# "IMPACT OF WEB 2.0 TECHNOLOGY ON OFFLINE SHOPPING EXPERIENCE" "EL IMPACTO DE LA TECNOLOGÍA 2.0 SOBRE LA EXPERIENCIA DE COMPRA OFFLINE"

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#### **Abstract:**

Innovation, as a model of differentiation, has led retail companies to seek new ways for attracting and amazing their consumers (our case studies are excellent examples) and thus they have found advantages with respect to their competitors. Changes in shopping experience are an important part of these innovations in retailing. Retailers are trying to create new experiences for shoppers, more social, more emotional, all with help of new technologies. According to various bibliographic references consulted about study of shopping experience in the last decades, there has been a separation between online and offline experiences (those experienced in actual store). However, our proposal in this study is to mix both experiences for the consumer. The recent appearance of the so-called "2.0 stores", which offer the consumer a real-world experience through virtual elements installed within the establishment, generates a new retail system, the "2.0 retail system", and therefore, a new stage in the investigation of shopping and consumers. The present paper examines factors that affect this new reality through the study of the 2.0 retail system reflected in case studies of two pioneer companies in Spain that have implemented this kind of retail system: Pull & Bear (fashion) and Apple (electronics). In our study, we refer to the implementation of technology that modifies globally the shopping experience in a physical store.

## **Keywords:**

Retail system, shopping experience, 2.0 technologies, innovation

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## 1. INTRODUCTION, JUSTIFICATION AND MAIN GOALS OF THIS RESEARCH

The current retailing environment is defined by three key aspects that move through the shaft of innovation, these features are globalization, multichannelling and multimedia features (Rangaswamy and Van Bruggen, 2005; Dholakia et al., 2005; Dholakia et al., 2010; Shankar et al., 2011; Reinartz et al., 2011; Sorescu et al., 2011). Birth of the Internet in the '70s and progressive adaptation of various information technologies to our daily lives, have caused substantial changes in traditional retail models, making the possibilities the Internet offers extremely relevant both on an informational level and as part of the buying process, communication and relationship between the customer and the company. Marketing, as a science, has also needed to adapt to these changes, creating numerous alternatives to take advantage of new resources and improve the relationship with customers (Shankar et al., 2011; GMA, 2011). Innovation, as a model of differentiation, has led companies to seek new ways for attracting and amazing their consumers (our case studies are excellent examples) and thus they have found advantages with respect to their competitors. Changes in shopping experience are an important part of these innovations in retailing. Retailers are trying to create new experiences for the shopper, more social, more emotional, all with help of new technologies (Varadarajan et al., 2010). The recent appearance of the so-called "2.0 stores", which offer the consumer a real-world experience through virtual elements installed within the establishment, generates a new retail system, the "2.0 retail system", and therefore, a new stage in the investigation of shopping and consumers. Analysing this new retail system is the main purpose of our research.

Shopper marketing differs from traditional marketing because it includes all the individual actions of the shopper through different channels, media and technologies (counting both with offline and online actions). The study of the GMA "Shopper Marketing 5.0" (2011) proposes future opportunities for shopper marketing: use of digital technology to create commitment before the consumer goes to the store and manage the traffic in store; improve relationship with consumers by creating unique experiences for them, using social networks, mobile devices; use of e-commerce solutions that are simpler for the consumer and that enhance their commitment to the company, etc. Therefore, the justification for this research can be found in the innovative nature of its case studies and the possibility of using the scientific knowledge, that we have so far, and apply it to such a new topic as the merge between online and offline experience. This way, we reflect a reality that is still being tested in practice, but that could become the future of retail and the relationship between retailers and consumers, leading to changes in the retail environment known up until now (hence its importance for society). Thus, the ultimate goal of this study is: Characterizing the influence of web 2.0 technologies in the consumer's behavior during shopping experience in the establishment.

## 2. CONCEPTUAL AND DOCTRINAL REVIEW 2.1. THE CURRENT RETAILING AND MARKETING ENVIRONMENT

In our review of the articles we will focus on conceptual retail in mature markets, because the nature of the present investigation is framed in this area. In mature markets, such as North America, retailers are faced with a different challenge from those encountered in less mature markets: replace goods, services and experiences that are currently being consumed with new and innovative goods, services and experiences as a path to growth (Pine and Gilmore, 1998; Lusch et al., 2007 cited in Reinartz et al., 2011). This implies that they have to seek new ways to create a higher value for consumers through innovation that goes beyond meeting basic needs. Consumers increase their purchase through various channels and media, for example, a consumer can use the Internet to search for information and see the options on a product, then

visit the shop to see it and discuss it, finally order the product chosen from their mobile phone (Ansari et al., 2008 cited in Dholakia et al., 2010). For this reason, the shopper marketing, which is growing strongly, takes into account both the activities that the individual performs offline, as well as those carried out online (Shankar et al. 2011).

The current economic crisis, which has already been dragging Spain for approximately 7 years, has led to the closure of nearly 300,000 companies (275,869 until 2013 according to data from the INE 2013). Retail is one of the most affected areas in our country. According to data from 2011, wholesale traders offered greater resistance to the crisis than retailer, who represent two thirds of the sector's decrease (INE 2013). However, a contrasting fact is the 20% increase of online stores in recent years. This is due to the cost reduction when creating and maintaining an online store compared to a physical store, in addition to the speed and the ability to cover a larger amount of potential costumers that the online environment offers (Urbecom Ecommerce, 2012).

## 2.2. THE SHOPPING EXPERIENCE AND THE 2.0 RETAIL SYSTEM

Morschett (2005, quoted in Theodoridis and Chatzipanagiotou, 2008) states that during the purchase process, the consumers formulate their experiences in terms of satisfaction which is affected by the physical environment of the shop, the various procedures that must be followed (cash register, queues, traffic, carts, etc.), interaction with staff, and the range of products offered (variety of products, pricing policy, assortment, etc). This concept that Morschett defines is focused on the consumer and their perception of the environment. It coincides with what the reviewed scientific literature defines as: shopping experience. From this first definition up to the present day, there are many authors who have investigated the shopping experience: Mehrabian and Russell (1974), Donovan and Rossiter (1982), Kotler (1974), Belk (1975), Bawa and Goethe Strasse and Landwehr (1989), Bitner (1992), Baker Since the late 90s and the generalization of the Internet and the technologies associated with it, scientific literature began to differentiate between the experience of real and virtual purchase (offline and online). Bäckström and Johansson (2006) summarized the experience of offline shopping dividing it into two features: the personal and situational variables. The authors refer to factors such as staff, elements of service, selection of products, price, design, the shop's layout, exhibitors and atmospheric factors. At the same time, they speak of factors such as social features, tasks, purchase, time and mood. In one of their studies (Novak et al. 2000), they complete the model of online experience that they began to conceptualize four years before (Hoffman and Novak, 1996).

There are different technologies that have been applied to retail in physical store in the past 20 years: the multimedia kiosks (Blignaut and Cruywagen, 2005); RFID (Radio Frequency Identification) (Roussos and Kostakos, 2009 cited in Swamp and Naccarato, 2010); systems for assistance in the purchase; the smart mirror (Swamp and Naccarato, 2010); digital signaling (Dennis, C. et al., 2010). The 2.0 store, our case study, is based on the technologies related to web 2.0. which "has been defined as a new variety of applications that work mainly in servers on the Internet and in the intranets of the companies, it is generally understood as dynamic (i.e., content is refreshed automatically) and collaborative" (Schindler, 2007, cited in Rosen and Phillips, 2011, p. 36).

We would like to justify the choice of Pull & Bear 2.0 and Apple 2.0 stores as case studies because of the fact that they are the first shops in Spain to develop the incorporation in the store of technology that accompanies clients throughout the buying process i.e. the technology is built in to influence the overall shopping experience of the consumer.

## ✓ Pull & Bear 2.0 Store:

Fashion and online marketing blogs consulted (Front Row, The Blog of John Merodio, La Voz de Galicia, Pruébatelos, Zen of branding, 1001 Shirts, Marketing Analysis, untangling the Network, Digitalymagazine, Paperblog, The Orange Market), which have given us first-hand information about the image of the new 2.0 stores of the Pull & Bear brand (Inditex Group), report the characteristics of these establishments, summarized below:

- P&B 2.0 Pad: Touch screens to see information about products in the catalog, styling, stocks and e-commerce. In addition, these gadjets recommend clothing related to the user's search.
- P&B 2.0 Window: LED technology screens that interact with the customer from the storefront synchronizing images to your movement.
- P&B 2.0 Studio: Photoshoot area in the fitting room that allows you to take photos and upload them to a social network (Facebook) so friends and family can give their opinion about your look.
- P&B 2.0 Room: Lounge area with sofas and computers with Internet access.

## ✓ Apple 2.0 Store:

Like Pull & Bear, and due to its novelty, we know about the characteristics of the Apple 2.0 stores through blogs and other online publications, so we are unable to make any reference to scientific literature (Applesfera, AppleWeblog, Faq-Mac, Gizmodo, TICbeat). The Apple 2.0 Stores in our country have the following elements:

- Startup Sessions: Sessions to configure Mac computers for new buyers.
- Marking of products: Each product has an iPad next to it that explains the functionality and product specifications. In addition, it has an assistance button to call employees in the event that the information provided is not useful.
- iPhone Application: Technology based on mobile marketing. This is an iOS device that allows in-store staff to interact with customers.

## 3. DESIGN AND DEVELOPMENT OF RESEARCH

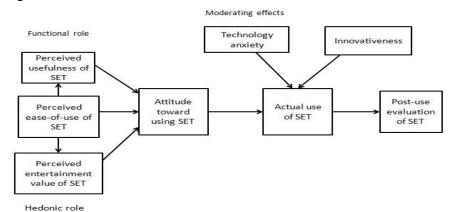
Below we break down the part of the study that corresponds to the process of empirical research. The first step was the qualitative study. Initially, a survey of consumers' opinions about the 2.0 retail system was conducted on the Internet. Currently, social networks show very clearly the consumers point of view. We found out that there were many comments, related to the environment and employment destruction, posted on blogs, websites and social networks from people who had visited 2.0 stores. So this comments, articles and posts provided information and allowed us to prepare the questions asked in the focus groups later.

In the focus group stage, we approached our perceived new construct: the concern about the environment. Thus, we decided to review the scientific literature in order to find a theoretical model which could be used to prove our hypothesis.

Next, we looked for behavior models related to the study of consumers' experience that we could use as a base to define our case study. We reviewed models especially related to technology such as: Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975, 1980); Technology Acceptance Model (TAM) (Davis, 1989; Davis et al. 1989); Theory of Planned Behavior (TPB) (Ajzen begins to formulate this theory between 1985-1987); Motivational Model (MM) (Davis et al. 1992); Model of PC Utilization (MPCU) (Triandis, 1977); Innovation diffusion theory (IDT) (Rogers, 1995); Social Cognitive Theory (SCT) (Bandura, 1986); (Venkatesh et al. 2003). Later, we chose a model that would serve as a basis for the study. Our model of study is based on the Technology Acceptance Model ("Technology Acceptance Model", TAM) (Davis, 1989; Davis et al. 1989); specifically in a later version

published by authors Kim and Forsythe (2008-2009) called "Sensory Enabling Technology Acceptance Model" (SE-TAM).

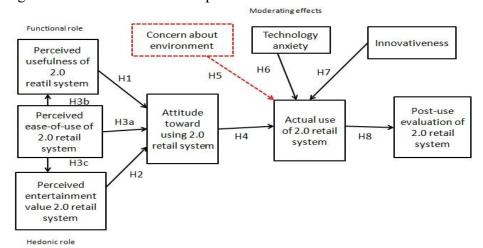
Figure 3.1 Model SE-TAM



(Sources: Kim and Forsythe, 2008a; Kim and Forsythe, 2008b; Kim and Forsythe, 2009)

The next step was the presentation of the model adapted to our case study and the hypothesis to contrast. Our contribution has been the creation of a new construct called "concern about the environment" and a new hypothesis added to the model. Through them we try to demonstrate the negative relationship between the consumer concerns on the social, economic and environmental surroundings in which he lives, and the use of technology in the retail system that we have named 2.0. Graphically, the model SE-TAM with our new contribution would be as follows:

Figure 3.2. Model SE-TAM Expanded



(Source: Own work based on Kim and Forsythe, 2008a; Kim and Forsythe, 2008b; Kim and Forsythe, 2009 and the initial Qualitative Analysis)

Our intention is therefore to contrast the hypotheses from the model used as a base for the investigation with the 2.0 distribution system, adding a new construct extracted from our previous qualitative research: concern about the environment.

Therefore, the hypotheses of our model are:

H1: Perceived usefulness of technologies that make up the 2.0 retail system exerts a positive impact on attitudes toward the use of such technologies.

H2: Perceived entertainment value of technologies that make up the 2.0 retail system exerts a positive impact on attitudes toward the use of such technologies.

H3a: Perceived ease of use of technologies that make up the 2.0 retail system exerts a positive impact on attitudes toward the use of such technologies.

H3b: Perceived ease of use of technologies that make up the 2.0 retail system exerts a positive impact on the perceived utility of technologies that make up the 2.0 retail system.

H3c: Perceived ease of use of technologies that make up the system of retail 2.0 exerts a positive impact on the perceived entertainment value of the above technologies.

H4: Attitude towards the use of technologies that make up the 2.0 retail system exerts a positive impact in current use of technologies that make up the 2.0 retail system.

H5: Despite the attitude, the concern for consumer's environment exerts a negative impact on the use of technologies that make up the 2.0 retail system.

H6: Despite the attitude, innovation of consumers exerts a positive impact on the use of technologies that make up the 2.0 retail system.

H7: Despite the attitude, the anxiety produced by technology in the consumer has negative impact on the use of technologies that make up the 2.0 retail system.

H8: The use of technologies to be incorporated into the 2.0 retail system can cause a positive assessment of the said technologies for each type of sector studied.

Once the questionnaire was developed and the field work was completed, the next phase of the process is based on data analysis. Overall, the nine constructs that make up our model were embodied in the questionnaire with 31 items, consisting of assertions to assess using a Likert 7 point scale. We obtained a sample of 367 surveys in the case of Pull & Bear and 411 surveys in the case of Apple, which represent a total of 778 surveys (the questionnaire is attached in the Appendix).

To obtain the maximum information from the data we gathered from the two establishments object of study (Pull & Bear and Apple), we have performed the following types of analysis:

- Descriptive Analysis: variables and constructs of the model.
- Cluster Analysis.
- Factorial Analysis.
- Multivariable analysis contrasting the assumptions of the model using partial correlations.

## 4. RESULTS OF DATA ANALYSIS AND CONLCUSIONS

## 4.1. CLUSTER ANALYSIS

The cluster analysis conducted, brings up very interesting conclusions about the classification of users surveyed.

Figure 4.1.1. Value for the different variables (constructs in the model) for each cluster analysis group.

	Number of individuals	Usefullness	Entertainment	Ease	Attitude	Enviroment	Anxiety	Innovation	Use	Evaluation
Group 1	325	5,76	5,59	5,59	5,73	2,86	2,27	5,52	5,43	5,55
Group 2	185	4,12	4,03	4,68	4,10	4,13	2,45	4,85	3,61	4,06
Group 3	176	4,72	4,35	4,63	4,56	3,62	4,46	3,51	4,22	4,60
Group 4	73	2,64	2,84	3,07	2,73	4,95	5,43	2,26	1,88	2,58

There is a large group in the sample (325 individuals) with a clearly favorable attitude towards the 2.0 retail system. These individuals show high values for all variables except in those with negative connotation, such as anxiety, and the one provided by us: concern for the environment. This group is characterized by the youth of its members (almost 60% under 34 years of age and with a high educational level). Therefore we are dealing with a large group of users who are receptive to technology in the physical space. This profile fits perfectly with early users, which tend to be the first to adopt new technological products and have a high potential as prescribers. Retailers should be interested in addressing this kind of consumer that already understands the usage of the 2.0 retail system and that will attract new users to the establishment, taking on a "teacher" role with individuals in their environment. On the other hand, we find a group of consumers in our sample that are concerned about the environment and therefore prove clearly our hypothesis regarding concern about the environment. They are the group of consumers concerned about the environment. It is the second largest group detected in the sample (185 users), and it's characterized for being integrated in its majority by males, with a high educational level (74.6 % are university graduates) and slightly older than group 1 (49.2% have less than 34 years). This group of consumers believes that technology is easy to use but they perceive the consequences of its use will be negative for their environment. This must be taken into account in a special way by retailers, because they do not refuse to use technology at the point of sale, but the distributor must improve their perception of it, regarding the damage they cause on the customers' environment. In a third group, we have users that despite not being against the use of technology in the 2.0 retail system, will never become regular users. It is also important for retailers to take this sort of users into account, because they are not going to stop coming to the establishment but perhaps their lack of comfort will not make them loyal to the brand. Finally, we found a group of consumers with a profile defined by the reluctance to use Web 2.0 technology. In fact, they are against its use. These are consumers who only perceive the negative consequences of this type of technology and do not find any good qualities in it. These consumers, who in our sample, are presented to a lesser amount (73 users), are consumers that will probably be discouraged from using the 2.0 establishment, and will (if they find no alternative) stop buying the products distributed there.

## 4.2. FACTORIAL ANALYSIS

Supporting the important indications about the existence of a negative relationship between concern for the consumer's environment and the use of Web 2.0 technology in the physical establishment, is the finding of the "environment" factor through the factorial analysis.

A factorial analysis was conducted with an estimation of homogeneous groups based on Varimax's rotation. With the selected solution, more than 70% of the variation in the total of variables is explained, which is an indicator of the model being appropriate. Finally, the rotated components matrix was obtained which is shown below:

Table 4.2.1. Rotated Components Matrix

	Factor	Factor	Factor	Factor	Factor	Factor
	1	2	3	4	5	6
19. Buying in the 2.0 distribution system is exciting.	0,819	0,099	0,180	0,048	0,175	0,030
24. Using the 2.0 distribution system is pleasurable.	0,787	0,222	0,178	0,117	0,197	0,068
18. Buying in the 2.0 distribution system is fun by itself.	0,757	0,229	0,192	0,157	0,150	0,199
20. Buying in the 2.0 distribution system is pleasant.	0,723	0,346	0,183	0,166	0,160	0,227
25. Using the 2.0 distribution system is attractive.	0,713	0,226	0,163	0,215	0,175	0,227

21. Buying in the 2.0 distribution system is interesting.	0,706	0,327	0,171	0,172	0,188	0,195
23. Using the 2.0 distribution system is satisfying.	0,683	0,412	0,146	0,238	0,237	0,106
22. Using the 2.0 distribution system is a good idea.	0,560	0,417	0,166	0,332	0,302	0,156
11. The 2.0 distribution system makes it easier for me to buy at a shop.	0,287	0,754	0,172	0,237	0,173	0,132
12. The 2.0 distribution system makes my shopping more effective at the shop.	0,327	0,745	0,157	0,250	0,164	0,113
13. The 2.0 distribution system is useful in order to buy what I want in the shop.	0,329	0,736	0,202	0,241	0,244	0,075
14. The 2.0 distribution system improves my capacity to buy in a shop.	0,353	0,709	0,188	0,187	0,239	0,119
29. In my opinion, the 2.0 distribution system offers satisfactory help at the	0,370	0,507	0,120	0,280	0,406	0,220
momento of deciding my purchase.						
28. In general, I am satisfied with the use of the 2.0 distribution system.	0,411	0,446	0,174	0,289	0,440	0,262
3. I am reluctant to use certain kinds of technology because I am afraid of making	-0,097	-0,144	-0,780	-0,142	0,034	-0,225
mistakes that I will not be able to solve.						
2. I have avoided technology up until now because I don't find it familiar.	-0,099	-0,232	-0,769	-0,158	-0,042	-0,252
6. I like experimenting with new technologies.	0,347	0,091	0,753	0,110	0,221	0,031
5. Among my friends, I am usually the first one to try out new technologies.	0,255	0,016	0,724	0,045	0,345	-0,103
4. If I learned of the existence of a new technology, I would look for ways to try	0,308	0,145	0,701	0,105	0,228	-0,013
it.						
1. I find technical terms related to technology confusing.	0,009	-0,162	-0,668	-0,028	0,024	-0,413
8. In my opinion, the 2.0 distribution system produces unnecesary environmental	-0,134	-0,131	-0,055	-0,814	-0,105	-0,100
pollution.						
7. In my opinion, the 2.0 distribution system produces an unnecesary economic	-0,177	-0,102	-0,095	-0,794	-0,129	-0,096
waste.						
10. In my opinion, the 2.0 distribution system adds nothing positive to the society	-0,179	-0,418	-0,172	-0,642	-0,060	-0,031
in which we live.						
9. In my opinion, the 2.0 distribution system is an excuse that allows companies	-0,125	-0,225	-0,130	-0,637	-0,111	-0,075
to spend less money on human resources and employment to be destroyed.						
30. I will continue shopping this same product in the future through the 2.0	0,245	0,118	0,103	0,118	0,750	0,151
distribution system.						
26. I use the 2.0 distribution system (when available) for my physical purchases.	0,269	0,384	0,211	0,126	0,643	0,163
27. I use the 2.0 distribution system (when available) for my online purchases	0,259	0,326	0,214	0,154	0,640	0,225
(from the store).						
31. I would recommend buying in shops with a good 2.0 distribution system.	0,338	0,389	0,138	0,220	0,514	0,235
16. The use of the 2.0 distribution system does not require much mental effort.	0,148	0,065	0,139	0,133	0,232	0,770
17. The 2.0 distribution system is easy to use.	0,365	0,161	0,247	0,101	0,199	0,719
15. The use of the 2.0 distribution system is clear and comprehensible.	0,342	0,346	0,266	0,154	0,201	0,546

This shows that the correlations between the variables that make up our theory, which are related in an "a priori" theoretical context, are also related according to the data obtained.

## 4.3. HYPOTHESIS TESTING

In order to complete the extraction of information from the data obtained we have contrasted our hypothesis with the following conclusions:

Figure 4.3.1. Matrix of correlations

	UTILI	ENTERTAI	EASE	ATTI	ENVIRO	ANXIE	INNOVA	USE	EVALUATI
	TY	NMENT	OF	TUDE	NMENT	TY	TION		ON
			USE						
UTILITY	1,000	0,657	0,550	0,717	-0,561	-0,409	0,475	0,658	0,762
ENTERTAINMENT		1,000	0,582	0,859	-0,450	-0,396	0,534	0,607	0,684
EASE OF USE			1,000	0,595	-0,374	-0,475	0,482	0,562	0,634
ATTITUDE				1,000	-0,517	-0,385	0,536	0,642	0,744
ENVIRONMEN					1,000	0,334	-0,300	-0,433	-0,528
T									
ANXIETY						1,000	-0,625	-0,407	-0,386
INNOVATION							1,000	0,478	0,504
USE								1,000	0,763
EVALUATION									1,000

This correlation matrix gives a first idea about the existing relationship between the different variables. However, we proceed to analyse the partial correlations. This is the data for partial correlations of the hypotheses for each case study.

НЗа	Correlation	Significance		
Pull & Bear	0,059	0,272		
Apple	0,071	0,159		
Total sample	0,064	0,082		

H2	Correlation	Significance
Pull & Bear	0,640	0,000
Apple	0,658	0,000
<b>Total sample</b>	0,652	0,000

НЗа	Correlation	Significance
Pull & Bear	0,059	0,272
Apple	0,071	0,159
Total sample	0,064	0,082

НЗЬ	Correlation	Significance
Pull & Bear	0,003	0,949
Apple	0,034	0,507
Total sample	0,007	0,857

Н3с	Correlation	Significance
Pull & Bear	0,070	0,188
Apple	0,127	0,012
<b>Total sample</b>	0,098	0,007

H5	Correlation	Significance
Pull & Bear	0,040	0,455
Apple	0,016	0,747
<b>Total sample</b>	0,022	0,546

H4	Correlation	Significance
H6	Correlation	Significance
Pull & Bear	,	e ,
Pull & Bear	0,042	0,431
Apple	0,013	0,796
Apple	0.030	0.550
Total sample	0.030	0.409
Total sample	0.038	0.299
z o ouz swiizpio	3,323	0,23

H7	Correlation	Significance
Pull & Bear	-0,091	0,086
Apple	-0,085	0,093
<b>Total sample</b>	-0,086	0,019

Н8	Correlation	Significance
Pull & Bear	0,392	0,000
Apple	0,433	0,000
Total sample	0,424	0,000

The conclusions drawn from the analysis are:

- H1: Perceived usefulness by the consumer of the 2.0 retail system is related to the attitude toward its use. This relationship is confirmed for the total sample and for those surveyed in the Apple Store. Nevertheless, we must keep in mind that the relationship is low.
- H2: The entertainment value perceived by the consumer on the 2.0 retail system and the attitude toward its use are clearly related. In addition, the relationship between the two variables is within a range that we have called "moderate" but around the maximum values. This conclusion is valid both for the total sample and for each of the shops separately.
- H3a: No relationship has been demonstrated between the perceived ease of use by the consumer of the 2.0 retail system and the attitude toward its use.
- H3b: No relationship has been demonstrated between ease of use that the consumer indicates on the 2.0 retail system and the utility which perceives it.
- H3c: Both for the total sample and for the respondents of the Apple retail store, we can say that there is a relationship between the ease of use of the 2.0 retail system and the entertainment value perceived by the consumer. The magnitude of this ratio is higher in the Apple Store that in the total sample. However, we are talking about a weak relationship. Among respondents from the Pull & Bear shop we cannot state that such a relationship exists.
- H4: No relationship has been demonstrated between the attitude toward the use of 2.0 technologies and its current use.
- H5: No relationship has been demonstrated between the concern about the effects that the 2.0 retail system might have on the environment and the use of the 2.0 technology.
- H6: No relationship has been demonstrated between the attitude toward innovation that consumers have and a positive impact on the use of the 2.0 retail system.
- H7: For the total sample, the anxiety of the consumer towards technology and the use of the system of retail 2.0 have an inverse relationship. In response to its level of significance we noted that it is below 0.05 although the low magnitude of the coefficient (0.086) should be noted. This relationship, however, cannot be established for the individual shops.
- H8: We can state that there is a relationship between the actual use of the 2.0 retail system and its subsequent evaluation in both the total of the sample and for each of the shops

separately. In addition, this relationship has certain relevance since the coefficients are within the range that we have called "moderate" (0.424 for the total sample, 0.392 for the respondents in the shop Pull & Bear and 0.433 for the respondents in the Apple Store).

Therefore, we have proof of the positive relationships between many of the dimensions in the studied environment such as perceived usefulness, entertainment value, attitude towards use, ease of use, current use and subsequent evaluation. As well as the negative relationship between anxiety and the use of technology the validation of a large number of the hypothesis of the model makes it a valid model in addressing our specific case study.

In conclusion, although the comparison of hypotheses does not completely prove the existence of a negative relationship between concern for the environment of the consumer and the use of the 2.0 retail system, there are many signs that point to this, such as the existence of a cluster in the sample clearly defined by its concern for the environment, and the discovery of a factor that which we have called the "Environment factor" within the model, because it brings together all the variables related to it. These signs encourage us to continue to investigate in the future and improve the research and analysis conditions. It also leads us to introduce the "Environment factor" as a relevant element to take into account in the business strategies of retailers in the present.

## 5. LIMITATIONS, IMPLICATIONS AND FUTURE LINES OF INVESTIGATION

The main limitation found during our research is related to the collection of data. The first strategy considered was to conduct surveys in the actual shops, however, the establishments were scattered throughout the country and special permits, which we were unable to obtain, were required in order to conduct said surveys. This along with the lack of economic resources needed to conduct the whole data collection made us decide to conduct our survey online. Despite the obstacles we encountered, all the work done during this stage of the research process is justified through previous scientific studies carried out by established authors. The results drawn are coherent when compared to previous studies even though the thoroughness of the data collection could be improved.

Bearing in mind that all this research has been developed in the context of an economic crisis in Spain, it is possible that the results have been motivated, in part, by the greater sensitivity that the population shows toward realities such as job insecurity, unemployment, poverty, etc. In a situation like this, concern for the environment is evident; however, our contribution goes a step further and relates this concern with the use of certain technologies in the physical stores. That is why we should ask ourselves the following question: Would this concern continue in a more stable and prosperous social and economic environment? This conclusion would be the result of new research. However, we would like to stress the importance that the technological factor currently has for consumers, if retailers learn how to conduct a sustainable use of it, it can offer significant benefits to their business. Advancement and innovation are always beneficial for any business and it is not our goal to show it as something negative. What we intend to do is to make the part of the consumers who perceive it as a "threat" visible.

Based on the theory defended throughout this study, framed by the concern for the environment of the consumers of the 2.0 stores studied we would like to suggest future lines of research that should arise after ours:

- Research of efficient ways to apply technology to the point of sale. The future is to find ways to make sure technology in the physical facilities is applied in an efficient way and without being "offensive" for the consumer in accordance with the social, economic and environmental situation today.
- ✓ Research into methods to strengthen the security of the 2.0 technology users and their private information, their image, etc.
- ✓ Research of the real profitability of these new types of establishments.
- ✓ Although, these elements have not been included in our research, we would like to mention the importance of customer engagement (the level of interactions with your brand by your costumers) and value co-creation (the joint efforts of the consumer and the firms are co-creating the value through personalized experiences that are unique to each individual customer.) in online environment. It would be interesting how these variables would correspond with our model, so we propose it for a future research.

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## 7. APPENDIX. QUESTIONNAIRE

**Part I:** Please, read the following questions/statements and choose the answer that faithfully reflects your opinion according to this scale:

1= I strongly disagree, 2= I disagree, 3= I slightly disagree, 4= I don't agree nor disagree, 5= I slightly agree, 6= I agree, 7= I strongly agree

	NXIETY ABOUT TECHNOLOGY
	nd technical terms related to technology confusing.
	ave avoided technology up until now because I don't find it familiar.
	m reluctant to use certain kinds of technology because I am afraid of making mistakes that I will not be
	le to solve.
	NOVATION
	learned of the existence of a new technology, I would look for ways to try it.
	nong my friends, I am usually the first one to try out new technologies.
	ke experimenting with new technologies.
	ONCERN ABOUT THE ENVIROMENT
	my opinion, the 2.0 distribution system produces an unnecesary economic waste.
	my opinion, the 2.0 distribution system produces unnecesary environmental pollution.
	my opinion, the 2.0 distribution system is an excuse that allows companies to spend less money on
	man resources and employment to be destroyed.
	my opinion, the 2.0 distribution system adds nothing positive to the society in which we live.
	TILITY PERCEIVED OF 2.0 RETAIL SYSTEM
	e 2.0 distribution system makes it easier for me to buy at a shop.
	e 2.0 distribution system makes my shopping more effective at the shop.
	e 2.0 distribution system is useful in order to buy what I want in the shop.
	e 2.0 distribution system improves my capacity to buy in a shop.
	RCEIVED EASE OF USE OF 2.0 RETAIL SYSTEM
	e use of the 2.0 distribution system is clear and comprehensible.
	e use of the 2.0 distribution system does not require much mental effort.
	e 2.0 distribution system is easy to use.
	ORTH OF ENTRETAINMENT PERCEIVED OF 2.0 RETAIL SYSTEM
	ying in the 2.0 distribution system is fun by itself.
	ying in the 2.0 distribution system is exciting.
	ying in the 2.0 distribution system is pleasant.
	ying in the 2.0 distribution system is interesting.
	TITUD TOWARDS USE OF 2.0 RETAIL SYSTEM
22) Usi	ing the 2.0 distribution system is a good idea.
	ing the 2.0 distribution system is satisfying.
	ing the 2.0 distribution system is pleasurable.
	ing the 2.0 distribution system is attractive.
	JRRENTLY USE OF 2.0 RETAIL SYSTEM
	se the 2.0 distribution system (when available) for my physical purchases.
	se the 2.0 distribution system (when available) for my online purchases (from the store).
	ALUATION POST-USE OF 2.0 RETAIL SYSTEM
	general, I am satisfied with the use of the 2.0 distribution system.
	my opinion, the 2.0 distribution system offers satisfactory help at the momento of deciding my
	rchase.
	vill continue shopping this same product in the future through the 2.0 distribution system.
31) I w	ould recommend buying in shops with a good 2.0 distribution system.

## Parte II: Información demográfica.

Gender: Male, Female

Age: 18-25, 26-33, 34-41, 42-49, 50 or more

Education level: Primary studies, Secondary studies, Bachillerato/COU, Formación

Profesional, Degree, Master.