

# Culture, Privacy, and Trust in E-commerce

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**ABSTRACT** The aim of the study is to investigate trust and privacy in a web store. Two hundred and thirty-seven persons (from the Netherlands and from Romania) participated in an experimental survey. They were presented with two variations of a wardrobe offer in a fictional web store. In one web store condition, the privacy notice was absent. In the other web store condition, the privacy notice was present. The findings show that including a privacy policy notice did not directly influence consumers' purchase intention. Meanwhile, there was an indirect effect of the privacy policy notice, via trust, on purchase intention. In addition, there was supporting evidence that privacy concerns remain dormant until triggered by the privacy notice. Differences between men and women, as well as between different uncertainty avoidant cultures, were not found. In contrast, regarding age, young consumers (in particular, the Romanian ones) were less affected by the privacy notice than older consumers (for trust and purchase intentions). This study provides an original contribution to global e-commerce. Cultural groups are categorised through self-identification. In combination with differences in uncertainty avoidance, this categorisation provides better insight into the consumer dynamics in societies. The findings emphasise the need for fine-tuning web store atmospherics. An optimal and effective shopping environment can be trusted and guarantees privacy. This outcome implies that a privacy policy notice in a web store is perceived as a privacy guarantee, not as a privacy warning.

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**KEYWORDS:**

E-commerce; online privacy; trust; consumer behaviour; culture; uncertainty avoidance.

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## 1. Introduction

Internet users need to disclose increasingly more private information about themselves. Buying in "traditional" stores is relatively simple. However, online, the buyer and seller have to take a leap of faith regarding the following: warranties, money-back guarantees, payment guarantees, fraud risk, etc. In online stores, buyers and sellers both participate in an intriguing discovery process of checking whether the other can be trusted. The buyer should be willing to share sensitive private information. The seller aims to create a trustful shopping environment to achieve successful transactions and sales. This aim might be actualised by incorporating a (legally required) privacy policy notice in a web store.

Although online consumers may now shop more globally, their shopping preferences are also culturally situated. Specifically, cultural differences in uncertainty avoidance imply that people from cultures that are more risk-averse attach more value to trust-inducing cues in a web store. Several cross-cultural studies found that cultural differences in perceived uncertainty avoidance were especially susceptible to socio-economic societal changes over time (Minkov, 2018). Remarkably, these studies mostly identified groups by nationality or country. These constructs provided a rather unprecise identification and comparing national cultures or countries does not reflect reality anymore. A better way of categorising cultures is through (ethnic) self-identification. This information is more indicative of the cultural identity and considers the dynamics in societies (Broeder and Extra, 1999).

This study fills in a gap in prior cross-cultural consumer behaviour studies. Members of two European cultures (Dutch and Romanian) are identified through their ethnic self-identification.

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According to Hofstede's paradigm of cultural dimensions (2020), the national cultures of the Netherlands and Romania reveal a large difference in the degree of uncertainty avoidance. The investigation in this study is original (the first of its kind) because of the comparison of ethnic cultures that includes perceptions of trust and privacy and purchase intentions in a web store with a privacy policy notice. Specifically, the research question of this study is formulated as follows: what is the effect of a privacy policy notice on trust and purchase intention in a web store, differentiated by culturally uncertainty avoidance?

This paper is structured as follows. First, the core notions of privacy and trust in relation to purchase intention are clarified. Additionally, uncertainty avoidance is related to culture, age, and gender differences. From this review, four hypotheses are derived. This section is followed by a detailed account of the methods and results of an experimental survey with a fictitious e-commerce web store. To this end, the findings are presented regarding the attitudes and purchase intentions of consumers from the Netherlands and from Romania.

## 2. Theoretical framework

### 2.1 Privacy and purchase intention

Information privacy in e-commerce refers to the degree of control that the individual consumer has over the type of personal information and the degree in which this information is revealed to others (Westin, 2003). Most web stores collect, store and share personal information about individuals. This information is used to support marketing strategies. Personalised images enable web stores to better meet the needs and wishes of their customers. However, concerns about the misuse of personal information can undermine customer confidence in online transactions and e-commerce (Caudill and Murphy, 2000; Kim and Peterson, 2017). The need for transparency and the prevention of misuse has raised legal concerns about the privacy of personal information. This major concern is reflected in new privacy laws for e-commerce. For example, in the European Union (EU), the General Data Protection Regulation (2018) served to bring into conformity the privacy regulations among the 28 member states.

Web stores should comply with these legal regulations and adhere to the standards. Responsible sellers implement privacy solutions in their web stores that explain how the personal information of their customers is handled. Hereby, there should be an ethical business balance between the benefits of using the consumers' information and the responsibility to maintain the consumers' privacy (Smith et al, 2011; Martin, 2020). There are considerable differences in the degree of prominence in which a privacy policy is included in a web store. Some privacy notices are an explicit description of the followed privacy policy while others only consist of a privacy policy link (Wilson et al., 2016). Hence, the degree of the privacy guarantee and perceived uncertainty to purchase vary depending on the type of privacy notices.

Several studies examined the relationship between consumers' privacy concerns and corresponding behavioural online intentions. Over time, surveys consistently report that consumers are concerned with how personal information is used. Akhter (2012) found that privacy concerns had a negative influence on online spending. In addition, Fortes and Rita (2016) found that consumers who were more concerned about their privacy were inclined to purchase less online. Tsai et al. (2011) designed an online shopping experiment in which privacy policy information was displayed using a shopping search engine interface. They compared the way consumers are mostly given privacy policy information (a link to a privacy policy on the merchant's site) to a more prominent and accessible method (with search engine results presenting privacy icons). Consumers tend to purchase more from online retailers when the privacy policy information was more explicitly given. These web stores were perceived as better ensuring their privacy. Aguirre et al. (2015) conducted a series of Facebook experiments. When companies openly collected personal information and then used it for highly personalised Facebook advertising, it negatively affected the click-through intention. They also showed that an explicit indication that the web store handles the information of the consumer confidentially will diminish the consumer's suspicion and subsequently mitigate the negative effect of privacy concerns. Consumers prefer to be able to control and have influence over the interaction process online. When they feel that they are in control of the process online instead of the web store

itself, a greater sense of freedom and satisfaction is reached. This fulfilment is in line with Reactance Theory (Clee and Wicklund, 1980), which proposes that people react to threats strongly when their freedom of choice is taken away or reduced. Weathers, Subhash, and Wood (2007) and Hsieh et al. (2018) found that the higher the control perceived by consumers, the higher the customers' satisfaction and purchase intention. The following hypothesis is formulated:

**Hypothesis 1.** A privacy notice in a web store influences the purchase intention of consumers.

## 2.2 Privacy and trust

In previous studies, three types of trust have been identified, namely, (a) initial trust, (b) trustworthiness, and (c) trust propensity (Colquitt et al., 2007). The usage of these terms is confusing, and they are often regularly mixed up. The aforementioned types can be applied to the characteristics of the consumers and the online shopping environment. First, initial trust refers to the consumers' initial perception of the web store. It describes the consumers' intention to accept vulnerability to a web store based on positive expectations of subsequent actions. In fact, it is a context-dependent subjective personal characteristic of a specific web store gauged by a specific consumer. Second, trustworthiness refers to the ability, willingness, and integrity of a web store. It is the basis for consumers' familiarity with online web store transactions. Finally, trust propensity refers to a distinct dispositional attribute of a person and refers to the general tendency to trust others; the willingness to depend on situations, persons, or both; and the independence of the online shopping environment.

The meta-analysis by Kim and Peterson (2017) revealed that a lack of trust is repeatedly identified as a limitation for people to engage in online transactions. In an online shopping environment, there is a higher chance that a consumer might perceive an unknown web store as less trustworthy due to a lack of information about the e-vendor, payment methods, or the delivery process. In a traditional shopping environment, this information is more easily accessible by, for instance, direct communication with an employee.

Furthermore, respecting the privacy of consumers has been positively related to the trust they have in a web store. Liu et al. (2005) developed a fictitious e-commerce bookstore. They found that compared to a low-privacy bookstore website, the participants had more trust in the high-privacy bookstore website that included the four dimensions of privacy: notice, access, choice, and security. These dimensions were legally required in the electronic marketplace in the US (FTC, 2000). Similar to findings of the comprehensive analysis of interface design factors by Wang and Emurian (2005), Karimov et al. (2011) and Martin (2016) underlined the crucial contribution of trustworthy web store features, such as a privacy notice, in inducing consumers' trust.

Altogether, it can be assumed that consumers have more trust in a web store that provides a privacy notice than one that does not. Hence, the following hypothesis was formed:

**Hypothesis 2.** A privacy notice in a web store influences the trust of consumers.

## 2.3 Trust and purchase intention

The three types of trust suggest three unique roles in the online purchasing process. For example, a person can have a high dispositional trust propensity, but based on web store specific visual cues (such as a privacy notice), the initial trust in a specific web store might be low. Therefore, a low initial trust might still lead to a lower purchase intention. In contrast, an online consumer with low dispositional trust but with positive beliefs in e-commerce (*i.e.*, trustworthiness) may still have a high intention to purchase online.

Several studies empirically confirmed that trust plays a significant role in shaping the purchase intention of consumers. More specifically, Chen and Barnes (2007) identified that trust propensity is positively related to online (initial) trust among Taiwanese visitors to an e-bookstore website. They also found that familiarity with online shopping (as part of trustworthiness) had an impact on purchase intention. These findings were confirmed by Gu, Wei and Xu (2016): trust propensity significantly influenced Chinese internet users in their intention to use wearable commerce. Similar to Eastlick, Lotz and Warrington (2006), surveying a representative sample of US households using the internet,

Oliveira, et al (2017) found for Portugal that privacy concerns influenced purchase intention with strong (negative) effects, both directly and indirectly through trustworthiness. The following hypothesis is formulated:

**Hypothesis 3.** Trust influences the purchase intention of consumers.

#### *2.4 Cultural differentiations*

Consumer differences in the willingness to trust others and situations are related to their cultural backgrounds. These differences in uncertainty avoidance refer to how people within a certain culture manage ambiguous situations and events that are beyond their control. Cultures that tend to score high in uncertainty avoidance place a high value on structure and security and do not prefer to take risks. The opposite is true for people in cultures with low uncertainty avoidance (Hofstede, 2020).

Bellman et al. (2004) carried out a global survey among internet users from 38 countries. They found that differences in information privacy concerns can indeed be explained by some of the cultural values indicated by Hofstede (2020). More specifically, individualistic, low uncertainty avoidant cultures are comfortable with higher levels of disclosing private information than collectivistic high uncertainty avoidant cultures. Supporting empirical evidence is provided by several studies (e.g., Chen, Hsu and Lin, 2010; Wu et al., 2015).

Obviously, the degree of uncertainty avoidance will have an effect on online purchase intention. For example, similar to Lim et al. (2004), Al Kailani (2011) found that people from cultures with a low tolerance for uncertainty will be more cautious in online shopping. They are therefore less likely to proceed with an online transaction than people from cultures with low levels of uncertainty avoidance. Therefore, it is argued that people in high uncertainty avoidance cultures, compared to low uncertainty avoidance cultures, need more convincing by the web store to establish trust. Only then might high uncertainty avoidant consumers decide to proceed with an online transaction in a web store. Cultures scoring high on uncertainty avoidance might, therefore, react stronger to cues in an online environment that have been found to affect perceived trust. Hence, the following hypothesis is formed:

**Hypothesis 4.** The cultural background (differentiated by uncertainty avoidance) of consumers moderates the relationships between (a) policy notice and purchase intention, (b) privacy notice and initial trust, and (c) initial trust and purchase intention.

The cross-cultural comparison is based on a sample that consists of Dutch consumers (from Western Europe) and Romanian consumers (from Eastern Europe). According to Hofstede (2020), Romania is a high uncertainty avoidance culture (a score of 90 on a 0-100 scale). The Netherlands has a lower avoiding uncertainty score, 53. This score indicates that Romanian consumers preferably avoid ambiguous or uncertain (online buying) situations compared to Dutch consumers. In Hofstede's paradigm, the construct culture refers to the national culture, which is the most dominant culture within a nation or country ("What was your nationality at birth", Hofstede and Minkov, 2013). In this study, a rather different, more dynamic, operationalisation of cultural difference is based on (ethnic) self-identification ("To what ethnic group do you belong?", Broeder and Extra, 1999) in combination with country of birth/living.

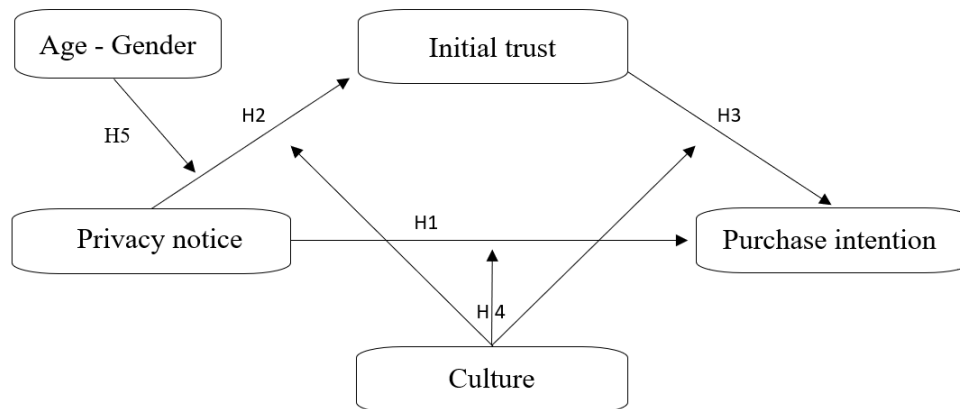
#### *2.5 Age and gender differences*

Prior research found that age and gender are related to online privacy concerns and online trust (Dommeyer and Gross, 2003; Bellman et al., 2004; Lancelot, Miltgen and Peyrat-Guillard, 2014; Chou, Chen and Lin, 2015). Remarkably, these variables have never been investigated across cultures. Hence, these demographics are taken into account in the present study. It is expected that younger consumers are less concerned with privacy than older consumers and that male consumers are less privacy concerned than and female consumers. The following hypothesis is formulated:

**Hypothesis 5.** Age and gender influence the relationship between the privacy policy notice and trust.

### 3. Methodology

The present study had a two (Privacy policy notice: absent vs. present) by two (Culture: Dutch vs. Romanian) between-subjects design. The conceptual model is given in Figure 1.



**Figure 1.** Conceptual model of the present study

The dependent variable was purchase intention. In the conceptual model, trust was assumed to mediate the relationship between the privacy policy notice and purchase intention. Culture was assumed to moderate the relationships between the privacy policy notice, trust and purchase intention. The demographic variables were age and gender. Additionally, Figure 1 shows how the five hypotheses fit in the conceptual model.

#### 3.1 Sample

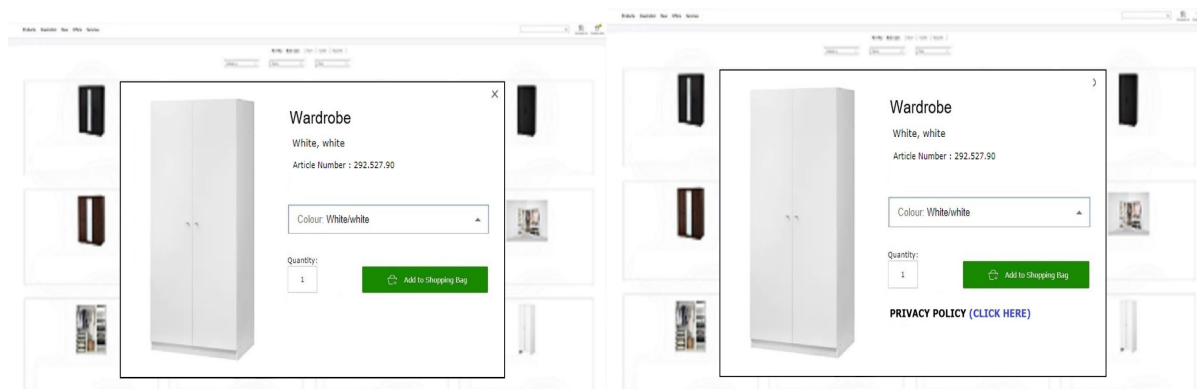
In total, 283 participants completed an online survey. The final sample used in the analyses consisted of 237 participants. They described themselves (“To what ethnic group do you belong?”) as Dutch or Romanian. Their self-identification matched their birth-country and their country-of-living. There were 131 participants from the Netherlands and 106 participants from Romania, including 123 men and 114 women. The mean age was 26 years (Age range: 18-60 years). The demographic distributions of the sample are given in Table 1.

**Table 1.** Demographic information of the sample in this study (in percentages)

	Dutch (N = 131)	Romanian (N = 106)
Gender		
Male	51%	53%
Female	49%	47%
Age		
18–29	84%	76%
30–39	7%	20%
40–60	9%	4%
Education		
High school	30%	34%
Middle/Higher education	42%	11%
University	28%	55%

### 3.2 Stimulus material

The participants were asked to imagine that they were “looking for a new wardrobe on an international web store”. Then, they saw a picture of a white wardrobe in the context of an Ikea-like web store page. The type of wardrobe and the background were considered to be neutral to reduce any distraction or symbolic meaning across cultures. There were two variations of the web store page (see Figure 2). In one condition, there was no privacy policy notice. In the other condition, the following notice was given in capital letters: **PRIVACY POLICY (CLICK HERE)**. The participants were randomly assigned to one of the two conditions.



**Figure 2.** Wardrobe offered in a web store context: without a privacy policy notice (left) and with a privacy policy notice (right).

### 3.3 Measures

Participants responded to the questionnaire items using a 5-point Likert scale (from 1 = “strongly disagree” to 5 = “strongly agree”).

- Purchase intention was measured with one item (“I would such as to buy this product”),  $M = 2.91$ ,  $SD = 0.95$ .
- The three types of trust were measured with statements derived from Chen and Barnes (2007).
  - (a) Initial trust was measured with one item (“This website is trustworthy”),  $M = 2.97$ ,  $SD = 0.89$ .
  - (b) Trustworthiness (familiarity with online transactions) was measured with two items (“Prior online purchase experiences from other websites make me feel comfortable in using this website” and “Prior experiences make me believe in the future actions of this website”),  $M = 3.16$ ,  $SD = 0.86$ , with an inter-item correlation = .69. A third item (“Prior experiences facilitate my purchase intention decision making process”) was excluded because of poor consistency with the other two items.
  - (c) Trust propensity was measured with one item (“It is easy for me to trust a person”),  $M = 2.95$ ,  $SD = 0.92$ .
- To measure the perceived privacy, a new scale was constructed that consisted of three items (“This website guarantees my privacy”, “This website takes good care of my personal information”, and “This website keeps my privacy safe”),  $M = 2.81$ ,  $SD = 0.80$ . The privacy scale had an excellent internal consistency with a Cronbach’s  $\alpha = 0.91$ .
- Uncertainty avoidance was measured with seven items adapted from Jung and Kellaris (2004) (e.g., “I prefer structured situations to unstructured situations”),  $M = 3.45$ ,  $SD = 0.61$ . This scale had an acceptable internal consistency with a Cronbach’s  $\alpha = 0.78$ .
- Online booking experience was checked with one item (“I have experience with online shopping”),  $M = 4.47$ ,  $SD = 0.67$ .

- Finally, there were two specific questions checking whether the web store was perceived as realistic (“I think this website is realistic”) and whether the absence/presence of the privacy notice was noticed (“In the advertisement I saw PRIVACY POLICY (CLICK HERE)”. In addition, two general questions checked the awareness (“I am aware of the concept of Privacy Policy Statement”) and the importance of a privacy notice (“I think it is important that a website contains a Privacy Policy Statement”).

## 4. Results

### 4.1 Manipulation check

A check was done whether the participants correctly identified the web store page they saw. In the notice absent condition, 11 participants (8%) incorrectly reported that they saw a privacy policy notice. Interestingly, in the notice present condition, 35 participants (22%) reported incorrectly that they did not see a privacy policy notice. It could be that these subsamples were still more or less influenced by the absence/presence of the policy notice. Nevertheless, these participants ( $N = 46$ ) were removed. The final sample for further analyses consisted of 237 participants.

The web store pages used in the condition, with or without a privacy policy notice, were perceived as realistic ( $M = 3.24$ ,  $SD = 0.99$ ). Two-way ANOVAs revealed no significant differences (and interactions) in the perceived realism between the conditions and between the cultural groups. On average, both groups reported sufficient experience with online shopping and they did not differ in this respect: for the Romanian participants,  $M = 4.44$  and  $SD = 0.73$ ; and for the Dutch participants,  $M = 4.49$  and  $SD = 0.63$ . Table 2 compares the average perceived privacy in both conditions.

**Table 2.** Manipulation check (means on a 5-point-scale, completely (dis)agree, 1 = min. and 5 = max.)

	No privacy notice condition (N = 115)	With privacy notice condition (N = 122)
This website guarantees my privacy	2.56 (0.77)	2.96 (0.89)
This website takes good care of my personal information	2.70 (0.70)	2.95 (0.81)
This website keeps my privacy safe	2.74 (0.71)	2.93 (0.83)

The ANOVA’s confirmed the intended manipulation through the two conditions. There was a significant main effect of adding the privacy policy notice on the privacy perception of the web store,  $F(1, 237) = 1.045$ ,  $p = .016$ , however, the effect size was small (partial eta squared = .04). These findings provide empirical evidence for the successful manipulation by adding the privacy policy notice.

### 4.2 Hypotheses testing

A regression analysis was performed using the PROCESS procedures (model 59) developed by Hayes (2018). In this analysis, privacy notice was used as the predictor for booking intention and initial trust was entered as the mediator. Familiarity (trustworthiness) and trust propensity were the co-variates. The significance of the effects was tested with bias-corrected and accelerated (BCa) confidence intervals (CI) based on 5000 bootstrap samples. The outcomes of this analysis are presented in Table 3.

Table 3 shows that in the statistical model (depicted in Figure 3), there was no significant direct effect of adding the privacy notice ( $c'$ ). For the mediation, the regression coefficient between privacy and trust ( $a_1$ ) was not significant. In contrast, there was a significant positive regression coefficient between trust and purchase intention ( $b_1$  with 95% BCa CI [0.19, 0.50]). This coefficient means that with increasing trust in the web store, participants also had higher purchase intention. Additionally, trustworthiness based on previous familiarity had significant positive effects on trust in the web store

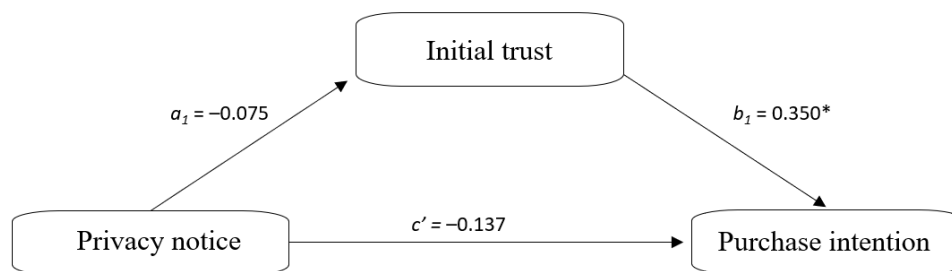
( $f_1$  with 95% BCa CI [0.50, 0.74]) and purchase intention ( $g_1$  with 95% BCa CI [0.04, 0.34]). For trust propensity, no statistically significant effects were observed ( $f_2$  and  $g_2$ ).

**Table 3.** Regression coefficients, standard errors (SE) and model summary information (based on 5000 bootstrap samples) for the effect of the privacy notice model

Independent	Dependent							
	M (Initial trust)			Y (Purchase intention)				
	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>		
<i>X</i> (Privacy)	$a_1$	-0.075	0.094	.421	$c'$	-0.137	0.112	.222
<i>M</i> (Initial trust)	—	—	—	$b_1$	0.350	0.078	<.001*	
<i>W</i> (Culture)	$a_2$	0.009	0.098	.922	$b_2$	0.086	0.112	.462
<i>X</i> x <i>W</i>	$a_3$	-0.171	0.187	.360	$b_3$	-0.269	0.224	.231
<i>M</i> x <i>W</i>	—	—	—	$b_4$	0.120	0.126	.924	
<i>CI</i> (Familiarity)	$f_1$	0.623	0.056	<.001*	$g_1$	0.190	0.082	.021*
<i>C2</i> (Propensity)	$f_2$	0.010	0.053	.853	$g_2$	-0.038	0.064	.549
Constant	$i_M$	-2.000	0.222	<.001*	$i_Y$	2.416	0.306	<.001*

$R^2 = 0.37,$   
 $F(5,231) = 27.528, p < .001$

$R^2 = 0.22,$   
 $F(7,229) = 9.448, p < .001$

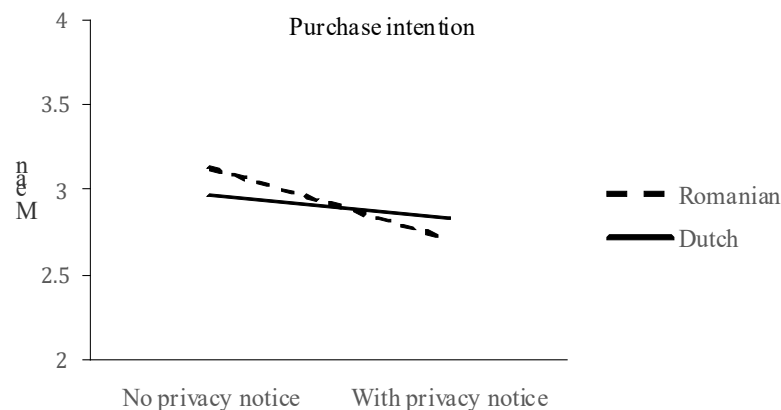


**Figure 3.** Model of privacy notice as a predictor of purchase intention, mediated by trust

An independent t-test confirmed that in the sample of this study, on average, the Romanian participants ( $M = 3.64, SD = 0.57$ ) were more uncertainty avoidant than the Dutch participants ( $M = 3.29, SD = 0.59$ ). This difference, 0.35, was significant ( $t(235) = -4.58, p < .001$ , with a bootstrapped BCa 95% CI [-0.50, -0.20]), and represented a medium effect of  $d = 0.60$ . This finding for differences in uncertainty avoidance between the Romanian and Dutch samples supported the outcomes of the ethnic self-identification measure. The mean purchase intention per condition and per group is visualised in Figure 4.

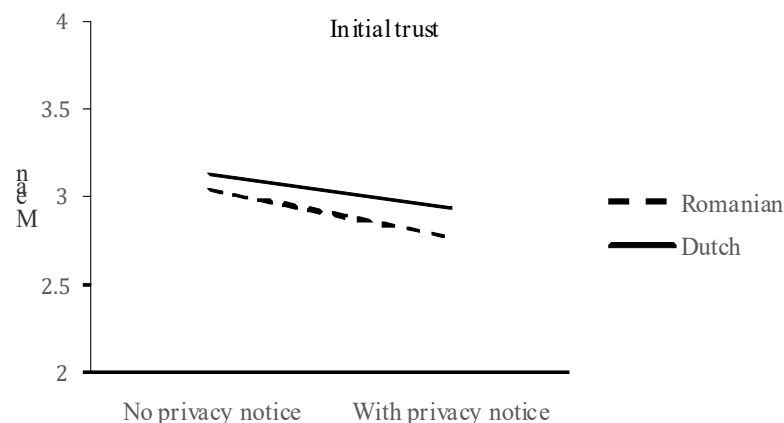
Remarkably, both the Romanian and Dutch samples had lower purchase intention in the web store with the privacy notice (respectively  $M = 2.71, SD = 1.09$  and  $M = 2.83, SD = 1.06$ ), compared to the web store without the privacy notice (respectively  $M = 3.13, SD = 0.75$  and  $M = 2.97, SD = 0.80$ ). However, as seen in Table 3, the effect of culture on purchase intention was not statistically significant ( $b_2$ ). Additionally, no significant interaction effect was found ( $b_3$ ). This outcome means that the relationships between the privacy notice and purchase intention were not moderated by culture.





**Figure 4.** The effect of a privacy policy notice on purchase intention per culture (Mean scores on a 5-point Likert scale, “completely (dis)agree”, Min.= 1 and Max. = 5)

The mean trust per condition and per culture is plotted in Figure 5. Both the Romanian and Dutch samples have on average lower trust in the web store with the privacy notice (respectively  $M = 2.77$ ,  $SD = 1.00$  and  $M = 2.94$ ,  $SD = 0.81$ ), compared to the web store without the privacy notice (respectively  $M = 3.04$ ,  $SD = 0.85$  and  $M = 3.13$ ,  $SD = 0.09$ ). In both conditions, the average trust is higher for the Dutch sample. Again, as seen in Table 2, the effect of culture for trust was not statistically significant ( $a_2$ ). Additionally, no significant interaction effect was found ( $a_3$ ). This result means that the relationships between the privacy notice and trust were not moderated by culture.



**Figure 5.** The effect of a privacy policy notice on initial trust per culture (Mean scores on a 5-point Likert scale, “completely (dis)agree”, Min.= 1 and Max. = 5)

To examine whether the privacy notice (as the independent variable) interacts with age in predicting purchase intention (as the dependent variable) in both cultures, a simple moderation analysis was performed using the PROCESS procedures (model 2). Culture and age were the two moderators. The overall model was significant ( $R^2 = 0.08$ ,  $F(5, 231) = 4.28$ ,  $p < .001$ ). There was a statistically significant main effect for age ( $b = -0.026$ ,  $p < .001$ , with a bootstrapped 95% BCa CI  $[-0.34, -0.01]$ ). This outcome means that the younger participants were more inclined to purchase the

product than the older participants. In addition, the interaction of age and culture was significant ( $b = -0.029$ ,  $p < .0521$ , with a bootstrapped 95% BCa CI  $[-0.05, -0.00]$ ). This outcome would imply that the age effect was stronger for the Dutch group compared to the Romanian group.

In a second moderation analysis (model 2), with gender and culture as the moderators of the relationship between privacy and purchase intention, there were no statistically significant interactions. This outcome means that for both cultures, no significant differences in purchase intention between male and female participants were found.

## 5. Conclusions

This study investigated the effects of (not) having a privacy policy notice on a web store. Does the privacy notice influence trust in the web store, and does this influence lead to higher purchase intention in the web store? In addition, what is the influence of the cultural background of consumers?

In this study, a direct effect of a privacy policy notice on purchase intention was not found. A web store with a privacy policy notice did not result in a higher purchase intention compared to a web store without a privacy policy notice. Conversely, a higher purchase intention with no privacy notice was also not supported (Hypothesis 1).

Neither the absence nor the presence of a privacy police notice resulted in either lower or higher trust in the specific website. However, there was a positive influence of trustworthiness in general. Prior familiarity with online transactions led to more trust in a specific web store (Hypothesis 2).

In this study, there was an indirect effect of a privacy policy notice on purchase intention. The findings showed that initial trust played a mediating role in the influence of the privacy policy notice on purchase intention. In particular, more initial trust led to a higher purchase intention (Hypothesis 3).

Cultural differences in uncertainty avoidance were noted for the Romanian and Dutch groups in this study. However, these differences did not result in different privacy and trust perceptions and purchase intention for the web store. There was no evidence for cultural moderating the relationship between the privacy policy notice and purchase intention (Hypothesis 4a), the relationship between the privacy police notice and initial trust (Hypothesis 4b), and the relationship between initial trust and purchase intention (Hypothesis 4c).

Finally, the only cultural difference was related to age. In both groups, younger participants had higher purchase intention than older participants. This effect was stronger for the Romanian than for the Dutch participants. A gender effect on purchase intention could not be observed in both groups (Hypothesis 5).

## 6. Research limitations and further research

This study has some limitations, of course. A first limitation is that the questionnaire was drafted in English, which is not the native language for both the Romanian and Dutch participants. This limitation is an important point of attention in cross-cultural studies. In this respect, Harzing's (2005) cross-country study showed the language impact on response patterns related to cultural values of, for example, relationship hierarchy and individualism. Their empirical comparison of 24 countries confirmed earlier research that differences between countries are smaller for English-language questionnaires than for native-language questionnaires. A second set of limitations is related to the online shopping environment. Although the web store in this study was perceived as realistic by the participants, in fact, it was a fictional web store that was stripped of basic information, such as seller information, shopping carts, or payment options. A specific type of product (a wardrobe) was offered. It would be interesting to do further investigations with other product categories, such as electronics, clothes, or hotel bookings, on other platforms, such as Airbnb. In addition, when determining consumer preferences, hedonist attributes ("nice wardrobe") and utilitarian attributes ("convenient wardrobe") should also be taken into account.

With a globalising online world, culture as a set of individual shared common thoughts will disperse and reinforce. The original theoretical contribution of this study is that self-categorisation is a better way to identify cultural groups compared to categorisation based on nationality and country. Therefore, the findings of this study provide some valuable insights regarding the local/global cultural

adaptation of privacy concerns in a web store. More specifically, the indirect effect of a privacy policy notice on purchase intention (via trust concerns) points at different activation levels of privacy concerns of consumers.

The managerial implications of this study are that, by all means, e-sellers should respect and not ignore the (perceived) privacy of their online customers. Several studies by Brough (2020) showed that privacy issues often remain dormant until triggered by the disclosure notice of privacy-related information. Accordingly, the inclusion of a privacy notice can therefore also be counterproductive. This information is of interest to e-sellers. An online shopping environment should be designed to prevent possible uncertain situations. This prevention makes consumers more confident about their online behaviour, which can result in enhanced performance. Then, a privacy policy notice functions as a guarantee for the consumer, not as a warning for the web store. A successful e-seller strives for personalisation of the web store atmospherics and evaluates potential individual variations in the culture, age, and gender of the customers. The “ecological fallacy” (Winzar, 2015) to keep in mind is that the findings of this study (like most cross-cultural studies) generalise across groups. The salience of a privacy policy notice also depends on the relative importance of competing cues, such as blue as the colour of trust (Broeder and Snijder, 2019) or red as the colour of emotion (Broeder and Wildeman, 2020).

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