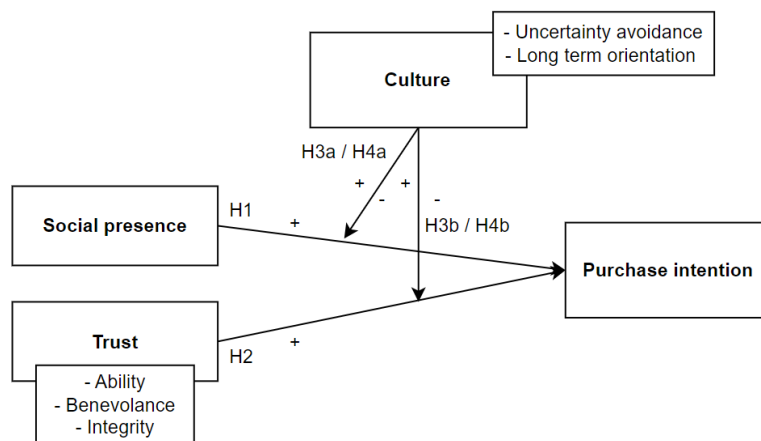
Hypothesis 4b: Long-term orientation of consumers, as opposed to the short-term orientation, has a positive moderate relationship between trust and e-commerce.

2.6 Conceptual model

In order to get a better understanding of the research question at hand, a visual conceptual model is made with several relationships. *First*, the positive relationship between (independent variable) social presence in e-marketplaces and (dependent variable) purchase intention, and (independent variable) trust in e-marketplaces and (dependent variable) purchase intention can be identified. *Second*, there is the negative moderating effect of UAI on the relationship between social presence and trust on purchase intention. LTO has a positive moderating effect.

Figure 1

Conceptual model



3. Methodology

3.1 Research context

The research takes place within the context of e-marketplaces. For this research, ‘Amazon.com’ is selected. The American company, which was founded in 1995 by Jeff Bezos, is a multi-national based in 45 countries. In 2022, the company generated \$ 316 billion in net sales in the U.S., which is a growth of nearly 12x as opposed to the net revenue in 2014 (around \$ 27 billion). Internationally, Amazon has grown from \$ 21.3 billion in net sales in 2014, to \$ 118 billion in 2022 (Amazon, 2014; 2023). According to Statista (2023), based on revenue, Germany is the second-largest market next to the United States. Total net revenue of all Amazon services sales increased from \$ 12 billion in 2014 to \$ 33.6 billion in

2022. In the Netherlands, Amazon has been active since 2013 and is currently one of the most popular online marketplaces (Amazon, n.d.).

Amazon must have a thorough understanding of the national contexts in order to maintain its position as market leader and experience growth in their most important markets. Additionally, according to Hofstede (Hofstede Insights, 2023), it appears that the cultural dimensions significantly vary between the three nations (Table 3). These factors led to the decision to examine the Dutch, German and American markets.

3.2 Sample and data collection

In order to collect data, this study used a survey in the context of a free simulation experiment (Alshibly, 2014), which is conducted remotely and without supervision. This research design is appropriate for this study for three reasons. *First*, the latent variables in the study are difficult to manipulate since they cannot be easily influenced or controlled by outside forces. *Second*, the research can be conducted remotely because respondents can easily access www.amazon.com. *Third*, respondents could easily be assigned to a real evaluation case (Straub et al, 2005).

During the survey, respondents were first asked about the study's control variables. Then, the simulation experiment took place in which participants were asked to go to www.amazon.com on their device and complete the steps as explained in the scenario:

Suppose it is your mother's 50th birthday, and you would like to buy her a special gift. Go to www.amazon.com to research a possible gift you would consider buying. Gather available information, see if you can find a gift that is suitable, and put it in your shopping cart. You can assume you have enough money to purchase something, but do not actually buy the product.

Once the task was completed, respondents needed to go back to the survey and answered questions about their perceived social presence, trust and purchase intention from Amazon.com. In order to measure culture, this study made use of secondary data, provided by Hofstede (Hofstede Insight, 2023).

Since the Internet is so recent, some people grew up during the advent of online mediums and e-commerce. Consequently, statistics show that the adoption of e-commerce among young people is many times higher than among older audiences (Eurostat, 2021). As a result, younger people are more likely to be familiar with using mobile devices and online purchasing. Also, it was expected that the younger generation is better reachable online, which is why Dutch, German and American people between 18 – 40 made up for the sample group. Based on the available information, the total population within the target group was estimated at 95 million people (CBS, 2021; Destatis, 2021; KFF, 2021). Based on a 95% confidence interval and a 5% margin of error, the ideal sample size is estimated at 385 respondents (Qualtrics, 2023). However, research shows there is no “rule of thumb” regarding SEM sample size. Earlier studies suggest a minimum sample size of 100 (Schreiber et al., 2006; Bentler &

Chou, 1987; Tinsley and Tinsley, 1987; Ding et al., 1995; Tabachnick and Fidell, 2001), which was also used in this study.

Table 1

Sample size

Country	Age group	Population
The Netherlands	18 - 40	5.066.797
Germany	20 - 40	20.304.054
The United States	19 - 34	67.022.400
Total		92.393.251

Within the period of April 24 – May 5, 2023, respondents were recruited through the platforms ‘Survey Swap’ and ‘Survey Circle’. A brief explanation of the study’s objectives was provided upfront. Also, it was disclosed that data will be treated in a private, confidential manner. The study's purpose and hypothesized relationships were not communicated until the end of the survey, as this might have impacted the answers.

After the survey was developed, the face validity and clarity of the variables were tested. An assistant professor at Radboud University reviewed the measurement variables. Furthermore, a pilot study with twelve respondents from the population group was conducted to increase the validity of the measurement model. The results from the pilot study were reviewed by the researcher, and a debrief took place with all the respondents. Accordingly, several adjustments have been made, which can be found in Appendix 1.

3.3 Operationalization and measures

The items for each concept were mainly adopted from previous research but were sometimes modified to the context of this research. For the answer scales, see Appendix 2. All concepts were measured by reflective indicators. Furthermore, in order to check construct validity and reliability, several tests have been performed. First, the data was checked for normality in the program SPSS. The distribution of the variables can greatly affect the statistical results from the model, which is why the skewness, kurtosis, and the outliers were checked. The absolute value of the coefficient of skewness and kurtosis may not be greater than plus and minus 3 (Hair et al., 2014). After the normality checks, a confirmatory factor analysis (CFA) with orthogonal rotation was conducted (in SPSS). CFA discovers which items explain a factor, creating measurement scales. In order to determine whether an item loads on a certain factor, the threshold of >0.7 was used (Hair et al., 2014). Furthermore, other measures were considered: $KMO > .05$, Bartlett $< .05$, Eigenvalue > 1 , percentage of variance ($>.60$ cumulative), scree plot (cut-off criterion).

Table 2*Research constructs and related survey items*

Scale and items	Source
Purchase intention	
PurchInt1 I consider Amazon as the first choice to purchase goods	Peña-García et al. (2020)
PurchInt2 If given the chance, I can predict what I would buy from Amazon in the future	Kusumawardani & Purniasari (2021)
PurchInt3 If the opportunity arises, I intend to buy from an online marketplace	Kusumawardani & Purniasari (2021)
PurchInt4 I am likely to transact with an online marketplace	Kusumawardani & Purniasari (2021)
Social presence	
Sp1 There is a sense of human contact in the web of the seller	Gefen & Straub (2004)
Sp2 There is a sense of personalness in the web of the seller	Gefen & Straub (2004)
Sp3 There is a sense of sociability in the web of the seller	Gefen & Straub (2004)
Sp4 There is a sense of human warmth in the web of the seller	Gefen & Straub (2004)
Sp5 There is a sense of human sensitivity in the web of the seller	Gefen & Straub (2004)
Ability (trust)	
Abi1 Amazon is competent	Gefen & Straub (2004)
Abi2 Amazon knows about their products	Gefen & Straub (2004)
Abi3 Amazon knows how to provide excellent service	Gefen & Straub (2004)
Abi4 Amazon has the ability to meet my needs	Bhattacharjee (2002)
Integrity (trust)	
Int1 Promises made by Amazon are likely to be reliable	Gefen & Straub (2004)
Int2 I do not doubt the honesty of Amazon	Gefen & Straub (2004)
Int3 I expect that Amazon will keep the promises they make	Gefen & Straub (2004)
Int4 I expect that the advice given by Amazon is their best judgment	Gefen & Straub (2004)
Benevolence (trust)	
Ben1 I expect I can count on Amazon to consider how its actions affect me	Gefen & Straub (2004)
Ben2 I expect that Amazon's intentions are benevolent	Gefen & Straub (2004)
Ben3 I expect that Amazon puts customers' interests before their own	Gefen & Straub (2004)
Ben4 I expect that Amazon is well-meaning	Gefen & Straub (2004)
Familiarity	
Fam1 I am familiar with the e-marketplace	Gefen & Straub (2004)
Fam2 I have purchased earlier through the e-marketplace before	Gefen & Straub (2004)
Trust disposition	
TrustDis1 I generally trust other people	Gefen & Straub (2004)
TrustDis2 I tend to count upon other people	Gefen & Straub (2004)
TrustDis3 I generally have faith in humanity	Gefen & Straub (2004)
TrustDis4 I feel that people are generally well-meaning	Gefen & Straub (2004)
TrustDis5 I feel that people are generally trustworthy	Gefen & Straub (2004)
TrustDis6 I feel that people are generally reliable	Gefen & Straub (2004)
Age	
Age What is your gender?	Peña-García et al. (2020)
Gender	
Gender What is your age?	Peña-García et al. (2020)

3.4 Dependent variable

Purchase intention. In order to gain a better understanding of purchase intention, probability scales are widely used (Wright & MacRae, 1971; Manski, 1990). It is possible to quantify purchase rates among the significant non-intender group more precisely by utilizing the mean purchase probability as the predictor. The end result should be an enhanced capacity to distinguish between buyers and non-buyers as well as a more accurate estimate of actual purchase rates (Juster, 1966). Thus, in this research, respondents were asked about their “plans”, “expectations”, and “intentions”. Purchase intention was measured using four items from Kusumawardani & Purniasari (2021) and Peña-García et al. (2020).

Based on the CFA it was found that item 3 was the most valid and reliable fit, so items 1, 2 and 4 got deleted. Because there is only one item, and it, thus, perfectly correlates with itself, it does not make sense to assess the construct reliability, convergent validity and discriminant validity.

3.5 Independent variables

Social presence. To measure the perceived ‘realness’ of an interaction, this study looked at the feeling of ‘human warmth’ in online settings. Based on the research by Gefen & Straub (2004), respondents were asked about whether they feel a human touch and sensitivity.

The items of social presence exceeded the skewness threshold of 3. Thus, Log10 transformation in SPSS was used. After the transformation, items 2, 3, and 5 showed no sufficient factor loadings, which is why only factor 1 and 4 were used to explain the construct of social presence. Furthermore, one has to check for internal consistency, which can be done by looking at the reliability scores of Cronbach’s alpha and Jöreskog’s rho. According to Hair et al. (2014), one can follow the following rule of thumb for both measures: “> .9 – Excellent, > .8 – Good, > .7 – Acceptable, > .6 – Questionable, > .5 – Poor, and < .5 – Unacceptable” (p. 231). Looking at the results in table 5, it can be said that the indicator and construct reliability is good. Furthermore, Table 6 shows the analytical results of the convergent validity. By looking at the average variance extract (AVE), convergent validity determines if the indicators, and, thereby, the explained variance of these indicators, are unidimensional (Hair et al, 2014). The AVE score has to be higher than the threshold of 0.5, which is the case. At last, in order to determine discriminant validity, this study looked at the Fornell-Lacker criterion ($AVE < 0.85$). A poor discriminant validity might cause the correlation between two latent variables to be overestimated, which lowers the accuracy of the findings. Table 7 shows that the Fornell-Lacker criterion is met.

Trust is having confidence that someone is reliable and honest. In a confidential manner, people expose themselves and assume the other person would behave adversely. In order to measure trust, within this research the dimensions of (1) ability, (2) benevolence, and (3) integrity were used (Schurr & Ozanne, 1985; Blau, 1964; Giffing, 1967). For each indicator, four items were used based on the research by Gefen and Straub (2004) and Bhattacharjee (2002). Item Abi4 exceeded the skewness threshold of minus 3 and was transformed. Based on the CFA, it appeared that trust was best explained by items Int2, Ben2, and Ben4. Based on Cronbach’s alpha (.848) and Jöreskog’s rho (.907), it can be said that the reliability of trust is good. Furthermore, the AVE and Fornell-Lacker criterion are met.

3.6 Moderator variables

As indicated earlier, Hofstede’s model was used to measure the cultural dimensions UAI and LTO of the three countries. In doing so, secondary data was used, derived from Hofstede Insight (2023). The cultural scores, mentioned in Table 3, were used in the analysis.

Table 3*Hofstede dimensions country scores*

Country	Uncertainty avoidance	Long-term orientation
Germany	65	83
The Netherlands	53	67
The United States	46	26

3.7 Control variables

The model incorporated additional control variables such as ‘familiarity’, which is a prerequisite for trust. Familiarity helps people to contextualize their views on trust views and make it clear what they anticipate from others (Mayer et al., 1995). The development of trust involves subsequent acquaintance, fruitful prior contacts, knowledge of the trusted party's reliability, and what to expect from them (Blau, 1964). Familiarity with e-marketplaces lowers social uncertainty by enabling one to comprehend the situation, what is taking place, and what will happen next. Prior research has shown that customer familiarity influence trust in e-commerce (Gefen, 2000; Soleimani, 2021).

The second control variable ‘disposition to trust’ refers to a general tendency to trust others (Khalil & Pearson, 2008), without prior experiences with the to-be-trusted party. According to Saadi et al. (2007), a person's tendency to trust is a constant aspect of their personality that determines how they assess the reliability of every other entity they come into contact with. The initial level of trust that people place in others depends on a variety of factors, including their cultural background (Blau, 1964), faith in other people, and socialization to have a trusting attitude (Mayer et al., 1995; Rotter, 1971). Items 1, 2, 3, 5, and 6 exceeded the skewness threshold of minus 3 and were transformed. All transformed variables showed good loadings in the CFA (Table 5) and, thus, were used in the analysis. Looking at the Cronbach’s alpha and Jöreskog’s rho, it can be said that the reliability of trust is good. Furthermore, the AVE and Fornell-Lacker criterion are met.

At last, to determine if the difference between the sub-samples is caused by sociodemographic or cultural characteristics, the relations were controlled by age and gender (Peña-García et al., 2020).

Table 4*Skewness and kurtosis*

Variable relationship	Variable name	Mean	Std. deviation	Skewness	Kurtosis
Independent variable	Sp1	0.54	0.15	0.06	-1.87
	Sp4	0.53	0.16	0.12	-2.34
	Int2	3.26	1.38	0.08	-2.06
	Ben2	3.23	1.53	0.47	-2.22
	Ben4	3.50	1.57	0.68	-2.47
Dependent variable	PurchInt3	0.40	0.20	-1.52	-0.51
Control variable	TrustDis1	0.50	0.18	-1.36	0.4
	TrustDis2	0.49	0.15	-0.89	0.4
	TrustDis5	0.50	0.17	-0.52	0.4
	TrustDis6	0.48	0.15	-2.32	0.4

Table 5*Factor scores and construct reliability*

Construct	Item name	Factor loading	Indicator reliability	Cronbach's Alpha (α)	Jöreskog's rho (ρ_c)
Social presence	Sp1	.811	.803	.794	.907
	Sp4	.811	.856		
Trust	Int2	.749	.693	.848	.907
	Ben2	.787	.751		
	Ben4	.884	.851		
Purchase intention	PurchInt3	1	N/A	N/A	1
Trust disposition	TrustDis1	.772	.622	.844	.888
	TrustDis2	.765	.560		
	TrustDis5	.738	.583		
	TrustDis6	.735	.695		

Table 6*Convergent validity*

Variable type	Construct	AVE
Dependent variable	Purchase intention	1
Independent variable	Social presence	.830
Independent variable	Trust	.765
Control variable	Trust disposition	.666
Control variable	Gender	
Control variable	Familiarity	
Control variable	Age	
Moderator	UAI	1
Moderator	LTO	1
Interaction effect	UAI * Social presence	1
Interaction effect	UAI * Trust	1
Interaction effect	LTO * Social presence	1
Interaction effect	LTO * Trust	1

Table 7*Fornell-Lacker criterion*

Construct	Purchase intention	Trust	Social presence	Age	Gender	Trust Dis	Familiarity	UaiHof	LtoHof	Trust *UAI	Trust *LTO	Trust*UAI	Trust*LTO
Purchase intention	1												
Trust	0.048	0.765											
Social presence	0.050	0.360	0.830										
Age	0.001	0.002	0.004										
Gender	0.024	0.002	0.013	0.037									
Trust disposition	0.039	0.114	0.021	0.010	0.000	0.666							
Familiarity	0.001	0.030	0.003	0.003	0.002	0.076							
UaiHof	0.004	0.006	0.001	0.016	0.001	0.029	0.000	1					
LtoHof	0.000	0.014	0.002	0.001	0.000	0.127	0.028	0.749	1				
Trust*UAI	0.018	0.062	0.007	0.001	0.005	0.010	0.000	0.130	0.137	1			
Trust*LTO	0.029	0.027	0.001	0.000	0.002	0.001	0.001	0.106	0.130	0.779	1		
Sp*UAI	0.001	0.008	0.000	0.000	0.007	0.007	0.000	0.021	0.020	0.156	0.092	1	
Sp*LTO	0.004	0.000	0.000	0.002	0.000	0.003	0.000	0.020	0.023	0.119	0.148	0.746	1

3.8 Common method bias

When the independent and dependent variables in a survey are measured using the same response method, common method bias (CMB) may occur. Measurement error, which results from a bias in the genuine relationships between the variables, can cause a number of issues as a result (Bagozzi & Yi, 1990). Although measurement error can have both random and systematic sources, the systematic component typically has a larger negative impact on the study's findings (Jakobsen & Jensen, 2015; Podsakoff et al., 2012). Moreover, CMB may affect the validity and reliability of results and the dependability of study materials (Podsakoff et al., 2012). CMB can also have an impact on correlations (hypothesized relationships). This effect has the potential to both deflate and inflate the association between variables, leading to type I or type II errors on the part of researchers.

Based on the article by Podsakoff et al. (2012), the following solutions regarding CMB were expected to be the most successful in this study. *First*, in the survey, the task difficulty was minimized, so that respondent answers are as accurately and honestly as possible. *Second*, questions were asked as concretely and clearly as possible, so that ambiguity is reduced as much as possible. This eliminates the chance that people construct their own idiosyncratic meanings of items. *Third*, the study used a complex model with a moderating variable which is hard to recognize for respondents during the survey. *Fourth*, the researcher used psychological separation between predictor and criterion. In order to not give away the conceptual model and hypothesized relationships, questions were asked in a certain order so that it was tried that people did not compare questions with each other and that they have actually already forgotten previous questions. *Fifth*, by changing up the answer scales, the researcher tried to eliminate common scale properties. *Sixth*, the researcher balanced positive and negative items. Positive wording was used to let respondents agree with items that indicate a higher score on the underlying construct, and negative wording was used to let respondents agree with items that indicate a lower score on the underlying construct. *At last*, to check for CMB statistically, Harman's single-factor test was used (<50%) (Harman, 1967; Podsakoff & Organ, 1986). The single factor extracted explained 30.64% of the variance, indicating that multiple factors contributed equally to the covariance among the different indicators. This result shows that there is no common method bias in the study.

3.9 Research ethics

Ethics and integrity are very important in scientific research, and in psychology in particular, because the objects of research are human beings. Participants put time and effort into participating, but may additionally be harmed by participating in a study because, for example, research results are handled carelessly (Open Universiteit, n.d.). This research considers how it can be conducted in the most ethical manner feasible by following the five criteria outlined in the Dutch Code of Conduct for Scientific Integrity (Algra et al., 2018): honesty, diligence, transparency, independence, and responsibility.

(1) It is expected that research will be conducted honestly and reported correctly. This allows other researchers to trust that the results and conclusions are accurate. Concrete examples include not changing or fabricating results, fabricating sources, or drawing conclusions from unsupported data. (2) Careful consideration is necessary when doing research and reporting findings. In this research, this is met by using scientific methods, being precise and accurate, and reporting as completely and accurately as possible. (3) The research should be conducted transparently so that other researchers can follow the methodology and determine whether the conclusions drawn are justified. Furthermore, transparency is important so that the research can be replicated or reproduced. Within this research, transparency is met by explaining what data the research is based on and how the data was obtained, explaining how certain conclusions were reached, and ensuring that the findings are verifiable. (4) It is important that the research is conducted independently. It must be ensured that the researcher is not guided by scientific considerations. The choice of the best theoretical framework, unbiased reporting, or the best method of data analysis are all carefully taken into account in this study. (5) Also, as a researcher, it is important to take responsibility and justify why research is conducted on a particular topic, and why the research is conducted in a specific way. This is taken into account in this study by examining social and scientific relevance and outlining the rationale for the use of particular research methodologies.

4. Data analysis and results

4.1 Data processing procedure

In order to analyze the results, structural equation modelling (SEM) in the program ADANCO was used. The SEM analysis is based on a Partial Least Squares (PLS) model, which “explores the linear relationships between several multi-item independent variables and one dependent variable that may be a single item or a single multi-item construct” (Hair et al., 2014, p. 764). Several similar studies used PLS, such as Attar et al. (2022), who measured the effect of social presence of interaction on loyalty, mediated by trust in social media, and research by Alshibly (2014). The technique was chosen because of its minimal requirements regarding sample size (ten times the number of indicators pointing at a latent construct), and it can run measurement and structural models simultaneously (Hair et al., 2014).

Table 8*Descriptive statistics and correlations*

Variables	Mean	S.d.	Min	Max	1	2	3
Purchase intention	0.40	0.20	0.30	0.85	1		
Trust	3.33	1.50	1	7	-0.218	1	
Social presence	0.54	0.15	0.30	0.85	-0.224	0.600	1
Age	1.48	0.66	1	3	-0.037	-0.040	-0.064
Gender	1.59	0.49	1	2	-0.154	0.041	-0.114
Trust disposition	0.49	0.16	0.30	0.85	0.197	-0.338	-0.145
Familiarity	1.21	0.41	1	2	0.035	0.174	0.058
UaiHof	54.23	6.31	46	65	0.063	-0.077	-0.021
LtoHof	62.39	19.20	26	83	0.015	0.116	0.044
Variables	4	5	6	7	8	9	

Purchase intention							
Trust							
Social presence							
Age	1						
Gender	-0.191	1					
Trust disposition	0.099	-0.010	1				
Familiarity	-0.050	-0.046	-0.275	1			
UaiHof	0.127	-0.033	-0.170	-0.006	1		
LtoHof	0.021	0.012	-0.357	0.166	0.866	1	

n = 147**4.2 Assessment of the structural model**

To determine overall fit, this study looked at the SRMR score <0.08 (goodness of fit) (Hair et al., 2014). As shown in table 9, the model score is 0.060, which is lower than the threshold of 0.08, indicating a good model fit. Furthermore, all discrepancy measures are below the 95% quartile of their reference distribution (HI95), which indicates that the proposed model is suitable for confirming and explaining the purchase intention among consumers (Benitez et al., 2020).

Table 9*Overall fit of the estimated model*

Discrepancy	Overall saturated model fit evaluation		
	Value	HI95	Conclusion
SRMR	0.051	0.052	Supported
dULS	0.500	0.509	Supported
dG	0.251	0.317	Supported

According to Hair et al. (2014), the coefficient of determination is an indicator of in-sample predictive power. The greater the value of R², the stronger the explanatory power of the SEM-PLS structural model, and consequently, the better the endogenous constructs may be predicted. The R² varies between 0 and 1, with threshold levels of 0.75 (substantial), 0.50 (moderate), and 0.25 (weak) (Hair et al., 2018). In the model, the R² score is 0.192 (19,2%), which indicates a weak predictive power.

4.3 Hypothesis testing

PLS estimation was used to estimate the theoretical model, and to test whether the hypotheses were significantly supported.

Hypothesis 1: The first hypothesis stated that social presence would have a positive effect on purchase intention. However, looking at the path coefficient (-0.208) it appears in the model that there is a negative effect of social presence on purchase intention. Furthermore, looking at the p-value (0.040) it appears that this hypothesis is significant at an alpha of .05. Even though the effect of social presence on purchase intention is significant, it appears to be negative. Thus, hypothesis 1 is rejected.

Hypothesis 2: The second hypothesis stated that trust would have a positive effect on purchase intention. However, looking at the path coefficient (-0.072) it appears in the model that there is a negative effect of trust on purchase intention. Furthermore, looking at the p-value (0.526) it appears that this hypothesis is not significant ($p = > .05$). Hypothesis 2 is rejected, and, thus, there is no effect of trust on purchase intention.

Hypothesis 3: The third hypothesis stated that UAI would negatively moderate the relationship between social presence and purchase intention. Looking at the path coefficient (0.372), this does not appear to be the case. Furthermore, looking at the p-value (0.092) it appears that this hypothesis is significant ($p = > 0.1$). Still, hypothesis 3 is rejected as well.

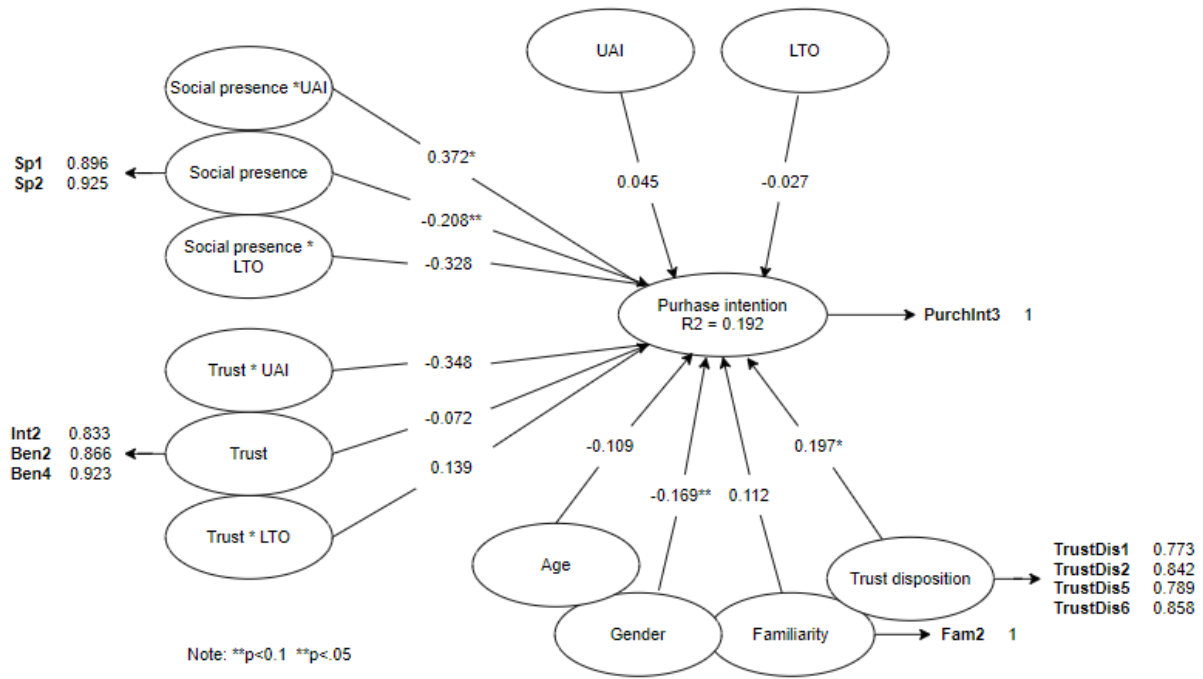
Hypothesis 4: The fourth hypothesis stated that UAI would negatively moderate the relationship between trust and purchase intention. Looking at the path coefficient (-0.348), this does appear to be the case. Furthermore, looking at the p-value (0.158) it appears that this hypothesis is not significant ($p = > .05$). Also, hypothesis 4 is rejected, and, thus, UAI does not moderate the relationship between trust and purchase intention.

Hypothesis 5: The fifth hypothesis stated that LTO would positively moderate the relationship between social presence and purchase intention. Looking at the path coefficient (-0.328), this does not appear to be the case. Furthermore, looking at the p-value (0.101) it appears that this hypothesis is not significant ($p = > .05$). Hypothesis 5 is rejected as well, and, thus, LTO does not moderate the relationship between social presence and purchase intention.

Hypothesis 6: The sixth hypothesis stated that LTO would positively moderate the relationship between trust and purchase intention. Looking at the path coefficient (0.139), this appears to be the case. However, looking at the p-value (0.552), it appears that this hypothesis is not significant ($p = > .05$). Finally, hypothesis 6 needs to be rejected as well, and, thus, LTO does not moderate the relationship between trust and purchase intention.

Figure 2

Results of the structural model



The effect size (f^2) of the correlations must be taken into account in order to assess the practical relevance of the significant effects. The values range from 0.020 to 0.150 (weak), 0.150 to 0.350 (moderate), or greater than or equal to 0.350 (Hair et al., 2014). It is not necessary for every effect size to have a large effect, yet only the hypothesized relationships should have a large effect. However, table 10 shows that all effect sizes are relatively small.

Table 10

Total effect size

Relationship	<i>p</i> value	Total effect (F^2)	Effect size
Social presence → Purchase intention (H1)	0.040**	0.031	Weak
Trust → Purchase intention (H2)	0.526	0.003	Weak
UAI * Social presence → Purchase intention (H3)	0.092*	0.030	Weak
UAI * Trust → Purchase intention (H4)	0.158	0.021	Weak
LTO * Social presence → Purchase intention (H5)	0.101	0.024	Weak
LTO * Trust → Purchase intention (H6)	0.552	0.004	Weak
UAI → Purchase intention (moderator)	0.827	0.000	Unsubstantial
LTO → Purchase intention (moderator)	0.893	0.000	Unsubstantial
Age → Purchase intention (control variable)	0.144	0.013	Weak
Gender → Purchase intention (control variable)	0.043**	0.031	Weak
Familiarity → Purchase intention (control variable)	0.169	0.013	Weak
Trust Disposition → Purchase intention (control variable)	0.054*	0.033	Weak

5. Discussion

5.1 Summary

The main objective of this study is to answer the question "*do social presence and trust affect purchase intention of consumers from online marketplaces?*". This was done by conducting quantitative research among Dutch, German and American respondents in the age range 18-40. The study used two independent variables (social presence and trust), and one dependent variable (purchase intention). Furthermore, age, gender, familiarity and trust disposition were controlled for. Looking at the results, it appears that there is a significant negative effect between social presence and purchase intention, contrary to the hypothesis that predicted a positive effect. Additionally, it appears that there is no significant effect of trust on purchase intention. However, looking at the control variables, gender and trust disposition do appear to have a significant effect. Looking at the main relationships, it can be concluded that only social presence has an effect on purchase intention from online marketplaces.

Furthermore, it was hypothesized that culture would have a moderating effect on the relationship between social presence and trust on purchase intention. Looking first at the relationship between social presence and purchase intention, LTO had no significant moderating effect. However, UAI did show a negative significant effect. Moreover, the relationship between trust and purchase intention shows that UAI and LTO have no significant moderating effect. Thus, looking at the effect of culture, it can be concluded that only UAI has a moderating effect on the relationship between social presence and purchase intention.

5.2 Theoretical implications

The study's use of empirical data can help comprehend economic dynamics and the significance of social and cultural elements in determining economic outcomes. Furthermore, the study deepens our understanding of the complex and nuanced relationship between trust, social presence, and purchase intention in e-commerce, as well as how cultural differences influence this relationship, by studying this model for the first time. Also, the research has produced new insights into social presence theory, organizational trust theory, and NIE and the mechanisms underlying consumer behavior in online settings by examining these issues in the context of e-marketplaces.

Previous research has shown that social presence and trust are strongly related to purchase intention (Fang et al., 2014; McKnight et al., 2002; Pavlou & Gefen, 2004; Gefen & Straub, 2004; Lu et al., 2016). However, in this study, the association was significantly contrasted, as opposed to the findings of earlier studies (Gefen & Straub, 2004; Lu et al., 2016). This study shows a remarkable discontinuity of generally accepted antecedents of online purchase intention.

First, the significant negative path coefficient of social presence, which indicates that the more "real" the relationship feels, the less purchase intention people have. Nadeem et al. (2020) demonstrated that greater social presence increases the capacity to establish trustworthiness. However, this does not

appear to further influence purchase intention from an online marketplace. There could be several explanations for this. People in the sample might not value social presence as much as previously believed or there may be other factors at play. For instance, it is possible that adults over 40 do require social presence. Also, people may actually try to avoid face-to-face contact online. High social presence might make people reluctant to buy goods or services that they might view as being unpopular or inappropriate. Furthermore, as indicated earlier, organizations can create social presence by posting reviews. Even though they can be a useful source of information, negative reviews can deter potential customers from making a purchase. At last, there may be a perception that people experience less privacy because personal information is made publicly available.

The second discontinuity is the negative non-significant effect of trust on purchase intention, which can be due to the mutual dimensions of trust which might differ greatly from each other (Gefen & Straub, 2004; Hong & Cho, 2011; McKnight et al. 2002). For example, Hong & Cho (2011) indicate significant results for dimensions benevolence and integrity, while competence would not affect the perceived trustworthiness of an online seller. Also, trust could be significantly less important for online purchase behavior, and there may be other factors that do influence purchase intention, such as a positive word-of-mouth (Liao et al., 2021). Furthermore, a negative effect implies that the more trust a consumer has in an e-marketplace, the less likely someone is to purchase. This may be because trust can come at the expense of an informed and cost-conscious purchasing decision making a buyer less discerning and less diligent in their research. This can lead to overcharging. However, it is important to note that trust disposition does have a significant positive effect, suggesting that trust is context-dependent.

Finally, looking at culture, only UAI was found to have a negative significant effect with social presence, whereas there was no effect for trust. This indicates that UAI can reduce the impact of confidence on purchase intention, because the fear and worry associated with uncertainty might affect the choice to purchase. Looking at LTO, the path coefficient for social presence on purchase intention is negative, while for trust it is positive. It is expected that LTO increases trust, and, thereby, purchase intention because consumers may be convinced that the seller is trustworthy enough and delivers the desired results in the long-term. For the relationship between social presence and purchase intention, consumers may be more inclined to pay attention to other aspects, such as product quality and price.

5.3 Practical implications

Based on results from the study, it appears that increasing online social presence and trust do not directly contribute to increasing purchase intent from e-marketplaces. Specifically, for managers and policy makers, this may imply that it is wiser to focus on other factors that do have a positively influence such as access to information, familiarity, seller reputation, seller communication and interaction, and website quality (Soleimani, 2021). Additionally, it becomes clear that gender and trust disposition are of significant influence, whereas familiarity and age are not. Also, this study advocates for a deeper understanding of consumer needs so that e-marketplaces can modify their cross-cultural approach and

international strategy to encourage online shopping. Furthermore, because online social presence does appear to negatively influence purchase intent, e-marketplaces can research the possibilities of using traditional marketing expressions, such as a physical store. To capture consumers' wants and needs in this regard, e-marketplaces can pay more attention to ways to engage consumers in creating better engagement. Finally, it is evident that there are almost no differences in a multicultural setting when countries are quite similar. Based on the UAI and LTO dimension, it seems that the countries may be too similar to one another. For practitioners, this may mean that they can focus more on individual factors, rather than worrying about cultural differences. An exception here is however the influence of uncertainty avoidance on the relationship between social presence and purchase intention.

5.4 Research limitations

The study is bound to some important limitations. *First*, looking at the target population, the realized sample size of 147 is relatively small and looks at people between 18 – 40 years, which can give adverse effects. Namely, it can come at the expense of the study's statistical power (which can be seen in the weak effect sizes), generalizability, and reliability. *Second*, a free simulation experiment was used. Despite the advantage of allowing people to perform it independently, this also ensures that the researcher has no visibility into how the experiment is performed. As a result, during the survey, respondents might be unable to conduct the experiment adequately or possibly at all. This could cause a distorted picture of actual perceived trust and social presence. *Third*, the survey took place at one moment in time. Despite having provided a clear picture of consumers' current behaviors, it does not provide insight into changes in purchasing behavior over a longer period of time. In order to draw attitude changes over time and conclusions about the dynamic elements of behavior, longitudinal studies are more appropriate (Straub et al., 2005). *Fourth*, the study takes place within the context of Amazon. There may be many other marketplaces where consumers may feel differently, which may also influence the results. *Fifth*, due to the delineation of the three countries results cannot be generalized to other cultures such as in Asia or Africa. *Sixth*, the relatively high correlation between social presence and trust (0.600), suggesting that there is a moderate positive relationship between the two variables. The similarity can be found in that both concepts affect the trustworthiness of online marketplaces. However, social presence addresses the physical connection that consumers experience, while trust is more abstract and arises from ability, benevolence, and integrity. It could be suggested that social presence may be a component of trust, but previous research has not shown this to be the case (Gefen & Straub, 2004). Therefore, it is expected that the correlation does not have a problematic impact on the results.

5.5 Future research suggestions

Despite the limitations of the study, the results are still important because there is now a deeper understanding of online consumer behavior and the contribution that culture makes to it. In addition, researchers can conduct future research based on the findings of this study.

First, although the hypothesis were based on extensive literature, many of them were insignificant. Given these contradictory findings, a replication of the same study is required to shed further light on the subject (perhaps with a broader age target group or different countries). *Second*, this study shows that trust is context dependent, as trust in Amazon does not reveal a significant effect. Trust disposition, on the other hand, does reveal a significant positive relationship to purchase intention, showing that it is relevant to take research context and the concept of trust disposition into account in future research. *Third*, as indicated in the theoretical implications, the lack of significance of trust could be explained by breaking the construct into different indicators. In order to anticipate this, it is relevant to be critical when using trust as a single construct. *Fourth*, although results of the study show that social presence is significant, it is not clear why this relationship is negative. The same is true for all other effects in the research model. Further research is required in order for organizations to understand why customers find something. For instance, doing qualitative follow-up research can bring insight into the underlying reasons why relationships are negative or positive. *At last*, the research model shows that, for the most part, UAI and LTO both have no significant moderating influence. In chapter 5.3 it was concluded that firms, for the most part, do not need to consider cultural differences. However, in order to be able to generalize these findings well, it is relevant to assess other cultural dimensions of Hofstede. Furthermore, besides Hofstede, there are other models that capture culture, such as the world value survey. These studies were conducted in different ways, with different views on culture, so the outcome of the moderation effect may also be different. Also, Soleimani (2021) indicates in his research that there are other factors that influence purchase intention. However, none of those studies addressed the moderating effect of culture. Thus, for multinationals, it is particularly relevant to look at these relationships and how culture influences them.

6. References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Ajzen, I., Czasch, C., & Flood, M. (2009). From Intentions to Behavior: Implementation Intention, Commitment, and Conscientiousness. *Journal of Applied Social Psychology*, 39(6), 1356–1372. <https://doi.org/10.1111/j.1559-1816.2009.00485.x>
- Algra, K., Bouter, L. M., Hol, A., & Van Kreveld, J. (2018). Nederlandse gedragscode wetenschappelijke integriteit 2018. In Zenodo (CERN European Organization for Nuclear Research). CERN European Organization for Nuclear Research. <https://doi.org/10.17026/dans-2cj-nvwu>
- Alshibly, H. H. (2014, June). A Free Simulation Experiment to Examine the Effects of Social Commerce Website Quality and Customer Psychological Empowerment on Customers' Satisfaction. Research Gate. <https://www.researchgate.net/publication/264698482>
- Amaro, S., & Duarte, P. (2015). An integrative model of consumers' intentions to purchase travel online. *Tourism Management*, 46, 64–79. <https://doi.org/10.1016/j.tourman.2014.06.006>
- Amazon. (2014). Amazon anual report 2013. https://s2.q4cdn.com/299287126/files/doc_financials/annual/2013-Annual-Report.pdf
- Amazon. (2023). Amazon anual report 2022. https://s2.q4cdn.com/299287126/files/doc_financials/2023/ar/Amazon-2022-Annual-Report.pdf
- Amazon. (n.d.). Amazon Newsroom. <https://amazon-pers.nl/Over-Amazon/Over-Amazon.html>
- Ariffin, S. K., Mohan, T., & Goh, Y. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, 12(3), 309–327. <https://doi.org/10.1108/jrim-11-2017-0100>
- Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471–499. <https://doi.org/10.1348/014466601164939>

- Arrow, K. J. (1974). *The Limits of Organization*. W. W. Norton.
- Attar, R. W., Amidi, A., & Hajli, N. (2022). The role of social presence and trust on customer loyalty. *British Food Journal*, 125(1), 96–111. <https://doi.org/10.1108/bfj-11-2021-1218>
- Bagozzi, R. P., & Yi, Y. (1990). Assessing method variance in multitrait-multimethod matrices: The case of self-reported affect and perceptions at work. *Journal of Applied Psychology*, 75(5), 547–560. <https://doi.org/10.1037/0021-9010.75.5.547>
- Bakos, J. Y. (1997). Reducing Buyer Search Costs: Implications for Electronic Marketplaces. *Management Science*, 43(12), 1676–1692. <https://doi.org/10.1287/mnsc.43.12.1676>
- Benitez, J. F., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Science Direct*, 57(2), 103168. <https://doi.org/10.1016/j.im.2019.05.003>
- Bentler, P.M. and Chou, C. (1987) Practical Issues in Structural Modeling. *Sociological Methods and Research*, 16, 78- 117. <http://dx.doi.org/10.1177/0049124187016001004>
- Beugelsdijk, S., & Maseland, R. (2011). Culture in economics: History, methodological
- Bhattacharjee, A. (2002). Individual Trust in Online Firms: Scale Development and Initial Test. *Journal of Management Information Systems*, 19(1), 211–241. <https://doi.org/10.1080/07421222.2002.11045715>
- Blau, P. M. (1964). *Exchange and Power in Social Life*. In Routledge eBooks. Informa. <https://doi.org/10.4324/9780203792643>
- Butler, J. M. (1991). Toward Understanding and Measuring Conditions of Trust: Evolution of a Conditions of Trust Inventory. *Journal of Management*, 17(3), 643–663. <https://doi.org/10.1177/014920639101700307>
- Capece, G., Calabrese, A., Di Pillo, F., Costa, R., & Crisciotti, V. (2013). The Impact of National Culture on E-commerce Acceptance: the Italian Case. *Knowledge and Process Management*, 20(2), 102–112. <https://doi.org/10.1002/kpm.1413>

- Caspi, A., & Blau, I. (2008). Social presence in online discussion groups: testing three conceptions and their relations to perceived learning. In *Social Psychology of Education* (Vol. 11, Issue 3, pp. 323–346). Springer Science+Business Media. <https://doi.org/10.1007/s11218-008-9054-2>
- CBS. (2021, 20 augustus). Bevolking; geslacht, leeftijd en burgerlijke staat, 1 januari. CBS Statline. <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/7461BEV/table?fromstatweb>
- Chang, H. Y., & Wong, K. P. (2010). Adoption of e-procurement and participation of e-marketplace on firm performance: Trust as a moderator. *Information & Management*, 47(5–6), 262–270. <https://doi.org/10.1016/j.im.2010.05.002>
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 151–192). McGraw-Hill.
- Connolly, R., & Bannister, F. (2007). Consumer Trust in Internet Shopping in Ireland: Towards the Development of a More Effective Trust Measurement Instrument. *Journal of Information Technology*, 22(2), 102–118. <https://doi.org/10.1057/palgrave.jit.2000071>
- Cooper, R. B., & Zmud, R. W. (1990). Information Technology Implementation Research: A Technological Diffusion Approach. *Management Science*, 36(2), 123–139. <http://www.jstor.org/stable/2661451>
- Cyr, D., Head, M., Larios, H., & Pan, B. (2009). Exploring Human Images in Website Design: A Multi-Method Approach. *Management Information Systems Quarterly*, 33(3), 539. <https://doi.org/10.2307/20650308>
- De Cannière, M. H., De Pelsmacker, P., & Geuens, M. (2010). Relationship Quality and Purchase Intention and Behavior: The Moderating Impact of Relationship Strength. *Journal of Business and Psychology*, 25(1), 87–98. <https://doi.org/10.1007/s10869-009-9127-z>
- De Mooij, M., & Hofstede, G. (2011). Cross-Cultural Consumer Behavior: A Review of Research Findings. *Journal of International Consumer Marketing*, 23, 181–192. <https://doi.org/10.1080/08961530.2011.578057>

- Destatis. (z.d.). Population by age groups (from 2011). Federal Statistical Office.
<https://www.destatis.de/EN/Themes/Society-Environment/Population/Current-Population/Tables/liste-agegroups.html#480342>
- Ding, L., Velicer, W. F., & Harlow, L. L. (1995). Effects of estimation methods, number of indicators per factor, and improper solutions on structural equation modeling fit indices. *Structural Equation Modeling*, 2(2), 119–143. <https://doi.org/10.1080/10705519509540000>
- Dodds, W. G., Monroe, K. B., & Grewal, D. (1991). Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28(3), 307.
<https://doi.org/10.2307/3172866>
- Doney, P. M., Cannon, J. G., & Mullen, M. T. (1998). Understanding the Influence of National Culture on the Development of Trust. *Academy of Management Review*, 23(3), 601.
<https://doi.org/10.2307/259297>
- Downes, M. Hemmasi, M. Graf, L.A., Lane, K., & Huff, L. (2002). The propensity to trust: A comparative study of United States and Japanese managers. *International Journal of Management*, 19 (4), 614-621.
- eBay Inc. (2022). eBay Annual Report 2021. eBay.
https://www.annualreports.com/HostedData/AnnualReports/PDF/NASDAQ_EBAY_2021.pdf
- Eng, T. (2004). The role of e-marketplaces in supply chain management. *Industrial Marketing Management*, 33(2), 97–105. [https://doi.org/10.1016/s0019-8501\(03\)00032-4](https://doi.org/10.1016/s0019-8501(03)00032-4)
- Esch, F., Langner, T., Schmitt, B. H., & Geus, P. (2006). Are brands forever? How brand knowledge and relationships affect current and future purchases. *Journal of Product & Brand Management*, 15(2), 98–105. <https://doi.org/10.1108/10610420610658938>
- Eurostat. (2021). Internet users who bought or ordered goods or services for private use in the previous 12 months by age group, EU, 2010-2022. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics_for_individuals
- Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, Satisfaction, and Online Repurchase Intention: The Moderating Role of Perceived Effectiveness of E-

- Commerce Institutional Mechanisms. *Research Gate*, 38(2), 407–427.
<https://doi.org/10.25300/misq/2014/38.2.04>
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Addison Wesley Publishing Company.
- Fishbein, M., & Ajzen, I. (2011). *Predicting and Changing Behavior*.
<https://doi.org/10.4324/9780203838020>
- Forbes. (2022, December 1). Amazon Records Biggest Ever Black Friday Weekend Sales.
<https://www.forbes.com/sites/qai/2022/12/01/amazon-records-biggest-ever-black-friday-weekend-sales/?sh=1931975f1516>
- Furubotn, E. G., & Richter, R. (2005). *Institutions and Economic Theory: The Contribution of the New Institutional Economics*. University of Michigan Press.
<https://doi.org/10.3998/mpub.6715>
- Ganesan, S. (1994). Determinants of Long-Term Orientation in Buyer-Seller Relationships. *Journal of Marketing*, 58(2), 1–19. <https://doi.org/10.1177/002224299405800201>
- Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy*, 43(7), 1239–1249. <https://doi.org/10.1016/j.respol.2014.03.006>
- Gefen, D. (2000). E-commerce: the role of familiarity and trust. *Omega*, 28(6), 725–737.
[https://doi.org/10.1016/s0305-0483\(00\)00021-9](https://doi.org/10.1016/s0305-0483(00)00021-9)
- Gefen, D., & Heart, T. (2006). On the Need to Include National Culture as a Central Issue in E-Commerce Trust Beliefs. *Journal of Global Information Management*, 14(4), 1–30.
<https://doi.org/10.4018/jgim.2006100101>
- Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega*, 32(6), 407–424.
<https://doi.org/10.1016/j.omega.2004.01.006>
- Gefen, D., Benbasat, I., & Pavlou, P. A. (2008). A Research Agenda for Trust in Online Environments. *Journal of Management Information Systems*, 24(4), 275–286.
<https://doi.org/10.2753/mis0742-1222240411>

- George, J. F. (2004). The theory of planned behavior and Internet purchasing. *Internet Research*, 14(3), 198–212. <https://doi.org/10.1108/10662240410542634>
- Giffin, K. (1967). The contribution of studies of source credibility to a theory of interpersonal trust in the communication process. *Psychological Bulletin*, 68(2), 104–120. <https://doi.org/10.1037/h0024833>
- Greenberg, R. J., Wong-On-Wing, B., & Lui, G. (2008). Culture and Consumer Trust in Online Businesses. *Journal of Global Information Management*, 16(3), 26–44. <https://doi.org/10.4018/jgim.2008070102>
- Grewal, R., & Tansuhaj, P. (2001). Building Organizational Capabilities for Managing Economic Crisis: The Role of Market Orientation and Strategic Flexibility. *Journal of Marketing*, 65(2), 67–80. <https://doi.org/10.1509/jmkg.65.2.67.18259>
- Grieger, M. (2003). Electronic marketplaces: A literature review and a call for supply chain management research. *European Journal of Operational Research*, 144(2), 280–294. [https://doi.org/10.1016/s0377-2217\(02\)00394-6](https://doi.org/10.1016/s0377-2217(02)00394-6)
- Gundlach, G. T., Achrol, R. S., & Mentzer, J. T. (1995). The Structure of Commitment in Exchange. *Journal of Marketing*, 59(1), 78. <https://doi.org/10.2307/1252016>
- Hagiu, A. (2009). Two-Sided Platforms: Product Variety and Pricing Structures. *Journal of Economics and Management Strategy*, 18(4), 1011–1043. <https://doi.org/10.1111/j.1530-9134.2009.00236.x>
- Hagiu, A., & Wright, J. (2015). Marketplace or Reseller? *Management Science*, 61(1), 184–203. <http://www.jstor.org/stable/24551078>
- Hair, Joseph F., Anderson, Rolph E., Black, William C.. (2014). *Multivariate Data Analysis (Ed. 7th)*. Harlow: Pearson
- Hallikainen, H., & Laukkanen, T. (2018). National culture and consumer trust in e-commerce. *International Journal of Information Management*, 38(1), 97–106. <https://doi.org/10.1016/j.ijinfomgt.2017.07.002>
- Harman, H.H. (1967) *Modern Factor Analysis*. University Press of Chicago, Chicago.

- Harris, S. R., & Dibben, M. (1999). Trust and Co-operation in Business Relationship Development: Exploring the Influence of National Values. *Journal of Marketing Management*, 15(6), 463–483. <https://doi.org/10.1362/026725799785045851>
- Hassanein, K., Head, M., & Ju, C. (2009). A cross-cultural comparison of the impact of Social Presence on website trust, usefulness and enjoyment. *International Journal of Electronic Business*, 7(6), 625. <https://doi.org/10.1504/ijeb.2009.029050>
- Hoffman, D. L., Novak, T. P., & Peralta, M. E. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80–85. <https://doi.org/10.1145/299157.299175>
- Hofstede Insights. (2023, January 27). Country Comparison - Hofstede Insights. <https://www.hofstede-insights.com/country-comparison/china,the-netherlands,the-usa/>
- Hofstede, G. H. (1991). *Cultures and Organizations: Software of the Mind*. McGraw-Hill Companies.
- Hong, I. B., & Cho, H. (2011). The impact of consumer trust on attitudinal loyalty and purchase intentions in B2C e-marketplaces: Intermediary trust vs. seller trust. *International Journal of Information Management*, 31(5), 469–479. <https://doi.org/10.1016/j.ijinfomgt.2011.02.001>
- Huang, L., Ba, S., & Lu, X. (2014). Building Online Trust in a Culture of Confucianism. *ACM Transactions on Management Information Systems*, 5(1), 1–23. <https://doi.org/10.1145/2576756>
- Huang, Z. H., & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(4), 246–259. <https://doi.org/10.1016/j.elerap.2012.12.003>
- Hwang, Y., & Lee, K. C. (2012). Investigating the moderating role of uncertainty avoidance cultural values on multidimensional online trust. *Information & Management*, 49(3–4), 171–176. <https://doi.org/10.1016/j.im.2012.02.003>
- Ilmudeen, A. (2022). *Artificial Intelligence, Big Data Analytics and Big Data Processing for IoT-Based Sensing Data*. Springer eBooks, 247–259. https://doi.org/10.1007/978-3-030-86749-2_14

- Jakobsen, M., & Jensen, R. L. (2015). Common Method Bias in Public Management Studies. *International Public Management Journal*, 18(1), 3–30.
<https://doi.org/10.1080/10967494.2014.997906>
- Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. G. (2000). Consumer trust in an internet store. *Information Technology & Management*, 1(1/2), 45–71.
<https://doi.org/10.1023/a:1019104520776>
- Juster, F.T. (1966). Consumer Buying Intentions and Purchase Probability: An Experiment in Survey Design. *Journal of the American Statistical Association*, 61, 658-696.
- Kaplan, S., & Sawhney, M. (2000). E-hubs: the new B2B (business-to-business) marketplaces. *Harvard Business Review*, 78(3), 97-103, 214.
- KFF. (2022, 28 oktober). Population Distribution by Age. <https://www.kff.org/other/state-indicator/distribution-by-age/?dataView=1&Timeframe=0&selectedDistributions=adults-19-25--adults-26-34&selectedRows=%7B%22states%22:%7B%22all%22:%7B%7D%7D,%22wrapups%22:%7B%22united-states%22:%7B%7D%7D%7D&sortModel=>
- Khalil, M. N., & Pearson, J. M. (2008). An Exploratory Study Into The Adoption Of Internet Banking In A Developing Country : Malaysia. *Journal of Internet Commerce*, 7(1), 29–73
- Kim, S. H., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318–332. <https://doi.org/10.1016/j.ijinfomgt.2012.11.006>
- Kim, Y., & Kim, S.-Y. (2010). The Influence of Cultural Values on Perceptions of Corporate Social Responsibility: Application of Hofstede's Dimensions to Korean Public Relations Practitioners. *Journal of Business Ethics*, 91(4), 485–500.
<http://www.jstor.org/stable/27749816>
- Klein, L. C., & Quelch, J. A. (1997). Business-to-business market making on the Internet. *International Marketing Review*. <https://doi.org/10.1108/02651339710367647>

- Kreijns, K., Xu, K. M., & Weidlich, J. (2021). Social Presence: Conceptualization and Measurement. *Educational Psychology Review*, 34(1), 139–170. <https://doi.org/10.1007/s10648-021-09623-8>
- Kundu, S., & Datta, S. K. (2015). Impact of trust on the relationship of e-service quality and customer satisfaction. *Euromed Journal of Business*, 10(1), 21–46. <https://doi.org/10.1108/emjb-10-2013-0053>
- Kusumawardani, K. A., & Purniasari, P. (2021). The Effect of Online Consumer Interaction and Shopping Motivation on Purchase Intention. *Firm Journal of Management Studies*, 6(2), 183. <https://doi.org/10.33021/firm.v6i2.1555>
- Komlodi, A., Hou, W., Preece, J., Druin, A., Golub, E., Albuero, J., Liao, S., Elkiss, A., & Resnik, P. (2007). Evaluating a cross-cultural children's online book community: Lessons learned for sociability, usability, and cultural exchange. *Interacting With Computers*, 19(4), 494–511. <https://doi.org/10.1016/j.intcom.2007.03.001>
- Kwak, J., Zhang, Y., & Yu, J. (2019). Legitimacy building and e-commerce platform development in China: The experience of Alibaba. *Technological Forecasting and Social Change*, 139, 115–124. <https://doi.org/10.1016/j.techfore.2018.06.038>
- Laukkanen, T. (2015). How Uncertainty Avoidance Affects Innovation Resistance in Mobile Banking: The Moderating Role of Age and Gender. In *Hawaii International Conference on System Sciences*. <https://doi.org/10.1109/hicss.2015.433>
- Le, T. M. (2002). Pathways to Leadership for Business-to-Business Electronic Marketplaces. *Electronic Markets*, 12(2), 112–119. <https://doi.org/10.1080/10196780252844553>
- Leidner, D. E., & Kayworth, T. R. (2006). Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict. *Management Information Systems Quarterly*, 30(2), 357. <https://doi.org/10.2307/25148735>
- Lewis, J. D., & Weigert, A. J. (1985). Trust as a Social Reality. *Social Forces*, 63(4), 967–985. <https://doi.org/10.1093/sf/63.4.967>

- Liao, C., Liu, C., & Chen, K. (2011). Examining the impact of privacy, trust and risk perceptions beyond monetary transactions: An integrated model. *Electronic Commerce Research and Applications*, 10(6), 702–715. <https://doi.org/10.1016/j.elerap.2011.07.003>
- Lim, K., Sia, C. L., Lee, M., & Benbasat, I. (2006). Do I Trust You Online, and If So, Will I Buy? An Empirical Study of Two Trust-Building Strategies. *Journal of Management Information Systems*, 23(2), 233–266. <https://doi.org/10.2753/mis0742-1222230210>
- Loginova, O. (2022). Branded websites and marketplace selling: Competing during COVID-19. *Journal of Economic Behavior and Organization*, 203, 577–592. <https://doi.org/10.1016/j.jebo.2022.09.020>
- Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated Communication*, 3(2).
- Manski, C. F. (1990). The Use of Intentions Data to Predict Behavior: A Best-Case Analysis. *Journal of the American Statistical Association*, 85(412), 934–940. <https://doi.org/10.2307/2289590>
- Mayer, R., & Davis, J. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(1), 123–136. <https://doi.org/10.1037/0021-9010.84.1.123>
- Mayer, R., Davis, J., & Schoorman, F. D. (1995). An Integrative Model of Organizational Trust. *Academy of Management Review*, 20(3), 709. <https://doi.org/10.2307/258792>
- McAllister, D. J. (1995). AFFECT- AND COGNITION-BASED TRUST AS FOUNDATIONS FOR INTERPERSONAL COOPERATION IN ORGANIZATIONS. *Academy of Management Journal*, 38(1), 24–59. <https://doi.org/10.2307/256727>
- McIntyre, D., & Srinivasan, A. (2016). Networks, platforms, and strategy: Emerging views and next steps. *Strategic Management Journal*, 38(1), 141–160. <https://doi.org/10.1002/smj.2596>
- McKnight, D. H., Choudhury, V., & Kacmar, C. J. (2002). Developing and Validating Trust Measures for e-Commerce: An Integrative Typology. *Information Systems Research*, 13(3), 334–359. <https://doi.org/10.1287/isre.13.3.334.81>
- Mehrabian, A. (1969). Significance of posture and position in the communication of attitude and status relationships. *Psychological Bulletin*, 71(5), 359–372. <https://doi.org/10.1037/h0027349>

- Morgan, R., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), 20. <https://doi.org/10.2307/1252308>
- Nadeem, W., Khani, A. H., Schultz, C., Adam, N. A., Attar, R. W., & Hajli, N. (2020). How social presence drives commitment and loyalty with online brand communities? the role of social commerce trust. *Journal of Retailing and Consumer Services*, 55, 102136. <https://doi.org/10.1016/j.jretconser.2020.102136>
- Nath, R., & Murthy, N. V. (2004). A Study of the Relationship Between Internet Diffusion and Culture. *Journal of International Technology and Information Management*, 13(1). <https://doi.org/10.58729/1941-6679.1247>
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Verenigd Koninkrijk: Cambridge University Press.
- Olbrich, R., & Yang, K. C. C. (2011). Modeling Consumer Purchasing Behavior in Social Shopping Communities with Clickstream Data. *International Journal of Electronic Commerce*, 16(2), 15–40. <https://doi.org/10.2753/jec1086-4415160202>
- Open Universiteit. (n.d.). *Kwalitatief onderzoek: ethiek en integriteit in onderzoek*. OU. <https://oupsy.nl/files/Kwalitatief%20Onderzoek%20-%20Ethiek%20en%20integriteit%20in%20onderzoek.pdf>
- Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce*, 7(3), 101–134. <http://www.jstor.org/stable/27751067>
- Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principal-Agent Perspective. In *Management Information Systems Quarterly* (Vol. 31, Issue 1, p. 105). MIS Quarterly. <https://doi.org/10.2307/25148783>
- Peña-García, N., Gil-Saura, I., Orejuela, A. R., & Siqueira-Júnior, J. P. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, 6(6), e04284. <https://doi.org/10.1016/j.heliyon.2020.e04284>

- Pirson, M., & Malhotra, D. (2011). Foundations of Organizational Trust: What Matters to Different Stakeholders? *Organization Science*, 22(4), 1087–1104.
<https://doi.org/10.1287/orsc.1100.0581>
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual Review of Psychology*, 63(1), 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Podsakoff, P.M. and Organ, D.W. (1986) Self-Reports in Organizational Research: Problems and Prospects. *Journal of Management*, 12, 531-544.
<http://dx.doi.org/10.1177/014920638601200408>
- Qualtrics. (2023, 12 april). Sample size calculator. Qualtrics.
<https://www.qualtrics.com/blog/calculating-sample-size/>
 reflections and contemporary applications. Cambridge University Press.
- Rotter JB. Generalized expectancies for interpersonal trust. *American Psychologist* 1971;26:443–50.
- RTL Z. (2019, October 8). Kijk terug: Zo groeide bol.com van webwinkel naar online platform. RTL Nieuws. <https://www.rtlnieuws.nl/economie/business/artikel/4875796/platformeconomie-bolcom-succesvol-online-ondernemen>
- Saadi, R., Hasan, O., Pierson, J. M., & Brunie, L. (2007). Establishing trust beliefs based on a uniform disposition to trust. In *Proceedings - International Conference on Signal Image Technologies and Internet Based Systems, SITIS 2007* (pp. 221–228). doi:10.1109/SITIS.2007.54
- Sabiote, C. R., Frías, D. M., & Castañeda, J. A. (2012). The moderating effect of uncertainty-avoidance on overall perceived value of a service purchased online. *Internet Research*, 22(2), 180–198. <https://doi.org/10.1108/10662241211214557>
- Sashi, C., & O’Leary, B. (2002). The role of Internet auctions in the expansion of B2B markets. *Industrial Marketing Management*, 31(2), 103–110. [https://doi.org/10.1016/s0019-8501\(01\)00189-4](https://doi.org/10.1016/s0019-8501(01)00189-4)
- Schreiber, J. B., Stage, F. K., King, J. L., Nora, A., & Barlow, E. A. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results: A Review. *Journal of Educational Research*, 99(6), 323–338. <https://doi.org/10.3200/joer.99.6.323-338>

- Schurr, P. H., & Ozanne, J. L. (1985). Influences on Exchange Processes: Buyers' Preconceptions of a Seller's Trustworthiness and Bargaining Toughness. *Journal of Consumer Research*, 11(4), 939. <https://doi.org/10.1086/209028>
- Shaouf, A., Lü, K., & Li, X. (2016). The effect of web advertising visual design on online purchase intention: An examination across gender. *Computers in Human Behavior*, 60, 622–634. <https://doi.org/10.1016/j.chb.2016.02.090>
- Shin, D., & Shin, Y. (2011). Consumers' Trust in Virtual Mall Shopping: The Role of Social Presence and Perceived Security. *International Journal of Human-computer Interaction*, 27(5), 450–475. <https://doi.org/10.1080/10447318.2011.552060>
- Shiu, E., Walsh, G., Hassan, L. M., & Parry, S. (2015). The direct and moderating influences of individual-level cultural values within web engagement: A multi-country analysis of a public information website. *Journal of Business Research*, 68(3), 534–541. <https://doi.org/10.1016/j.jbusres.2014.09.009>
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. Wiley.
- Smart, A., & Harrison, A. (2003). Online reverse auctions and their role in buyer–supplier relationships. *Journal of Purchasing and Supply Management*, 9(5–6), 257–268. <https://doi.org/10.1016/j.pursup.2003.09.005>
- Smith, R. A., Deitz, G. D., Royne, M. B., Hansen, J. H. L., Grünhagen, M., & Witte, C. L. (2013). Cross-cultural examination of online shopping behavior: A comparison of Norway, Germany, and the United States. *Journal of Business Research*, 66(3), 328–335. <https://doi.org/10.1016/j.jbusres.2011.08.013>
- Soleimani, M. (2021). Buyers' trust and mistrust in e-commerce platforms: a synthesizing literature review. *Information Systems and E-business Management*, 20(1), 57–78. <https://doi.org/10.1007/s10257-021-00545-0>
- Srite, M., & Karahanna, E. (2006). The Role of Espoused National Cultural Values in Technology Acceptance. *Management Information Systems Quarterly*, 30(3), 679. <https://doi.org/10.2307/25148745>

- Statista. (2023, February 15). Amazon top markets net sales 2022 | Statista.
<https://www.statista.com/statistics/672782/net-sales-of-amazon-leading-markets/>
- Steinfeld, C., Kraut, R. E., & Plummer, A. (1995). The Impact Of Interorganizational Networks On Buyer-Seller Relationships. *Journal of Computer-Mediated Communication*, 1(3), 0.
<https://doi.org/10.1111/j.1083-6101.1995.tb00168.x>
- Straub, D. W., Gefen, D., and Boudreau, M.-C. (2005), “ Quantitative Research, In *Research in Information Systems: A Handbook for Research Supervisors and Their Students*,” Elsevier, Amsterdam: D. Avison and J. Pries-Heje (Ed.).
- Tabachnick, B.G. and Fidell, L.S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.
- Täuscher, K., & Laudien, S. M. (2017). Understanding platform business models: A mixed methods study of marketplaces. *European Management Journal*, 36(3), 319–329.
<https://doi.org/10.1016/j.emj.2017.06.005>
- Tinsley, H. E. A., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology*, 34(4), 414–424. <https://doi.org/10.1037/0022-0167.34.4.414>
- Van Noort, G., Kerkhof, P., & Fennis, B. M. (2008). The persuasiveness of online safety cues: The impact of prevention focus compatibility of Web content on consumers’ risk perceptions, attitudes, and intentions. *Journal of Interactive Marketing*, 22(4), 58–72.
<https://doi.org/10.1002/dir.20121>
- Vance, A., Elie-Dit-Cosaque, C. M., & Straub, D. W. (2008). Examining Trust in Information Technology Artifacts: The Effects of System Quality and Culture. *Journal of Management Information Systems*, 24(4), 73–100. <https://doi.org/10.2753/mis0742-1222240403>
- Vitell, S. J., Nwachukwu, S. L. S., & Barnes, J. H. (1993). The effects of culture on ethical decision-making: An application of Hofstede’s typology. *Journal of Business Ethics*, 12(10), 753–760.
<https://doi.org/10.1007/bf00881307>
- Williamson, O. E. (2000). The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, 38(3), 595–613. <http://www.jstor.org/stable/2565421>

Wright, M., & MacRae, M. S. (2007). Bias and variability in purchase intention scales. *Journal of the Academy of Marketing Science*, 35(4), 617–624. <https://doi.org/10.1007/s11747-007-0049-x>

Yeniyurt, S., & Townsend, J. D. (2003). Does culture explain acceptance of new products in a country? *International Marketing Review*, 20(4), 377–396.
<https://doi.org/10.1108/02651330310485153>

Yoon, C. (2009). The effects of national culture values on consumer acceptance of e-commerce: Online shoppers in China. *Information & Management*, 46(5), 294–301.
<https://doi.org/10.1016/j.im.2009.06.001>

7. Appendices

Appendix 1

Pilot study

Adjustment 1

In order to measure social presence, in the first version I looked at the scales by Short et al. (1976). However, in the pilot study, it became clear that the items were not always that clear to people, and the respondents said that it would be better if the items are more clear and defined. That's why there has been an adjustment to the items measuring social presence. The new items are from the study by Gefen & Straub (2004), which has also been adopted by Lu et al. (2016). In this research, in order to measure social presence, a seven-point Likert scale (1= strongly disagree, 2= disagree, 3= somewhat disagree, 4= neither agree or disagree, 5= somewhat agree, 6= agree, 7= strongly agree) is used so respondents are able to answer the questions:

- There is a sense of human contact in the web of the seller
- There is a sense of personalness in the web of the seller
- There is a sense of sociability in the web of the seller
 - o According to A. Komlodi et al. (2007, p. 495), "Sociability is the meaningfulness or quality of the interaction between community members".
- There is a sense of human warmth in the web of the seller
- There is a sense of human sensitivity in the web of the seller

Adjustment 2

During the survey, some respondents had problems with answering the following questions (marked in red):

Concept	Indicators	Items (research questions)	Comment
Trust	Ability	The e-marketplace has the skills and expertise to facilitate my purchase in an expected manner	Slightly adjusted
		The e-marketplace has the needed infrastructure to facilitate my purchase transaction appropriately	Slightly adjusted
		The e-marketplace has the ability to meet my needs	Not adjusted
	Integrity	The e-marketplace is fair in its conduct of my transactions	Not adjusted
		The e-marketplace is fair in its use of my private data collected during a transaction	Not adjusted

		The e-marketplace is fair in its customer service policies following a transaction	Not adjusted
	Benevolence	The e-marketplace is open and receptive to my needs	Not adjusted
		The e-marketplace keeps my best interests in mind during most transactions	Not adjusted
		The e-marketplace makes good-faith efforts to address most of my concerns	Not adjusted

The reason for this was that people do not actually buy a product from Amazon. You actually only could really answer the questions if you had experience with purchasing through Amazon before. Thus, these questions were adjusted to the following below. The questions are used in earlier research by Gefen & Straub (2004).

Concept	Indicators	Items (research questions)	Comment
Trust	Ability	Amazon is competent	Gefen & Straub, 2004
		Amazon knows about their products	Gefen & Straub, 2004
		Amazon knows how to provide excellent service	Gefen & Straub, 2004
		Amazon has the ability to meet my needs	Not adjusted
	Integrity	Promises made by Amazon are likely to be reliable	Not adjusted
		I do not doubt the honesty of Amazon	Not adjusted
		I expect that Amazon will keep the promises they make	
		I expect that the advice given by Amazon is their best judgment	Not adjusted
	Benevolence	I expect I can count on Amazon to consider how its actions affect me	Gefen & Straub, 2004
		I expect that Amazon's intentions are benevolent	Gefen & Straub, 2004
		I expect that Amazon puts customers' interests before their own	Gefen & Straub, 2004
		I expect that Amazon is well-meaning	Gefen & Straub, 2004

Adjustment 3

In order to measure trust, the questions have been changed to ask respondents how they feel about Amazon (instead of e-marketplaces in general). This has been done so that the questions are more clear for the respondents, and it fits better in the overall survey because people have to do the assignments about Amazon. Furthermore, the same approach was used by Gefen & Straub (2004).

Adjustment 4

During the pilot study, it became clear that the questions about a certain timeframe are not that reliable to ask. Therefore, the following questions are deleted from the survey (marked in red):

Construct	Indicators	Items (research questions)	Source
Purchase intention		If given the chance, I can predict what I would buy from an e-Marketplace in the future	Peña-García et al., 2020
		I consider an e-Marketplace as the first choice to purchase goods	Kusumawardani & Purniasari, 2021
		I am going to purchase a product through an e-Marketplace in the next 1-3 months	Hosein, 2012
		I am going to purchase a product through an e-Marketplace in the next 4-7 months	Hosein, 2012
		I am going to purchase a product through an e-Marketplace in the next 8-12 months	Hosein, 2012

The market questions are changed with the following questions:

Construct	Indicators	Items (research questions)	Source
Purchase intention		I consider an e-Marketplace as the first choice to purchase goods	Kusumawardani & Purniasari, 2021
		If given the chance, I can predict what I would buy from an e-Marketplace in the future	Peña-García et al., 2020
		If the opportunity arises, I intend to buy from an online marketplace	Peña-García et al., 2020
		I am likely to transact with an online marketplace soon	Peña-García et al., 2020

Appendix 2

Answer scales

Gender	Age group	Familiarity	Country of origin
1: Male	1: 18 – 24	1: Yes	1: The Netherlands
2: Female	2: 25 – 32	2: No	2: Germany
3: I prefer not to share	3: 33 – 40		3: The United States
7-point Likert scale			
1: Strongly disagree 3: Somewhat disagree 5: Somewhat agree 7: Strongly agree			
2: Disagree 4: Neutral 6: Agree			

Gender	Age	Familiarity	Country	Trust disposition	Purchase intention	Trust	Social presence
		7-point Likert scale		7-point Likert scale	7-point Likert scale	7-point Likert scale	7-point Likert scale
1 item	1 item	2 items	1 item	6 items	4 items	Abi: 4 items Int: 4 items Ben: 4 items	5 items