

# Cultural Differences and Different Stimuli for Online Purchasing Intention

Alessandro Bigi, Michelle Bonera, and Elisabetta Corvi

*Several managerial and marketing research has investigated the primary antecedents/drivers involved in the online trust building process. The impact exerted by each of these stimuli on consumers' purchase intentions, varies on the basis of the cultural characteristics of the country where the e-commerce store is available. Therefore, in order to use actively such stimuli it is important to understand possible relations between cultural differences and online purchasing antecedents. The study aims to explore such relations addressing the research on online purchasing segments in countries that show cultural differences.*

## 1. Introduction

Many research has lately explored online consumer behavior in purchase decision making (SivaKumar and Gunasekaran, 2017; Bonera, 2011; Moon, 2004; McGaughey and Mason, 1998). The impact exerted by each of these stimuli on consumers' purchase intentions, varies on the basis of the cultural characteristics of the country where the e-commerce store is available. Therefore, in order to use actively such stimuli it is important to understand possible relations between cultural differences and online purchasing antecedents. The study aims to explore such relations addressing the research on online purchasing segments in countries that show cultural differences. After a literature review, some relations will be proposed, and the methodology will be explained. In the results section, the segments founded in the three countries will be described, and the stimuli that have the most impact on purchasing behavior will be commented. The rest of the paper is organised as follow: Section 2 deals with literature review, Section 3 focuses on methodology, Section 4 talks about results and Section 5 contains conclusion.

## 2. Literature Review

There are many categories of factors (stimuli), which exert a positive or negative effect (on the basis of how they are used and perceived) on the consumer's purchasing behavior. Some of these are strictly related to the website characteristics (website design factors, privacy, security, online communities, and so on), others instead, related to the characteristic of the individual (gender, age, disposition to trust, past purchase experiences) or e-vendor (reputation and size of the e-vendor) (Shankar, 2002).

Concerning the website characteristics, for example, the e-vendors perceived willingness to customize exerts a significant impact on consumer initial e-trust (Koufaris, 2004). A website that provides customized products and services, signals

---

Alessandro Bigi, Università degli studi di Verona, Verona, Italy, Email: [alessandro.biggi@univr.it](mailto:alessandro.biggi@univr.it)  
Michelle Bonera, Università degli studi di Brescia, Brescia, Italy, Email: [michelle.bonera@unibs.it](mailto:michelle.bonera@unibs.it)  
Elisabetta Corvi, Università degli studi di Brescia, Brescia, Italy, Email: [elisabetta.corvi@unibs.it](mailto:elisabetta.corvi@unibs.it)

to its customers that it cares about them and so, that it is willing to make an extra effort to provide them with the best service possible. Other website's characteristics (online community, website design factors, and privacy and security) have been found to affect customer's trust in the e-vendor. Online communities, such as chat groups and forums, play a fundamental role in the electronic commerce context, as they promote information exchange, knowledge sharing, and offer a supportive environment for the purchaser, thus increasing consumer trust on the site (Bart et al., 2005). According to Calefato et al. (2015), the possibility to evaluate information through the site enhances the perception of a vendor's benevolence and openness towards consumers. Moreover, online stores that directly expose themselves to users' feedbacks and personalization requests, result being more credible and self-confident about the quality of goods and services they provide. Fogg et al. (2009) stated, instead, that consumers usually made their judgments, about the website credibility, based on design including layout, typography, font size, and colorscheme. Faisal et al. (2016) pointed out that the attributes related to the aesthetic quality and the layout of the website are the major features, influencing the customer's trust towards e-commerce sites. Colors, typography, ease of navigation, quantity, quality and timelessness of information facilitate customers during the shopping process, increasing their trustworthiness perception towards the website. Tan (1999) emphasized the importance to use colors and images in building users' trust with e-commerce websites. Penat (2013) studied the effect of colors in building consumer's trust towards the e-vendor and found that color is an important e-commerce interface factor influencing customers trust. First, colors facilitate customers in the shopping process. Second, a careful selection and use of colors reinforce user's perception of the e-vendor competence. When color is used to provide a presentation of information, which is clear and enhanced in terms of visibility, it has a positive impact on consumers trust. Eventually, the use of colors, which are low in saturation convey comfort as well as seriousness and professionalism to the customer, creating a perception that the online vendor is honest and reliable. In particular, by using a color scheme, which reminiscent of the natural environment, lead consumers to have more positive responses towards the website.

Eventually, the additional website features frequently investigated in the e-trust formation, are privacy and security. According to Mandic (2009), if the website includes effective policies, to keep customer's data confidential and safer, consumers will be more willing in establishing long-term relationships with the online store. Conversely, lack of privacy and security measures on the website would decrease the customer's engagement in e-commerce. According to a Malaysian study over 240 online young web users, privacy and security are considered together with the customer service, reliability, and fulfillment, the main predictors used to assess whenever the e-retailer is trustworthy (Zendehdel, 2016).

Besides website characteristics, other features, related to individuals, have also been found to influence online trust as well. Shankar (2002) stated that individual characteristics such as gender, age, educational level, personal values, attitude towards online shopping, familiarity with the e-vendor, past purchase behavior, feeling of power and control and dispositional trust dramatically influences consumers' trust toward the e-seller. Eventually, Tan and Sutherland (2004) found that consumer personality traits as well, such as extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience, exert a significant

influence in the e-trust development, as they lead to a higher or lower individual disposition to trust.

Besides, the e-trust building process depends on the reputation and size of the e-vendor (Jarvenpaa et al. 1999). The reputation of an online store is considered a key determinant in generating e-trust, especially when consumers do not have any previous personal experience with the seller. Indeed, e-vendors with a good reputation usually convey certainty and fewer risks in conducting online transactions compared those with a bad reputation. Likewise, also the size of an online store has been found to have a significant role in the online trust development process, as it can be used as an indicator of the company's capabilities. An e-vendor with a large market suggests having the ability to compensate buyers if a loss occurs as well as the necessary support systems to engender trust and loyalty (Jarvenpaa et al. 1999). These stimuli affect the buyer's degree of trust towards the e-vendor, which is a significant factor that influences their purchasing intentions and behaviors. There are primarily two results that come with an increased 'online trust'. On the one hand, an increase in this kind of feeling allows the consumer to reduce the perceived risk and uncertainty associated with online transactions, stimulating his buying intention, while on the other hand, it allows developing a fidelity relationship with the e-vendor, increasing his re-purchase propensity. Trust is considered as a construct able to mediate between the drivers related to the characteristics of the consumers, the website and the e-vendor, and the intentions and behaviors of the online purchaser (Shankar, 2002).

## **2.1 Stimuli**

The impact exerted by each of these stimuli on consumers' purchase intentions, varies on the basis of the cultural characteristics of the country where the e-commerce store is available. The Hofstede dimensions (1980, 2001) have been used to explain the reasons why different countries assess differently aspects like privacy, security, website visual appeal, navigation design, and social media in their online purchasing decision-making. Depending on whether the country considered has a high or low level of a specific variable (individualism, uncertainty avoidance, masculinity, long-term orientation, and indulgence), it is possible to deduce the characteristics that the website should have. In particular, the two dimensions used in the research are individualism versus collectivism and uncertainty avoidance index. Besides, we will focus, in the present research, only on some of the described stimuli: privacy concerns (related to the personal data released online); security concerns (related to the online payment methods); website visual appeal; navigation design; social media.

## **2.2 Privacy**

The worries regarding the privacy of the personal data released online have exponentially increased since the emergence of the worldwide e-commerce. Despite increasing talk of regulation enforcement, best practices, and self-regulatory measures, many consumers still consider data privacy a concerning issue in the e-commerce.

The kind and the number of the personal data released when browsing and during an online purchase, depends on the cultural characteristics of the buyers. Knowing

these features and the level of concern about the privacy online in a specific country becomes a key factor since it allows to operate on the degree of trust that the buyers put on the website and consequently on their intent to purchase. Buyers, who perceive a high level of privacy respect in a website, will be more willing to provide information to the e-vendor (i.e., demographic information, email address, and so on) as they consider it more reliable and therefore they will also be more likely to buy online.

The difference in perception of their worries relating to the privacy vary depending on whether the country has an individualistic culture or a collectivist one. Significant differences have been proved indeed, in the types of personal information release. An example of this can be found in the users of an individualistic culture like the USA rather than in a collectivist culture like India: the USA users are more willing to give strictly personal information such as date of birth, phone number, e-mail address and information relating to their way of life; whereas the Indians only release limited data like, names and the email addresses.

The reason is that the collectivist cultures are used to share information with their family members and with the community to which they belong, in order to maintain good relations. The same is then applied to the organizations and to the companies, which are considered part of the society. This causes the collectivist cultures to perceive a lower degree of risk by providing personal data because it is seen neither as a negative fact nor as a potential danger. The individualistic cultures are, however, more reserved and less interested in developing interpersonal relationships, so they will be more reluctant to grant online sensitive data, perceiving a high degree of risk that they are not prepared to overcome. That is the reason why they take some measures: active measures, provide false information, unsubscribe from a marketing list and delete the cookies. These are behaviors adopted with no differences in both cultures; passive measures, reading into the details and reading quite often, the privacy policy and data protection, using specific software to protect the information.

Knowing the kind of information that consumers are prepared to disclose in a specific country, allows the e-vendors to realize websites that infuse trust and propensity to purchase. Greater the risks related to privacy concerns in a particular country, greater will be the norms related to privacy, which the e-vendor must implement to ensure consumers greater security and protection when they shop online.

The online vendor cannot think to transfer the privacy policy from a country to another, because the consumers will show different sensitivity and habits which will then reflect on consumers' shopping behavior.

Therefore, the following hypothesis is derived. H1: *Privacy concerns relating to the personal data released online will mostly affect consumers' online buying intentions in the individualistic culture compared to collectivistic culture.*

### **2.3 Security**

Another relevant factor of the e-commerce is the high/low consumers' confidence placed in the online payment systems. A company that sells a product, across the national borders, should be aware of the degree of users' worries about the safety of

online payment methods in each country where it owns an online store, as it will also influence consumers' intent to purchase.

The level of concern perceived about the safety of online payment systems varies depending on the high or low level of uncertainty avoidance of the country considered. In countries exhibiting high uncertainty avoidance index, security is an essential element of self-motivation. The decisions are taken after a careful analysis of all available information, and only one safer and less risky option will be considered. By contrast, in countries that show a weak uncertainty avoidance index, innovation is the principal driver that motivates the individual choices. Consumers will encounter fewer concerns as regards security and they will tolerate more risky and ambiguous situations. (Hofstede, 2016)

From the analysis above, it is possible to deduce that people living in a country with a high uncertainty avoidance index, will perceive more worries upon payment on Internet, which could consequently disincentive them to purchase.

This different way to perceive security among countries could also be reflected in the choice of online payment mechanisms. In risk adverse countries, consumers may prefer traditional online payment typologies, which seem safer and offer greater guarantees against fraud. Meanwhile, countries that mainly tolerate the risks may use, instead, more innovative and faster online payment systems, that allow them to perform the online transaction within the minimum amount of time.

It is very important to be aware of the worries related to online safety in various countries because, on the one hand it allows to the e-vendor, in case of significant concerns, to implement security policies in order to increase the awareness of users about the trustworthiness of online payment systems, and on the other hand it also allows to understand what type of online payment should be made more available on the e-commerce website of one country compared to another. Obviously, when selecting the type of payment, the level of technological development in a specific country is also relevant.

Therefore, the following hypothesis is derived. H2: *Security concerns relating to online payment methods most affect the consumers' online buying intentions in an individualistic culture when compared to the collectivistic culture.*

## **2.4 Website Design Aspects**

Also, website design aspects play an important role in affecting online buying behavior. The website design should be conceived and created according to the needs and the way of thinking of different countries. Marcus and Gould (2000) discussed how Hofstede's dimensions could be related to the graphical organization of a site. Frequent images of success, emphasis on change, and progress will be characteristic of highly individualistic countries whereas websites in collectivistic countries, will emphasize experience, history, and tradition. Moreover, in collectivistic cultures, there will be displayed images of individuals in groups dancing or doing sports whereas, in individualistic cultures, individuals will be portrayed individually in more relaxed situations.

With regard to the uncertainty avoidance dimension, interfaces in countries with high uncertainty avoidance index will be simple with clear metaphors and limited choices, few links in each page, limited scrolling, references to daily life and redundancy of information to reassure the users about the trustworthiness of the site; low uncertainty avoidance website, in contrast, will provide a variety of choices, many links in each page, long pages with scrolling and abstract images.

It can be inferred that collectivistic countries most appreciate, when buying online, a clear and straightforward navigation design, which enable them to access information quicker and thus, to perform the online transaction with a minimum number of steps. Individualistic cultures, in contrast, are more involved by an attractive website design, principally oriented to convey emotions and feelings than contents. The site has to involve the users in the navigation, creating a pleasing shopping experience, therefore in these countries, the appeal/aesthetic of the website (animation, images, colors) became a crucial element in affecting their intentions and behavior towards the online purchasing.

This different preference towards the website design aspects can be explained in the following way. In collectivistic cultures, people are involved in less interpersonal relationships. In these societies, information may need to be spelled out explicitly so that those coming into the environment know how to behave. People translate a large part of the meaning into an explicit code, and as a result, low context communication styles show less intuitive understanding, which makes them slow and less efficient. In collectivistic culture instead, people develop closer connections with the members of the groups they belong to; this means they will rely more on the context to convey most of the information, with relatively little information conveyed by the actual message.

We can make the following hypothesis. H3: *The website visual appeal most affects the consumers' online buying intentions in high context cultures (individualistic cultures) than low context cultures (collectivistic cultures).*

H4: *The navigation design most affects the consumers' online buying intentions in low context cultures (collectivistic countries) than high context cultures (individualistic countries).*

## **2.5 Social Media**

The last factor affecting consumers' online purchase intention considered is social media. Social media is defined as a new word of mouth (WOM) tool used by firms to influence consumers' opinion and purchase intention, increase marketing communication effectiveness, interact with customers and manage customer relationships, monitor a marketplace and gain competitive advantages (Godey et al., 2016). Although there is no definitive typology of social media, it is common to classify them as: social networking (Facebook, Google+); video-sharing (YouTube); picture-sharing (Instagram, Pinterest); user forums; blogs and microblogging (Twitter).

The use of social media has increased exponentially in the last year, and for this reason, companies should consider increasing the adoption of this tool in their marketing strategy. In Europe, the total number of actual social media users are 393

million, 11.7 million more since January 2015. (Kemp, 2016). In the UK, they account for 59% of the population and in Spain (47%). The top active social platforms used by these countries are Facebook, Twitter, Google+, Instagram and Pinterest.

There have been found that the impact exerted by social media on purchasing decisions (online and offline) vary across countries. According to Goodrich and Mooij (2013), the information displayed on social media mostly affected the consumers' buying intentions in collectivistic cultures, whereas in individualistic cultures, the users are less willing to rely on these platforms for making decisions. In an individualistic culture, information is an all-encompassing need, while in collectivistic cultures, trustworthiness and the opinion of others are more critical. In this culture, people are less active information seekers, acquire information passively through many personal contacts, and base their buying decisions more on feelings and company trust via WOM, rather than on hard facts. In individualistic cultures, instead, people search for information more actively (with the aim to maximize the personal utility), whether from WOM or traditional media. Therefore, members of individualistic cultures will rely more on factual information sources when purchasing such as search engines, websites, and product reviews, than the people from collectivistic cultures, who will give instead greater reliance on social network connections and other online forums for making buying decisions.

Another interesting fact is that in collectivistic countries, people who experience post-purchase problems are more unlikely to freely offer complaints directly to the seller. Therefore, social media in these countries play a doubly important role, since they also provide new channels for sharing negative WOM with in-group members online. From the review of the literature above exposed, it is possible to draw up important conclusions, as follows. Marketers should consider using social media as a tool to influence and address consumers' online purchase intentions more in collectivistic countries, than individualist ones which instead rely more on product reviews displayed on the website or search engines for making buying decisions.

Therefore, the following hypothesis is derived. H5: *Social media most affects consumers' online buying intentions in collectivistic cultures than the individualistic culture.*

### **3. Methodology**

In order to explore the impact exerted from each of these factors on consumers' online purchase intentions in two European countries (Spain, the UK) which exhibited a different degree of individualism and uncertainty avoidance a survey has been shared online in the countries objective of the research. The answers collected have been respectively 113 in Spain, 105 in the UK. These countries were chosen because they show a different level in individualism/collectivism and high/low context culture. The UK shows an individualistic and high context culture, while Spain presents a collectivistic and low contexts culture.

The primary goal of the survey was to investigate which of the following aspects (privacy, security, aesthetic of the site, ease of navigation and social media) most affect the buying intentions and behaviors in countries, which exhibit different cultural dimensions. The survey has also examined and compared, in each country, other

aspects related to the e-commerce such as the: the drivers of online shopping; the most used devices and online payment methods; the most bought online products and services categories; the significant worries related to online privacy and security; the percentage of use of social media.

Cluster Analyses has been used to assemble consumers in smaller groups (clusters) according to the frequency of purchase. The goal of this tool was to examine which of the following aspects (privacy, security, aesthetic of the site, ease of navigation and social media) most affect the buying intentions and behaviors in the cluster in which consumers buy online more frequently (at least once per month), since it is the one that most drive the e-vendor's profits. Eventually, from the futures observables in that cluster, specific marketing strategies can be developed.

Cluster Analyses is a technique that serves to combine objects to create new groups/clusters so that each object is very similar to the other in the cluster with respect to some pre-determined selected criterion. In marketing, cluster analysis is widely used to understand consumers' buying behavior. Once homogeneous groups of consumers have been identified through Cluster Analysis, the buying behavior of each group can be examined in detail, thus allowing marketers to create specific targeting advertising campaigns according to how consumers behave in each cluster. Cluster Analysis has been used in order to: identify the cluster, in which consumers buy online more frequently, verify in that cluster, which of the following elements (privacy, security, website visual appearance, ease of navigation and social) are perceived more critical, when buying online; to create a specific marketing strategy for meeting the needs of consumers of that cluster.

The clustering analyses have been carried out through the K-clustering procedure and the k-means algorithm to identify the ideal number of clusters. The K-Clustering procedure splits a set of objects into a selected number of groups by maximizing between-cluster variation and minimizing within-cluster variation. K-Clustering gives the possibility to choose between two algorithms to identify the optimal number of clusters: K-means or K-medians. K-Means, which is the default procedure, begins by picking 'seed' cases, one for each cluster, which is spread apart as much as possible from the center of all the cases. Then it assigns all cases to the nearest seed. Next, it attempts to reassign each case to a different cluster in order to reduce the within-groups sum of squares. This continues until the within-groups sum of squares can no longer be reduced. The initial seeds can be chosen from nine possible options. Because it focuses on reducing the within-groups sum of squares, K-Means clustering is like a multivariate analysis of variance in which the groups are not known in advance.

The chosen procedure involves three steps: the selection of the number of desired groups (clusters), set at 8. (Default number is 2); the selection of the maximum number of iterations (set at 20); the selection of the type of distance metric to use between objects. We decided to use the Euclidean distance, as it represents the most usual, "natural" and intuitive way of computing a distance between two samples.



## 4. Analysis of Results

First, we identified the optimal number of clusters for each country (Spain and the UK) and labeled them according to the features observed. Then, the research focuses on the cluster in which consumers buy online more frequently in order to understand which of these aspects (privacy, security, website visual appearance, ease of navigation and social) in that cluster most affect the buying intentions and behaviors. Eventually, based on the observed features, specific marketing strategies for meeting the consumers' needs of that cluster are proposed.

### 4.1 Spain

Regarding the socio-demographic variables, the Spanish sample is composed of a majority of females (66.70%) when compared to men (33.30%). The average age of surveyors is 28; more than half of the sample is aged between 25 and 39 (58.40%), about a third aged 19-24 (30.98%) and the rest of the interviewees are aged over 40 (10.62%). As regard to the frequency of online purchases, almost half of the Spanish interviewees bought online on an average of once per month (46.90%), followed by who, instead, in the last three months have bought online only once/two times (41.60%) or not even once (11.50%).

The principal reasons that motivate consumers to buy online in Spain are the possibility to shop without constraints of time and wherever they are. Shopping online enables consumers to buy at any hour and practically everywhere, also comfortably at home, thus avoiding waiting lines and other stressful situations related to the traditional shopping. Furthermore, the possibility to read the feedback of other users and to compare different alternatives faster (regarding the price, features of the items sold online) are other reasons that boost Spanish consumers to buy on the Internet. Therefore, shopping online also helps them to make more accurate purchase decisions in order to find the best deal. The affordable prices and the rapidity of the online procedure, instead, affected to a lesser degree their choice to buy online.

The products/services most bought online in Spain are in order: apparel, accessories and footwear (purchased by 56.64% of e-shoppers) holiday accommodations, concerts and cinema tickets, technology products, books, and music. Food, beverages and home furnishing are bought, instead, from less than 10% of Spanish e-shoppers. Eventually, other products usually bought online in Spain and mentioned in the section "other" of the survey are train/tube tickets and games.

Spaniards do online shopping mainly using the PC (71.68%), and only a small percentage of them adopt other tools such as smartphones (18.59%) or tablets (9.73%) to buy online.

In Spain, the most used payment method to make online purchases is the debit card, used by 54% of e-shoppers, followed by credit card (40.70%) and PayPal (37.17%). Other payment methods are instead irrelevant: prepaid cards and bank transfers are only used by respectively 3.11% of the sample considered and the cash on delivery only by 1.86% of the same sample. No other payment methods are provided.

The table 1 shows for each cluster (K); the between-group sum of squares (BetweenSS); the within-group sum of squares (WithinSS); the total sum of squares (TotalSS); the Pearson Index, that it is used to verify the goodness of clustering (Values of the index above 50% usually indicates the goodness of clustering) and the increments (%) that would be obtained (%), by increasing the number of clusters.

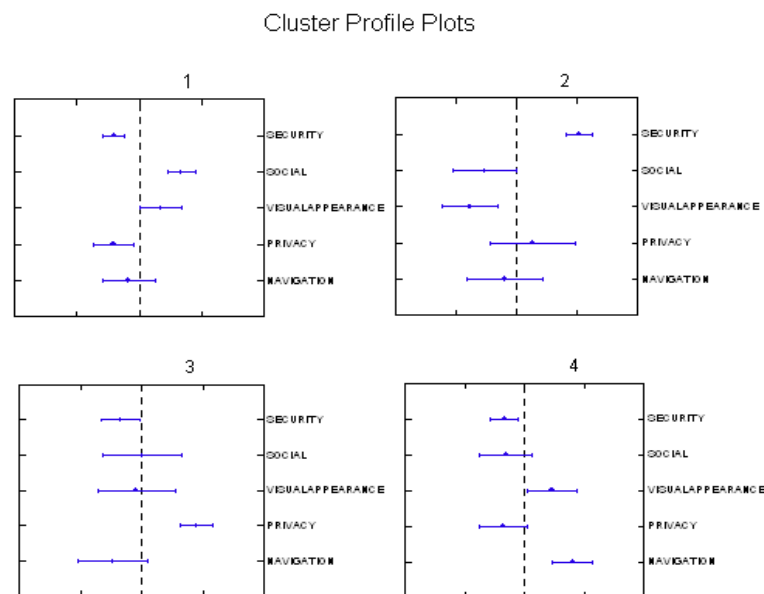
**Table 1: Cluster Analysis Results in Spain**

k	Between SS	Within SS	Total SS	Pearson ratio (%)	Increments (%)
1				0	
2	450.75	563.852	1014.602	44.43%	
3	564.984	449.618	1014.602	55.69%	25.3%
4	657.418	357.184	1014.602	64.80%	16.4%
5	714.958	299.644	1014.602	70.47%	8.8%
6	760.118	254.484	1014.602	74.92%	6.3%
7	784.911	229.691	1014.602	77.36%	3.3%
8	804.24	210.362	1014.602	79.27%	2.5%

In Spain, it was decided to set the optimal number of clusters at 4 because: it represents a value of K, in which the Pearson ratio is above 50%;by adding a further cluster, the obtainable increment would be less than 10% and thus not significant ( $8.8% < 10%$ ).

After having identified the optimal number of clusters, their interpretation has been made by using the cluster profile plots (fig. 1). The vertical line under each cluster number indicates the grand mean across all data. A variable mean within each cluster is marked by a dot and the horizontal lines indicate one standard deviation above or below the mean.

**Figure 1: Cluster Profile Plots (Spain)**



### **Cluster1: Timorous Consumers**

In cluster 1, privacy and security and ease of navigation have above-average values, while social and website visual appearance below-average values. Individuals in this cluster perceive greater concerns regarding privacy and security when shopping online, for this reason, they have been labelled as timorous consumers.

### **Cluster 2: Easily Influenced Consumers**

The individuals in cluster 2 assign above-average values for social, website visual appearance and ease of navigation and below-average values for security and privacy. These group of consumers rely on the opinions of other users placed on social when buying online and they are more attractive from a site that conveys them emotion and positive feelings than contents. For this reason, they have been labeled as easily influenced consumers.

### **Cluster 3: Pragmatic Consumers**

In cluster 3, security and ease of navigation have above-average values, while privacy is below average. A certain indifference has been found in the social and website visual appearance. Individuals in this cluster do not love wasting time when making an online purchase. They want a site that helps them in performing the online transactions easily, and their primary concerns (related to the security of online payment systems), are the most common in the e-commerce. For this reason, they have been labelled as pragmatic consumers.

### **Cluster 4: Timorous And Social Consumers**

The individuals in cluster 4 assign above-average values for security, social and privacy and below-average values for website visual appearance and ease of navigation. Individuals in this cluster perceive the same concerns (related to privacy and security) as those in cluster 1, but comparatively they rely more on social when buying online, and for this reason, they have been labelled as timorous and social consumers.

In Spain, the cluster in which Spanish consumers buy online more frequently (at least once per month) is the cluster 2 composed by 30 users (tab. 2). In cluster 2, the aesthetic of the site and the social media are the aspects that most affect the consumers' buying intentions and behaviors as shown in the figure below. Spanish consumers in cluster 2 appreciate an attractive website that conveys the emotions and positive feelings, and they also search opinions and information about products and services they want to buy online on social media. Facebook, Instagram Twitter and other video sharing platforms such as YouTube are used by 62% of Spaniards in cluster 2 for making online purchase decisions. Furthermore, in the in-depth interviews, Spanish consumers stated to be more willing to purchase in an e-commerce site that most engage them during the shopping experience and that not instead only focus on explaining the benefits of the products and services provided.

**Table 2: Frequency of Purchase in Each Cluster (Spain)**

Frequency of purchase in the last three months/clusters	Less than once	1 / 2 times	More than 3 times	Total
1	6	21	10	37
2	3	12	16	30
3	2	4	13	19
4	2	10	14	27
Total	13	47	53	113

#### 4.2 United Kingdom

The UK sample is equally distributed between females (46.67%) and males (53.33%). The average age of respondents is 29; half of the interviewees are aged 25-39 (52.38%), more than a third aged 19-24 (35.24%) and surveyors aged over 40 are only 12.38% of the UK sample. Two third of respondents (65.71%) stated to buy online on average once per month, less than one third of the same sample stated to have bought online only one/two times in the last three months and only a restricted group of respondents (6.67%) stated to have never made an online purchase in the last three months. Thus, the UK uses the Internet as a shopping channel more frequently than Spaniards; the UK who buy online at least once per month is 65.71% against the 46.90% of Spaniards. The main reasons that boost consumers to shop online in the UK are similar to the Spanish ones. UK users appreciate buying online because it is perceived as a more comfortable shopping solution (no waiting lines and the possibility to shop comfortably whenever they are and at any time) compared to the traditional channel. The only driver of online shopping that score a lower percentage compared to the Spanish findings concerns the possibility to read the feedback of other users online. This aspect is considered the less important among the reasons that boost the UK to shop on the Internet. The reason of that is that individualistic cultures (UK) rely less on the opinions of other people than collectivistic cultures (Spain) in their buying decision-making and as a result, they will be less interested in reading the judgments/opinions/thoughts online of other consumers.

The products/services most bought online in the UK are apparel, accessories, and footwear (bought by 61.60% of e-shoppers), tickets and bookings related to travel, concerts, cinema and technology products. The UK buy online more in all the products and services categories than Spaniards and in the section "other" of the survey, have been mentioned principally other home furnishings such as households. The device most used to make online purchases in the UK is the smartphone (used by 44,76% of the e-shoppers) followed by the PC (32.38%) and the tablet (22.86%). These findings are completely different compared to the Spanish ones, where the smartphone was instead used as a device to shop online by less than a third of users. Regarding payment methods, PayPal is the most used online payment method in the UK (adopted by 64.66% of e-shoppers), followed by debit card (59.05%) and credit card (49.52%). The results are similar compared to the Spanish ones. Furthermore, in the section "other" of the survey, Apple pay and

Android Pay have been mentioned as the two leading technologies related to the mobile payments.

The table below shows, as in the Spanish case, for each cluster (K)the between-group sum of square (betweenSS) the within-group sum of squares (WithinSS), the total sum of squares (TotalSS), the Pearson Index and the increments (%).

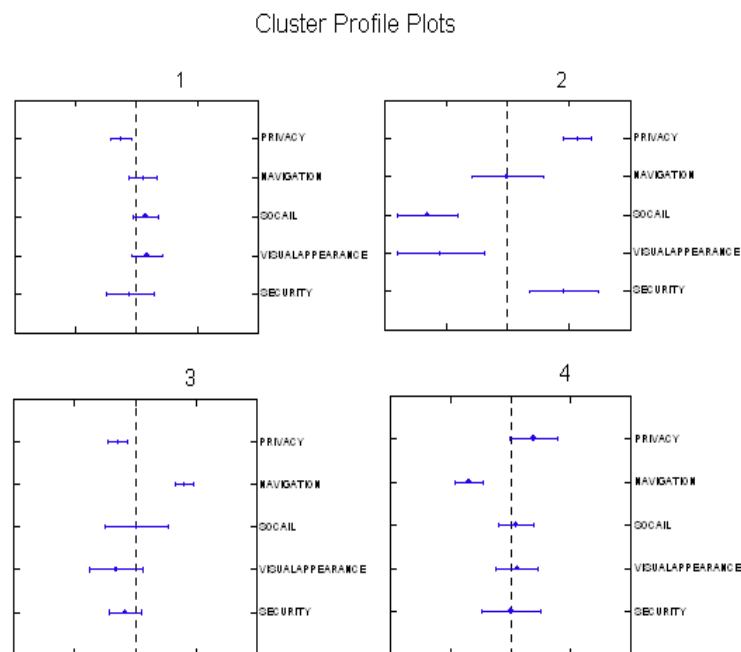
**Table 3: Cluster Analysis Results In the UK**

k	Between SS	Within SS	Total SS	Pearson ratio (%)	Increments (%)
1				0	
2	253.499	361.946	615.445	41.19%	
3	298.588	316.857	615.445	48.52%	17.79%
4	384.455	230.99	615.445	62.47%	28.76%
5	421.181	194.264	615.445	68.44%	9.55%
6	439.037	176.408	615.445	71.34%	4.24%
7	485.264	130.181	615.445	78.85%	10.53%
8	495.362	120.083	615.445	80.49%	2.08%

In the UK, it was decided to set the optimal number of clusters at 4 because: it represents a value of K, in which the Pearson ratio is above 50%; by adding a further cluster, the obtainable increment would be less than 10% and thus not significant. (9.55%<28.76%).

After having identified the optimal number of clusters, their interpretation has been made by using the cluster profile plots (fig. 2).

**Figure 2: Cluster Profile Plots (UK)**



### **Cluster 1: Timorous Consumers**

Individuals in this cluster assign above-average values for privacy and security while below average values for all the other elements (ease of navigation, website visual appearance and social). Customers of cluster 1 perceive greater concerns regarding the privacy of their personal data and the security of payment methods when buying online and their characteristics are very similar to those of Spanish cluster 1. For this reason, they have been labeled as timorous consumers as well.

### **Cluster 2: Easily Influenced Consumers**

In Cluster 2 social and visual appearance are above average while privacy and security are below average. Ease of navigation is instead considered with a certain indifference in the online purchase process. This cluster has many similarities with the Spanish cluster 2 and for this reason, it has been identified as the cluster of easily influenced consumers as well.

### **Cluster 3: Timorous and Aesthetes Consumers**

Individuals in cluster 3 assign above-average values for privacy, security and website visual appearance while below average values for ease of navigation. Social are instead considered with a certain indifference during the online buying process. Individuals of this cluster perceive the same worries of individuals in cluster 1, but compared to them they pay more attention to the aesthetic of the website.

### **Cluster 4: Pragmatics Consumers**

In cluster 4 only the ease of navigation is above the average while all the other elements are below the average or considered with a certain indifference in the online purchase process. This cluster has many characteristics of individuals belonging to the Spanish cluster 4. Consumers in this cluster do not want to waste time in the online buying procedure and for this reason, they as been labeled as pragmatics consumers as well.

In the UK, the cluster, in which UK consumers buy online more frequently (on average of once per month) is the cluster 1 composed by 44 users. The aspects most taken into account by UK consumers in cluster 1 when they purchase in an e-commerce website are privacy and security.

**Table 4: Frequency of Purchase in Each Cluster (UK)**

Frequency of purchase in the last three months/Clusters	Less than once	1 / 2 times	More than 3 times	Total
1	0	12	32	44
2	3	7	10	20
3	2	4	12	18
4	2	6	15	23
Total	7	29	69	105

In particular, their major concerns related to online privacy and security is due to the possibility: that their cards could be cloned; that their personal data could be given to third parties without permission or to receive unwanted communication.

## 5. Conclusions and Discussion

Regarding the hypothesis derived in the previous part, we can affirm that:

- H1 has been confirmed as the Privacy is considered more important in the UK than in Spain in the online purchase phase;
- H2 has been rejected as the Security of online payment systems is considered in the same way, both in Spain and the UK in the online purchase phase;
- H3 has been confirmed as the website visual appearance is considered more important in Spain than in the UK in the online purchase phase;
- H4: has been confirmed, as the website's ease of navigation is considered more important in the UK, than in Spain in the online purchase phase;
- H5, has been confirmed; social media are considered more important in Spain than in the UK in the online purchase process.

To make the graphical interface more pleasing and engaging for Spanish consumers, the e-vendor might adopt a list of strategies such as:

- use the home page to tell a story; i.e. the company's story. Storytelling is a powerful content tool that the e-vendor can use to create a deeper connection with its audience. Telling a compelling story, it helps to create a first positive impression, stimulating potential customers to explore further sections of the site.
- Contextualize the products in consumption experiences;
- place videos and other interactive elements on the website.

Furthermore, as Spanish consumers in cluster 2 rely on social media to make online purchase decisions, the e-vendor should also: use more these platforms to advertise products and services, especially on Facebook and Instagram, which represent the social media platforms most used in Spain; decide to sell online directly from these platforms.

On the other hand, to ensure to UK consumers greater respect of their online privacy and safety in the purchase phase, the e-vendor should, for example:

- inform consumers on the home page that the site allows them to purchase through payment methods that protect their privacy and security online such as PayPal and other mobile payments (Android Pay and Apple Pay);
- inform consumers that the site uses SSL certificates (Secure Sockets Layer);
- display the privacy, cookies and return policy in a conspicuous place of the site;
- try to reduce the use of persistent and third-party cookies.

## **6. Managerial Implications, Limitations, and Future Research**

The impact exerted by each of these stimuli on consumers' purchase intentions, varies on the basis of the cultural characteristics of the country where the e-commerce store is available. Knowing which of these elements most affects the intentions to purchase in a country compared to another is very important, as it will allow marketers to realize targeted marketing strategies in order to make the website as consistent as possible to the cultural context of the countries in which it is available. For instance, if privacy concerns, related to the personal data are released online, like those which most affect the intention to purchase of consumers in a country, then marketers should pay more attention to the privacy and cookies regulation, which should be made clearly visible within the site and explained in detail. By doing this, the online store will be therefore perceived by the users of that country as more safe and trustworthy, affecting positively their purchasing intentions and behaviours. If instead, the most important element that buyers of a specific country demand when they shop in an e-commerce site is the ease of navigation, then the site might be designed in order to enable consumers of that country to access the desired information quickly, allowing them to perform the online transaction as simple as possible. The navigation bar should be placed in a conspicuous place within the site, usually on the top, and the information regarding products and services provided should be presented clearly and in details.

The major limitation of this research is the assumption we made about consumer behavior within a nation. We assumed that within national borders user can be studied as a group and that their buying behavior is homogenous. We know this is only partially true and that there are several segments within a population and this opens new future research possibility. Therefore, future researches could study national or transnational clusters made by similar segments taken from different countries and verify similarities and differences.

## **References**

- Bart, Y., Shankar, V., Sultan, F., & Urban, G. L. 2005, 'Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study', *Journal of marketing*, Vol. 69, No. 4, Pp. 133-152.
- Bonera M. 2011, 'The Propensity of E-commerce Usage: the Influencing Variables', *Management Research Review*, Vol. 34, Iss.7, Pp. 821–837.
- Calefato, F., Lanubile, F., & Novielli, N. 2015, 'The role of social media in affective trust building in customer–supplier relationships', *Electronic Commerce Research*, Vol. 15, No. 4, Pp.453-482.



- Faisal, C. N., Gonzalez-Rodriguez, M., Fernandez-Lanvin, D., & de Andres-Suarez, J. 2017, 'Web Design Attributes in Building User Trust, Satisfaction, and Loyalty for a High Uncertainty Avoidance Culture', *IEEE Transactions on Human-Machine Systems*, Vol. 47, No. 6, Pp. 847-859.
- Fogg, B. J., Cuellar, G., & Danielson, D. 2009, 'Motivating, influencing, and persuading users: An introduction to captology', *Human Computer Interaction Fundamentals*, Pp. 109-122.
- Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., & Singh, R. 2016, 'Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior', *Journal of business research*, Vol. 69, No. 12, Pp. 5833-5841.
- Goodrich, K., & De Mooij, M. 2014, 'How 'social' are social media? A cross-cultural comparison of online and offline purchase decision influences', *Journal of Marketing Communications*, Vol. 20, No.1-2, Pp. 103-116.
- Hofstede, G. 1980, *Culture's consequences: International differences in work-related values*, Beverley Hills, CA: Sage.
- Hofstede, G. 2001, *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks, CA: Sage.
- Hofstede, G. 2016, *Culture's Consequences: Comparing values, behaviors, institutions, and organizations across nations*, *Collegiate Aviation Review*, Vol. 34, No. 2, P. 108.
- Koufaris, M. 2004, 'The development of Initial Trust in an online company by new consumers', *Information & Management Journal*, Vol. 42, No. 3, Pp. 477-397.
- Jarvenpaa et al 1999, 'Consumer Trust in an Internet Store: A Cross-Cultural Validation', *Journal of Computer Mediated Validation*, Vol. 5, No. 2.
- Kemp, S. 2016, 'Digital in 2016: We Are Social Annual Report' accessed 9/26/16, <<http://wearesocial.com/uk/special-reports/digital-in-2016>>
- Marcus, A., & Gould, E. W. 2000, 'Cultural dimensions and global web user-interface design', *Interactions*, Vol. 7, No. 4, Pp. 32-46.
- Shankar, V. 2002, 'Online trust: a stakeholders Perspective, Concepts, Implications and Future Directions', *The Journal of Strategic Information System*, Vol. 11, No. 3-4, Pp. 325-344.
- McGaughey, R. E., and Mason, K. H, 1998, 'The Internet as a marketing tool,' *Journal of Marketing Theory and Practice*, Vol. 6, Pp 1-11.
- Moon, B. J. 2004, 'Consumer adoption of the internet as an information search and product purchase channel: some research hypotheses,' *International Journal of Internet Marketing and Advertising*, Vol. 1, No. 1, Pp 104-118.
- SivaKumar, A., & Gunasekaran, A. 2017, 'An empirical study on the factors affecting online shopping behavior of millennial consumers', *Journal of Internet Commerce*, Vol. 16, No. 3, Pp. 219-230.
- Tan, S.J., 1999, 'Strategies for reducing consumers' risk aversion in Internet shopping', *Journal of Consumer Marketing*, Vol. 16, No. 2, Pp. 163-178.
- Tan, F.B. & Sutherland, P. 2004, 'Online consumer trust: a multi-dimensional model', *Journal of Electronic Commerce in Organizations*, Vol. 2. No. 3. Pp. 40-58.