

# Acceptance factors of Zara's shopping app among fashion consumers during COVID-19

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## Abstract

Online sales in the textile sector are undergoing a comprehensive renewal process as a result of COVID-19. This article analyzes how the pandemic has influenced the ZARA brand in its sales channel through its mobile application (app). This analysis has been carried out through the development of a UTAUT 2 model into which the constructs of Corporate Social Responsibility (CSR) and Design have been incorporated. Based on a sample of 736 Spanish people, an anonymous online questionnaire was distributed, and the responses were modeled using structural equations with Smart-PLS. From the results obtained and their interpretation, it is evident how, when purchasing textile products through the app, consumers are indifferent to the CSR of the brand, while design, ease of condition, and habit are shown as the elements that exert the greatest influence on the buyer. Despite being a growing trend within companies, the importance of CSR actions is not yet a determining factor in the intention to use fashion apps. Perhaps in a situation of uncertainty, consumers seek refuge in a well-known brand, without assessing whether the company is aligned with the interests of its environment. In times of COVID-19, users have changed their shopping habits, directly influencing online shopping. But what are the acceptance factors of these apps during this COVID-19 era? For this study, we have analyzed the ZARA fashion app through a sample of users in Spain, where the app has a higher number of active users.

## 1 | INTRODUCTION

In recent years, thanks to the Internet, the possibilities generated by the application of information and communication technologies (ICT) to retail e-commerce have been a revolution (Andersen et al., 2016). The possibility of access to a greater amount of information and the new ways of interacting in society favor the acquisition of better learning and greater accessibility to content (Zraick et al., 2021).

The Internet has become a basic tool for transmitting knowledge and a necessity for most people in a large part of the world (Glavas et al., 2019). These changes have also been reflected in the economic sphere, and the concept of the new economy has emerged to refer to all business activity carried out over the Internet, with this growing exponentially in the case of e-commerce (Manganelli & Nicita, 2022). In this context, economic activity has shifted significantly to the online channel. This situation has led to the need for the various sectors

concerned to redesign their strategies and focus them on digitalization. Society as a whole has increased its confidence in digital media and e-commerce, accelerating this process during the COVID-19 (Amankwah-Amoah et al., 2021).

This improvement in trust and usage of the internet network has been influenced by the possibilities of access through the use of smart mobile devices and also thanks to the improvement of 4G and 5G technologies (Mishra, 2022). By means of these devices, activities can be carried out that go beyond communication, a clear example being the set of actions carried out through them for the purchase of goods online (Li, 2022). This is favored by the development of applications for mobile devices known as apps. All of this has triggered among users, sellers and buyers, a positive impact for their use (Tam et al., 2020).

The textile sector has not been immune to this revolution and it has undergone accelerated changes due to globalization and

technologies (Hader et al., 2022). People currently have access to various means of buying clothes (web portals or apps), most of which have illustrative images of the garments and a brief description (Faria et al., 2020). Inditex (the parent company of the ZARA brand) is an example of this, as it was able to optimize its resources to position itself against future global competitors (Atencia et al., 2018) in an evolving environment. The use of ZARA's app for the research responds to three reasons: First, because of its implementation and leading position in the fashion market in Spain and worldwide; second, because of its omnichannel strategy and the importance of balanced growth that it gives to both physical stores and the online channel through its app; and third, because its communication strategy is not based on large communication campaigns but on a permanent contact with its customers through physical and especially online channels.

Given this evolution of the market, this study aims to fill the literature gap that involves the new forms of interaction of the company-consumer in an app focused on the textile sector, taking into account the COVID-19 pandemic. The situation caused by the pandemic has led companies to rethink their strategies in all fields of intervention, in order to meet the new needs of customers, causing a significant distortion between the behavior analyzed so far and that actually developed during this period. This fact implies for companies the need to respond to new consumer behaviors, especially in relation to new technologies and apps. Therefore, the main objective of this work is to analyze how the current COVID-19 pandemic situation has influenced the acceptance factors that are established in the UTAUT2 model as well as the proposed extensions (Corporate Social Responsibility and design). The study target is the ZARA brand through its app. This analysis will provide companies with the answers they need to develop new strategies and determine the new elements that make up consumer behavior in relation to fashion apps.

To the above, and in order to understand the extension of the initial UTAUT2 model proposed by Venkatesh et al. (2012) Corporate Social Responsibility (CSR) has been proposed, as various lines of research recommend taking it into account in technology acceptance models (Arachchi & Mendis, 2021) since several empirical studies have clearly indicated that spending patterns, attitudes toward companies and consumer beliefs vary over different cycles (Bock, 2005). An example of this is COVID-19, given that it has brought about substantial changes in our society at the economic and social levels (Elmaslar-Özbaş et al., 2022). On the other hand, the app design has been added, as some authors claim that it is substantial and therefore should be considered as a key factor in the design of apps (Lee et al., 2019) and even more so in those aimed at the fashion world (Parker & Henninger, 2018) as is the case of the ZARA app.

## 2 | THEORETICAL FRAMEWORK

One of the most consolidated lines of research on information systems is to determine individual acceptance and use of technology (Venkatesh et al., 2012). In recent years there has been a complex global health situation that has changed the standards of information

systems (Karanasios, 2022) and the way in which companies interact with consumers (Kang et al., 2020). Therefore, it is critical that companies develop and quickly adopt appropriate strategies, either reactively or proactively (Caboni & Pizzichini, 2022). In this regard, a number of models drawn from different fields, such as psychology, sociology, and management, have been evaluated to describe people's willingness to use modern technologies. For example, the technology acceptance models (TAM), the innovation diffusion theory (IDT), the task-technology fit model (TTF), the technology-organization-environment framework (TOE), the fit framework between individuals, task and technology (FITT) and, finally, the model considered in this study is a modification of the UTAUT model, which has been referred to in the literature as UTAUT2 since UTAUT failed to explain the variables considered of great importance for the evaluation of the success of the technology (Tseng et al., 2022).

To overcome these limitations, and to understand the voluntary use of the new technology in the consumer context, Venkatesh et al. (2012) developed UTAUT2 as an extension of the original UTAUT. The latter has been used following the latest lines of research on uptake patterns during the COVID-19 pandemic (Vinerean et al., 2022) and its focus on different apps during the same period (Medeiros et al., 2022). In addition, due to its high rate of explanation (74%) of the behavior used in the literature (Nikolopoulou et al., 2020), complementary to the UTAUT2 model, two extensions (corporate social responsibility and design) have been carried out.

### 2.1 | Habit

On the one hand, Limayem et al. (2007) defined habit (HB) as the extent to which an individual tends to automatically engage in behaviors. On the other hand, Kim and Malhotra (2005) considered this as an act similar to automaticity. Specifically, in reference to mobile technology, Venkatesh et al. (2012; p. 161) specified it as "a perceptual construct that reflects the results of an individual's previous experiences". Despite the different definitions of the same concept, they all have in common the idea that previous experiences influence the beliefs and intentions of consumer behavior (Martinez & McAndrews, 2022; Yang, 2013). Therefore, based on this the following hypothesis can be established:

**Hypothesis 1.** *Habit positively affects the consumer's intention to use the Zara app.*

In relation to the above, habit is the extent to which individuals tend to carry out behaviors automatically (Limayem et al., 2007). Venkatesh et al. (2012) found that habit directly and indirectly affects technology use behavior. Habitus has been empirically tested throughout the literature as a variable that influences usage behavior (Khalifa & Liu, 2007). Authors such as Gefen (2003) believe that habit can explain sustained usage behavior more effectively than intention. As well, Chen et al. (2014) find that habit has a significant influence on usage. But if we focus on the fashion industry, we can say that it is

constantly changing (Khurana, 2022). Almost all ages and sexes of people are interested in knowing and wearing the latest trend, so the launch of mobile shopping apps has not only simplified shopping but has improved the entire shopping experience (Soni et al., 2019). Along with this improved shopping experience, it has led to an individual's inclination to continuously use this type of technology, forming a habit and influencing the usage behavior (Limayem & Hirt, 2003). Therefore, we formulate the following hypothesis:

**Hypothesis 2.** *Habit positively affects consumer usage behavior through the Zara app.*

## 2.2 | Performance expectancy

Performance expectancy (PE) is defined as the degree to which the use of a technology provides benefits to the person in the development of certain activities. Specifically within UTAUT it is considered as one of the constructs that most predominates over the intention to use (Cabrera-Sánchez et al., 2020). A multitude of works, including those of Brünink (2016), Chauhan and Jaiswal (2016), Korkmaz et al. (2022) and even the original work of Venkatesh et al. (2003) affirm this positive correspondence. The relevance of this construct gives rise to the following hypothesis of this research:

**Hypothesis 3.** *Performance expectancy positively affects the consumer's intention to use the Zara app.*

## 2.3 | Effort expectancy

Effort expectancy (EE) is defined as the ease of learning and use that this technology will have. To this end, UTAUT established that the app will be used to a greater or lesser extent depending on how simple or complicated it is (Cabrera-Sánchez & Villarejo-Ramos, 2018). Different previous works establish their conclusions in the same direction (Al-Gahtani et al., 2007; Arenas-Gaitán et al., 2016) as well as current works (Rudhumbu, 2022) and therefore, the following hypothesis can be formulated:

**Hypothesis 4.** *Effort expectancy positively affects the consumer's intention to use the Zara app.*

## 2.4 | Social influence

Social influences (SI) refer to the degree to which an individual perceives that important others believe that they should use a certain technology (Schmitz et al., 2022). This is the way in which the closest environment shows us that we should use this technology (Venkatesh et al., 2003). These authors established how social influence was very decisive in consumer intention (Zhou, 2011). Likewise the work of

Schomakers et al. (2022) also noted the influence of the use of mobile applications.

The importance of the environment surrounding each consumer, both virtual and real, is evident in the behavior that he/she performs. For this reason it is essential to understand how it does so in order to enhance the strategies to be carried out (Sanz-Blas et al., 2014). Based on this, the following hypothesis can be established:

**Hypothesis 5.** *Social influence positively affects the consumer's intention to use the Zara app.*

## 2.5 | Facilitating conditions

Facilitating Conditions (FC) refers to the degree of availability of technical support (resources) to use the new technology (Venkatesh et al., 2003). In 2012 Venkatesh et al. demonstrated through UTAUT2 that this variable has a notable influence with respect to the intention to use (Cabrera-Sánchez & Villarejo-Ramos, 2018). Other studies have also corroborated this positive effect (Agarwal & Sahu, 2022; Rudhumbu, 2022).

This positive influence of the ease of conditions on the intention to use allows us to state the following hypothesis of this work:

**Hypothesis 6.** *Ease of terms and conditions positively affects the consumer's intention to use the Zara app.*

The study by Venkatesh et al. (2003) identified that the facilitating conditions focus on a technological environment designed to remove barriers to the use of technology, especially when we use the cell phone (Migliore et al., 2022), making it easier for consumers to use the functions and features to proceed to make purchases by this same medium (Martinez & McAndrews, 2022). In the literature we find the relationship between facilitating conditions and consumer usage, taking into account the purchases in different apps (Palau-Saumell et al., 2019) and even, as is the case of our research, in the fashion sector (Soni et al., 2019). Therefore, the above studies show the influence of enabling conditions in a diversity of technology-based media (Cabrera-Sánchez & Villarejo-Ramos, 2020) in a positive way, which not only affects intention (Martinez & McAndrews, 2022) but also usage (Baptista & Oliveira, 2017). Therefore, we proceed to formulate the following hypothesis:

**Hypothesis 7.** *Ease of conditions positively affects consumer usage behavior through the Zara app.*

## 2.6 | Hedonic motivation

Hedonic Motivation (HM) is defined as the fun or pleasure derived from the use of technology and, according to previous works, it can be stated that this is a very influential factor concerning the consumer's intention to use the technology (Alalwan et al., 2018;

Baabdullah et al., 2019; Brown & Venkatesh, 2005; Hamari & Koivisto, 2015). This is also corroborated in a current work (Rudhumbu, 2022). Based on the above, the following hypothesis can be formulated:

**Hypothesis 8.** *Hedonic motivation positively affects the consumer's intention to use the Zara app.*

## 2.7 | Price value

In UTAUT2, the concept of price (PV) corresponds to the consumers' cognitive trade-off between the perceived benefits of apps and the monetary cost of using them (Chan et al., 2008). Venkatesh et al. (2012) state that it is common for consumers to assume the monetary cost of using a given technology, suggesting that price will positively affect the purchase intention, as long as the consumer perceives that the gain received from the use of the technology outweighs the monetary cost of using it (Yang, 2013). In this way it has been confirmed in the literature (Suo et al., 2022).

The positive influence of price on usage intention gives rise to the following hypothesis:

**Hypothesis 9.** *Price positively affects the consumer's intention to use the Zara app.*

## 2.8 | Design

Esthetic design (DS) in digital environments is a construct that can be described as any design (e.g., web pages and interactive systems) that immediately increases the attractiveness and appeal of an object to its viewer (Ruf et al., 2022). The existing research on mobile applications has focused primarily on the numerical and textual attributes of apps and scant attention has been paid to the visual attributes of apps and interface design (Wang & Li, 2017). This is despite the fact that it has been shown in the literature that the visual design of products is an important factor involved in customer decision making, and that good esthetic design can be a key factor in the decision making process (Creusen et al., 2010) and that a good esthetic design can help compensate for various usability shortcomings (Hartmann et al., 2007). The design thinking process is the most appropriate way for companies to incorporate innovative values and encourage the intention to use (Dell'Era et al., 2020).

The design of apps is closely correlated with navigation, the user experience being influenced by the interface design (Ng et al., 2022; Palmer, 2002). In general, users prefer interfaces to be simple and easy to navigate, especially on commercial websites (Novak et al., 2000), as often a lack of clear navigation leads to user frustration, annoyance and overall negative experiences with the services that they are receiving (Rosenfeld & Morville, 2002). So, if the user interface is professionally designed in mobile applications,

this will increase customer satisfaction, because as it is the first thing the customer sees when running the application, this first impression plays an important role in influencing the intention to use, either negatively or positively (MacDonald & Atwood, 2014; Thakur, 2014). For this reason, in the literature we find relationships between design and intention to use in mobile environments (Gharaibeh et al., 2021) and we formulate it in the same way in our research:

**Hypothesis 10.** *Design positively affects the consumer's intention to use the Zara app.*

## 2.9 | Corporate social responsibility

Corporate social responsibility is described as the recognition and integration by companies of social and environmental concerns in their operations, leading to business practices that meet these concerns and shape their relationships with their stakeholders (Shaw & Sergueeva, 2019). Recent studies, also in the fashion sector, have considered the importance of CSR in consumers' propensity to purchase (Vătămănescu et al., 2021), and company reputation. Analyses of brand perception have also been conducted during COVID-19 (Liu et al., 2020; Yang et al., 2021). Here a call is made for their inclusion in analyses to test possible organizational and managerial implications (Carroll, 2021). Likewise, the CSR study on the multinational fashion company H&M by Javed et al. (2020) also speaks of the need to include parameters in this sense to improve consumer perception and behavior. These studies demand the inclusion of CSR within the purchase intention models and in the models on business behavior in general, since given the existing equality in the fashion sector, it is necessary to work on other strategies for differentiation and to obtain competitive advantages, this being also so in other sectors (Ramkumar et al., 2021).

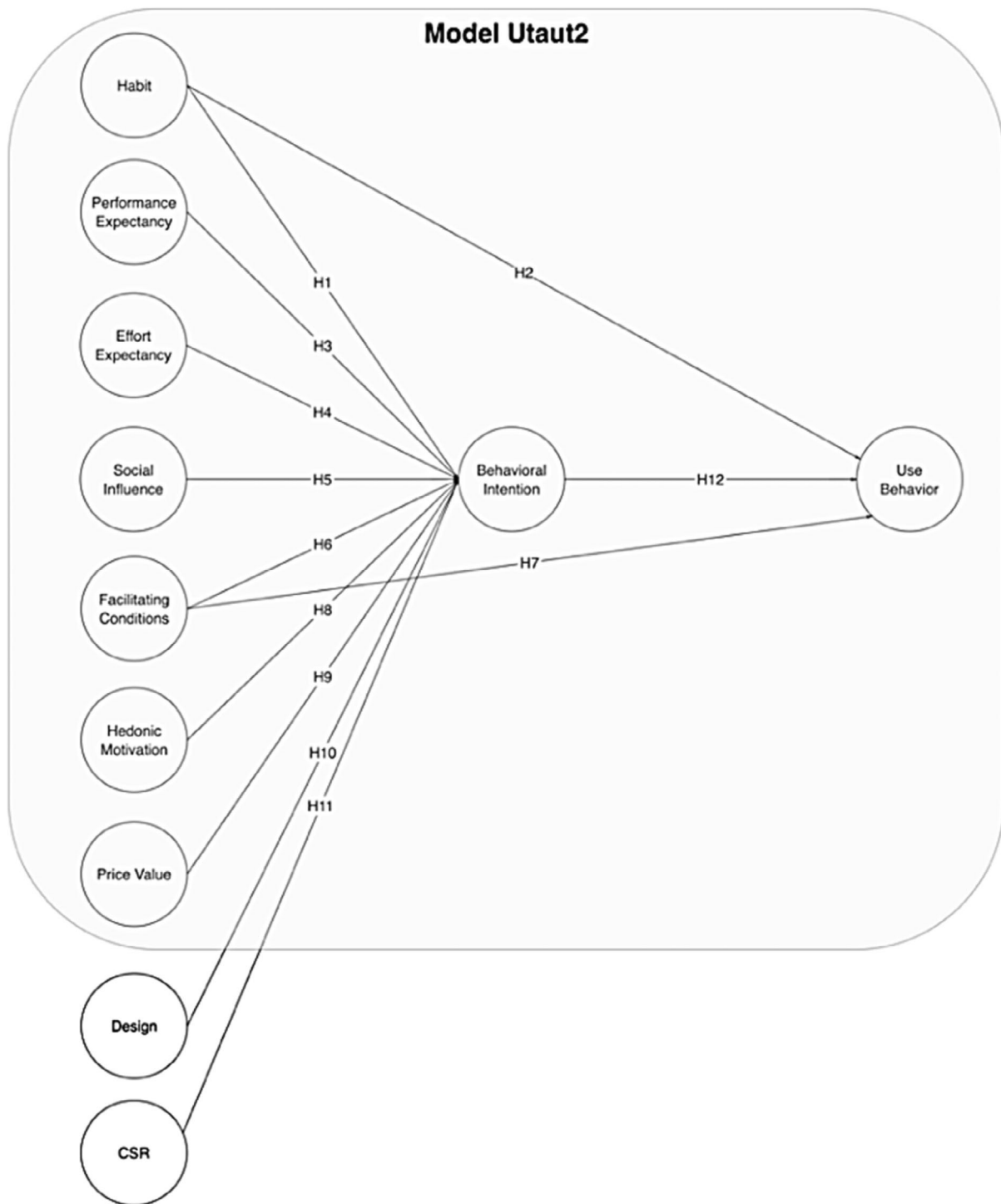
There is an abundance of research that confirms the importance of this concept, establishing it as a multidimensional construct, related to concepts such as corporate partnerships (Brown & Dacin, 1997) and sustainable development, among others (Panapanan et al., 2003).

Therefore, based on the above, the next hypothesis of this work is formulated:

**Hypothesis 11.** *Corporate social responsibility positively affects the consumer's intention to use the Zara app.*

## 2.10 | Intention to use

With respect to the intention to use (BI), it can be established that it is the user's determination to perform a specific behavior (Davis, 1989). According to previous studies (e.g., Ain et al., 2016; Venkatesh et al., 2012; Venkatesh & Davis, 2000), this construct directly influences ICT-related usage behavior. It is therefore feasible to establish



**FIGURE 1** Proposed model

that usage intention influences the actual attitude of consumers (Raman & Don, 2013). Therefore, the following hypothesis can be formulated:

**Hypothesis 12.** *Intention to use positively affects consumer usage behavior through the Zara app.*

## 2.11 | Usage behavior

Usage Behavior (UB) can be defined as the frequency of ICT use (Venkatesh et al., 2003, 2012). Previous research corroborates how usage behavior significantly influences both e-commerce HB (Escobar-Rodríguez & Carvajal-Trujillo, 2014) and the FC and

**TABLE 1** Table of variables

Construct	Items	References
HB	<ul style="list-style-type: none"> <li>HB1 Using the Zara app to locate and buy clothes has become a habit for me</li> <li>HB2 I am addicted to using the Zara app to locate and shop for clothes</li> <li>HB3 Using the Zara app to locate and shop for clothes is something I do on a daily basis</li> </ul>	(Gansser & Reich, 2021; Gupta et al., 2018; Venkatesh et al., 2012)
PE	<ul style="list-style-type: none"> <li>PE1 The Zara app is very useful for online shopping</li> <li>PE2 Using the Zara app allows me to find clothes more quickly</li> <li>PE3 Using the Zara app increases my efficiency in searching for garments</li> <li>PE4 Using the Zara app improves my performance in locating and purchasing garments</li> </ul>	
EE	<ul style="list-style-type: none"> <li>EE1 Using the Zara app to shop for and locate clothes is easy for me</li> <li>EE2 Using the Zara app to locate and buy clothes is an activity that I feel skilled at</li> <li>EE3 Using the Zara app to locate and buy clothes involves little effort for me</li> </ul>	
SI	<ul style="list-style-type: none"> <li>SI1 The people who are important to me are in favor of using the Zara app</li> <li>SI2 People who influence my behavior approve of my using the Zara app to locate and buy clothes</li> <li>SI3 People whose opinions I value think I should use the Zara app to locate and buy clothes</li> </ul>	
FC	<ul style="list-style-type: none"> <li>FC1 I have the necessary resources to use the Zara app</li> <li>FC2 I have the necessary knowledge to use the Zara app</li> <li>FC3 I feel comfortable using the Zara app</li> <li>FC4 I have no problem using the Zara app to locate and buy clothes</li> </ul>	
HM	<ul style="list-style-type: none"> <li>HM1 Using the Zara app to locate and buy clothes is fun for me</li> <li>HM2 I find using the Zara app to locate and buy clothes enjoyable</li> <li>HM3 I find using the Zara app to locate and buy clothes very entertaining</li> </ul>	
PV	<ul style="list-style-type: none"> <li>PV1 The Zara app is reasonably priced</li> <li>PV2 The Zara app is good value for money</li> <li>PV3 At the current price, the Zara app is good value for money</li> </ul>	(Dodds et al., 1991; Gansser & Reich, 2021)
DS	<ul style="list-style-type: none"> <li>DS1 I expect the design of the Zara app to be similar to other systems I have used or know about</li> <li>DS2 I expect the Zara app to be simple to use</li> <li>DS3 I expect the Zara app to clearly show my transaction activities</li> <li>DS4 In general, I expect the Zara app to operate efficiently and be free of technical problems</li> </ul>	(Albayati et al., 2020; Hairudin et al., 2020)
CSR	<ul style="list-style-type: none"> <li>CSR1 I would pay more to buy products from a socially responsible company</li> <li>CSR2 I take into account the ethical reputation of companies when I buy from them</li> <li>CSR3 I avoid buying products from companies that have carried out unethical actions</li> <li>CSR4 I would pay more to buy products from companies that demonstrate concern for the welfare of our society</li> <li>CSR5 If the price and quality of two products are equal, I would buy from a company that has a socially responsible reputation</li> </ul>	(Ramasamy et al., 2013)
UB	<ul style="list-style-type: none"> <li>UB1 What is your current use of the Zara app?</li> </ul>	(Farooq et al., 2017; Nikolopoulou et al., 2020; Venkatesh et al., 2003)
BI	<ul style="list-style-type: none"> <li>BI1 I intend to use the Zara app to make purchases that will satisfy me</li> <li>BI2 I am likely to use the Zara app to make purchases that will satisfy me</li> <li>BI3 I have decided to use the Zara app to make purchases that I am happy with</li> </ul>	(Gupta et al., 2018; Venkatesh et al., 2003, 2012)

intention to use (Chen & Chan, 2014; Im et al., 2011; Martins et al., 2014; Yu, 2012).

Figure 1 shows the proposed model including the research hypotheses stated above.

The proposed model that has been tested in this paper includes the nine explanatory variables for the Intention to use of consumers (as the mediating variable of Use Behavior) and for the usage behavior

through the Zara app (as the variable to be explained). Table 1 provides a detailed description of these variables. A questionnaire consisting of 36 adapted items was used to measure the variables of the proposed model, the results of which were analyzed. In all cases, the items were measured on a 7-point Likert scale where the possible answers ranged from total disagreement with a value of 1 to total agreement with a value of 7.

**TABLE 2** Demographic characteristics of the sample used in the study

	Feature	Frequency	Percent
Gender	Man	334	45
	Woman	402	55
	Total	736	100
Age	Less than 25	135	18
	25–34	138	19
	35–44	148	21
	45–54	172	23
	More than 55	143	19
	Total	736	100

### 3 | METHODOLOGY

This research analyzes how the pandemic has influenced the ZARA brand in its sales channel through its app, via a research design based on an extended UTAUT2 model, the collection of quantitative data, and the interpretation and analysis of qualitative information. The sample comes from an online survey distributed without geographical criteria in territories of different sizes, but always within Spain (where ZARA has its largest global presence) in April 2021. The data under study were collected through an online questionnaire addressing Zara shoppers who used the Zara app to purchase Zara products. The type of sample used was non-probability and convenience. The distribution of the survey yielded a total of 736 valid responses, the characteristics of which are shown in Table 2 below.

The questionnaire was based on a series of closed questions with simple numerical responses on a nominal Likert-type scale (1 represents the maximum level of disagreement and 7 the maximum level of agreement). To validate the proposed model, PLS was used to analyze the reliability and validity of the measurement scales and to evaluate the structural model (Chin & Dibbern, 2010; Hair et al., 2012). Specifically, we used the Smart-PLS software package. Beforehand, we checked that there was no error due to measurement bias or Common Method Bias (CMB), following the steps proposed by (Kock, 2015). To confirm that the sample did not contain any type of error due to measurement bias, the variance inflation factors (VIF) achieved had to be below a value of 3.3, which was verified.

### 4 | RESULTS

In order to proceed with the analysis of the reliability and validity of the model (Table 3), a minimum factorial loading of 0.7 on the latent variables themselves will be taken as a valid reference, as recommended by studies (Henseler et al., 2015).

Next, applying the composite reliability indicators and Cronbach's alpha, we proceed to examine the reliability of the constructs. As previously mentioned, the indicators exceed the figure of 0.7 as suggested by Nunnally (1978). Likewise, the analysis of the average

variance extracted (AVE) can be used to guarantee convergent validity. To this end, as established by Gefen et al. (2011), the indicators must be greater than 0.5 (Table 4).

Then, we proceed to the discriminant validity analysis, for which we will use the Fornell & Larcker test and the Heterotrait-Monotrait ratio (HTMT). The Fornell and Larcker (1981) test compares the square root of the AVE of each latent variable with the correlations of that variable with the rest. The logic of this method is based on the idea that a construct shares more variance with its indicators than with the other constructs (Hair et al., 2017).

Subsequently, we employed the Heterotrait-Monotrait ratio (HTMT) which is an estimate of the actual correlation between two constructs if they were perfectly reliable (Hair et al., 2017; Henseler et al., 2015), and which offered levels below 0.9 (Table 5). Although not all the values obtained are below 0.9, this bias is not relevant.

Table 6 shows the fit of the model. The acceptable range for the SRMR index is between 0 and 0.08 (Hu & Bentler, 1999). Since most of the terms in the SRMR definition are simply MSE of estimated and observed correlations, the value of 0.08 can be interpreted as follows. If all the correlations are equally misfitted, the model is approximately well fitting provided the estimated and the observed correlations are less than 0.08 apart (Asparouhov & Muthén, 2018).

Figure 2 shows the structure of the model analyzed with its loads.

In the same way, it is possible to check in Table 7 the  $R^2$  of the second-order constructors: Intention to Use and Behavior.

Table 8 includes the analysis of the path coefficients and the explained variance of the endogenous variables in order to examine the structural model ( $R^2$ ). These coefficients show the intensity of the relationship between the dependent and independent variables and for this purpose a bootstrapping technique has been used with 10,000 samples to obtain the reliability of the path coefficients in the hypothesized relationships.

## 5 | DISCUSSION, CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

### 5.1 | Discussion

Within our analysis, the hypothesis that relates the FC with the intention to use, as well as with the use, does not have a significant influence, either positively or negatively. Enabling conditions has been analyzed in several studies on app adoption, with different results. For example, in their analysis of mobile travel applications, (Ho et al., 2021) indicate that the enabling conditions do not influence consumer behavior, alluding that since they are mobile applications, Internet connectivity has a wide coverage and does not represent a problem, also indicating that the interfaces of the applications are highly developed so that users can learn their operation with relative ease. On the other hand, Kimberly and Caroline (2020) in an analysis of mobile food delivery applications, argue that the FC were not significant in the intention to use the app. However, studies conducted on mobile apps in the fashion industry do establish FC as significant

	UB	FC	DS	EE	PE	HB	SI	BI	HM	PV	CSR
HM1									.957		
HM2									.963		
HM3									.960		
BI1	1										
DS1			.791								
DS2			.883								
DS3			.861								
DS4			.878								
EE1				.931							
EE2				.923							
EE3				.917							
PE1					.877						
PE2					.931						
PE3					.941						
PE4					.923						
FC1		.739									
FC2		.786									
FC3		.883									
FC4		.883									
HB1						.901					
HB2						.924					
HB3						.866					
SI1							.922				
SI2							.933				
SI3							.915				
IU1								.929			
IU2								.911			
IU3								.892			
PV1									.920		
PV2									.955		
PV3									.960		
CSR1										.720	
CSR4										.711	
CSR5										.893	

**TABLE 3** Individual reliability of measurement scales (factor loadings)

(Soni et al., 2019), indicating that customers valued connectivity and availability at all times. With DS something similar has occurred in previous studies. Some analyses have determined the importance of app DS as long as there is a high level of personalization in the app (Trivedi & Trivedi, 2018), although a clear relationship is not established.

Prior learning and increased frequency of app use are reflected in the form of HB. Our analysis gives significance to this construct with respect to usage and intention to use, in line with other previous research (Soni et al., 2019). For Zara, HB represents a very relevant role in finding intentions with respect to the behavior of its users, as indicated in their analysis by Hew et al. (2015). The HB or representative continuous use that we found in our research is also studied by

(Radhia & Tjhin, 2021), indicating its significant effect on online fashion platforms.

Social influences, to a lesser extent, is also significant. Studies such as that of Maziriri et al. (2020) consider that the opinion of other people is a determining factor in the adoption of mobile apps and should be taken into account in the development of the company's communication policies. Other studies have even analyzed its moderating and non-direct effect also on the intention to use (Yang et al., 2021), determining its possible interrelation with other variables.

The relationship between PE and the adoption of different technologies and apps has been previously analyzed (Qasem, 2021), indicating a strong relationship, although in our case this is shown to be



**TABLE 4** Composite reliability and convergent validity

	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
UB	1	1	1	1
FC	.850	.916	.895	.681
DS	.876	.877	.915	.730
EE	.914	.917	.946	.853
PE	.938	.938	.956	.843
HB	.881	.911	.925	.805
SI	.913	.914	.945	.852
BI	.897	.900	.936	.830
HM	.957	.959	.972	.921
PV	.940	.940	.962	.893
CSR	.722	.903	.821	.607

**TABLE 5** Discriminant validation (Heterotrait-Monotrait Ratio – HTMT)

	UB	FC	DS	EE	PE	HB	SI	BI	HM	PV	CSR
UB											
FC	.536										
DS	.408	.637									
EE	.618	.838	.658								
PE	.569	.754	.678	.922							
HB	.618	.367	.345	.573	.524						
SI	.502	.632	.651	.737	.764	.561					
BI	.629	.674	.656	.768	.785	.557	.750				
HM	.545	.697	.620	.819	.782	.623	.700	.689			
PV	.411	.538	.544	.659	.643	.565	.630	.576	.659		
CSR	.167	.318	.561	.256	.317	.201	.293	.328	.283	.332	

**TABLE 6** Model adjustment

	Saturated model	Estimated model
SRMR	.070	.070
d_ULS	2.898	2.915
d_G	1.036	1.040
Chi-cuadrado	2973.654	2985.924
NFI	.818	.818

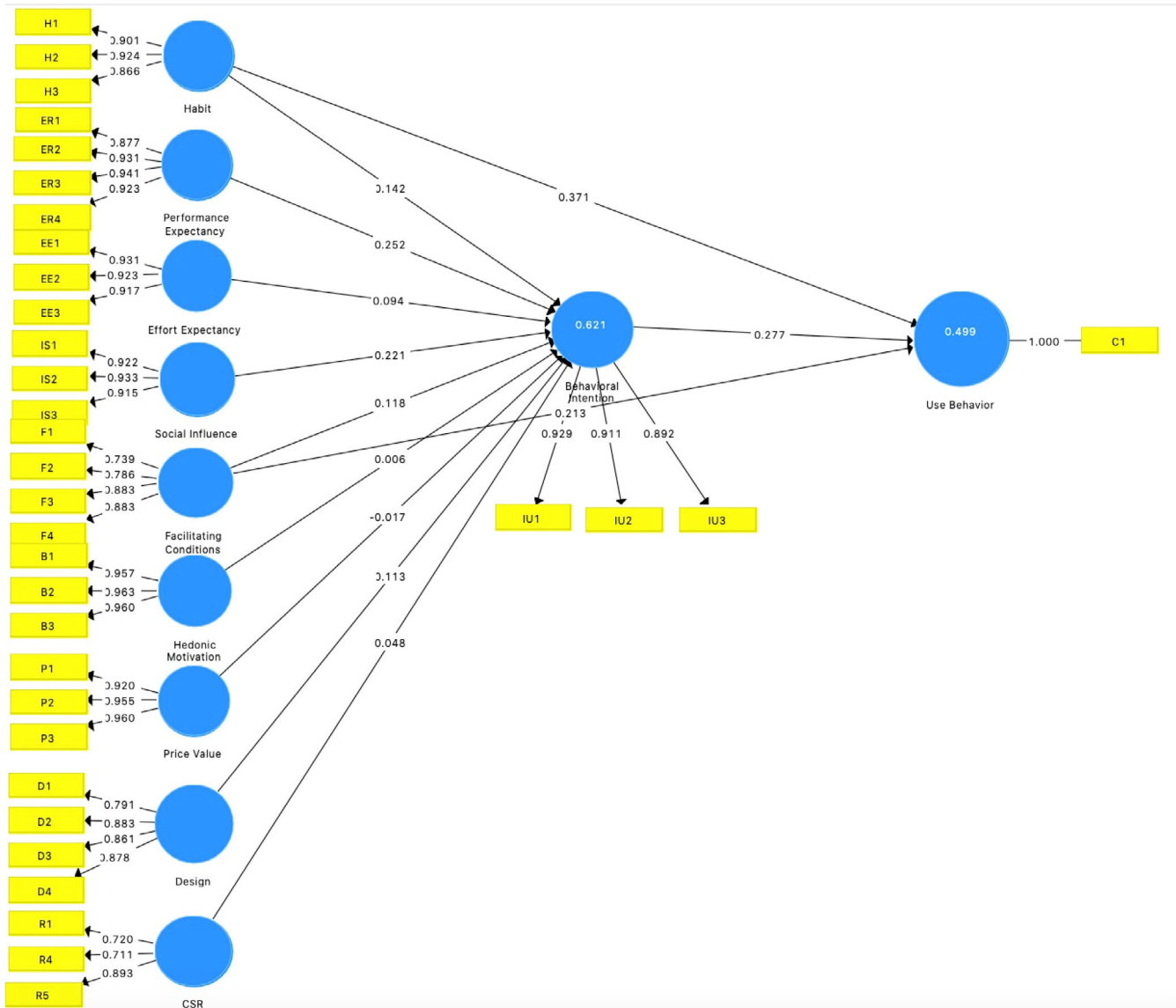
less strong. Despite having been described as one of the main predictors of usage behavior (Venkatesh et al., 2003), our analysis indicates a minor importance, in agreement with studies such as that of Ferreira Barbosa et al. (2021).

Particularly striking are the results regarding price and HM. Recent analyses, such as that of Arun et al. (2021), reinforce the importance of both as precursors of intention to use. However, we also find results close to our study in the work of Maulidina et al. (2020), where neither variable has an influence on the adoption of online trading platforms. HM has presented contrary research results. For emerging mobile technologies, it has shown consistency in terms of its predictive ability on intention to use and usage (S. Hu et al., 2020). Similarly, in recent studies on technology adoption and

use in the tourism sector, hedonic motivation positively affects intention to use (Tripp et al., 2022). However, in academic studies of new learning technologies, no such consistency has been shown (Khechine et al., 2020). Perhaps the pandemic environment in which the study took place has changed consumers' perception of pleasure, rendering HM irrelevant in our analysis.

The research also establishes PV as non-significant. This fact coincides with previous studies associated with mobile systems, especially when a comparison with competitors for similar services cannot be made (Gharaibeh et al., 2020). Zara's app can represent in consumers a product or brand that is highly differentiated from others, according to the communication policy developed by the company. Moreover, it is an entirely free app.

Regarding CSR, despite being a topical issue in companies, it is not valued by Zara's customers in the use of its app. We found that this hypothesis, which we had put forward as an extension of the model, is not significant. Some studies talk about the need for users to perceive these CSR initiatives through some incentives (Huang, 2020), something that seems not to be perceived by the user of Zara's app. This fact is contrary to some previous studies where, regarding the adoption of mobile banking apps, CSR has been shown to significantly affect it (Nguyen & Nguyen, 2020). However, the study talks about economic responsibility, with neither social nor environmental



**FIGURE 2** Analyzed model and loads [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

**TABLE 7** R-squared model

	R <sup>2</sup>
UB	.499
BI	.621

responsibility being significant. If we consider that the study was conducted in a COVID-19 environment, where Zara backed social responsibility, the results would be in line with those of Nguyen and Nguyen (2020).

Effort expectancy has been confirmed as significant in studies on tourism apps (Zaini et al., 2020) and fitness-related apps. The significant presence of this construct in studies of a diverse sectorial nature applied to apps leads us to consider why it is not significant in our study. Considering the definition of the construct as ease of learning or use, it is possible that the clients of the Zara app do not take into

account the possible difficulty of use, either because their interest lies in other variables, or because it is really easy to learn and use. This reasoning coincides with studies such as those of Hsu and Peng (2021). Although the result might seem somewhat striking, it coincides with other studies on mobile applications (Abdat, 2020).

## 5.2 | Implications

From an academic point of view, our analysis includes two elements that are rarely used in models on intention to use and adoption of technologies, namely DS and CSR. Both constructs represent an advance in the evolution of the model from the point of view of customer determinants. Until now, adoption models focused mainly on internal elements, associated with consumer behavior, while the introduction of CSR implies the presenting of an external factor. An

**TABLE 8** Testing of the structural model (Path Coefficients)

		Original sample (O)	P values	
H7	Facilitating conditions → Use behavior	.213	.000	Supported
H6	Facilitating conditions → Behavioral intention	.118	.019	Supported
H10	Design → Behavioral intention	.113	.019	Supported
H4	Effort expectancy → Behavioral intention	.094	.212	Not supported
H3	Performance expectancy → Behavioral intention	.252	.001	Supported
H2	Habit → Use behavior	.371	.000	Supported
H1	Habit → Behavioral intention	.142	.000	Supported
H5	Social influence → Behavioral intention	.221	.001	Supported
H12	Behavioral intention → Use behavior	.277	.000	Supported
H8	Hedonic motivation → Behavioral intention	.006	.921	Not supported
H9	Price value → Behavioral intention	-.017	.680	Not supported
H11	CSR → Behavioral intention	.048	.125	Not supported

external factor allows establishing in the research a better balance between the internal consumer behavior developed through the UTAUT2 model and the strategies carried out by the company. This fact is relevant from an academic viewpoint, since it provides a new research vision that may enable obtaining more complete solutions, as well as widening the research field of technological adoption models.

From a managerial point of view, despite being a growing trend within companies, the importance of CSR actions is not yet a determining factor in the intention to use fashion apps. The strong investments made by companies in these factors are likely to have an impact in the longer term, so managers should adopt a dual stance, focusing on the one hand on improving the perception of aspects such as SI by making recommendations about their apps more widely known and, on the other hand, giving more visibility or understanding to investments in social responsibility. It is possible that this visibility could be improved if the investment is made in a more observable way by consumers. CSR can be materialized according to economic, social and environmental responsibilities. A correct distribution of resources among the three channels, as well as an appropriate communication policy, would improve consumer perception in each of these aspects, and therefore overall perception. Similarly, the COVID-19 situation meant that many companies entered the CSR field without knowing it, making certain mistakes in the process. Now that the situation is more normalized, managers must establish stable policies that improve the perception of responsibility by consumers, distinguishing themselves from other competitors and being appreciated by their customers.

From the social point of view, in the COVID-19 context in which the study was carried out, efforts to improve the company's image in the eyes of society have not yet been profitable. Perhaps in a situation of uncertainty, consumers seek refuge in a well-known brand, without assessing whether the company is aligned with the interests of its environment. The processes in which Zara places special emphasis on the labor rights of its employees or its concern for the environmental impact, among others, regardless of the country where it

operates, are still not being valued by customers in their decisions to use the app, so the company must improve its communication of them.

### 5.3 | Conclusions

The Zara brand is a global benchmark in the fashion industry, and a company whose strategy is followed by many other companies in their growth and development process. During the period of the COVID-19 pandemic, companies like ZARA, despite its size, had to adapt to the circumstances quickly, and turn their efforts to digital channels, the only ones that could be used at the time. In the case of the ZARA app, one of the most widely used in the world, although not a pioneer in the digital sphere, it became during the pandemic period the only instrument of communication with its customers. The simplicity of its use made it a fundamental tool despite the complexity of the circumstances. In addition, shoppers expect a lot from the ZARA app related to the social influence they receive, as it is important to remember that Zara's communication policy is restricted to the virtual environment and its stores, with much less intensity than other competitors in the media, so the opinions of other shoppers, recommendations and referrals as social influence demonstrate its strength in the analysis.

This study has important implications from academic, social and managerial perspectives. From the academic point of view, our analysis includes two elements little used in models of technology use and adoption intention, namely design and CSR. Both constructs represent an advance in the evolution of the model from the point of view of customer determinants. Until now, adoption models focused mainly on internal elements, associated with consumer behavior, while the introduction of CSR implies the presentation of an external factor. An external factor makes it possible to establish in the research a better balance between the internal consumer behavior developed through the UTAUT2 model and the strategies carried out by the company.

This fact is relevant from an academic point of view, since it provides a new vision of the research that may allow obtaining more complete solutions, as well as widening the research field of technological adoption models.

From a management perspective, despite being a growing trend within companies, the importance of CSR actions is not yet a determining factor in the intention to use fashion apps. It is likely that the heavy investments made by companies in these factors will have a long-term impact, so managers should adopt a dual stance, focusing on the one hand on improving the perception of aspects such as social influence by publicizing recommendations about their apps and, on the other hand, giving more visibility or understanding to investments in social responsibility. This visibility is likely to improve if the investment is made in a more observable way for consumers. Corporate social responsibility can materialize in terms of economic, social and environmental responsibilities. A correct distribution of resources among the three channels, as well as an appropriate communication policy, would improve consumer perception in each of these aspects, and therefore the overall perception. Likewise, the COVID-19 situation meant that many companies entered the field of CSR without knowing about it, making certain mistakes in the process. With the situation more normalized, managers must establish stable policies that improve the perception of responsibility by consumers, distinguishing themselves from other competitors and being appreciated by their customers. The cost strategy, based on competitive pricing, has continued to work in times of pandemic, so companies should not neglect this aspect despite the complicated adverse circumstances.

From the social point of view, in the COVID-19 context in which the study was conducted, efforts to improve the company's image in society have not yet been profitable. Perhaps in a situation of uncertainty, consumers take refuge in a well-known brand, without assessing whether the company is aligned with the interests of its environment. The processes in which Zara places special emphasis on the labor rights of its employees or its concern for environmental impact or regarding the special actions carried out during the COVID-19 pandemic, among others, regardless of the country in which it operates, are still not valued by customers in their decisions to use the application, so the company must improve its communication of them. This fact is particularly relevant from a social perspective, since, despite the enormous efforts made by companies in terms of responsibility during the complicated times of the pandemic, they have not been reflected in the study. Perhaps they can be assessed at a later date, but it will require the company to observe the appropriate timing.

## 5.4 | Limitations and future lines of research

It has been mentioned that factors such as CSR and price did not influence the population, which means that, instead of these, other variables have a greater relevance on the model. Consequently, it would be necessary in future research to include them in the study and thus expand the original UTAUT2 model to achieve an evaluation

more closely related to the possible effects. To properly assess the influence of COVID-19 on adoption factors, it would be convenient to apply the analyzed model to a sample once the pandemic is over, to observe how the different constructs and consumer behavior vary in the adoption of the Zara app in the study, as well as to do this with international samples instead of national samples.

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## CONFLICT OF INTEREST

The authors declare no conflicts of interest.

## DATA AVAILABILITY STATEMENT

The datasets used and analyzed during the present study are available, properly anonymized, from the corresponding author on reasonable request.

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