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The association of interactivity, perception of product quality and cost with purchase intention: A moderated mediation model

R. Summerlin[a*], W. Powell[a] and E. Fukuda[a]

[a]*Department of Cognitive Science and Artificial Intelligence, Room D130, Tilburg University, 5037 AB Tilburg, Netherlands*

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This study investigates whether perception of product quality positively mediates the relationship between interactivity and purchase intention and whether the relationship between interactivity and perception of product quality is moderated by cost such that higher-priced items strengthen the relationship. Differences between those consumers purchasing personally or as a business were considered. Three hundred and forty-nine participants experienced a simulated environment within a real-world retail website they had previously shopped at. Results from a questionnaire were analysed using moderated mediation regression analysis. The hypothesized theoretical model was supported for individual consumers with results indicating that the effect of interactivity on purchase intention is mediated by product quality, and this indirect effect is moderated by cost. No such result was found for business consumers. This research demonstrates a notable difference between purchasing behaviours of business and individual consumers when considering interactivity and perception of product quality.

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1. Introduction

The UK has a rapidly expanding and developed internet retail sector. UK online retail sales in 2022 were estimated at £106bn with a 26.5% market share (*Online Trends & Statistics for UK, Europe & N. America*, 2023) following an increase due to the Coronavirus pandemic (Garmon Jones et al., 2020; Rhodes & Hutton, 2021). The UK has one of the highest penetrations of furniture and homeware online sales among all the major Western markets with homewares significantly outperforming the UK average (Garmon Jones et al., 2020). Consumers in Western Europe make an average of 18.9 online transactions a year with home décor being one of the few categories demonstrating real growth potential (KPMG, 2017). 'Major research opportunities' exist around examining which media design variables found in interactive environments most strongly influence perceptions of usefulness, enjoyment and ease of use (Childers et al., 2001). It was identified that, 'few, if any', studies have examined the effects of new information presentation media in relation to the correlation between consumer information processing needs and online consumer decision making (Jahng J.J. et al., 2002). Thoroughly understanding consumer needs and expectations are crucial for online companies to be able to develop the right tools to enhance their display which in turn should result in increased profits (Dziewanowska, 2015). Development should focus on creative solutions rather than technical innovation when resolving customer problems (Burke, 2002) – i.e. improve rather than innovate and assist customers in the decision making process through interactive product development but without making this too complex as previous research has indicated that website noise (unnecessary atmospheric cues) may block focused shopping goals by evoking consumer frustration (Hunter & Mukerji, 2011).

* Corresponding author.

E-mail address: r.summerlin@tilburguniversity.edu (R. Summerlin)

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Purchase Intention is defined as the, 'outcome of attitude which refers to the customer's willingness to buy from a particular e-retailer' (Jiradilok et al., 2014). Online purchase intention is an important predictor of actual purchasing decisions (Islam, 2018). This quantifiable response generally collected via Likert scale questionnaires is widely used to measure website success as much research is conducted via trials on fictitious websites with no real products to buy. (Jahng J.J. et al., 2002; Richard, 2005). In these studies, intention to purchase is the closest measurement to whether a consumer would actually have bought the product had it not been a simulation.

1.1 Interactivity, Quality & Purchase Intention

Interactivity is seen as a key component in consumers' evaluation of the success and quality of a website (Chua et al., 2007; Jee & Lee, 2002; Palmer, 2002; Saeed et al., 2003), factors which both correlate with purchase intention and conversion (the percentage of visits resulting in an actual purchase (Moe & Fader, 2004)). The purpose of interactivity is to increase perceived consumption value (Yoo et al., 2010) thus increasing satisfaction (Teo et al., 2003) and purchase intention (Jee & Lee, 2002).

Purchase intentions were found to be increased by the use of 3D models to increase enjoyment in the virtual environment (Young Ha et al., 2007) but that providing excessive information could cause information overload for customers and thus reduce sales (Kumar & Yinliang, 2012). Research proposed that more interactivity could increase engagement and sales, outlining that the impact of such interactivity on sales is a promising area of future research. Developing and strengthening the interactive features of websites may be a possible method for gaining competitive advantage online (Hood et al., 2015).

Product quality is a key factor in assessing purchase intention (Mirabi et al., 2015) and higher quality products have a positive impact on customer's purchase intentions (Chi, 2011; Gogoi, 2013; Tariq et al., 2013; Tsiotsou, 2005, 2006; Tümer et al., 2011).

Previous research has shown that interactive features (active control and actual product interactivity regardless of the quality of such interactivity) are associated with users interpreting sites as being of higher quality (Chua et al., 2007; Jee & Lee, 2002; Palmer, 2002; Saeed et al., 2003). Purchase intention is also related to customer satisfaction and perceived product quality (Saleem et al., 2015) raising the question of whether interactive products might influence consumers to interpret physical products themselves as being of higher quality. Some online store attributes will directly affect the satisfaction of the users and will modify the influence of other parameters – for example, 'perceived information quality' directly correlates with 'anticipated entertainment value' and could be considered that entertainment value provided by interactive products could cause users to perceive them as being higher quality (Kim & Lim, 2001; Wells et al., 2011).

1.2 Product Cost

The retail sale price of online products in relation to display methods used has not been a key consideration in the majority of studies in this area to date but is a main factor in online retail. Some prior research excluded price completely from the selection process when considering display of garments on female mannequins (Lee et al., 2010). Other studies have picked products with price points not necessarily representative of a common purchase of their participant group –for example a student sample with products $1,400-$2,400 (Jee & Lee, 2002), or expensive specialist wine purchases (Lynch & Ariely, 2000)). Whilst some research has shown product cost to be negatively associated with purchase intention (B. Kim et al., 2018), previous studies found a significant positive correlation between interactivity and purchase intention with a greater effect size in High-Cost products (Summerlin & Powell, 2022), suggesting that interactivity is of greater importance in generating purchase intentions in more expensive products.

Cost has also been shown to play a role in consumers' perception of product quality. Product pricing is an extrinsic cue (Wells et al., 2011) and can be used as a signal of product quality in the absence of other quality cues in the online environment (Ayu Andini & Soliha, 2023). Potentially, the more intrinsic (e.g., interactivity in product display) and extrinsic (e.g., product pricing) cues that are available for any given product, the higher the perception of product quality as more information is available to the consumer.

1.3. Theoretical Model Tested in This Study

Hence, we hypothesize the interactivity affects purchase intention via the process shown in Fig. 1 whereby the effect of interactivity on purchase intention is mediated by product quality, and this indirect effect is moderated by cost.

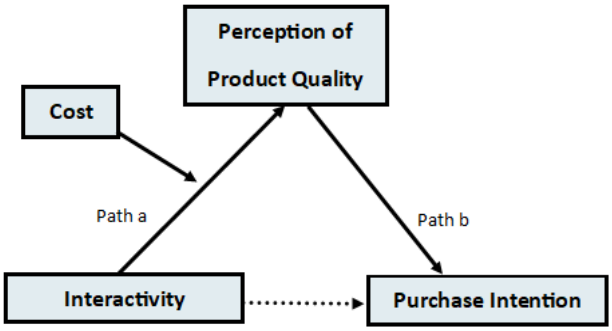

Fig. 1. Hayes Process Model 7 (Hayes, 2022) - Theoretical Model applied in this study[a]

[a]Note: Cost = Cost of Product, Interactivity = Level of interaction present (3d interactive or static picture), Purchase Intention = willingness to purchase based on questionnaire responses.

1.4 Limitations of Past Studies

Many prior studies have involved students (Blanco et al., 2010; Childers et al., 2001; Chua et al., 2007; Eroglu et al., 2001; Young Ha et al., 2007; Jahng J.J. et al., 2002; Jee & Lee, 2002; Saleem et al., 2015; Verhagen & Boter, 2005) primarily out of convenience since the majority of research is conducted at educational establishments where access to a more generalised sample of consumers may be more difficult to obtain. Previous studies considering emotional responses to interactivity levels in online shopping situations involving video cameras noted that self-selection bias might limit the generalisability of the results and that these same outcomes might well differ by product type (Ballantine & Fortin, 2009). They indicated that further research was required into different product areas as response to interactivity may vary by product type (Blanco et al., 2010) – for example an interactive view of a dress may be more useful than one of a box of cereal.

As established in several previous studies (Chua et al., 2007; Young; Ha & Lennon, 2010; Young Ha et al., 2007; Hong et al., 2004) the effect of interaction and the method which needs to be used for optimal purchase intention and conversion differs by category. Products considered in the literature have generally been assessed in categories such as apparel retail (Beck & Crié, 2018; Coyle & Thorson, 2001; Fiore et al., 2005; Young Ha et al., 2007; Jang & Burns, 2004; Katrandjiev, 2014; Khakimdjanova & Park, 2005; J. Kim et al., 2007; Law et al., 2012; Yoo et al., 2010) with some concerning electronics – video cameras (Blanco et al., 2010; Jahng J.J. et al., 2002; Schlosser, 2003), laptops (Algharabat & Dennis, 2010), green products (Xia et al., 2019), sunglasses (Pantano et al., 2017), greetings cards (Wu, 1999), furniture (Edwards & Gangadharbatla, 2001), books (Chua et al., 2007; Evanschitzky et al., 2004; Lin, 2007), trainers (Stoyanova et al., 2015), wine (Lynch & Ariely, 2000), and food retail (Chau & Au, 2000; Coyle & Thorson, 2001; Koivumäki, 2001; Vrechopoulos et al., 2004). Limited research has been conducted in this area considering more than one product type simultaneously (Chua et al., 2007; Coyle & Thorson, 2001; Verhagen & Boter, 2005) and it would be beneficial to test these hypotheses with other distinct segments such as electronics or décor.

Previous research discussed the different purchasing decisions made for utilitarian compared to hedonic products (Verhagen & Boter, 2005). Purchases could be categorised as utilitarian if made by corporate buyers for a workplace having been purchased following rational decision making, information collection and comparison. However, products of this type being purchased by consumers in a personal capacity having been chosen on personal subjective criteria are more likely to be classified as hedonic. The difference in purchasing purpose for identical products may give rise to some discrepancies in the data.

Few studies into online interactive shopping environments have used real-world functioning web stores, mainly citing financial constraints. Many of the research samples involving purchase intentions use students or fictitious online 'stores' for the study as researchers do not normally have access to test on real-world online stores. This study has valuable data as it has been conducted on a live internet store with actual products (albeit the test conditions did not actually allow the ability to purchase, merely for participants to consider if they would purchase) using confirmed customers who had previously purchased at the same store.

The majority of the literature does not use physical transactions but uses questionnaires instead to evaluate retail websites and indicate purchase intention rather than conduct a physical transaction. Since no money is changing hands and no risk is involved this will be a less reliable method than an actual purchase (conversion). Several previous studies have attempted to circumvent this and introduce some realism using various techniques from creating test websites with single products (Blanco et al., 2010) increasing involvement by giving an imaginary 'budget' to certain participants and filling in a fictitious order form (Young; Ha & Lennon, 2010), offering the chance to win a free workshops (Schlosser, 2003), or providing actual money

to purchase items (Spool, 2001). Due to the nature of questionnaire participation there may be a self-selection bias as identified in previous studies (Ballantine & Fortin, 2009; Bhatnagar & Ghose, 2004; Fang, 2012; Lohse, 1999; Zhou et al., 2007)).

Limitations were identified in previous research (Summerlin & Powell, 2022) as there was no distinction made between customers purchasing personally or on behalf of a business where often employees purchasing on behalf of a company would find it easier to spend company funds rather than individual funds as the decision to purchase carries less personal weight. This research will therefore consider the distinction between the two purchasing groups (business/consumer) via comparative analysis.

2. Methods

A between-subjects design was used in this study. Participants were exposed to one of six experimental conditions (Cost: High, Medium or Low and Interactivity: High or Low) which were represented by a web page. Participants in each condition viewed three products as that was deemed a sufficient number to give a realistic experience without providing so many that participants lost interest prior to completing the questionnaire. No time limit was imposed as this was employed successfully in an earlier study concerning 3D presentations online (Edwards & Gangadharbatla, 2001). The majority of research in the area does not impose a time limit on the browsing time allocated for the task. Researchers who have imposed time limits indicate that this may decrease reality and affect results since normal shopping visits to sites are not timed (Park et al., 2005).

Product cost was controlled by displaying either High, Medium or Low-Cost products in an assigned test condition. Products chosen were those which more distinctly fall in to one category and were competitively priced based on generalised price samples.

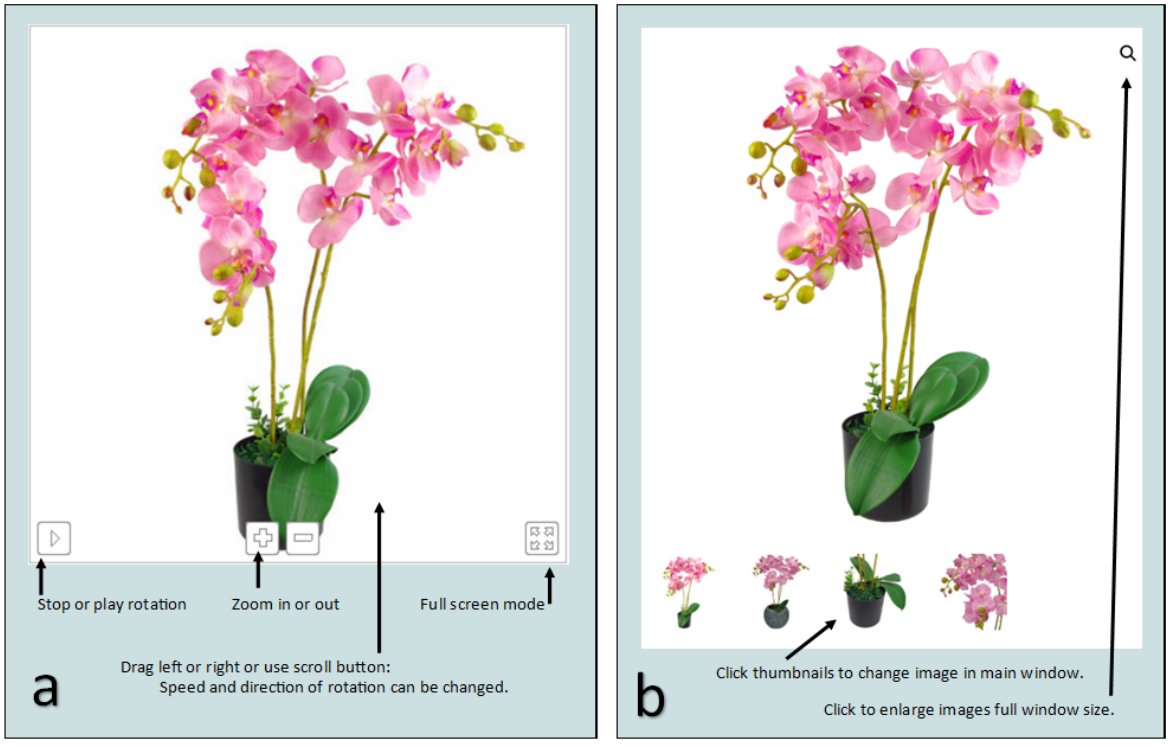

Fig. 2. Interactive Layout (a: high interactivity, b: low interactivity)[b]

[b]Note: Fig. 2a shows the more interactive product condition with stop/play, zoom in/out, pan (when zoomed) and full screen mode. Product can also be dragged to spin left or right. Fig. 2b shows the less interactive product condition which is simple thumbnail images which enlarge into a larger viewing window. These can be enlarged to full window.

As Fig. 2 shows, level of interactivity was manipulated by having either a highly interactive (Fig. 2a. 3D controllable view with left, right, stop start and zoom) or less interactive (Fig. 2b. simple multi view pictures) display for the product being observed. The latter is a common display method used in online shops and would therefore form a good basis for comparison. A series of pre-tests were conducted using 15 participants with varying degrees of online shopping experience to ensure the controls were easy to navigate and understand together with considering the optimal layout for the more interactive display.

2.1 Participants

All participants had previously purchased at this site and had a confirmed interest in this product type. A total of three hundred and forty-nine participants took part in this experimental study after receiving an invitation to participate which was sent to 4203 subscribers on the mailing list all of whom were UK consumers. The age distribution of the participants was relatively evenly spread with 50% of consumers under the age of 35: 18-25 years (21.6%), 26-35 years (25.6%), 36-45 years (24.4%). There were no participants under the age of 18, primarily due to purchases of this type requiring an internet-purchase enabled bank card (which the majority of cards for children under 18 are not). The participants consisted of self-identified business (34%) and individual (66%) consumers. The percentage of males, females, and not specified were as follows: 37%, 60%, and 3%, respectively. Participants completed the experiment in return for a discount code for use against future purchases.

2.2 Measurements

Participants completed two questionnaires (demographics and purchase intention). The demographics questionnaire asked online shopping frequency and spend (Yoo et al., 2010) to assess the level of prior experience and whether the demographics correlated with those found in the general internet population similar to that used in other studies (Edwards & Gangadharbatla, 2001; Evanschitzky et al., 2004; Szymanski & Hise, 2000). For exploratory data analysis purposes, participants were asked to answer a question about their experience using the internet. The 19 items purchase intention questionnaire was used to measures participants' perception toward the product with a 5-point Likert scale. This questionnaire was adapted from a previous study (Summerlin & Powell, 2022) reported to consist of the following four components: purchase intention, positive attitude towards interactive products and website, perception of product quality, and entertainment factor. Internal consistency of this measure showed a high reliability evidence in this study ($\alpha = .836$). Omitting an answer to any question prevented the questionnaire being submitted meaning that all submissions were complete.

2.3 Procedure

Firstly, participants were asked to read the study and the informed consent, and those who consented were randomly assigned to one of six experimental conditions to avoid order effects (Verhagen & Boter, 2005; Wu, 1999; Yoo et al., 2010). Secondly, they were asked to view a display containing three different products within one of six separate test conditions (High/Medium/Low-Cost x More Interactive/ Less Interactive). After viewing the products, participants were asked to fill out the demographic questionnaire and a set of questions relating to purchase intention, perceived product quality, product enjoyment and attitude towards website and products. Once the questionnaire was completed and submitted, participants were shown a debrief page along with a discount code for future purchases. SPSS version 28.0.1.1 (IBM, 2021) was used to conduct all statistical analyses. A moderated mediation analysis was performed using Hayes' PROCESS Macro (Hayes, 2022) to test the model described in Figure 1.

3. Results

As Table 1 shows, the results demonstrated a similar gender imbalance to previous studies (Summerlin & Powell, 2022). Regarding the frequency of online shopping and their weekly shopping spend (Table 2), the majority of both business (64.1%) and individual (53.9%) participants felt they often bought things online. Business consumers showed a slightly higher weekly spend amount (with 23.9% spending over £151 a week) than individual consumers (21.6%).

Table 1
Percentage of Gender by Customer Type[c]

Business (n=117)		Individual (n=232)	
Male (n=45)	Female (n=69)	Male (n=83)	Female (n=140)
38.5%	59.0%	35.8%	60.3%

[c]Note: The following percentage of participants did not report their gender category: 3.9% and 2.6% for business and individual customers, respectively.

Table 2
Percentage of Weekly Online Shopping Spend and Online Shopping Frequency by Consumer Type

	Consumer Type	
	Business	Individual
Spend	(n=117)	(n=232)
Less than £10	22 (18.8%)	40 (17.2%)
£11 - £50	21 (17.9%)	51 (22.0%)
£51 - £100	28 (23.9%)	47 (20.3%)
£101 - £150	18 (15.4%)	44 (19.0%)
£151+	28 (23.9%)	50 (21.6%)
Online Shopping Frequency		
Never	1 (0.90%)	5 (2.20%)
Occasionally	22 (18.8%)	58 (25.0%)
Regularly	19 (16.2%)	44 (19.0%)
Often	75 (64.1%)	(53.9%)

3.1 Moderated Mediation Regression Analysis

A moderated mediation analysis was performed to test the hypothesized theoretical model shown in Figure 1, using PROCESS Model 7 (Hayes, 2022). The indirect effects were tested via bias corrected and accelerated confidence intervals calculated from 5000 bootstrap resamples. All parametric tests were conducted using heteroscedasticity consistent standard errors (HC4). The outcome variable for this analysis was Purchase Intention. The input variable was Interactivity. The mediator was Perception of Product Quality, and the moderator was Cost of Product, which was represented by a categorical variable with three levels: low cost, moderate cost, high cost. As the two consumer groups were analyzed separately, the results of the individual consumers are explained first followed by the business consumers.

3.1.1 Individual Consumers

Overall, the product cost significantly moderated the indirect effect of interactivity on purchase intention. There was a significant difference between the conditional indirect effects for low-cost products and high-cost products (ΔIE = -.378, 95% CI = [-.958, -.005]). However, there was not a significant difference between the conditional indirect effect for low-cost products and medium cost products (ΔIE = -.204, 95% CI = [-.491, .028]). The indirect effect of Interactivity on Purchase Intention through Perception of Product Quality was negative for all levels of cost, indicating that more interactivity leads, indirectly, to lower purchase intention. The conditional indirect effect for high-cost products was strongest (b =-.755, 95% CI = [-1.64, -.017]); the conditional indirect effects for both medium cost products (b =-.581, 95% CI = [-1.12, -.016]) and low-cost products (b =- .377, 95% CI = [-.802, -.010]) were weaker, but still significant.

Cost significantly moderated the relation between interactivity and perception of product quality (ΔR^2= .030, F[2, 226]=6.226, p = .002). As cost increases, the association between interactivity and perception of product quality increases. The conditional effect of interactivity on perception of product quality was the strongest for high-cost products (b = 3.49, t = 8.30, p < .001), somewhat weaker for the medium cost products (b = 2.68, t= 7.28, p < .001), and weakest for low-cost products (b = 1.74, t = 6.00 p < .001). Table 3 (Sub-model A) shows the full regression results for this sub-model. These results indicate that the relationship between interactivity and perception of product quality differs based on the cost of the product. After controlling for interactivity, the effect of perception of product quality on purchase intention was significant (b = -.22, t = -2.04, p = .043). The direct effect of interactivity on purchase intention, after controlling for perception of product quality, was also significant (b = 4.12, t = 9.68, p < .001). Table 3 (Sub-model B) shows the full regression results for this sub-model.

Table 3
Regression results for the two sub-models comprising the hypothesized moderated mediation model for the Individual Consumers[d]

	Sub-model A				*Sub-model B*			
Variable	*b*	*SE(HC4)*	*t*	*p*	*b*	*SE(HC4)*	*t*	*p*
Interactivity	1.74	.291	6.00	<.001	4.12	.4257	9.68	<.001
Cost W1 (Medium vs Low)	-.33	.866	-.386	.700				
Cost W2 (High vs Low)	-1.99	.947	-2.10	.037				
Interactivity x Cost W1	.94	.470	2.00	.457				
Interactivity x Cost W2	1.75	.512	3.42	<.001				
Perception of Product Quality					-.22	.1061	-2.04	.043

[d]Note. N = 232. Sub-model A: R^2 = .45, F(5, 226) = 63.23, p < .001; Sub-model B: R^2 = .39, F(2, 229) = 71.21, p < .001.

Thus, the hypothesized theoretical model was supported for individual consumers. The preceding results indicated that the effect of interactivity on purchase intention is mediated by product quality, and this indirect effect is moderated by cost.

3.1.2 Business Consumers

Product cost did not significantly moderate the indirect effect of interactivity on purchase intention via perception of product quality (Low vs. Medium: ΔIE = -.28, 95% CI = [-.386, 1.084]; Low vs. High: ΔIE = -.33, 95% CI = [-.408, 1.291]). Therefore, the hypothesized moderated mediation model was not supported for business consumers. Table 4 shows the full regression results for the relevant sub-models.

Table 4
Regression results for the two sub-models constituting the hypothesized moderated mediation model for Business Consumers[e]

	Sub-model A				*Sub-model B*			
Variable	*b*	*SE(HC4)*	*t*	*p*	*b*	*SE(HC4)*	*t*	*p*
Interactivity	.889	.827	1.08	.285	2.69	.679	3.96	<.001
Cost W1 (Medium vs Low)	-2.99	1.67	-1.79	.076				
Cost W2 (High vs Low)	-3.25	1.69	-1.93	.056				
Interactivity x Cost W1	1.87	.871	2.15	.034				
Interactivity x Cost W2	2.18	.878	2.49	.014				
Perception of Product Quality					.149	.1782	-.835	.405

[e]Note. N = 117. Sub-model A: R^2 = .63, F(5, 111) = 58.39, p < .001; Sub-model B: R^2 = .41, F(2, 114) = 47.45, p < .001.

In light of the non-significant finding reported above, the theoretical model shown in Fig. 1 was simplified into a simple mediation model (Fig. 3) by excluding Product Cost.

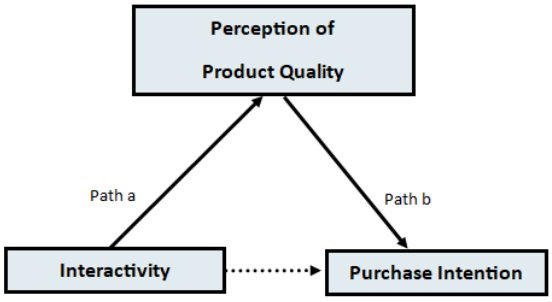

Fig. 3. Hayes Process Model 4 (Hayes, 2022) - Theoretical Model applied in this study

Table 5
Regression results for the mediation model for Business Consumers[f]

	Sub-model A				*Sub-model B*			
Variable	*b*	*SE(HC4)*	*t*	*p*	*b*	*SE(HC4)*	*t*	*p*
Interactivity	2.61	.225	11.58	<.001	2.69	.679	3.96	<.001
Perception of Product Quality					.149	.1782	-.835	.405

[f]Note. N = 117. Sub-model A: R2 = .63, F(1, 115) = 133.98, p < .001; Sub-model B: R2 = .41, F(2, 114) = 47.45, p < .001.

Thus, the mediation model was not supported for business consumers. The preceding results indicated that the effect of interactivity on purchase intention is not mediated by product quality.

4. Discussion

Online retail is growing rapidly. The most important aim of retail websites is to convert awareness to purchases and as such, online retailers who employ effective display techniques to encourage purchase engagement should experience a financial and reputational return on investment from changes made in this area. Getting the correct balance between visual and textual information is a key factor of online retail success is to but this needs to be based on product type (Blanco et al., 2010).

The results of this study can give an indication of interactivity levels required to increase purchase intentions in consumers and contribute to an explanation about the effect of Interactivity on Purchase Intention for home décor products. This study also gives consideration to the differential effect of purchase intention between High and Low-Cost products.

The hypothesized theoretical model was supported for individual consumers with results indicating that the effect of interactivity on purchase intention is mediated by product quality, and this indirect effect is moderated by cost. No such result was found for business consumers where the results indicated that the effect of interactivity on purchase intention is not mediated by product quality. This demonstrates a notable difference between purchasing behaviours of the two consumer groups.

This study only focused on a specific customer segment with an interest in an arguably niche sector of the home décor market therefore it is not yet known how these results could be generalised or applied to other products considered elsewhere in the literature. Since the average price point of these home décor products is around the £35 average online retail basket spend figure (Savills Commercial Research, 2018) this could make the research broadly applicable to similar categories of products with comparable price points. It may not however be applicable to much higher priced items.

The generalisability of results is limited by the self-selected sample from existing customers. The results may not be applicable to all online consumer groups, however as the participants are all confirmed online-shoppers who have completed a previous un-incentivised financial transaction with the online store used in the study thus the research will have some generalised applicability. Whilst this study was conducted using a pool of participants sourced from existing customers of an online store and the study itself was hosted on the same website using familiar branding it was not an actual shopping experience.

Any potential confusion or familiarity effects should be considered resulting from participants who are already customers of this website and who have participated in the study knowing they will receive a promotional code to return to the site at a later date to place a discounted order being asked questions such as, '*How likely is it that you would return to this website? How likely is it that you would consider the purchase of a product at this website in the short term? How likely is it that you would consider the purchase of a product at this website in the long term? How likely is it that you would consider the purchase of a product at this website if you needed the product?*'. Despite questions being asked as part of the study it is likely that some customers might answer in a more general sense with a response that could be influenced by either future intention or past

experience. Future studies should consider the difference in response between users with prior familiarity versus new users and the effect this would have on purchase intention.

Existing research has shown that interactive features (active control and actual product interactivity regardless of the quality of such interactivity) cause users to interpret sites as being of higher quality (Chua et al., 2007; Jee & Lee, 2002; Palmer, 2002; Saeed et al., 2003). This study also demonstrated that more interactive products were perceived to be higher quality by both Individual and Business Consumers.

The study gave no consideration given to the cut-off level for effective customer purchase intention from interactive products – that is, whether there is a point at which products become too complicate to navigate interactively for the average consumer and cause user frustration – previous research has indicated that website noise (unnecessary atmospheric cues) may block focused shopping goals by evoking consumer frustration (Hunter & Mukerji, 2011). Research is needed into whether complex interactive features 'intimidate' consumers or whether they enhance enjoyment of the shopping experience (Childers et al., 2001).

5. Conclusions

In a competitive online marketplace, one method for gaining competitive advantage online could be through strengthening the interactive features of websites (Jahng J.J. et al., 2002). This study aimed to investigate whether there was a link between level of interactivity and perception of product quality on online retail websites and furthermore whether there was a differential effect of perception of quality on purchase intention. The relationship between perception of the quality of differently priced items was examined along with differences between those purchasing personally or on behalf of a business.

The study was conducted on a real-world website using participants recruited via email from an existing database of prior consumers. Participants completed a survey demonstrating different displays of interactive products and answered questions relating to their experiences.

The results of the study showed that Individual Consumers displayed a strong interaction effect of cost between Interactivity and Perception of Product Quality. There was no statistically significant effect for Business Consumers.

The hypothesis that Perception of Product Quality positively mediates the relationship between Interactivity and Purchase Intention for Individual Consumers was supported by this study. There was no significant result for Business Consumers indicating that they were less influenced by Quality Perception in the purchasing process.

The moderating effect of cost on the relationship between Interactivity and Perception of Product Quality was found to be significant only for the Individual Consumer group.

The data contributes a clearer understanding of the benefits that online products (meeting particular criteria such as price and audience) are likely to receive from investment after applying interactive features to encourage purchase intention in this particular product segment, especially for higher cost products compared to lower cost products for individual consumers. This information is useful not only to researchers but also in industry assisting business owners in ascertaining whether or not investment in interactive products would be beneficial for their own websites.

This research provides specific data and results relating to home décor products and has identified differences between purchasing behaviours of different consumer groups. Results from this study also identified that there is an effect of interactivity on perception of product quality for individual consumers. Future studies should take into account whether the results generated from this research apply to real-world online transactions where a purchase is physically made – i.e., the specific relationship between purchase intention and purchase conversion and the differential impact of both interactivity and cost on these two stages of purchasing.

Disclosure Statement

The author of this study is an employee and shareholder of the company which provided the mailing list and website used in this research. Discount codes were provided by the company valid against future purchases to encourage participation in the study. The funding source had no influence on study design, collection, analysis, interpretation of data, report writing or decision to submit for publication. This was reviewed by the Research Ethics and Data Management Committee of Tilburg University REDC#2019/147.

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