

# Influence of Website Attributes on Consumer Acceptance of Cross-Border Electronic Commerce

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**Abstract**— Cross-border electronic commerce has additional complexities when compared with domestic electronic commerce, both from the vendor and the consumer point-of-view. The situation of buying from foreign websites brings into play different issues that could affect the purchase intention of the consumer. This research (currently in progress) will attempt to establish the differences in purchase intention when the consumer is faced with a foreign website. A survey will be conducted among Japanese respondents, using mock websites with attributes in a 2x2 combination: language (English or Japanese) and import duties information disclosure (no details or detailed information). With this study we hope to contribute to the understanding of consumer behavior with respect to the specific characteristics of cross-border electronic commerce, for the benefit of internationalization efforts in online shopping.

**Keywords**— Cross-border electronic commerce, trust, TAM, language localization, consumer behavior

## I. INTRODUCTION

Electronic commerce has the advantage of being able to reach consumers across great distances, a fact that was recognized since the early days of this technology. In particular, the potential to reach consumers from all over the world was looked at as a great advantage of electronic commerce.

Today electronic commerce is used by more than half the population in developed countries on a regular basis [1]. But this use is largely confined to domestic purchases. Electronic commerce that targets purchases from foreign websites, that is, cross-border electronic commerce, is still rarely used by most consumers [2].

This situation is understandable in the face of the many logistical challenges that exist, and that both vendors and consumers have to face. On the side of the vendor, to be able to offer products globally a number of additional logistical issues have to be

taken into consideration, such as currency exchange and international delivery of products, for example.

On the side of the consumer, there is the advantage of an increased diversity of products and retailers, and the fact that items could be found at cheaper prices than the local market. On the other hand, delivery times are longer and the different languages, cultures and laws that are involved become additional elements of anxiety in the process.

Even with all these barriers, cross-border electronic commerce is happening right now and consumers are making use of it. In this paper we would like to introduce a research (currently in progress) to analyze the website attributes that influence the purchase intention of consumers with regard to foreign websites, that could help encourage further use.

## II. CROSS-BORDER ELECTRONIC COMMERCE AND TRUST

### A. Technology Acceptance Model (TAM)

A considerable proportion of research about the factors of consumer acceptance of electronic commerce technology has been done in the context of domestic electronic commerce. In these studies it is understood, whether it is written explicitly or not, that both the website and the consumer come from the same country. TAM is a very well researched model in electronic commerce [3], and has been widely used in domestic contexts, but it also has been used in cross-border electronic commerce [4].

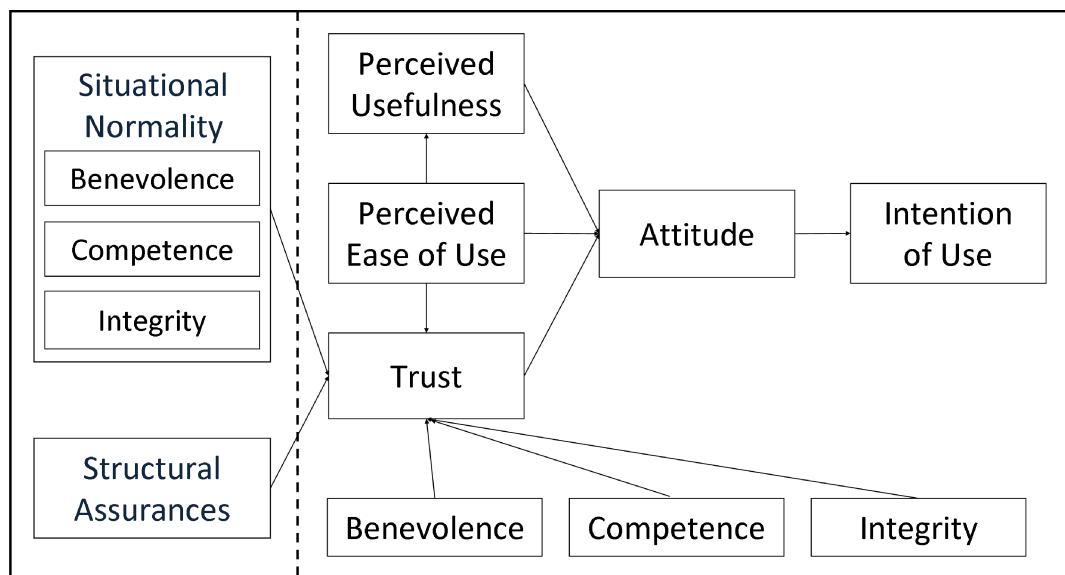


Figure 1. Research model

### B. Trust

In addition to Perceived Usefulness and Perceived Ease of Use, this study will consider Trust in the proposed model.

Multiple studies have added trust in TAM [5] [6] [7]. Unfortunately, there doesn't seem to be a clear consensus on the relationship between trust and the other constructs of TAM, resulting in a variety of models [8]. To complicate matters further, there also exists some conflict as to how to define trust and related constructs such as perceived trustworthiness, risk, etc [9].

For the purposes of this study, we will define trust as "a set of specific beliefs" [5]. Consumers' trust on electronic commerce has been shown to be fairly complex and multidimensional [10] [11] and so we will include subconstructs to evaluate it more comprehensively. Figure 1 shows the research model constructs and relationships.

### III. INFLUENCE OF WEBSITE ATTRIBUTES

We have chosen to focus on two of these attributes in this study. One is language, which given the amount of text-based content in electronic commerce is one of the most visible characteristics of difference in foreign websites. The second website attribute has to do with a logistical problem that is usually outside the control of the electronic commerce vendor, but that has an impact in the behavior of the consumer: import duties. Import

duties are a very real, but many times unknown, cost of buying in a foreign website.

#### A. Influence of Language Localization

When appealing to an international audience, one of the first website characteristic to take into consideration is language. The descriptions in the website help the consumers make the decision whether to trust enough to make a purchase, which makes it crucial to make the text accessible to them.

In many cases, websites are translated into English, which is perceived to be the language for international communication.

One step further is to localize the website to particular languages. Consumers are likely to prefer a website that is adapted to their own language [4]. But with every additional option the cost in time and resources increases for the website.

#### B. Influence of Information Transparency: Import Duties

The consumer faces an additional cost when buying from foreign countries, which is sometimes unseen or unknown to them. Certain items involve import duties, but the extent of information about this requirement in most websites is reduced to a statement of disclaimer of responsibility on the part of the vendor. Complicated and unclear laws make the task even harder for the consumer [2]. If the consumer is not aware of the existence of import duties, and is charged a previously unknown amount of money to receive the product, this could

affect their decision to purchase or to continue purchasing in foreign websites. Clarifying this added charge could benefit the vendor and ease the anxiety of the consumer.

#### IV. METHODOLOGY

##### A. Setup

We will develop four alternative mockup websites that imitate the product information page and checkout page of a non-Japanese electronic commerce store. The mockup websites will be the result of the 2x2 combination of attributes, and so will be differentiated by language and import duties information but will be identical in all other respects. The values for language localization are: the native language of the respondent (in this case, Japanese) or English. The values for import duties information disclosure are: detailed information (showing the category of the product, and the import duties rate and amount) or no detail. Figure 2 illustrates the proposed configuration.

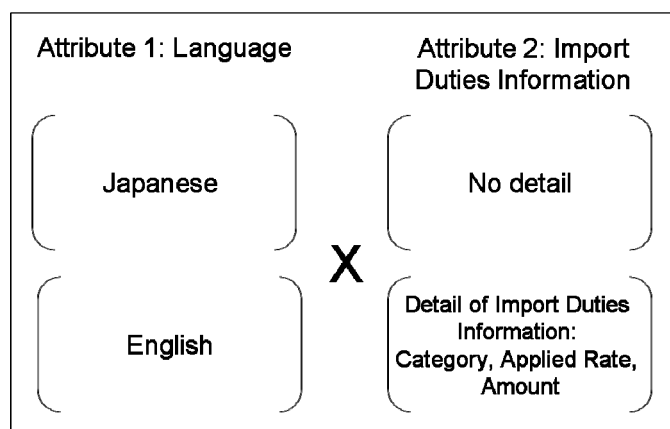


Figure 2. The 2x2 combination of attributes

The respondents will answer a questionnaire that will include images of one of the four alternative mockup websites. The alternative shown to the respondent will be assigned randomly, and we will have four resultant groups of respondents for the subsequent analysis.

##### B. Questionnaire

The questionnaire will be originally written in English, to be later translated into Japanese by native language speakers familiar with electronic commerce. To ensure that the translated measures

retain their original meanings, there will be a revision process by native language speakers.

##### C. Analysis

The data obtained from each group of respondents will be analyzed to test the proposed model, using factor analysis. Then it will be compared between the groups to establish the differences in the responses and the strength of relationships between constructs, and how they were affected by the characteristics of each alternative mockup websites.

#### V. CONCLUSION

Cross-border electronic commerce comes with its own set of challenges. With this research (currently in progress) we wish to contribute to try and bring some light into consumer behavior with respect to the specific characteristics of cross-border electronic commerce. Language localization of an e-commerce site comes with a cost for the vendor, and so does showing import duties information on the website.

These two attributes are not the only ones that could influence the consumer behavior in cross-border electronic commerce, but this limited number has been chosen for the sake of parsimony. Further work should include other attributes particular to this type of online shopping.

We hope this future research will contribute to the improvement of the electronic commerce market by clarifying the impact of website attributes on the purchasing intention of consumers, as the knowledge would benefit the internationalization efforts of online vendors.

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