Humanities & Social Sciences Communications

ARTICLE

https://doi.org/10.1057/s41599-023-01564-7 OPEN

The mobile-assisted showroomer's dilemma: where to buy? Actions to prevent sales leakage

María Alesanco-Llorente [1], Eva Reinares-Lara [2]✉, Jorge Pelegrín-Borondo[1] & Cristina Olarte-Pascual [1]

Intensive in-store use of smartphones has driven ethically questionable behaviors with significant economic repercussions for the survival of brick-and-mortar retailers. The mobile-assisted showroomer's dilemma refers to the dilemma such shoppers experience at the moment of decision in a brick-and-mortar store, when they are holding an item in their hands, check their phone, and hesitate between buying it (a) at the physical store (loyal behavior, LB) or (b) through a cheaper online retailer (competitive behavior, CB). Using the theoretical framework of the Composite MES, this research proves that the dilemma exists: in a sample of 648 mobile-assisted showroomers, 44.91% would engage in CB vs. 55.09% in LB. Furthermore, 50.6% of the CB is explained by two dimensions of ethical judgment: *relativism* and *egoism*. To prevent sales leakage at brick-and-mortar stores, ethical judgment must be considered. The greater the weight of the *relativism* dimension, the less predisposed customers are toward CB. The *egoism* dimension is positively associated with engaging in CB. LB is a major opportunity for independent brick-and-mortar retailers.

[1] Universidad de La Rioja, Logroño, Spain. [2] Universidad Rey Juan Carlos, Móstoles, Spain. ✉email: eva.reinares@urjc.es

Introduction

"Imagine someone is at a store trying on an article of clothing. They check their phone to see if it is cheaper online."

Rapp et al. (2015, p. 360) assert that mobile-assisted showrooming is defined as "a practice whereby consumers visit a brick-and-mortar retail store to (1) evaluate products/services firsthand and (2) use mobile technology while in-store to compare products for potential purchase via any number of channels" and Burns et al. (2019, p. 103) confirms that this practice "inherently involves an ethical component". While this statement points to a consumer who always takes advantage of the services provided by offline retailers only to ultimately make their purchase in the online channel of another retailer (Viejo-Fernandez et al., 2020), in reality, this switch in retailer does not always occur in the purchase stage (Flavián et al., 2020). This paper proposes the mobile-assisted showroomer's dilemma in order to assess the dilemma that such shoppers experience at the moment of decision in the brick-and-mortar store when they are holding an item in their hands, checking their phone, and hesitate between buying it (a) at the physical store or (b) through another cheaper online retailer. A dilemma is a problem offering two possibilities, neither of which is unambiguously acceptable or preferable. The literature distinguishes between competitive showrooming behavior (CB) (when the shopper switches retailers between the information-searching and purchase stages) and loyal showrooming behavior (LB) (where no such switch takes place) (Gensler et al., 2017; Schneider and Zielke, 2020). In this paper, the dilemma defines LB as the practice whereby the mobile-assisted showroomer does not switch channels and makes the purchase from the salesperson at the physical store (Fig. 1).

However, in recent years, intensive in-store smartphone use at physical retailers has driven CB (Chimborazo-Azogue et al., 2021), a trend that poses a real threat to brick-and-mortar retail (Sit et al., 2018; Frasquet and Miquel-Romero, 2021). The increase in CB has reached such an extreme that small independent retailers have considered charging shoppers to try products at their stores (Alonso, 2019; Bermejo, 2020). Understanding the impact of ethical judgment on CB vs. LB will help brick-and-mortar retailers reduce their losses. Despite the scale of the problem, no previous study has analyzed this relationship or considered this dilemma.

Previous research in the field of ethics shows that ethical judgment is key to determining consumers' willingness to engage in ethically questionable behaviors (e.g., Vitell and Muncy, 1992; Burns et al., 2019; Arias-Oliva et al., 2020; De Andres-Sanchez et al., 2021). Given that, currently, various ethically questionable consumer practices have become prevalent that entail losses for brick-and-mortar retailers (Steenhaut and Van Kenhove, 2006), there is a need to study the role of ethical judgment in these new behavioral patterns.

The present study aims to examine the impact of ethical judgment on the mobile-assisted showroomer's dilemma in relation to the display of CB vs. LB. Specifically, the study focuses on the clothing retail industry, as the nature of such products encourages showrooming: consumers need to interact with the product physically to better grasp its quality (Weathers et al., 2007; Cho and Workman, 2011; Acquila-Natale and Chaparro-Peláez, 2020).

At the theoretical level, this research validates the suitability of the dimensions of the Composite Multidimensional Ethics Scale (Composite MES) (Shawver and Sennetti, 2009) to explain the mobile-assisted showroomer's dilemma, providing a new context for the application.

The remainder of this paper is divided into sections as follows. The section "Literature review" reviews the literature on (i) showrooming behavior and (2) the influence of ethical judgment on consumer behavior. The next section "Methodology" describes the sample and the methodology used in the empirical research. The section "Results" presents the results obtained. Finally, the last two sections discuss the main conclusions and practical implications of the study, as well as its limitations and future lines of research.

Literature review

Competitive vs. loyal showrooming behavior. The ability to combine online and offline channels in the purchase process has encouraged "research shopping" and "free-riding" behavior (Verhoef et al., 2007). These concepts refer, respectively, to "the propensity of consumers to research the product in one channel (e.g., the Internet), and then purchase it through another channel (e.g., the store)" (Verhoef et al., 2007, p. 129). One of the most representative examples of this behavior (along with webrooming) is showrooming.

Whereas LB is the behavior most valued by physical retailers (Viejo-Fernandez et al., 2020), CB is the one they most fear. Competitive consumers take advantage of the services provided by the brick-and-mortar store without bringing them any benefit in return, as they ultimately make their purchase through a different online retailer (Viejo-Fernandez et al., 2020). This behavior is directly associated with the aforementioned concept of "free riding," which has a more negative connotation than the term "research shopping" (Schneider and Zielke, 2020).

As the competitive segment is the most common (Frasquet and Miquel-Romero, 2021) and the one that poses a direct threat to

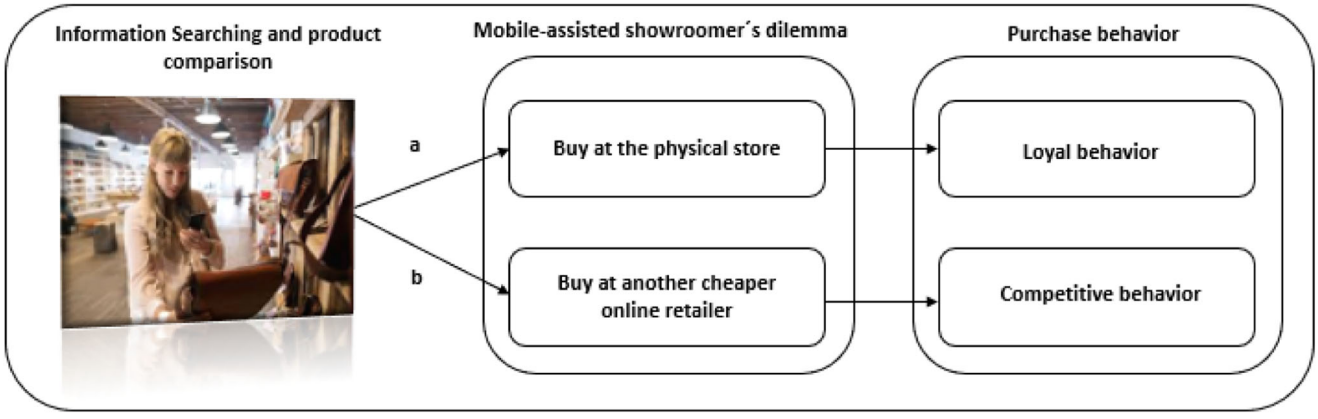

Fig. 1 Mobile-assisted-showroomer's dilemma at brick-and-mortar retailers.

Table 1 Studies on retailer switching during the purchase process and conclusions regarding CB.

Author(s)	Main aim of the study	Main conclusions of the study	
		Showrooming is associated with... (drivers)	Showrooming can be curbed by... (counterstrategies)
Balakrishnan et al. (2014)	Analysis of the effect of channel switching during the purchase process.	The trip to the physical store, insofar as it boosts confidence regarding an online purchase, and the price difference between channels (with the online channel being cheaper).	Lowering prices at the offline retailer.
Rapp et al. (2015)	Study of the consequences of showrooming for salesperson performance.	The customer's desire to get the best deal, use of the largest number of channels to make the purchase, and the proliferation of cheap mobile technology.	Cross-selling[a]
Arora et al. (2017)	Application and extension of the Theory of Planned Behavior (TPB) to understand showrooming.	Reduced consumer uncertainty regarding a purchase after visiting an offline store.	Cross-selling, building lasting seller-customer relationships and offering value pricing to the customer.
Daunt and Harris (2017)	Analysis of value co-destruction[b] as an antecedent to consumer showrooming.	A higher degree of value co-destruction by the consumer that is associated with consumer, channel, and product characteristics.	In-store incentives (events and deals) and loyalty programs.
Gensler et al. (2017)	Analysis of the perceived costs and benefits for consumers to explain CB.	The consumer's perception that in the online context prices are lower and product quality is higher.	Greater presence of sales personnel in the offline store.
Rejón-Guardia and Luna-Nevarez (2017)	Study of showrooming behavior through the extension of the TPB	The need to touch the product and lower online prices.	Good integration of online and offline channels, endeavoring to keep the online and offline environments as similar as possible.
Arora and Sahney (2018)	Analysis of the drivers of showrooming through an integrated TPB-Technology Acceptance Model (TAM) framework.	The perceived benefits for consumers of the online channel (deals and discounts, quality, savings, and product assortment) and the website's perceived ease of use.	Relational orientation of sales staff toward the customer. Deals, discounts, or exclusive in-store products.
Dahana et al. (2018)	Analysis of consumer characteristics to identify occasional, frequent, and non-showroomers.	Greater consumer involvement and price consciousness[c].	Increasing channel-switching costs through cross-selling.
Mehra et al. (2018)	Analysis of the profitability for brick-and-mortar retailers of implementing brand and product exclusivity strategies. Comparison between showrooming and non-showrooming consumers.	-	Price matching across channels, product exclusivity, and the creation of exclusive in-store brands.
Fassnacht et al. (2019)	Study of the impact of salesperson tactics on in-store purchase intention. Comparison between non-showroomers and showroomers.	-	The combination of price matching and high salesperson–customer interaction quality.
Frasquet and Miquel-Romero (2021)	Understanding competitive showrooming through the study of the physical retailer's situational and relational variables.	Strong sense of store crowding, greater price consciousness, and perceived low quality of the salesperson's service.	High-quality salesperson–customer interaction and reduced sense of store crowding.
Schneider and Zielke (2021)	Analysis of the antecedents of showrooming and of service strategies for offsetting price disadvantages compared to the online channel.	Price disadvantage of the offline channel and untrained sales staff.	Creating special experiences so the customer does not get bored while waiting (to be served, to pay), offering post-sale services, discounts for complementary products, and high-quality in-store service.

[a]"Cross-selling refers to the sale or attempted sale of additional items to customers, often ones that are complementary to those they initially intended to purchase" (Rapp et al., 2015, p. 362).
[b]In the showrooming context, value co-destruction is when "the showroomer knowingly takes value from channel members but does not reciprocate with the firm/s from which they intentionally took value" (Daunt and Harris, 2017, p. 166).
[c]"Involvement is associated with the extent to which consumers search for product information" (Dahana et al., 2018, p. 669).

brick-and-mortar retail (Sit et al., 2018), in recent years, numerous studies have sought to understand the drivers of CB and devise counterstrategies to curb it. Table 1 shows the main studies in the field of CB and their respective conclusions.

Despite the growing body of literature on showrooming, to the authors' knowledge, no study has yet looked at the effects of the dimensions of ethical judgment on mobile-assisted showrooming customers' decision to engage in CB or LB (dilemma).

The influence of ethical judgment on behavior. Current use of the term "ethics" reflects the plurality of legal, moral, and religious convictions in pluralistic democratic societies (Arias-Oliva et al., 2020). In this regard, ethical judgment is the cognoscitive process whereby people "judge which course of action is morally right" (Trevino, 1992, p. 445). The theoretical framework offered by the Composite MES offers insight not only into consumers' ethical choice (in this research, CB vs. LB) but also into the

reasons for this choice (here, the mobile-assisted showroomer's dilemma) (Reidenbach and Robin, 1988, 1990; Shawver and Sennetti, 2009).

To this end, the Composite MES includes five dimensions: *moral equity, relativism, egoism, utilitarianism*, and *contractualism*. This complex construct is based on the premise that individuals use more than one rationale to make ethical judgments and that each of these rationales will have a given importance depending on the situation being faced (Reidenbach and Robin, 1990; Shawner and Senetti, 2009).

Moral equity refers to consumer decisions evaluated in terms of "their inherent fairness, justice, goodness, and rightness" (Reidenbach and Robin, 1990, p. 645). This dimension is also related to the acceptance of certain behavior by social groups, such as family (Leonard and Jones, 2017). Previous literature shows that *moral equity* influences the direction of behavior (Leonard et al., 2017; Pelegrín-Borondo et al., 2020). Higher levels of *moral equity* in consumers are associated with a lower likelihood to engage in ethically questionable behaviors (Shoham et al., 2008; Arli et al., 2015).

Relativism refers to "the guidelines, requirements, and parameters inherent in the social/cultural system" (Reidenbach and Robin, 1990, p. 646). Decisions made for relativist reasons are subject to the dictates of a specific society (Reidenbach and Robin, 1990). This suggests that: (i) rules are not universal but built on the traditions of each society; (ii) a greater degree of social interaction is required for this dimension to appear than the *moral equity* dimension (Lin and Ho, 2008); and (iii) the behavioral decisions of individuals from modern cultures are not as affected by this dimension as those of individuals from more historically rooted cultures, who do make decisions based on *relativism* (Lin and Ho, 2008). Some studies indicate that consumers guided by relativistic motives generally accept ethically questionable behaviors (e.g., Steenhaut and van Kenhove, 2006; Vitell and Patwardhan, 2008), while others indicate that *relativism* works against acceptance of such behaviors (Shoham et al., 2008).

Egoism "refers to acting in a manner that only promotes one's long-term self-interests" (Nguyen and Biderman, 2008, p. 628). Egoistic decisions and actions are driven by the benefits of self-promotion and self-satisfaction they entail (Arias-Oliva et al., 2020). Although some studies demonstrate the significant influence of *egoism* on individual decisions (Van Doorn and Verhoef, 2015; Lin and Ho, 2008), others find no significant effects on this relationship (Han et al., 2017; Kiatkawsin and Han, 2017). Specifically, ethical actions seem to be less likely when a consumer scores high on egoistic values (Urien and Kilbourne, 2011; Osburg et al., 2019).

In contrast to *egoism*, *utilitarianism* seeks to produce "the greatest good for the greatest number" (Nguyen and Biderman, 2008, p. 628). The individual considers the consequences of action (or inaction) to determine whether it is good for society (Reidenbach and Robin, 1990). Therefore, utilitarian actions will be more prevalent in societies with a greater sense of community. Likewise, people who make more utilitarian judgments are typically the ones who process in a comparative way (Love et al., 2016). In the present case, CB and LB are compared, and "[s]ince one action is compared to another, utilitarianism promotes efficiency. That is, a less efficient action is likely to produce less utility than a more efficient action, and is, therefore, less ethical" (Reidenbach et al., 1991). The literature on the explanatory power of *utilitarianism* for individual ethical behavior is contradictory. Whereas some studies present this dimension as a determinant factor in the formation of ethical judgments (Cohen et al., 1993; Olarte-Pascual et al., 2021), others find no empirical support for this relationship (Jones and Leonard, 2016; Leonard and Jones, 2017).

Finally, *contractualism* is linked to the "individual perception of what is right versus wrong based on notions of an implied contract that exists between business and society" (Nguyen and Biderman, 2008, p. 633). Consumer behavior is influenced by an unwritten contract or tacit promise between the consumer and society. *Contractualism* is an antecedent to determining ethical behavioral intention (Olarte-Pascual et al., 2021). Likewise, consumers whose ethical judgments are heavily influenced by this dimension reject ethically questionable behaviors (Reidenbach et al., 1991).

Based on this theoretical framework, it can be proposed that the Composite MES is a useful tool for examining the impact of ethical judgment on the consumer dilemma between CB and LB. A general hypothesis concerning ethical judgment and five sub-hypotheses related to each of the dimensions are thus established:

H1. Ethical judgment explains the mobile-assisted showroomer's dilemma between competitive vs. loyal behavior.

H1.1 The greater the role of *moral equity* in the mobile-assisted showroomer's dilemma, the lower the likelihood of exhibiting CB.

H1.2 The greater the role of *relativism* in the mobile-assisted showroomer's dilemma, the lower the likelihood of exhibiting CB.

H1.3 The greater the role of *egoism* in the mobile-assisted showroomer's dilemma, the greater the likelihood of exhibiting CB.

H1.4 The greater the role of *utilitarianism* in the mobile-assisted showroomer's dilemma, the lower the likelihood of exhibiting CB.

H1.5 The greater the role of *contractualism* in the mobile-assisted showroomer's dilemma, the lower the likelihood of exhibiting CB.

Methodology

This study focuses on the fashion industry. This industry was chosen because of its role as a driver of economic activity and it is one of the fastest-growing industries in terms of purchases made through digital devices and, thus, its ability to attract different types of customers through online and offline channels (Mosquera et al., 2019).

The data were collected through structured face-to-face surveys focused on Spanish mobile-assisted showroomers consumers. The survey takers collected the information with the Google Form application. The questionnaire began with a filter question to identify these types of consumers. Specifically, respondents were asked whether they had ever used their smartphone inside a physical store for any of the following things: to look for product information, to compare prices, to compare products, to read reviews by other shoppers, to share photos with friends and family, or to pay. The data were collected from May to July 2021.

The mobile-assisted showroomer's dilemma was posed through a common hypothetical scenario: "Imagine someone is at a store trying on an article of clothing. They decide to check their smartphone to see if it is cheaper online. They discover that it is cheaper at another online retailer and decide to use their smartphone to buy it from that online retailer and leave the store where they have been trying on the garment without buying it." Respondents assessed the mobile-assisted showroomer's dilemma through the items of the five dimensions of the Composite MES (Shawver and Sennetti, 2009). The items were scored on an 11-point Likert scale (0–10). The questionnaire ended with a dichotomous (yes/no) question to determine whether the respondent would choose a CB or LB: "Would you act the same way as the person in the described scenario?".

Table 2 Distribution by gender and age: CB vs. LB.

	CB (%)	LB (%)
Age		
16–25	64.49	35.51
26–35	57.94	42.06
36–45	49.07	50.93
46–55	36.05	63.95
>55	28.98	71.02
Gender		
Men	43.01	56.99
Women	48.92	51.08
Total	44.91	55.09

To guarantee the quality of the adaptation of the measurement scales, a sequential linguistic validation process was followed, organized in the following stages (Muñiz et al., 2013): (a) production of a Spanish language version of the questionnaire, based on the original scales reviewed by bilingual experts from the Ethicomp international research network on ethics and technology; and (b) pre-tests were undertaken.

The survey was administered to a sample of 784 consumers. A total of 136 surveys were rejected as the respondent did not report having engaged in a mobile-assisted showrooming behavior at a physical store, resulting in a final sample of 648 valid surveys; 47.2% of the respondents were men, and 52.8% were women. By age group, 18.2% of the respondents were between the ages of 16 and 25, 18.5% between the ages of 26 and 35, 17.7% between the ages of 36 and 45, 27.6% between the ages of 46 and 55, and 17.9% aged 56 or over.

To examine the impact of ethical judgment on the likelihood that a consumer would exhibit CB vs. LB, a confirmatory factor analysis (CFA) was performed to confirm the existence of the five dimensions (EQS 6.1 software), followed by binary logistic regression analysis (IBM SPSS software).

Results

A total of 44.91% of the respondents said they would have a CB vs. 55.09% who said they would have an LB (Table 2).

Confirmatory factor analysis. Sampling adequacy was verified by means of the Kaiser–Meyer–Olkin (KMO) measure (KMO = 0.94 > 0.8). Bartlett's sphericity test confirmed that the correlation matrix was not an identity matrix (chi-square of ~8511.91 with 67 degrees of freedom; $p = 0.000 < 0.001$) (Hair et al., 2010).

The results of the CFA confirm the existence of the five dimensions and indicate a good fit between the empirical data and the measurement model: BBNFI = 0.98; BBNNFI = 0.97; CFI = 0.98; robust CFI = 0.98; GFI = 0.95; AGFI = 0.97; and RMSEA = 0.08.

Satisfactory reliability indicators were obtained for all variables based on standardized loadings (>0.5) and *t*-values (>1.96). Likewise, both the construct reliability (composite reliability coefficient (CRC) > 0.70) and the convergent validity criterion (average variance extracted (AVE) > 0.50) were satisfactory for all the dimensions (Table 3).

Table 4 shows adequate discriminant validity (for all dimensions, the value one falls outside the confidence interval around the absolute value of the covariance).

The CFA process resized the scales such that the mean value of all scales was 0 points, with scores ranging from approximately −8.5 to 7.

Table 3 Convergent validity and reliability analysis.

Dimension	Standardized loadings > 0.5 *t*-value > 1.96	CRC > 0.7	AVE > 0.5
F1. *Moral equity*		0.94	0.83
Fair	0.90 (29.60)		
Just	0.90 (29.03)		
Morally right	0.91 (30.26)		
F2. *Relativism*		0.88	0.73
Acceptable to my family	0.88 (28.02)		
Culturally acceptable	0.85 (26.37)		
Traditionally acceptable	0.75 (22.10)		
F3. *Egoism*		0.80	0.66
Self-promoting for me	0.73 (20.82)		
Personally satisfying	0.89 (28.73)		
F4. *Utilitarianism*		0.93	0.87
Generates utility	0.93 (23.69)		
Maximizes benefits while minimizing harm	0.94 (20.83)		
F5. *Contractualism*		0.76	0.61
Does not violate an unwritten contract	0.82 (29.93)		
Does not violate an unspoken promise	0.74 (30.61)		

Table 4 Discriminant validity.

Factors involved	Covariance	Standard error	Confidence interval	Out-of-range value
F1–F2	0.94	0.01	(0.92; 0.97)	1
F1–F3	0.91	0.01	(0.88; 0.93)	1
F1–F4	0.70	0.02	(0.66; 0.75)	1
F1–F5	0.85	0.02	(0.81; 0.90)	1
F2–F3	0.93	0.01	(0.91; 0.96)	1
F2–F4	0.71	0.02	(0.67; 0.76)	1
F2–F5	0.91	0.02	(0.87; 0.95)	1
F3–F4	0.70	0.02	(0.65; 0.75)	1
F3–F5	0.94	0.02	(0.90; 0.98)	1
F4–F5	0.73	0.03	(0.67; 0.78)	1

Binary logistic regression. The five dimensions accepted in the CFA become the model's independent variables (F1. *Moral equity*, F2. *Relativism*, F3. *Egoism*, F4. *Utilitarianism*, F5. *Contractualism*). To analyze the dilemma, *exhibiting CB* was taken as the dependent variable. A value of 1 indicated a competitive consumer, and a value of 0, a loyal one.

The Hosmer–Lemeshow chi-square goodness-of-fit test indicated that the model adequately fits the data (chi-square of 9.18, 8 degrees of freedom, *p*-value of 0.328). Likewise, the omnibus test revealed that one or more factors can significantly predict the probability of engaging in CB (chi-square of 307.48, 2 degrees of freedom, *p*-value of 0.000).

Nagelkerke's R^2 statistic was used to quantify the model's predictive power. The proportion found was 50.60%. The model's predictive efficiency was 78.2%, i.e., it correctly classifies 78.2% of the cases.

The forward selection (Wald) stepwise selection method was used to create the binary logistic regression model. Variables were added to the model depending on: (i) their correlation with the dependent variable; (ii) the significance of the relationship between the independent variable and the dependent variable measured with the Wald statistic; and (iii) the likelihood-ratio test, which measures the significance of the unincluded variables.

Table 5 Equation variables.

	B	S.E.	Wald	Df	Sig.	Exp(*B*)
H1.2 Relativism	−12.052	4.468	7.276	1	0.00	<1
H1.3 Egoism	12.515	4.464	7.860	1	0.00	>1
Constant	0.419	0.106	15.588	1	0.00	>1

Table 5 shows the independent variables showing a direct and significant relationship with the likelihood of having a CB. Of the five proposed variables, only *relativism* and *egoism* are determinants of this type of behavior. The sign of the B coefficient determines whether the effect on the dependent variable is direct (+) or inverse (−).

The influence of *relativism* (H1.2) (*B*: −12.052; $p < 0.01$) and *egoism* (H1.3) (*B*: 12.515; $p < 0.01$) on the consumer's decision to engage in CB was confirmed.

Discussion and implications

The literature demonstrates the importance of ethical judgment in understanding the antecedents of ethically questionable behaviors (e.g., Vitell and Muncy, 1992; Burns et al., 2019; Arias-Oliva et al., 2020). In this regard, intensive in-store smartphone use has driven CB (Chimborazo-Azogue et al., 2021), a type of behavior that, according to Burns et al. (2019), includes an ethical component and one that has economic repercussions for the survival of brick-and-mortar retailers (Sit et al., 2018; Frasquet and Miquel-Romero, 2021).

The present research is pioneering in the application of ethical judgment to the mobile-assisted showroomer's dilemma, which refers to the dilemma that such consumers experience at the moment of decision in a brick-and-mortar store when they are holding a product in their hands and hesitate between buying it (a) at the store (LB) or (b) through a cheaper online retailer (CB). In this study, 44.91% of these consumers would choose CB, while 55.09% would choose LB, thereby confirming that this dilemma exists and reflecting a reality that needs to be addressed. Both behaviors can have positive and negative implications and repercussions for the retailer and the consumer. Additionally, both the consumer's and the retailer's future decisions may vary as a result of the choice. At the theoretical level, the paper demonstrates the suitability of the Composite MES (Shawver and Sennetti, 2009) for the context of showrooming behavior. The results also show that ethical judgment explains 50.6% of the mobile-assisted showroomer's dilemma.

This research also identifies, for the first time, the critical role played by two of the five dimensions of ethical judgment in the likelihood of exhibiting CB: *relativism* and *egoism*. Specifically, while the *relativism* dimension is negatively associated with the likelihood of exhibiting CB, the *egoism* dimension is positively associated with it. The remaining dimensions (*moral equity*, *contractualism*, and *utilitarianism*) do not affect the likelihood of exhibiting CB.

The *relativism* dimension includes behaviors considered acceptable in a given culture. In the present case, the ability to try a product at one retailer or use the salesperson's time and resources, among other things, before buying it at another is questioned. In accordance with Reidenbach and Robin (1990), the negative relationship found between *relativism* and the likelihood of exhibiting CB could be explained by understanding that society continues to attach great importance to the role of brick-and-mortar retailers. The characteristics of the study country itself may explain why showrooming consumers reject CB (Arli et al., 2015): Spanish society has a strong tradition of shopping at physical stores. In late 2020, retail accounted for around 13% of Spanish businesses, employing about 9% of all employees. Both indicators are above the EU average (CaixaBank Research, 2021). The results of the effect of *relativism* on behavior are in line with the findings of Shoham et al. (2008), but contrary to those of many previous authors (e.g., Steenhaut and van Kenhove, 2006; Vitell and Patwardhan, 2008), who find that relativist motives are precisely what leads to the acceptance of ethically questionable behaviors. In this regard, in the context of a relatively new behavior—being in a brick-and-mortar store and being able to purchase, at that moment, the same product at another cheaper retailer—traditional values prevail, which would be explained by the idea that "social and cultural systems are important in helping us define our ethical beliefs" (Reidenbach and Robin, 1990, p. 646).

The positive relationship between *egoism* and the likelihood of CB indicates that the greater the benefits obtained by the consumer through the CB (in the mobile-assisted showroomer's dilemma, financial savings), the more likely this behavior is to emerge. The results for the *egoism* dimension are in line with those of previous studies (Urien and Kilbourne, 2011; Osburg et al., 2019). In the scenario studied here, the consumer values the gains: I am touching the item I am going to buy (an experience that only an offline retailer can provide), and I am moreover going to buy it from the cheapest supplier (win-win). Consumers who engage in CB have accepted the ethics of this behavior. Furthermore, according to Arias-Oliva et al. (2020), *egoism* entails high levels of satisfaction, relegating other dimensions of ethical judgment to the background.

The results obtained can help retailers formulate strategies to curb CB and boost LB. The first implication is that any organization seeking to compete in the physical channel should develop a strategy based on the showrooming consumer's ethical judgment. The intensity and direction of the effects of the two significant dimensions of ethical judgment (*relativism* and *egoism*) on the intention to engage in CB suggest that the following practical implications will help drive LB.

Based on the study scenario, the most direct benefit sought by individuals with a high component of the *egoism* dimension is to save money on their purchases. Setting prices at the same level or lower than the competition's seems to be the most immediate option. However, reducing margins can lead to losses, especially for retailers that only operate in an offline context (Mehra et al., 2018). Furthermore, lowering prices does not fully exploit the potential to influence CB and depends directly on the quality of the salesperson-customer interaction (Fassnacht et al., 2019). Building on these premises, the following actions are proposed. First, salespeople should focus their efforts on making the customer perceive exclusivity in the offered products; if the consumer perceives that there are no other products like them, there will not be the same level of competition, and the likelihood of CB will fall (Arora and Sahney, 2018; Mehra et al., 2018). Second, retailers should implement strategies based on financial benefits, such as direct discounts for the purchase of several items (cross-selling) or coupons redeemable with future purchases, which can also help boost loyalty (Rapp et al., 2015; Arora et al., 2017). Finally, third, retailers should enable smartphone use throughout the purchase process through a good WiFi network. The literature shows that showrooming consumers prefer to interact with their smartphone rather than a salesperson and that smartphone use positively influences purchase intention (Mosquera et al., 2019). Strategies that link the online context (smartphones) to the physical in-store one make it possible to create unique experiences and retain competitive showrooming consumers (Schneider and Zielke, 2021). In this regard, Zara is a pioneer in the implementation of omnichannel "Click &…" strategies, which encourage competitive showroomers to use their smartphones throughout the in-store purchase process. Examples include "Click & Find" (allows shoppers to use their app to search for an item and, if it is available in the store they are in, shows them a

floor plan of the store, indicating the floor and/or section where they can find it), "Click & Try" (allows shoppers to reserve a fitting room, notifying them when it is available through their smartphone), and "Click & Go" (shoppers can use the app to browse any store and place orders that will be ready for pick up within 30 min of completing the purchase) (https://www.zara.com/es/). LB is a major opportunity for physical retail, especially independent retailers.

Separately, the inverse relationship between *relativism* and the likelihood of exhibiting CB could indicate that this behavior is still regarded as an unethical consumer practice by more than half the population in Spain. To prevent this behavior from gaining acceptance, marketing efforts should continue to emphasize the threat that CB poses to retail (Viejo-Fernandez et al., 2020; Frasquet and Miquel-Romero, 2021) and focus on reducing or eliminating positive social perceptions of this behavior.

Limitations of the study and future lines of research

The present study has certain limitations. First, the data were obtained in a specific industry, namely, fashion. The sensory nature of clothing products encourages showrooming behavior, and it is important to know the likelihood that shoppers will engage in CB (Acquila-Natale and Chaparro-Peláez, 2020). However, in order to extrapolate the results obtained, the model should be tested in other product categories or industries that do not encourage showrooming so directly (e.g., food).

Second, the sample consisted exclusively of Spanish mobile-assisted showroomers. Replicating the study with consumers from other countries and cultures would enrich the knowledge of how consumers form their ethical judgment. The literature establishes that membership in a given society can influence the results obtained (Reidenbach and Robin, 1990). Likewise, it is proposed to address webrooming behavior, which occurs when customers search for products online before going to a physical store for a final evaluation and finally making the purchase.

Third, this study focuses on LB in direct purchases from a salesperson at a brick-and-mortar store. But LB also occurs when the purchase is made online from the same retailer. The scope of future research could thus be expanded to include other alternatives to the ethical dilemma to explore this behavior in greater depth.

Finally, a qualitative analysis of the data could also broaden the field of consumer ethical judgment. Only 7% of studies in this field use a qualitative methodology; doing so would make it possible to address the reasons behind ethically questionable choices (Hassan et al., 2022).

Data availability

The authors confirm that all data generated during this study are included in this published article. The datasets analyzed during the current study are available in the Dataverse repository: https://doi.org/10.7910/DVN/P05EIL

Received: 14 October 2022; Accepted: 14 February 2023;
Published online: 24 February 2023

References

Acquila-Natale E, Chaparro-Peláez J (2020) The long road to omni-channel retailing: an assessment of channel integration levels across fashion and apparel retailers. Eur J Int Manag 14(6):999–1023

Alonso P (2019) ¿Cobrar por probar? El debate llega a las tiendas de ciclismo CMC Sport. https://www.cmdsport.com/esencial/cmd-ciclismo/cobrar-probar-debate-llega-las-tiendas-ciclismo/

Arias-Oliva M, Pelegrin-Borondo J, Lara-Palma AM, Juaneda-Ayensa E (2020) Emerging cyborg products: an ethical market approach for market segmentation. J Retail Consum Serv 55:102140. https://doi.org/10.1016/j.jretconser.2020.102140

Arli D, Tjiptono F, Porto R (2015) The impact of moral equity, relativism and attitude on individuals'' digital piracy behaviour in a developing country. Mark Intell Plan 33(3):348–365. https://doi.org/10.1108/MIP-09-2013-0149

Arora S, Sahney S (2018) Antecedents to consumers'' showrooming behaviour: an integrated TAM-TPB framework. J Consum Mark 35(4):438–450. https://doi.org/10.1108/JCM-07-2016-1885

Arora S, Singha K, Sahney S (2017) Understanding consumer's showrooming behaviour: extending the theory of planned behaviour. Asia Pac J Mark Logist 29(2):409–431. https://doi.org/10.1108/APJML-06-2016-0111

Balakrishnan A, Sundaresan S, Zhang B (2014) Browse-and-switch: Retail-online competition under value uncertainty. Prod Oper Manag 23(7):1129–1145

Bermejo I (2020) ¿Es legal que una tienda le cobre por probarse ropa? La Razón. https://acortar.link/Is9cYa

Burns DJ, Gupta PB, Hutchins J (2019) Showrooming: the effect of gender. J Global Sch Mark Sci 29(1):99–113. https://doi.org/10.1080/21639159.2018.1551725

CaixaBank Research. (2021) El papel del comercio minorista en la economía española, CaixaBank Research

Chimborazo-Azogue LE, Frasquet M, Molla-Descals A, Miquel-Romero MJ (2021) Understanding mobile showrooming based on a technology acceptance and use model. Sustainability 13(13):7288. https://doi.org/10.3390/su13137288

Cho S, Workman J (2011) Gender, fashion innovativeness and opinion leadership, and need for touch: effects on multi-channel choice and touch/non-touch preference in clothing shopping. J Fashion Mark Manag 15(3):363–382. https://doi.org/10.1108/13612021111151941

Cohen JR, Pant LW, Sharp DJ (1993) Culture-based ethical conflicts confronting multinational accounting firms. Account Horizons 7(3):1

Dahana WD, Shin H, Katsumata S (2018) Influence of individual characteristics on whether and how much consumers engage in showrooming behavior. Electron Commer Res 18(4):665–692. https://doi.org/10.1007/s10660-017-9277-4

Daunt KL, Harris LC (2017) Consumer showrooming: value co-destruction. J Retail Consum Serv 38:166–176. https://doi.org/10.1016/j.jretconser.2017.05.013

De Andres-Sanchez J, Arias-Oliva M, Pelegrín-Borondo J (2021) The influence of ethical judgements on acceptance and non-acceptance of wearables and insideables: fuzzy set qualitative comparative analysis. Technol Soc 67:101689. https://doi.org/10.1016/j.techsoc.2021.101689

Fassnacht M, Beatty SE, Szajna M (2019) Combating the negative effects of showrooming: successful salesperson tactics for converting showroomers into buyers. J Bus Res 102:131–139. https://doi.org/10.1016/j.jbusres.2019.05.020

Flavián C, Gurrea R, Orus C (2020) Combining channels to make smart purchases: the role of webrooming and showrooming. J Retail Consum Serv 52:101923. https://doi.org/10.1016/j.jretconser.2019.101923

Frasquet M, Miquel-Romero MJ (2021) Competitive (versus loyal) showrooming: an application of the push-pull-mooring framework. J Retail Consum Serv 62:102639. https://doi.org/10.1016/j.jretconser.2021.102639

Gensler S, Neslin SA, Verhoef PC (2017) The showrooming phenomenon: it's more than just about price. J Interact Mark 38:29–43. https://doi.org/10.1016/j.intmar.2017.01.003

Hair JF, Black WC, Babin BJ, Anderson RE (2010) Multivariate data analysis, 7th edn. Pearson

Han H, Kim W, Kiatkawsin K (2017) Emerging youth tourism: fostering young travelers' conservation intentions. J Travel Tour Mark 34(7):905–918. https://doi.org/10.1080/10548408.2016.1261758

Hassan SM, Rahman Z, Paul J (2022) Consumer ethics: A review and research agenda. Psychol Mark 39(1):111–130

Jones K, Leonard LN (2016) Applying the multidimensional ethics scale in c2c e-commerce. Issues Inf Syst 17(1). https://doi.org/10.48009/l_iis_2016_26-36

Kiatkawsin K, Han H (2017) Young travelers' intention to behave pro-environmentally: merging the value-belief-norm theory and the expectancy theory. Tour Managm 59:76–88. https://doi.org/10.1016/j.tourman.2016.06.018

Leonard LN, Jones K (2017) Ethical awareness of seller's behavior in consumer-to-consumer electronic commerce: applying the multidimensional ethics scale. J Internet Commer 16(2):202–218. https://doi.org/10.1080/15332861.2017.1305813

Leonard LN, Riemenschneider CK, Manly TS (2017) Ethical behavioral intention in an academic setting: models and predictors. J Acad Ethics 15(2):141–166. https://doi.org/10.1007/s10805-017-9273-2

Lin CY, Ho YH (2008) An examination of cultural differences in ethical decision making using the multidimensional ethics scale. Soc Behav Personal 36(9):1213–1222. https://doi.org/10.2224/sbp.2008.36.9.1213

Love E, Staton M, Rotman JD (2016) Loyalty as a matter of principle: the influence of standards of judgment on customer loyalty. Mark Lett 27(4):661–674

Mehra A, Kumar S, Raju JS (2018) Competitive strategies for brick-and-mortar stores to counter "showrooming". Manag Sci 64(7):3076–3090. https://doi.org/10.1287/mnsc.2017.2764

Mosquera A, Juaneda Ayensa E, Pascual CO, Murillo YS (2019) Omnichannel shopper segmentation in the fashion industry. J Promot Manag 25(5):681–699. https://doi.org/10.1080/10496491.2019.1585599
Muñiz J, Elosua P, Hambleton RK (2013) Directrices para la traducción y adaptación de los tests: segunda edició. Psicothema 25(2):151–157
Nguyen NT, Biderman MD (2008) Studying ethical judgments and behavioral intentions using structural equations: evidence from the multidimensional ethics scale. J Bus Eth 83(4):627–640. https://doi.org/10.1007/s10551-007-9644-5
Olarte-Pascual C, Pelegrín-Borondo J, Reinares-Lara E, Arias-Oliva M (2021) From wearable to insideable: is ethical judgment key to the acceptance of human capacity-enhancing intelligent technologies? Comput Hum Behav 114:106559. https://doi.org/10.1016/j.chb.2020.106559
Osburg VS, Akhtar P, Yoganathan V, McLeay F (2019) The influence of contrasting values on consumer receptiveness to ethical information and ethical choices. J Bus Res 104:366–379. https://doi.org/10.1016/j.jbusres.2019.07.022
Pelegrín-Borondo J, Arias-Oliva M, Murata K, Souto-Romero M (2020) Does ethical judgment determine the decision to become a cyborg? J Bus Eth 161(1):5–17. https://doi.org/10.1007/s10551-018-3970-7
Rapp A, Baker TL, Bachrach DG, Ogilvie J, Beitelspacher LS (2015) Perceived customer showrooming behavior and the effect on retail salesperson self-efficacy and performance. J Retail 91(2):358–369. https://doi.org/10.1016/j.jretai.2014.12.007
Reidenbach RE, Robin DP (1988) Some initial steps toward improving the measurement of ethical evaluations of marketing activities. J Bus Eth 7(11):871–879. https://doi.org/10.1007/BF00383050
Reidenbach RE, Robin DP (1990) Toward the development of a multidimensional scale for improving evaluations of business ethics. J Bus Eth 9(8):639–653. https://doi.org/10.1007/BF00383391
Reidenbach RE, Robin DP, Dawson L (1991) An application and extension of a multidimensional ethics scale to selected marketing practices and marketing groups. J Acad Mark Sci 19:83–92
Rejón-Guardia F, Luna-Nevarez C (2017) "Showrooming" in consumer electronics retailing: an empirical study. J Internet Commer 16(2):174–201. https://doi.org/10.1080/15332861.2017.1305812
Schneider PJ, Zielke S (2020) Searching offline and buying online—an analysis of showrooming forms and segments. J Retail Consum Serv 52:101919. https://doi.org/10.1016/j.jretconser.2019.101919
Schneider PJ, Zielke S (2021) Price versus service: Can retailers beat showrooming with competence. J Retail Consum Serv 61:102592. https://doi.org/10.1016/j.jretconser.2021.102592
Shawver TJ, Sennetti JT (2009) Measuring ethical sensitivity and evaluation. J Bus Ethics 88(4):663–678. https://doi.org/10.1007/s10551-008-9973-z
Shoham A, Ruvio A, Davidow M (2008) (Un) ethical consumer behavior: Robin Hoods or plain hoods? J Consum Mark 25(4):200–210. https://doi.org/10.1108/07363760810882399
Sit JK, Hoang A, Inversini A (2018) Showrooming and retail opportunities: a qualitative investigation via a consumer-experience lens. J Retail Consum Serv 40:163–174. https://doi.org/10.1016/j.jretconser.2017.10.004
Steenhaut S, Van Kenhove P (2006) The mediating role of anticipated guilt in consumers" ethical decision-making. J Bus Ethics 69(3):269–288. https://doi.org/10.1007/s10551-006-9090-9
Trevino LK (1992) Moral reasoning and business ethics: implications for research, education, and management. J Bus Ethics 11(5):445–459
Urien B, Kilbourne W (2011) Generativity and self-enhancement values in eco-friendly behavioral intentions and environmentally responsible consumption behavior. Psychol Mark 28(1):69–90. https://doi.org/10.1002/mar.20381
Van Doorn J, Verhoef PC (2015) Drivers of and barriers to organic purchase behavior. J Retail 91(3):436–450. https://doi.org/10.1016/j.jretai.2015.02.003
Verhoef PC, Neslin SA, Vroomen B (2007) Multichannel customer management: understanding the research-shopper phenomenon. Int J Res Mark 24(2):129–148. https://doi.org/10.1016/j.ijresmar.2006.11.002
Viejo-Fernandez N, Sanzo-Pérez MJ, Vázquez-Casielles R (2020) Is showrooming really so terrible? Start understanding showroomers. J Retail Consum Serv 54:102048. https://doi.org/10.1016/j.jretconser.2020.102048
Vitell SJ, Muncy J (1992) An empirical investigation of factors influencing ethical judgments of the final consumer. Consum Ethics 11(8):585–597. https://doi.org/10.1007/bf00872270
Vitell SJ, Patwardhan A (2008) The role of moral intensity and moral philosophy in ethical decision making: a cross-cultural comparison of China and the European Union. Bus Ethics Eur Rev 17(2):196–209
Weathers D, Sharma S, Wood SL (2007) Effects of online communication practices on consumer perceptions of performance uncertainty for search and experience goods. J Retail 83(4):393–401. https://doi.org/10.1016/j.jretai.2007.03.009

Acknowledgements

This work was supported by the Chair in Commerce at the Universidad de La Rioja and Ayuntamiento de Logroño; the COBEMADE research group at the Universidad de La Rioja; the Universidad de La Rioja through the program "Joint programming actions" [grant number 2020/00077/001 (reference: PP-2020-02)] and by a predoctoral contract FPI-CAR 2021.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis, and manuscript drafting and revision. All authors read and approved the final manuscript.

Ethical approval

The procedures used in this study adhere to the principles of the Declaration of Helsinki. The study was conducted according to the guidelines of the Declaration of Helsinki and was approved by the ethics committee of the authors' affiliate institution.

Informed consent

All study participants provided informed consent.

Competing interests

The authors declare no competing interests.

Additional information

Correspondence and requests for materials should be addressed to Eva Reinares-Lara.

Reprints and permission information is available at http://www.nature.com/reprints

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.