Consumer Trust Towards an Online Vendor in High- vs. Low-Context Cultures

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Abstract
This study explores the effect of general disposition to trust on the perceived trustworthiness of an online vendor in high- and low-context cultures. A total sample of 616 responses from users of online bookstores was collected from China and Finland. The results show that the disposition to trust has a highly significant effect on the three dimensions of trustworthiness namely ability, integrity, and benevolence. However, the results of multigroup analysis indicate that these effects vary greatly between our country examples from high- and low-context cultures. We conclude that, while in China general disposition to trust has a highly significant effect on perceived trustworthiness of an online vendor, the effect is only marginal in Finland.

1. Introduction
Trust is generally considered to be an important determinant of acceptance and usage of online commerce. The success of an online store is not based only on the benefits that an online store offers to its customers, but also on the level of trust consumers have towards online commerce and online technologies in general, and on the specific online vendor in particular. Lack of trust is one of the most often cited reasons why consumers do not shop online, and therefore it is crucial to understand how individuals form trust in an online environment. Trust literature distinguishes general disposition to trust (i.e. individual’s inherent tendency to trust others) from trustworthiness (i.e. ability, integrity and benevolence of a trusted party) [1]. Following this distinction, we examine the trustworthiness of an online vendor by examining the interrelationship between trusting disposition and dimensions of trustworthiness, i.e. how a consumer’s disposition to trust affects the dimensions of trustworthiness namely ability, integrity and benevolence, in the online environment.

The development of the Internet and related innovative technologies has enabled new opportunities to conduct business regardless of national borders through online channels. More people from varying national cultures participate in online commerce, but relatively little is known about the possible effect of national culture on consumers’ trust in online commerce. For example, Hofstede [2] states that individuals with different cultural backgrounds vary in their inherent tendency to trust others. Prior research on trust in the online environment has mostly ignored the possible effect of national culture [3]. Therefore, more information is needed on how consumers form trust in the online environment to better understand possible differences between national cultures in online commerce.

Firstly, this article examines the consumer’s trust towards an online vendor by studying the interrelationship between general trusting disposition of a consumer and the dimensions of trustworthiness: ability, integrity and benevolence. In the prior literature, disposition to trust is presented as an important determinant of trust, especially at the beginning of a new relationship [4]. Disposition to trust is defined as an individual’s general tendency to trust others [5]. Ability, integrity and benevolence are three dimensions of trustworthiness of a trusted party, and they explain why some operators are more trusted than others in a given context [5]. While in the prior literature ability, integrity and benevolence have been consistently used to explain a consumer’s trust towards an online vendor [6, 7, 8], trust research in general suffers from confusion in the level of analysis related to the antecedents and outcomes of the trust constructs, and from a failure to consider trusting party (a consumer) and the party to be trusted (a vendor) in a single study [5]. Thus, we contribute to the literature by distinguishing between a consumer’s general disposition to trust and the trustworthiness of a vendor. We model disposition to trust as an antecedent and test if it explains the variance in consumer perceived trustworthiness of an online vendor.
Second, this study conducts a cross-country comparison between China and Finland to examine possible differences between countries that represent high-context and low-context cultures. In classifying high-context versus low-context cultures, we follow Hall [9] who differentiates cultures based on communication style that predominates in the culture. Following Hall’s [9] classification, China represents a high-context culture and Finland represents a low-context culture. Thus we further contribute to the literature by studying if the possible effect of a consumer’s disposition to trust on trustworthiness of an online vendor varies between countries representing opposite cultural contexts.

2. Literature review and hypotheses development

2.1. Trust

Trust has been a topic of research in many disciplines such as psychology, social psychology, sociology, management and marketing for decades. The importance of trust is well recognized in the literature, but the prior literature is lacking consensus about the definition, characteristics, level of analysis, antecedents and outcomes of trust [5, 10, 11, 12]. Serva et al. [13] highlight that it is important to make a distinction between trust and trustworthiness. The trustworthiness of a trusted party consists of multiple dimensions and, depending on the source, these dimensions are referred to as factors of trustworthiness [5], dimensions of trustworthiness [13], trustworthiness attributes [14] or trusting beliefs [11]. In this study we refer to the trustworthiness of a trusted party as the dimensions of trustworthiness. Dimensions of trustworthiness are confident perceptions that the trusted party (a vendor) has attributes beneficial to the trustor (a customer) [5, 11].

The emergence of the Internet and innovative technologies related to it has generated a stream of research examining the online environment. There exists conflicting views in the literature about the applicability of offline trust research to the online environment. For example, Gefen and Straub [7] argue that trust in traditional business settings does not fully apply to online commerce that often lacks interpersonal interaction. In contrast, Corritore, Kracher and Wiedenbeck [15] state that existing research on offline trust is applicable in understanding trust in online commerce because the common denominator between offline trust and online trust is their rootedness on exchange, which in both cases is influenced by risks, fear, costs, and complexities.

Corritore et al. [15, p. 740] define online trust as “an attitude of confident expectation in an online situation of risk that one’s vulnerabilities will not be exploited”. Following the widely accepted definition of trust by Mayer et al. [5], Lee and Turban [14] define trust in online commerce as “the willingness of a consumer to be vulnerable to the actions of an Internet merchant in an Internet shopping transaction, based on the expectation that the Internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumer to monitor or control the Internet merchant” [14, p. 79]. Offline trust and online trust share similarities, but there also exist fundamental differences between them.

Vulnerability is a central construct of online trust. In general, consumers perceive that online commerce involves more uncertainty and risk than traditional shopping methods. For example, it is not possible to physically check the quality of a product before making a purchase online, and there exists a risk of losing sensitive personal and financial information when shopping in the online environment [16, 14]. Even when only browsing on the Internet without purchasing, websites may collect data about consumer’s browsing activities to be utilized for marketing and targeting purposes.

Similarly to the offline environment, trust in the online environment is established between two parties: the trustor and the trusted party [17]. Focus of this study is in an online customer’s trust towards an online vendor. In the online environment, the object of trust is different compared to that of the offline environment [17, 12]. In the offline environment, the object of trust is typically a person or an entity such as an organization, whereas in the online environment the technology (the Internet) and the organization deploying the technology are the objects of trust in addition to an online vendor [12].

2.1.1. Disposition to trust. Individuals vary in their inherent tendency to trust others [5]. Disposition to trust (also referred to as general trust and propensity to trust) is a general and not a situation specific tendency to form trust towards others [18, 4]. This general trust cannot be influenced by a specific marketing event, but is stable and has the characteristics of a personal trait [19]. In contrast, specific trust is situation specific, and can be influenced by marketing activities [19].

McKnight et al. [11, p. 339] define disposition to trust as a “tendency to be willing to depend on others across a broad spectrum of situations and persons”. Disposition to trust is based on an individual’s lifelong socialization and experiences, and is applicable even when there is no prior experience with the specific trusted party [7]. McKnight et al. [18] distinguish
between two types of disposition to trust that influences trusting intention in a different way: 1) faith in humanity (i.e. a belief that others are typically well meaning); and 2) trusting stance (i.e. a belief to obtain better interpersonal outcomes assuming that others are well-meaning and reliable).

According to McKnight et al. [11] disposition to trust influences an individual’s beliefs and intentions towards an online vendor. This study examines consumers’ trust towards an online vendor, and thus the interrelationship between trusting disposition and dimensions of trustworthiness.

Disposition to trust is an important determinant especially at the beginning of a relationship, before an extensive on-going relationship provides a necessary background for the formation of other trust building beliefs such as ability, integrity and benevolence [4], but as the relationship matures, the importance of disposition in determining trust diminishes [20].

Earlier literature shows that disposition to trust influences the way customer’s form trust in online commerce [11, 7, 21, 22]. However, conflicting results exist about the impact of disposition to trust on the formation of trust in online commerce. Some of the studies find evidence that disposition to trust positively affects trust formation in online commerce [4, 7, 21], while e.g. Koufaris and Hampton-Sosa [23] found no support for the effect of disposition to trust on the initial trust building in online commerce.

### 2.2. Dimensions of trustworthiness

One approach to understanding trust examines the attributes of a trusted party to explain why some operators are more trusted than others [5]. Prior literature has presented several alternative dimensions that constitute the trustworthiness of a trusted party (see Mcknight et al. [11] for detailed comparison). Dimensions of trustworthiness that appear most often in the academic literature are ability, integrity and benevolence [e.g. 5,14,11,24,7,25]. Ability, integrity and benevolence each provide a unique perceptual perspective from which to consider the trustworthiness of the trusted party [5].

#### 2.2.1. Ability

Ability is defined as skills, competencies and characteristics within some specific domain [5]. Ability, also referred to as competence, contains the belief that the trusted party is capable of doing what is expected [11]. In online commerce, ability reflects the belief that the online vendor is able to provide the products and services to the customer in a proper and convenient way [26].

#### 2.2.2. Integrity

Integrity is an individual’s perception that the trusted party adheres to a set of principles that are accepted by an individual [5]. Integrity means that an individual believes that the trusted party is honest, makes good faith agreements, tells the truth, acts ethically, and fulfils its promises [26]. In online commerce, integrity reflects the customer belief that the online vendor keeps its promises and ethical obligations such as delivering goods or services to the customer as agreed, and keeps private and financial information secure throughout the online relationship [26].

#### 2.2.3. Benevolence

Benevolence is defined as the extent to which a trusted party is believed to want to do good to the trustor [5]. The perception of benevolence reflects the specific relationship between trustor and the trusted party, not to the trusted party’s kindness to all [26]. In online commerce, benevolence reflects a belief that an online vendor would not act unscrupulously towards the customer or take advantage of the customer in any other way [26]. Benevolence contains the perception that the trusted party is caring and motivated to act in the trustor’s interest [11].

Drawing from the discussion above, it is logical to expect that high disposition to trust positively influence an individual’s perceived trustworthiness of a vendor. According to McKnight et al. [18], disposition to trust affects trusting beliefs and trusting intentions. Thus, we hypothesize:

- \( H_1 \): Disposition to trust has a significant positive effect on the perceived ability of the online vendor
- \( H_2 \): Disposition to trust has a significant positive effect on the perceived integrity of the online vendor
- \( H_3 \): Disposition to trust has a significant positive effect on the perceived benevolence of the online vendor

### 2.3. Trust in high- and low-context cultures

Developing trust, especially in international online commerce, may be challenging due to cultural differences between countries and cultures. According to the prior literature, individuals across cultures are different in the way they build trust [e.g. 2, 27, 28, 25] and some cultures may be more trusting in general [25]. Therefore, cultural differences should be taken into consideration in online commerce.

Indeed, relatively little research exists on how national culture influences the way customers form trust in the online environment. Recently, several authors have called for more research about the influence of national culture on the formation of online commerce.
trust [29, 12] as it is not clear how culture actually may influence trust [3].

Hall [9] categorizes national cultures into high-context and low-context cultures based on their basic differences in communication style. Hall [9, p. 6] defines context as the “information that surrounds an event”. According to Hall [9], differences in communication style influence virtually every situation and relationship of the members of different national cultures. He concludes that individuals in a culture use both high-context and low-context communication styles, but one tends to be predominant. We apply Hall’s classification of high-context and low-context cultures because it offers a clear dichotomous categorization of national cultures where the selected countries represent opposite poles.

In Hall’s [9] categorization, at one end of the continuum are high-context cultures, in which communication typically contains implicit and indirect messages, and meanings are often embedded in the sociocultural context. Besides communication style, individuals in high-context cultures typically involve themselves in close personal relationships with family, friends and colleagues, and as a result do not require much in-depth background information in their daily transactions [30]. In high-context cultures, collective needs and goals are valued, and individuals in these cultures tend to create categorizations between “us” and “them” [9]. High-context communication is predominantly used in collectivist cultures, whereas low-context communication is typical in individualistic cultures [31]. Individualism vs. collectivism describes the relation between an individual and a group. According to Hofstede [2], people in individualistic cultures prefer to act as individuals rather than members of a group, while in collectivistic cultures people rely on their closest peers and group decisions. China, among other Asian countries, places at the high-context end of the continuum in Hall’s [9] conceptualization and following Hofstede’s [2] classification is characterized as a collectivist culture.

At the other end of the continuum are low-context cultures, in which communication style is more explicit and direct, and meanings are mainly included in the transmitted messages [9]. Individuals in low-context cultures tend to compartmentalize their personal relationships, work and many other aspects of their lives [30]. Low-context cultures value individual needs and goals and believe that every individual is unique [9]. Following Hall’s [9] categorization, Scandinavian countries including Finland are classified at the low-context end of the continuum. Furthermore, according to Hofstede’s [2] classification, Finland is characterized as an individualistic culture.

In general, collectivist cultures tend to place more importance on personal relationships compared to individualistic cultures [32, 33]. For example, in international business settings, it is a common observation that building a trusting business relationship usually takes longer in a collectivist and high-context culture when compared to individualistic and low-context culture. Thus it is hypothesized:

\( H_4: \) The effect of disposition to trust on ability is significantly greater in China than in Finland

\( H_5: \) The effect of disposition to trust on integrity is significantly greater in China than in Finland

\( H_6: \) The effect of disposition to trust on benevolence is significantly greater in China than in Finland

Figure 1 illustrates the conceptual model and hypotheses of the study.
3. Data and methods

The study adopts four trust constructs namely disposition to trust, ability, integrity, and benevolence from the prior literature. Disposition to trust refers to a consumer’s general tendency to trust others while ability, integrity, and benevolence refer to the trustworthiness of a specific party, in this case an online vendor. Six measure items for measuring disposition to trust were adopted from Gefen & Straub [7] and four items for ability, three items for integrity, and three items for benevolence were adopted from McKnight et al. [11]. A seven-point Likert scale ranging from strongly disagree=1 to strongly agree=7 was used.

In order to test if the hypothesized model differs between high-context and low-context cultures, data sets from China, representing a high-context culture, and from Finland, representing a low-context culture, were collected. The questionnaire items were equal across the two countries. The questionnaire was first developed in English and thereafter translated to local languages Chinese and Finnish. To avoid misunderstandings and misinterpretations in the data collection, the questionnaire was pretested with a small group of consumers before proceeding to the final data collection. These responses were treated as a test sample and thus were not included in the final sample of the study.

The hypotheses were tested in the context of online bookstores and the data was collected among university students at the Central China Normal University and at the University of Eastern Finland. We intentionally targeted university students who nowadays represent a highly important customer segment for online bookstores due to their ongoing studies and future customer potential. The use of the student sample is justified because university students represent the so-called digital natives or net generation [34] and they form a homogeneous customer segment for online bookstores. Both online questionnaire and traditional paper-based questionnaire were used. The data consists of 409 and 207 effective responses from China and Finland respectively, the total sample size being 616 responses from respondents all experienced with buying books online.

4. Construct validation

The advantage of adapting measure items from the earlier literature is that the items have been already tested in the earlier research and therefore the validity of such measure items has been investigated and described. However, it is reasoned to test the validity of the theory-driven observed variables and latent constructs in the given context and sample. In order to validate the measurement instrument and to define the relations between observed and unobserved variables, the authors established a measurement model in Amos with four latent constructs derived from 16 observed variables suggested by the theory. The authors removed one measure item from disposition to trust due to low (<0.60) factor loading in the total sample. Furthermore, one additional measure item from disposition to trust, one from ability, and one from benevolence were removed due to low factor loadings in the Chinese subsample. Consequently one additional measure item from ability was removed due to low factor loading in the Finnish subsample. The re-specified measurement model for the total sample provides an excellent fit with $\chi^2 = 144.263$ (df = 38; $p<0.001$), CFI = 0.969, RMSEA = 0.067, and for the multigroup measurement model with $\chi^2 = 173.137$ (df = 76; $p<0.001$), CFI = 0.973, RMSEA = 0.046. Moreover, the standardized regression estimates (loadings) all exceed 0.60 ($p<0.001$) (Table 1).

We further assessed discriminant validity in order to measure the extent to which constructs in the model were truly distinct from each other [35]. Following Fornell and Larcker [36], the average variance extracted (AVE) for each construct was compared with squared correlations between the constructs. The test was carried out in the total sample and, in addition, in both of the subsamples namely China and Finland. The results support discriminant validity, as the AVE values of all the constructs are greater than squared CFA correlations of other constructs. In addition, composite reliability values all exceed 0.70 and all of the AVE values exceed 0.50 supporting convergent validity (Table 2). Overall, the results show a good fit between the latent constructs and the underlying items.
Table 1. Measure items and standardized estimates

<table>
<thead>
<tr>
<th>Construct to trust</th>
<th>Measure item</th>
<th>Total sample</th>
<th>China</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I generally trust other people.</td>
<td>0.668</td>
<td>0.666</td>
<td>0.668</td>
</tr>
<tr>
<td></td>
<td>I tend to count on people.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I generally have faith in humanity.</td>
<td>0.660</td>
<td>0.659</td>
<td>0.744</td>
</tr>
<tr>
<td></td>
<td>I feel that people are generally well meaning.</td>
<td>0.914</td>
<td>0.897</td>
<td>0.901</td>
</tr>
<tr>
<td></td>
<td>I feel that people are generally trustworthy.</td>
<td>0.831</td>
<td>0.797</td>
<td>0.921</td>
</tr>
<tr>
<td>Ability</td>
<td>They are competent and effective.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>They perform their role of giving advice very well.</td>
<td>0.800</td>
<td>0.817</td>
<td>0.831</td>
</tr>
<tr>
<td></td>
<td>Overall, they are capable and proficient.</td>
<td>0.788</td>
<td>0.830</td>
<td>0.633</td>
</tr>
<tr>
<td></td>
<td>In general, they are very knowledgeable about their merchandise.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrity</td>
<td>They are truthful in their dealings with me.</td>
<td>0.850</td>
<td>0.871</td>
<td>0.793</td>
</tr>
<tr>
<td></td>
<td>I would characterize them as honest.</td>
<td>0.923</td>
<td>0.937</td>
<td>0.895</td>
</tr>
<tr>
<td></td>
<td>They would keep their commitments.</td>
<td>0.818</td>
<td>0.826</td>
<td>0.792</td>
</tr>
<tr>
<td>Benevolence</td>
<td>I believe that they would act in my best interest.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If I required help, they would do their best to help me.</td>
<td>0.773</td>
<td>0.768</td>
<td>0.819</td>
</tr>
<tr>
<td></td>
<td>They are interested in my wellbeing, not just their own.</td>
<td>0.734</td>
<td>0.808</td>
<td>0.734</td>
</tr>
</tbody>
</table>

Source: [7, 11]

Table 2. Construct reliability, AVE values and squared between-construct correlations

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Composite reliability</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Disposition to trust</td>
<td>5.03</td>
<td>1.01</td>
<td>0.856</td>
<td>0.602</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ability</td>
<td>5.38</td>
<td>1.03</td>
<td>0.773</td>
<td>0.123</td>
<td>0.630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Integrity</td>
<td>4.96</td>
<td>1.12</td>
<td>0.899</td>
<td>0.207</td>
<td>0.436</td>
<td>0.748</td>
<td></td>
</tr>
<tr>
<td>4. Benevolence</td>
<td>4.38</td>
<td>1.16</td>
<td>0.725</td>
<td>0.128</td>
<td>0.254</td>
<td>0.280</td>
<td>0.568</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Disposition to trust</td>
<td>4.86***</td>
<td>1.04</td>
<td>0.844</td>
<td>0.579</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ability</td>
<td>5.49***</td>
<td>1.09</td>
<td>0.808</td>
<td>0.228</td>
<td>0.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Integrity</td>
<td>4.95ns.</td>
<td>1.18</td>
<td>0.911</td>
<td>0.306</td>
<td>0.434</td>
<td>0.774</td>
<td></td>
</tr>
<tr>
<td>4. Benevolence</td>
<td>4.53***</td>
<td>1.15</td>
<td>0.766</td>
<td>0.245</td>
<td>0.179</td>
<td>0.242</td>
<td>0.621</td>
</tr>
<tr>
<td><strong>Finland</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Disposition to trust</td>
<td>5.35***</td>
<td>0.86</td>
<td>0.886</td>
<td>0.665</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ability</td>
<td>5.16***</td>
<td>0.86</td>
<td>0.702</td>
<td>0.016</td>
<td>0.546</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Integrity</td>
<td>4.98ns.</td>
<td>0.99</td>
<td>0.867</td>
<td>0.051</td>
<td>0.430</td>
<td>0.686</td>
<td></td>
</tr>
<tr>
<td>4. Benevolence</td>
<td>4.10***</td>
<td>1.13</td>
<td>0.753</td>
<td>0.034</td>
<td>0.383</td>
<td>0.378</td>
<td>0.605</td>
</tr>
</tbody>
</table>

**Note 1:** Statistical difference between China and Finland: *** = p<0.001, ns. = Not significant

**Note 2:** AVE estimates are on the diagonals, squared correlations of the constructs are below the diagonals.

In order for cross-country comparisons to be meaningful, the instruments used for measuring the theoretical constructs in a single model have to exhibit adequate equivalence across the countries [37]. To ensure that the measures are equal across the countries in the study, we conducted a multigroup invariance test by addressing configural and metric invariance. As already reported above, goodness-of-fit statistics for the two-group unconstrained measurement model showed excellent fit and all factor loadings for all measure items were highly significant at the p<0.001 level, and all factor loadings exceeded 0.60. This ensured that the same basic factor structure exists in both of the moderator groups [35] and gives support to configural invariance.

Thereafter, we tested metric invariance by constraining all of the factor loadings to be equal across China and Finland. This is a critical test of invariance and the degree to which this is met determines cross-group validity beyond the basic factor structure [35]. Thus, if metric invariance is supported, different scores on a measure item can be meaningfully compared across countries, and these observed differences in measure items are indicative of similar cross-national differences in the construct in question [36]. Metric invariance is assessed by comparing the unconstrained configural invariance model with the
constrained model. Full metric invariance is supported as the constrained model was not significantly poorer than the fit of the configural invariance model with $\Delta \chi^2(7)=12.698, p>0.05$ (Table 3).

<table>
<thead>
<tr>
<th>Model tested</th>
<th>Model fit measures</th>
<th>Model differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
<td>df</td>
</tr>
<tr>
<td>Configural invariance</td>
<td>173.137</td>
<td>76</td>
</tr>
<tr>
<td>Metric invariance</td>
<td>185.835</td>
<td>83</td>
</tr>
</tbody>
</table>

Note: ns. = non-significant (p>0.05)

5. Results

5.1. The effect of trust on the dimensions of trustworthiness

The results of path analysis with the total sample confirm the positive effect of trust on the three dimensions of trustworthiness. The results indicate, in particular, that disposition to trust has a highly significant effect on ability, integrity, and benevolence with $\beta=0.396$ (t =-8.784), 0.486 (t =10.907), and 0.393 (t =6.310) respectively, supporting H1, H2 and H3. The results suggest that disposition to trust has the greatest effect on integrity, followed by ability and benevolence.

5.2. Country differences across China and Finland

Taking a look to the descriptive statistics of the constructs in Table 2, the mean values show that the general disposition to trust is significantly lower, while the perceived trustworthiness of the online vendor, in terms of ability and benevolence, is significantly higher among Chinese respondents compared to Finns.

As the invariance analysis showed that the measurement model is equivalent across the groups of the multigroup moderator, the paths in the structural model were tested between China and Finland representing high- and low-context cultures respectively. In order to test the statistical differences of the path estimates, the authors first compared an unconstrained structural model to a fully constrained model. The chi-square difference test showed that the models are different at the model level with $\Delta \chi^2 (\Delta df=3) = 34,511$ (p<0.001) indicating differences in the path estimates between China and Finland. In order to test the magnitude of the difference in each of the paths, the authors constrained the paths one-by-one and then compared the resulting models to the unconstrained model, as Hair et al. [33] recommend. The results suggest that China and Finland differ greatly in the effects of disposition to trust (DTT) on the dimensions of trustworthiness. While in China disposition to trust has a highly significant (p<0.001) positive effect on ability, integrity, and benevolence with $\beta=0.541$ (t =9.264), 0.601 (t =11.426), and 0.544 (t =9.974) respectively, in Finland the effects are significantly weaker with $\beta=0.199$ (t =2.343; p<0.05), 0.247 (t =3.252; p<0.01), and 0.220 (t =2.638; p<0.05) respectively. The differences in the path estimates between China and Finland are statistically highly significant (p<0.001) in case of all the three effects. Thus, the results support H4, H5, and H6 (Table 4).

### Table 4. Results: standardized loadings and statistical differences

<table>
<thead>
<tr>
<th>Paths</th>
<th>Total sample</th>
<th>China</th>
<th>Finland</th>
<th>Model differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Std. $\beta$</td>
<td>C.R.</td>
<td>Std. $\beta$</td>
<td>C.R.</td>
</tr>
<tr>
<td>H1: DTT $\rightarrow$ Ability</td>
<td>0.396***</td>
<td>8.784</td>
<td>0.199*</td>
<td>2.343</td>
</tr>
<tr>
<td>H2: DTT $\rightarrow$ Integrity</td>
<td>0.486***</td>
<td>10.907</td>
<td>0.247*</td>
<td>3.252</td>
</tr>
<tr>
<td>H3: DTT $\rightarrow$ Benevolence</td>
<td>0.393***</td>
<td>6.310</td>
<td>0.220*</td>
<td>2.638</td>
</tr>
</tbody>
</table>

Note: Critical value at 95% confidence for $\Delta \chi^2 = 3.84$ (a chi-square change greater than the critical value indicates statistical difference between the path estimates across the countries); * p<0.05, ** p<0.01, *** p<0.001, ns. = non-significant (p>0.05)
As the results showed highly significant differences between China and Finland in the effects of disposition to trust on the three dimensions of trustworthiness namely ability, integrity and benevolence, we became eager to analyze the R-squares of our dependent variables. R-square refers to the fraction of variance of the dependent variable explained by the indicator/s. In our model $R^2$ estimate reports the fraction of variance disposition to trust explains of the total variance of each of the dimensions of trustworthiness. The results show that disposition to trust explains approximately 24 per cent of the variance of integrity and 15 per cent of the variances of both ability and benevolence in the total sample. Taking a look to the subsamples, the results evidence that while in China disposition to trust explains approximately 36 per cent of the variance of the integrity, and approximately 30 per cent of the variances of both ability and benevolence, the per cent are considerably lower in Finland, being only 6, 4, and 5 respectively (Table 5).

<table>
<thead>
<tr>
<th>Table 5. R-square estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total sample</strong></td>
</tr>
<tr>
<td>Disposition to trust $\rightarrow$ Ability</td>
</tr>
<tr>
<td>Disposition to trust $\rightarrow$ Integrity</td>
</tr>
<tr>
<td>Disposition to trust $\rightarrow$ Benevolence</td>
</tr>
</tbody>
</table>

6. Conclusions

Several researchers have observed the importance of trust in online environment and especially in online commerce [7, 11, 29] but only few studies examine online trust from cross-cultural perspective [e.g. 3, 38, 39]. We hypothesized differences between China and Finland based on Hall’s [9] categorization of high-context and low-context cultures, according to which China locates at the high-context end of the continuum and Finland at the low-context end of the continuum.

The descriptive statistics of the study show that the general level of trusting disposition is higher in Finland than in China. This supports the theory as, for example, Hofstede [40] states that people in individualistic cultures tend to develop a higher initial trust when compared to people in collectivist cultures. Also the results of Yamagishi & Yamagishi [41] support this by showing that general level of trust towards others is higher in the Unites States, representing an individualistic low-context culture, compared to Japan that represents a collectivist high-context culture.

Our study further shows that specific trust towards an online vendor is greater in China than in Finland. Results of Järvenpää et al. [38] support this by showing that individuals in a more collectivist culture have higher trust towards an online store compared to an individualistic culture. Thus, based on the descriptive statistics of our study and the support by the earlier literature, we conclude that consumer’s general disposition to trust is greater in low-context cultures, while situation specific perceived trustworthiness of an online vendor is greater in high-context cultures.

The main purpose of this study was to answer the question of whether an individual’s disposition to trust influences on the perceived trustworthiness of an online vendor and, further, whether this relationship varies between countries representing high- and low-context cultures. We find significant differences between the countries; the results suggest that culture may indeed play an important role in consumer trust towards an online vendor.

Based on the results, we argue that disposition to trust has a significant effect on the perceived trustworthiness of an online vendor but this relationship varies greatly between China and Finland, representing high- and low-context cultures respectively. Overall, in China disposition to trust has a highly significant positive effect on ability, integrity, and benevolence, but in Finland the effect of trusting disposition on trustworthiness dimensions is significantly weaker. The results show that the difference in the effect of disposition to trust on all three dimensions of trustworthiness is highly significant across China and Finland. Furthermore, while in China an individual’s disposition to trust other people explains a large share of the variance of trustworthiness, in Finland the share is only marginal. Thus, we conclude that country differences between a high-context China and a low-context Finland are consistent with Hall’s [9] conceptualization.

In summary, the results suggest that in a high-context culture (such as China) the effect of general disposition to trust on the specific trustworthiness of an online vendor is greater compared to a low-context culture (such as Finland). Kenning [19] examined the relation between general trust (i.e. disposition to trust) and specific trust (such as the trustworthiness of a specific company), and their influence on consumer’s buying behavior in Germany. Kenning [19] proposes that there should exist a positive relation between general trust and specific trust, but fails to find empirical evidence to support the hypothesis. This finding is in line with our results as, similarly to
Finland, Germany is categorized as a low-context culture [9].

Disposition to trust plays an important role in trust formation in online commerce, because an individual’s general tendency to trust is an important determinant especially at the beginning of a new relationship. The results of this study strengthen the findings of some of the earlier studies [e.g. 4, 7, 21] by showing that an individual’s disposition to trust affects the way trust is built in online commerce, but, at the same time, argues that the relationship is culture-dependent.

Many online vendors operate across cultural borders. This study provides some implications for online store managers operating in high-context and low-context countries. Based on our results, the impact of trust is significantly higher in high-context cultures compared to low-context cultures. Our findings suggest to vendors seeking for greater consumer trust towards their online store to put effort especially on consumers in high-context cultures. This is due to the fact that general trust appears to be much more important among consumers of high-context cultures than among their counterparts in low-context cultures when building trust toward an online vendor.

The study opens interesting avenues for future research. It is noteworthy that the level of trust towards an online vendor is significantly lower in low-context cultures than in high-context cultures, and that general disposition to trust does not explain the situation specific trust in low-context cultures well. Thus, the question of how to influence the trustworthiness of an online vendor in low-context cultures remains open for future research. Moreover, this study reported results from two countries, one representing high-context cultures and the other representing low-context cultures. More research is needed to validate the results among other countries representing the opposite ends of Hall’s [9] cultural categorization. As said, this study concentrated on the dichotomous categorization of high- vs. low-context cultures and expects the country difference being a result of a cultural difference. Thus, future research should test the effects of multiple cultural dimensions such as uncertainty avoidance and individualism vs. collectivism on the dimensions of trustworthiness.

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