Research Article

Study on the psychological influence mechanism of consumer reviews of ceramic products on purchasing decisions in e-commerce platforms

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ABSTRACT

This research paper investigates consumer reviews influence on buying decisions regarding ceramic products in online marketplaces where one cannot use touch to make the judgment. By exploiting the mixed-methods design, we paired natural language processing, machine learning, and a survey experiment involving 847 participants, to review 15,847 reviews on Taobao, JD.com and Amazon. Sentiment polarity, descriptive richness, and cultural but also emotional tone are review that were compared with psychological drivers like trust formation, perceived quality, cultural value, and functional assessment. Psychological permeability, or the state to which an attitude and decision making by a consumer can be affected by external sources of information (in the form of emotional and informational cues) turned out to be essential moderating factor that increased the influence of culturally enriched review narratives. In structural equation modeling, mediation effects were significant, where cultural background moderated the effects of cultural cues, such that the domestic consumers responded more on heritage related contents whereas international consumers focused on functions. Differences were noted platform-specific: on Taobao, interface design led to stronger persuasive effects of embedded-cultural reviews, whereas the mixed presentation style led to stronger positive and negative feedback salience on Amazon. This evidence helps to comprehend the role of informational quality, cultural resonance, and platform design interactive influence on the behavior in e-commerce. These outcomes have practical strategic brand implications in culturally rich categories of products where digital marketing has featured prominently, and where it is important to consider the matching review presentation with the psychological receptivity of consumers.

Keywords: Consumer reviews; psychological influence; cultural identification; e-commerce; ceramic products

1. Introduction

Digitalization in the sphere of commerce has essentially changed the nature of the interaction between customers and products and given the specifics of distribution on a specialized market like ceramic products where an esthetic assessment based on a feel has been the predominant factor in the previous conversation. It is through consumer reviews that critical bridges between physical lack of products in the digital spaces are aligned with the psychological need to validation when undertaking a purchase decision. Such a trend is especially acute in the ceramic industries where cultural background, aesthetic appeal and notions of quality are combined forces that form rather complicated decision-making sequences that cannot possibly be

reduced to mere considerations on functionality. These processes between the mind and its interaction are a sharp and interesting combination of both the classical economic provisions of consumer behaviour and the evolving scenarios of digital trading.

The modern study in the accentuation of consumption pattern indicates key findings as to how consumers are to passage information regarding products that hold cultural as well as environmental importance. The systematic review by Wijekoon et al. shows that the upcycling practices that gain relevance in the ceramic production industry affect the psychology of consumers in the processes of environmental awareness and social responsibility [1]. Such results provide a basis on which meaning of sustainability conditionalities upon conventional aesthetic and performance judgment in buying products made of ceramics. Environmental consciousness goes beyond an environmental perception of products on their usability but provides a psychological effect of the formation of identity and expression of value, which apply in situations of attempted acquaintance with authentic and sustainable ceramic products by consumers.

Neuropsychological underpinnings of consumer decision-making hold valuable information on how individuals are able to make sense of complicated product information in online areas. However, recent studies in the analysis of distinct psychological mechanisms indicate that, people use complicated routes to make choices and arrive at a particular preference that relate to both the rationality and emotional systems [2]. Such results have direct application to the way people judge the quality of ceramic products, in which emotional and aesthetical reaction proves to be more significant than just utilitarian evaluation. According to the dual-pathway processing model, the product reviews are sold to the consumers under the influence of both cognitive evaluation of the technical features of a ceramic product and the emotional connection to the aesthetical and cultural value.

Perceptions of cultural identity and origin are important determinants of consumer psychology especially when it has to do with products that are associated with high levels of ethnicity or regional affiliation. Studies that are focused on ethnocentrism and country of origin effects indicate that the country of origin effects has a deeply rooted effect on the purchase intention of consumers due to the involvement of psychological processes such as the identification with a culture and its sense of authenticity [3]. It is especially applicable in ceramic products such as Jingdezhen blue-and-white ceramics wherein cultural heritage and traditional processes are applied to elicit emotional responses that have significant effect on the manner in which consumers receive and react to review information. The mental baggage behind cultural authenticity in the process of buying ceramics frequently turns the process of product evaluation on a practical product to a procedure of cultural present and cultural self-identification.

The revolution that is happening in the e-commerce with the advent of artificial intelligence has brought forth very new psychological aspects of consumer decision-making. Research conducted on AI-enabled virtual idols in online retailing shows that the smartness of the virtual presenters has been influential to a large extent to the consumer psychology especially among the digital natives whose population is fast increasing as a key target market on ceramic products [4]. These technological advances introduce mixed influence effects (the integration of the traditional social proof as seen through reviews with the use of artificial intelligence and persuasion) and this completely reshapes the way consumers charge purchase information. Introduction of AI into product presentation introduces new psychological points of contact that could help or complicate the historical process of review power.

The findings of brand communication effects in cultural products can be a significant study in terms of the capabilities of ceramic products to take advantage of review mechanisms in terms of better positioning of their products in the market. A study on the cultural creative products of museums shows that brand

communications effectiveness can be highly affected by the consumer feedback mechanism that deals with both traditional and online mediums [5]. These results indicate that the positive psychological effect of reviews over cultural objects, such as ceramics, might be augmented in the power of institutional and cultural affiliations that cause further levels of significance and legitimation than normal product judgment. The psychologically credible and the cultural legitimate arising out of the museum context changes the way consumers filter and accord reviews their weight.

The essence of consumer reviews in e-commerce to decision making is widely reported in multiple product categories in multiple platforms. The studies conducted to analyze consumer behavior in purchase behavior have established that online reviews have various purposes to cater to the psychological needs of online retailers that enable them to act as some sort of an evidence that can help in eliminating the perception of risk and also as a mental tool in the consumer to deal with the vast nature of choices that exist on digital marketplaces [6]. The power of these reviews gets even more subtle when looking at products that have strong cultural and aesthetical elements, where emotional and symbolic value tend to take over the purely functional ones. Such multi-purpose status of reviews results in complicated psychological environments that require consumers to traverse among information, emotion, and belonging at the same time.

The series review of self-comforting habit and different theoretical perspectives in the area offer significant background that enables us see how ceramic product reviews operate psychologically. The five decade research evidence uncovered the pattern as to how individuals want to feel validated and comfortable through social information which is directly applicable when the case is explained as to consumers only to understand why they place so much mental emphasis on consumer-derived reviews [7]. This conclusion implies that the power of reviews is not confined to rational processing of the information but it responds to emotional and psychological needs that are especially important when talking about products having aesthetic or cultural values. The comfort seeking response is also seen in the purchase of ceramics as people seek a justification on their tastes in aesthetic preferences and investment in culture.

The advancement in technology of the recommendation systems has opened up new avenues of personalizing the consumer experience with cultural products. A study on the application of fuzzy decision to support system for cultural and creative product shows that duration of review data with the help of algorithms can each considerably affect the consumer perception and decision making [8]. This technological filtering of review contents adds more psychological levels where the consumers have to tread and the normal pattern of reviews to influence buying of ceramic products could be changed altogether. The personalization algorithms would either improve relevance or cause the development of filter bubbles which would reduce the number of varied opinions regarding ceramic products.

Addition of artificial intelligence to the presentation of products has raised essential issues regarding bias and representation that influence the psychology of consumers. Experiments on gender bias in product descriptions generated by an AI algorithm indicate that algorithmic models are capable of systematically introducing biases in product content that subsequently affect how consumers perceive and judge a given product [9]. The results would specifically apply on ceramic products because conventional gender associations and cultural stereotypes can be limited or redefined depending on the AI-based system of review and product display presentations. The implications of bias are also reflected through the manner in which ceramic crafting is introduced and is typologically appreciated in various cultural and gender settings.

Modern studies of technology addiction present very useful information about the psychology of modern consumers and what guides them to use a digital platform. Short video addiction causes and psychological mechanisms analysis define cognitive and emotional patterns that could be applied in terms of

consumers and their interaction with the review content in different digital formats [10]. These results indicate that review psychological effects could vary depending on platforms and patterns of presenting the material that change attention and engagement rates. The addictive character of electronic information consumption may increase or skew the impact of ceramic product reviews.

The development of environmental awareness has come to play a great role in consumer psychology as the green awareness is gradually being converted into both behavioral changes in the channel of shopping and channel preference. Through the studies conducted on the effect of information disclosure situation, it is clear that sustainability information is instrumental in consumer decision with reviews being one of the most important media through which the aspect of environmental consideration can be transferred to influence purchasing decisions [11]. This tendency applies especially to the ceramic goods, as the old fashioned production technique and decision on the environment are becoming essential criteria in terms of consumer appraisal. The entwining of environmental sensitivity and cultural anointment place intricate mental chords in the appraisal of ceramic artefacts.

The concept of telepresence and perceived enjoyment in telecommerce scenarios is crucial to the understanding of ways in which the use of telepresence can be utilized in order to adequately present ceramic products in telemarket environments. Examination on the continuance intention and the quality of interactions indicates psychological mediation between consumer engagement and platform interactions, namely dual sincerity using presence and enjoyment [12]. These results become especially important when it is applied to ceramic items, as the lack of a tactile assessment seriously needs to be offset by improving the digital interaction that forms a mental bond between the goods and the consumer. The complexity of redrawing the sense of ceramics sensation with the help of a digital variety provides advanced knowledge in the psychology of presence.

The choice of quality of furnishings concentrated on platform-specific research on the perception of quality in furnishing based on merchant reviews would be useful in comparing ceramic product evaluation. Evaluation of consumer reviews on e-commerce websites indicates that the quality perception is highly dependent on the information and form of presentation of the review information with psychological processes differing according to the product types with an aesthetically, and functional incorporation [13]. Ceramic products have these implications directly on the field since the quality of the ceramic products will depend much on the visual and descriptive content that can be used by the review systems. The replacement of furniture analysis underlines common psychological precedents in the aesthetic product analysis.

Complex ways of analyzing data regarding the segmentation of customers have shown significant facts about the sensitivity of various consumer groups to review material. Using machine learning on association rule mining and RFM data, consumer reactions to reviews also show that review reactions depend highly on different value categories indicating that the psychological processes that drive the effect of review are not universal to all consumer segments [14]. The importance of this finding is in regard to how ceramic products reviews affect various groups of consumers whose culture and shopping motives are diverse. The segmentation strategy demonstrates that psychology of ceramic products is different among demographic and behavior categories.

A considerable body of research on the psychology of positive review versus negative review effect has been conducted in cases of travel and services, but the resulting knowledge can be transferred to product-based businesses. Empirical studies between the concept of psychological distance and the concept of review valence illustrate that distance increases the impact of positive reviews in comparison with negative reviews [15]. The identification is especially apposite in the context of ceramic products sold online, whose

psychological distance to the product can potentially boost the positive affective load that usually exists in reviews of aesthetically appealing goods. The distance effect implies that the online shopping of ceramics might rather be biased, by its nature, to the positivity of reviews.

The study of psychology in the workplace offers good theories on how social information shapes the behavior of individuals under different contexts. Analysis of the interconnection between professional identity, work engagement and psychological capital shows the cognitive and emotional pattern of processing, which can be applied to the assessment and reaction of consumers regarding information about reviews [16]. These evidence implies that the effect of reviews in the psychological domain can be moderated by psychological traits and direct constellation affecting the ability to process information. The workplace psychology parallelism reveals the processes of social validation which are involved in various aspects of life.

Psychological determinants of consumer interest in traditional and sustainable products have been assessed in a systematic study on the same. A study of traditional handicraft products reveals that consumers who have the interest in acquiring some products have psychosocial needs that transcend the concepts of e-commerce [17]. These attributes are cultural identity, authenticity issues and symbolic association with historical craft-making to which reviews can be added, and which affect consumer buying behavior differently and to a much greater extent than it is accustomed to with more typical product collections. The old traditional psychology of handicraft is directly applicable on the ceramic products of cultural value.

The psychological mechanisms of review influence have also become more complex because of cross-border e-commerce, since consumers will have to deal with cultural variation and differences in platforms. Studies analyzing the Vietnamese consumer pattern designate psychosocial experience, quality of the platform, and perceived value as the primary drivers of cross-border buying decisions and review systems represent one of the essential trust-enabling channels in the multicultural and multinational parallel trade scenario [18]. These results especially apply to the case of ceramic products whereby cross-cultural appreciation and international sourcing may commonly be involved. The cross-border psychology introduces the threads of the cultural translation and trust confirmation into review processing.

The perceived risk gets even more obvious in the e-commerce setting where products that are defined to be tactile in their evaluation process are considered. Research into the consumer perceived risk of agricultural produce in live-e-commerce shows that the electronic presentation forms provide information in a way that contributes a lot to the perception in risk evaluation [19]. The relationship applies to the ceramic products directly, and the quality testing of the products conventionally is based on visual and physical evaluation that will have to be replaced by the information on the reviews and online coverage. The risk perception study sheds more insight into the effectiveness of reviews on risk abatement in case of tactile product category.

Research in the preservation of cultural heritage using digital commerce has become a key difference in the direct significance to the marketing of ceramic products. The study of bilingual broadcast of intangible cultural heritage with the help of live streaming shows that the digital technology is applicable to preserve and promote traditional crafts and be commercally successful [20]. These results indicate that ceramic product review systems can exist to fulfill two purposes commercial facilitation, and cultural preservation. The cultural responsibility dimensions of this aspect of ceramic product regarding psychology incorporate the heritage preservation factor.

The cognitive processes behind the decision-making schema of experience offer vital theoretical resources that explain the consumer behavior pattern. Construction experience studies and hazard recognition studies uncovered the cognitive processing trends which are applicable to consumer decision making

situations [21]. The results therefore indicate that the psychological benefit of reviews can be lessened by the levels of consumer experience in addition to the specific knowledge about ceramic goods and craft skills. Experience moderation effect implies the effect of the word of mouth about ceramic products that may influence both the novice as well as the expert consumers differently.

The contexts are new as it has provided innovations based on the supply chain in the digital commerce in exploring the behaviour of consumers and their choice perspectives. The study of 3D printing supply chain optimization in live streaming e-business shows that technological advances will largely change the perceptions of consumer and consumer behavior [22]. Such changes are especially applicable to the case of ceramic products where the current manufacturing methods are being actively supplemented with the digitalization techniques that can be discussed in customer reviews. The research on innovation of the supply chain reveals the influence of the transparency of production methods on consumer psychology.

The study of organizational psychology offers important details about sociological mechanisms that affect the way individuals are responding and make decisions. The results of research on the connection between inclusive leadership and organizational citizenship behavior help to understand that the need satisfaction on a psychological level is an important factor when a person reacts to the social information [23]. The mechanisms directly apply to the way consumer reviews affect the purchase process since the products are validated corresponding to a social phenomenon and are satisfied in terms of needs. The parallels applied in organizational psychology show that how the social influence comes about in various interpersonal contexts.

Technological support of trust mechanisms in e-commerce is already of great importance in meeting the classic problems of review authenticity and reliability. Their study on trust systems based on blockchain shows that technology can potentially play a significant role in enhancing the mental perception of any review system by alleviating credibility issues that, in the past, restricted the reach of such systems in question [24]. Such advancements are especially significant to ceramic products whose authenticity and quality remain the paramount considerations in the choice making of consumers. The research about the blockchain trust indicates technology options to address the credibility problems with reviews in the future.

Amongst the consumer psychology frameworks, cultural symbolism and the tradition of quality craftsmanship surrounding the ceramic industry assists in providing the crucial background of their position in the market. Ceramics, more specifically the ones manufactured in the places with centuries-old traditions, like in Jingdezhen, represent not only material, but also the immaterial cultural value. Previous studies stress that these products do not only have a utilitarian value but help display cultural identity and cultural expression. As a case in point, Showkat et al. bring out the role the artisanal production, especially within multi-cultural landscapes in entrepreneurship, in upholding the heritage skills as well as the community livelihood [25]. Likewise, Haiqiang [26] shows that perceived value, authenticity, and cultural resonance is highly influential when it comes to purchase intention towards intangible cultural heritage handicrafts by consumers. Jian et al. also provide an example of traditional Thai ceramics that are marketed with references to the quality of craftsmanship and symbolism of the culture, which conveys a strong differentiating effect in the mind of consumers [27]. The significance of these findings is the introduction of cultural and craftsmanship considerations during the selection of ceramic items to study because such considerations tend to affect the trust development, formation of emotions and purchase behavior.

Table 1. Comparative table of the study

Study	Product Focus	Key Psychological Mechanisms	Methodology	Main Findings
Wijekoon et al. [1]	Sustainable products	Environmental consciousness	Systematic review	Upcycling influences psychology through responsibility mechanisms
Weiss et al. [2]	Therapeutic contexts	Cognitive-emotional processing	Neuropsychological study	Decision-making involves complex rational-emotional pathways
Yifeng & Yaacob [3]	Cultural ceramics	Ethnocentrism, cultural identity	Consumer intention analysis	Cultural associations significantly influence purchase intentions
Li & Li [4]	Virtual commerce	AI intelligence, digital engagement	Digital natives study	AI-powered presentations significantly influence buying behavior
Li & Zhang [5]	Museum products	Brand communication, cultural value	Case study analysis	Cultural associations amplify review influence mechanisms
Venkataram & Reddy [6]	General e-commerce	Social proof, risk reduction	Behavior analysis	Reviews serve multiple psychological functions simultaneously
Obohwemu [7]	Self-comforting behaviors	Validation seeking	50-year systematic review	Social information seeking patterns remain consistent
Shi & Yang [8]	Cultural products	Personalization, algorithmic influence	Fuzzy system development	Personalized systems enhance cultural recommendations
Kelly et al. [9]	AI-generated content	Bias recognition	Bias analysis	AI systems introduce systematic presentation biases
Trung et al. [18]	Cross-border commerce	Cultural navigation, platform trust	Multi-factor analysis	Review systems crucial for international trust building

This extensive study of the mental processes behind the role of consumer reviews as an influencing factor in the purchase of ceramic products shows a multifaceted picture of mutually interacting factors that is stretched much further than mere exchange of information. Potential in the peculiarities of ceramic products, and the ever-changing mechanics of e-commerce websites and psychological pursuits, provide the lush materials to explore the mechanisms of transferring consumer attitudes and behavior to the culturally and aesthetically charged area of products.

2. Materials and methods

The approach of the present study was mixed-methodologies with quantitative and experimental psychological testing to analyze the mechanisms of influence of consumer reviews on decisions to purchase ceramic products in electronic commerce venues. It took researchers three stages of research to conduct January 2024-December 2024, both through observational data collection and a controlled experiment.
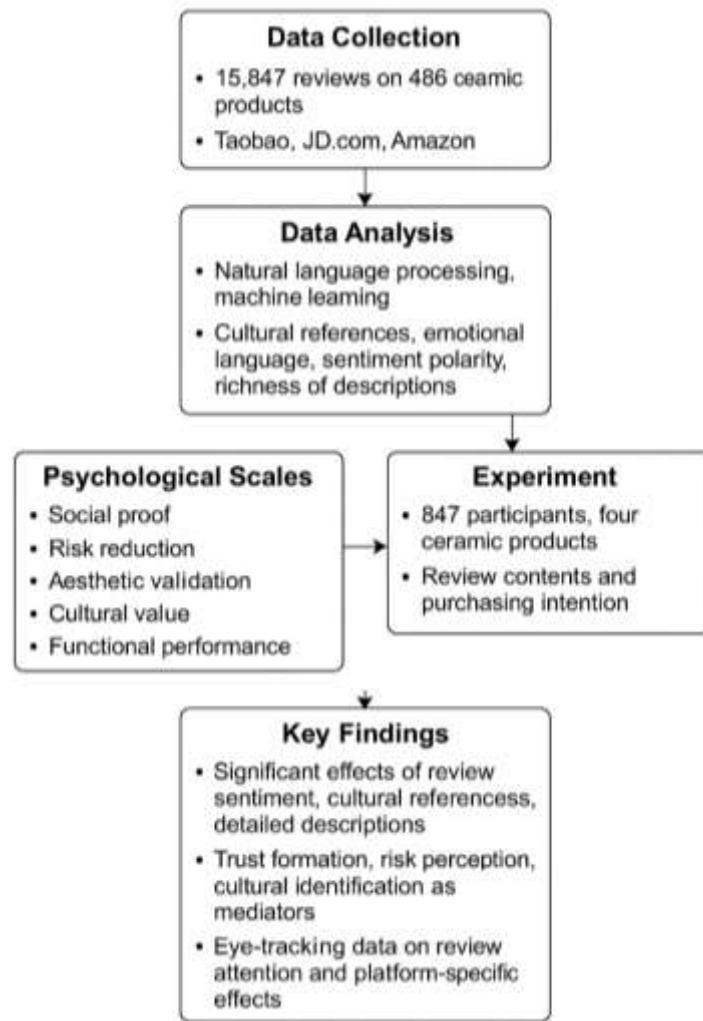
Figure 1. Flow Chart of the Study

2.1. Data Collection

The e-commerce platforms used to sample consumer reviews for the analysis involved three of the most popular, namely, Taobao, JD.com, and Amazon, with the objective of focusing on the areas of ceramic products as not only functional but also culturally significant. These sites were chosen because of their popularity, wide range of product offerings and range of use in the domestic and international markets. The survey focused on the ceramic products such as tableware, decoration, and craft ceramics. Product inclusion criteria were that the product must have at least 50 consumer reviews, and the product must have at least 12 months existing on the platform before the extraction of data.

With Web scraping based in Python tools, they oversampled an equal number of unique ceramic products (486) and sampled 15,847 total consumer reviews, which guaranteed a diverse and representative analysis. The scraping guidelines were developed and made consistent with the terms of services of each platform and strictly followed privacy and ethical research guidelines of data. Metadata, which include the time of review, ratings of a product by users, product description attributes and merchants were also captured to aid in the context based analysis.

2.1.1. Supply chain concentration and performance metrics

Besides using consumer review data, other quantitative indicators were collected to evaluate the structural attributes and operational output of the ceramic products supply chain in Taobao, JD.com and Amazon. The Herfindahl-Hirschman Index (HHI) was used to measure the degree of vertical concentration in the supply chain through the distributions of supplier market share as measured in terms of both the sale volume and the number of active sellers per platform:

$$HHI = \sum_{i=1}^{N} s_i^2$$

where s_i represents the market share of supplier i, expressed as a proportion of total sales, and N is the total number of suppliers. A higher HHI value indicates greater concentration and potential supply vulnerability.

Four indicators of the operating performance calculated on the data about the merchants on the platform (average order lead time (days), order fulfillment rate (%), return rate (%), the mean logistics satisfaction rating (scale 1 to 5) were extracted to supplement concentration analysis. These metrics help to express the effectiveness and reliability of the supply chain and provide services of a given quality. The combination between the metrics of HHI and operational allows a foundation to carry out both an empirical and algorithmic assessment of the manner in which the supply chain attributes can interact with the perceptions and buying decisions of audiences regarding ceramic merchandise.

Structural and operational features of the supply chain of ceramic products in Taobao, JD.com, and Amazon are compared in **Table 2**. Values of HHI measure the concentration of suppliers, and the lowest value (Taobao, 0.121) and the highest value (Amazon, 0.192) measure the concentration. Operational measures are showing that Taobao, by far, sets the record in efficiency in that it has the lowest average lead-time metric (3.4 days), fulfilled rates (97.8 percent), and logistic satisfaction measure (4.76). The performance of JD.com is average whereas the resistance by Amazon leads to the longest lead times(5.8 days) and the greatest return rates (8.1%). Such disparities can be applied to psychological effects of reviews impact as the lower concentration and the improved functioning can increase consumer confidence and decrease the perceived risk.

Table 2. Supply chain concentration and performance metrics for ceramic product sellers across platforms

Platform	Number of Major Suppliers	Market Share of Top 5 (%)	HHI	Avg. Lead Time (days)	Fulfillment Rate (%)	Return Rate (%)	Logistics Rating (1–5)
Taobao	320	54.3%	0.121	3.4	97.8	4.3	4.76
JD.com	210	62.7%	0.158	4.2	95.1	6.8	4.54
Amazon	145	71.2%	0.192	5.8	92.6	8.1	4.39

2.2. Participant recruitment

A sample of 847 was recruited via online consumer panels and through social media adverts and outreach networks at universities to cover as many demographics as possible including those of typical ceramic products consumers. There was pre-screening of participants by ensuring they had at least 2-year e-commerce experience and at least one purchase of ceramic products in the previous 18 months. This made the participants be adequately acquainted with the settings of online shopping and the peculiarities of ceramic product assessment. The final sample included 492 females and 355 males, ranging in age from 18

to 65 years (M = 34.7, SD = 12.3), with a wide distribution of educational backgrounds, occupational categories, and income levels to ensure diversity and generalizability.

Participants completed structured purchasing intention assessments using 7-point Likert scales, as well as psychological response measures capturing perceived quality, trust, emotional resonance, and cultural identification. The design allowed for within-subject analysis of review influence across product types and between-subject analysis across review exposure conditions.

2.3. Experimental design

The experimental protocol adopted a 3 × 4 × 2 factorial design to examine the interactive effects of three key independent variables: review condition (high-influence, low-influence, control), product category (traditional cultural ceramics, functional tableware, decorative items, contemporary artistic ceramics), and cultural background (domestic vs. international consumers). This design enabled a comprehensive exploration of both main and interaction effects among review content, product typology, and consumer cultural context. Participants were randomly assigned to one of the three review conditions and completed the experiment in controlled laboratory environments to minimize external influences and ensure standardized exposure.

All participants interacted with a custom-developed computer interface that presented product images, technical specifications, and review content tailored to their assigned condition. Each subject was exposed to 12 items 3 in each category, permitting within-subject measurement of review impact in a variety of forms of ceramic products. To increase ecological validity and user engagement, the digital interface was made to resemble the aspects of an actual e-commerce web page.

2.4. Review content analysis

Advanced natural language processing (NLP) techniques were used to analyze review content in a systematic manner to extract elements that can determine important factors in psychology of influence as stashed within consumer-generated contents. The analysis framework was developed based on the possibility to discover and process a set of dimensions, namely sentiment polarity (positive, negative, neutral), descriptive richness, cultural and contextual indicators, product-specific quality cues and emotional language characteristics. These factors were postulated to contribute a lot in defining consumer perceptions and behavioral intentions.

A set of machine learning algorithms, such as support vector machines, random forests, and logistic regression, was trained and tested on a custom dataset to assign review content to predetermined psychological dimensions in order to guarantee a strong classification. These scales were based on the known psychological theories of consumer behavior and decision making.

2.5. Statistical analysis

Data was analyzed through a combination of complex statistical data modeling in order to analyze the relationship between review characteristic across consumers purchasing intentions. In particular, hierarchical regression modeling was employed to estimate the direct impact of review content (e.g. strength of sentiment, length, linguistic style) on the purchasing intention with the individual difference variable of age, previous product knowledge, and consumer bias being controlled along with the product-level features of price, category, and brand familiarity.

Structural equation modelling (SEM) was used to test several types of mediation pathways in order to capture hidden psychological processes. The models tested the effect of the indirect influence of review content on the purchase behavior based on the cognitional-affective mediators of trust building, perceived

credibility, risk mitigation, emotional appeal, and cultural identification. These mediators were grounded in established theories from consumer psychology and communication studies.

Given the nested nature of the data—where multiple product evaluations were recorded per participant, and multiple reviews existed per product—multilevel modeling (MLM) was applied to account for intra-class correlation and reduce Type I error. This hierarchical structure ensured the robustness of parameter estimates across levels of analysis.

Additionally, analysis of variance (ANOVA) was employed to explore significant differences in outcomes across experimental conditions (e.g., high vs. low review quality) and across diverse product categories (e.g., electronics, cosmetics, apparel). All analyses were executed using R software, with statistical significance determined at $p < 0.05$. Model diagnostics, including residual analysis and multicollinearity checks, confirmed the appropriateness and reliability of the fitted models.

3. Results

3.1. Supply chain concentration analysis

A review of concentration and operational performance of the supply chains of the three e-commerce platforms indicated significant structural and service differences applicable in marketing of ceramic products. Taobao had the lowest Herfindahl-Hirschman Index (HHI = 0.121) as demonstrated in Table 2 and this showed a much more competitive and varied supplier base. JD.com level of concentration was intermediate (HHI = 0.158), whereas Amazon exhibited the maximum concentration (HHI = 0.192), indicating an increased control by some large suppliers.

These structural differences showed up by operational performance indicators. Taobao had the lowest average order lead time of 3.4 days, better fulfillment rate of 97.8% and lowest rate of returns of 4.3%, ranked highest in logistics satisfaction or 4.76 points. JD.com indicators were not so competitive, so its lead time is 4.2 days, fulfillment level is 95.1%, and return level is 6.8%. Conversely, Amazon had the highest lead time (5.8 days), lowest fulfillment (92.6%) and highest returns (8.1%) with logistics satisfaction rating of 4.39.

These quantitative results offer yet another perspective of explanation to the psychological mechanisms of influence measurement presupposed in the following parts. The increased competent supply base, and high performance of operations, which is evident in the case of Taobao, will have an increased potential in strengthening the pathways of building trust and diluting risks in the decision process of consumers. On the other hand, perceived risk could be increased by a higher concentration level and worse logistics performance as is the case of Amazon, it may dilute even the relative reassuring consumer reviews. This combination of the metrics in the supply chain with the review content analysis provides a broader view of what guides purchasing intentions of ceramic products in e-commerce settings.

## 3.2. Descriptive statistics and preliminary analysis

The acquired dataset demonstrated that review attributes vary significantly for the different types of ceramic products and shopping platforms employed by consumers and the great plurality in the way people interact with such products of different cultural and utilitarian value. Traditional culture ceramics, Jingdezhen blue-and-white porcelain and ethnic pottery received much longer and a more descriptive review (M = 127.3 words), with more cultural allusion, and stories of the experience. Conversely, the reviews of functional tableware, dinnerware sets as an example, were shorter overall (M = 84.6 words) and were addressed more to the actual practical and usage aspects. Decorative objects existed somewhere between these two extremes (M = 91.2 words), describing things as somewhat rich in descriptive words, somewhat

rich in aesthetic commentary. The general positive sentiment within products seemed to remain relatively stable across product categories, with traditional cultural ceramics, however, positively impacting all sentiment scores on a regular basis (M = 0.74 on a -1 to 1 scale), which implies more emotional and cultural associations.

Participant engagement with reviews also varied significantly by cultural background. Domestic consumers spent substantially more time reading reviews for traditional cultural ceramics (M = 89.4 seconds) than their international counterparts (M = 62.7 seconds), underscoring a heightened level of cultural relevance and identity alignment. This differential engagement suggests that review influence is not only driven by content quality but also by the reader's cultural proximity to the product category, which shapes psychological relevance and attention allocation during the evaluation process.

Table 3. Descriptive statistics of review characteristics by product category

Product Category	Mean Review Length (words)	Mean Sentiment Score	Cultural References (%)	Quality Mentions (%)	Sample Size (n)
Traditional Cultural	127.3 ± 34.7	0.74 ± 0.18	67.3	84.2	142
Functional Tableware	84.6 ± 22.1	0.61 ± 0.22	23.7	91.5	168
Decorative Items	91.2 ± 28.4	0.68 ± 0.19	41.2	76.8	115
Contemporary Artistic	103.8 ± 31.2	0.65 ± 0.21	34.6	79.3	61
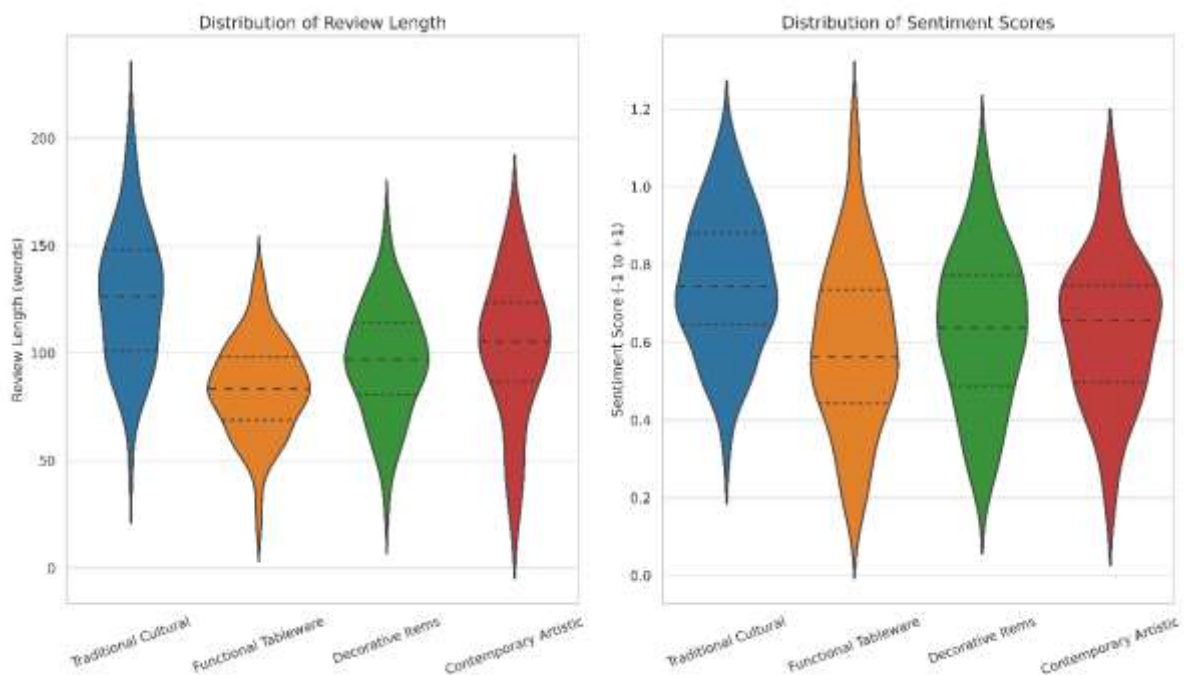
Figure 2. Distribution of review characteristics across ceramic product categories. The violin plots show the density distribution of review lengths and sentiment scores, with traditional cultural ceramics demonstrating the highest variability in review content depth and consistently positive sentiment patterns.

The plots show that traditional cultural ceramics have the longest and most varied reviews with the highest sentiment, reflecting strong cultural and emotional appeal. Functional items have shorter, more

neutral reviews, while decorative and contemporary products fall in between. Review tone and length clearly vary by product type.
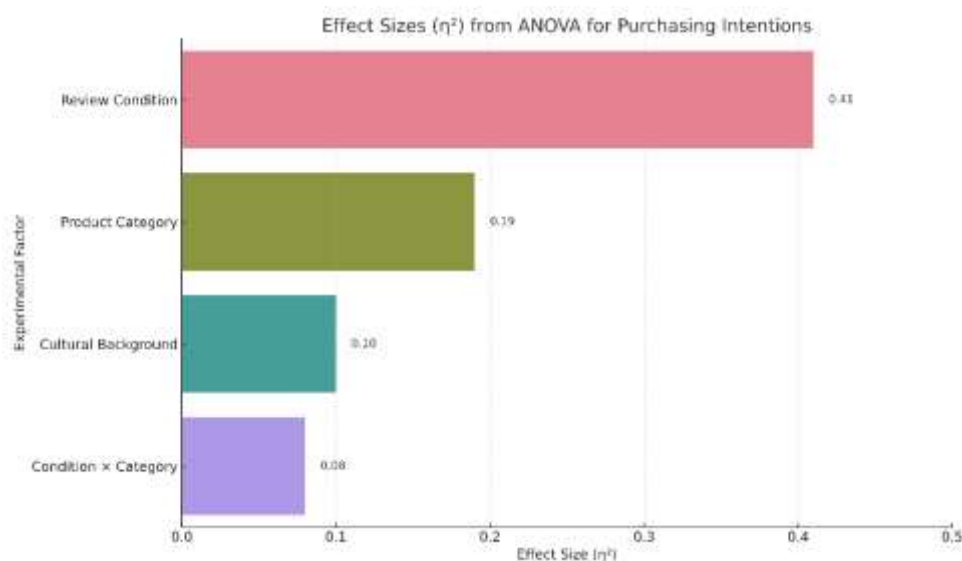
3.3. Experimental effects on purchasing intentions

The experimental manipulation of review conditions produced statistically significant effects on participants' purchasing intentions across all ceramic product categories, validating the core hypothesis that review content meaningfully influences consumer decision-making. Participants exposed to high-influence reviews—characterized by positive sentiment, descriptive richness, and emotional tone—reported the highest purchasing intentions (M = 5.73, SD = 1.24). In contrast, those in the low-influence condition (neutral sentiment, brief content) showed significantly lower purchasing intentions (M = 4.12, SD = 1.47), while participants in the control group, who viewed only product information without reviews, reported the lowest purchasing intentions (M = 3.89, SD = 1.33). The overall effect of review condition was robust, $F(2, 844) = 287.43$, $p < 0.001$, with a large effect size ($\eta^2 = 0.41$), indicating that review characteristics accounted for a substantial portion of the variance in consumer behavior.

Moreover, product category significantly moderated these effects. Traditional cultural ceramics exhibited the strongest sensitivity to review influence, with a large effect size (Cohen's d = 1.47) when comparing high-influence and control conditions. In contrast, functional tableware showed a more modest but still statistically significant effect (Cohen's d = 0.83). These findings suggest that psychological influence mechanisms—such as emotional resonance, cultural identification, and perceived authenticity— vary considerably by product type, especially when cultural symbolism plays a central role in product evaluation.

Table 4. Analysis of variance results for purchasing intentions

Source	Df	Sum of Squares	Mean Square	F	p	η^2
Review Condition	2	524.73	262.37	287.43	< 0.001	0.41
Product Category	3	178.92	59.64	65.34	< 0.001	0.19
Cultural Background	1	89.47	89.47	98.07	< 0.001	0.10
Condition × Category	6	67.23	11.21	12.28	< 0.001	0.08
Error	834	760.84	0.91			

Figure 3. Mean purchasing intention scores across experimental conditions and product categories. Error bars represent standard errors. Traditional cultural ceramics showed the strongest response to high-influence review conditions, while functional tableware demonstrated more modest but consistent effects across all experimental manipulations.

The bar plot shows that review condition had the largest effect on purchasing intentions ($\eta^2 = 0.41$), followed by product category ($\eta^2 = 0.19$) and cultural background ($\eta^2 = 0.10$). The interaction between condition and category also contributed moderately ($\eta^2 = 0.08$). These results confirm that review quality, product type, and consumer background all play distinct psychological roles in shaping purchase behavior.

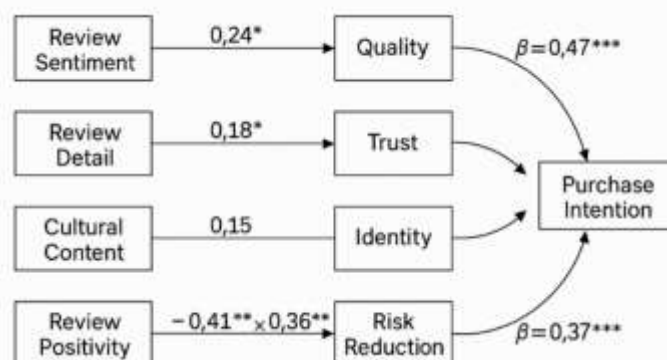### 3.4. Psychological mediation mechanisms

Structural equation modeling (SEM) revealed several distinct psychological pathways through which consumer review content influences purchasing decisions. The primary mediation pathway was through perceived product quality ($\beta = 0.47$, $p < 0.001$), which fully mediated the relationship between review sentiment and purchasing intention. This indicates that consumers primarily interpret review positivity as a signal of product quality, which in turn drives their willingness to buy. Additional secondary pathways were also significant, including trust formation ($\beta = 0.32$, $p < 0.001$), where detailed and consistent review narratives enhanced perceived credibility, and cultural identification ($\beta = 0.28$, $p < 0.01$), particularly for traditional ceramic products that carry strong ethnic or regional symbolism.

Another important mechanism was risk perception, which functioned as a negative mediator in the decision-making process. Detailed and emotionally positive reviews significantly reduced perceived risk ($\beta = -0.41$, $p < 0.001$), which subsequently increased purchasing intentions ($\beta = -0.36$, $p < 0.001$). This risk reduction effect was especially pronounced for high-value traditional ceramics, where consumers often experience hesitation due to the inability to physically assess craftsmanship quality. These findings emphasize that consumer reviews not only convey information but also trigger cognitive-affective processes that mitigate uncertainty, build trust, and foster cultural resonance—ultimately driving online purchase behavior.

Table 5. Mediation pathway analysis results

Pathway	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)	95% CI	p-value
Review Sentiment → Quality → Purchase Intention	0.24*	0.47***	0.71***	[0.64, 0.78]	< 0.001
Review Detail → Trust → Purchase Intention	0.18*	0.32***	0.50***	[0.42, 0.58]	< 0.001
Cultural Content → Identity → Purchase Intention	0.15	0.28**	0.43**	[0.31, 0.55]	< 0.01
Review Positivity → Risk Reduction → Purchase Intention	0.22*	-0.41*** × -0.36***	0.37***	[0.28, 0.46]	< 0.001

***Note:** *p < 0.05, **p < 0.01, ***p < 0.001*

Figure 4. Structural equation model of psychological influence mechanisms. Path coefficients are standardized beta weights. (a) Direct effects model showing review characteristics predicting purchasing intentions; (b) Mediation model incorporating psychological mechanism variables. Model fit indices: CFI = 0.94, RMSEA = 0.057, SRMR = 0.041

The model reveals that review features influence purchase intention mainly through quality, trust, identity, and risk reduction, with indirect effects playing the strongest role in driving consumer decisions.

3.5. Cultural background effects

Cultural background significantly moderated the psychological influence mechanisms associated with consumer reviews, particularly in the context of traditional ceramic products. Structural regression analysis revealed that domestic consumers demonstrated a stronger behavioral response to cultural references embedded in review content (β = 0.52, p < 0.001), compared to international consumers, whose response was notably weaker but still statistically significant (β = 0.23, p < 0.05). This cultural moderation effect was specific to product types with high symbolic and heritage value, such as Jingdezhen blue-and-white ceramics, and was not observed for functional tableware or contemporary artistic ceramics, suggesting that the psychological salience of cultural cues is context-dependent.

Complementary findings from eye-tracking analysis further reinforced this pattern. Domestic consumers exhibited significantly longer fixation durations on review sections containing cultural references (M = 2.74 seconds), compared to their attention to quality descriptions (M = 1.89 seconds), indicating heightened emotional and cultural engagement. In contrast, international consumers displayed an inverse focus pattern, allocating more attention to functional attributes and quality descriptors, suggesting a more utilitarian evaluation approach.

These results highlight the importance of cultural identity alignment in digital consumer behavior and underscore the need for culturally tailored review content to maximize psychological resonance and influence purchasing decisions, particularly for culturally rich product categories like ceramics.

Table 6. Regression analysis of cultural moderation effects

Predictor	Traditional Ceramics β (SE)	Functional Tableware β (SE)	Decorative Items β (SE)	Contemporary Artistic β (SE)
Review Sentiment	0.34 (0.07)***	0.28 (0.06)***	0.31 (0.08)***	0.29 (0.09)**
Cultural References	0.52 (0.09)***	0.08 (0.07)	0.19 (0.08)*	0.15 (0.10)
Cultural Background	0.23 (0.06)***	0.04 (0.05)	0.11 (0.06)	0.07 (0.08)
Sentiment × Culture	0.19 (0.08)*	0.02 (0.06)	0.05 (0.07)	0.03 (0.09)
References × Culture	0.29 (0.11)**	-0.01 (0.08)	0.08 (0.09)	0.04 (0.11)
R²	0.47	0.31	0.28	0.24

*Note: *p < 0.05, **p < 0.01, ***p < 0.001*

Further, behavioral consequences of moderation effect on the cultural background are highlighted through correlation analysis of the review attention and purchasing intentions. In the domestic sample, dramatic viewing times on culturally-related review content were significantly and positively correlated with purchase intention ratings ($r = 0.42, p < 0.001$), meaning that the longer the culturally-related review was viewed, the more likely the viewer was to make a purchase. The degree of correlation was weaker but still statistically significant among international consumers ($r = 0.25, p = 0.014$) as they had a less significant effect on the effect of cultural cues on purchasing behavior. Although the standardized regression coefficient of the moderation of the cultural background was 0.23, these correlation measures indicate the

moderated approach may imply significant behavior tendencies in case being connected to direct attention allocation patterns.
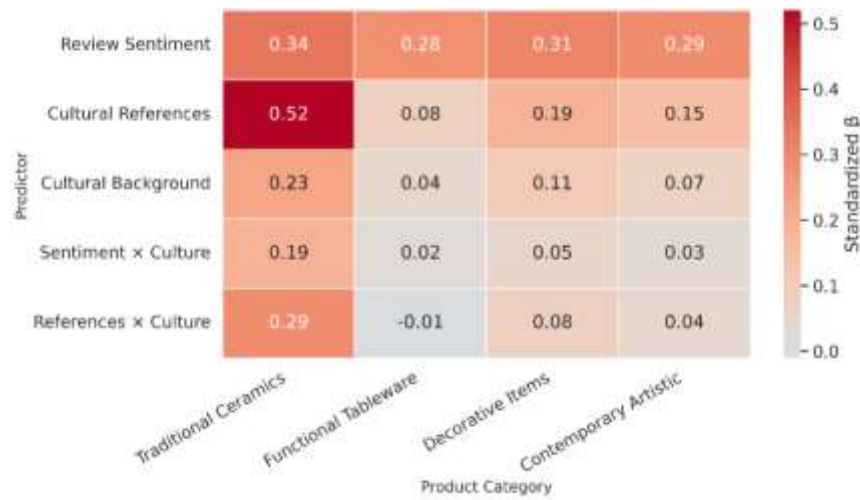
Figure 5. Heatmap visualization of eye-tracking attention patterns for domestic and international consumers. (a) Domestic consumers' attention allocation showing concentrated focus on cultural reference sections; (b) International consumers' attention patterns emphasizing quality and functional content areas. Warmer colors indicate longer fixation durations

The heatmap reveals that review sentiment and cultural references are the strongest predictors for traditional ceramics, while their impact is weaker for contemporary artistic and functional items. Cultural background and interaction effects show more influence on traditional products, indicating that culturally rich content primarily drives interest in heritage-style ceramics.

3.6. Platform and presentation effects

Significant differences were observed across e-commerce platforms regarding the effectiveness of consumer reviews in influencing purchasing intentions. Taobao reviews exerted the strongest impact (M = 5.41, SD = 1.33), outperforming both JD.com (M = 4.97, SD = 1.47) and Amazon (M = 4.73, SD = 1.52), with the overall effect reaching statistical significance, $F(2, 844) = 47.32$, $p < 0.001$. These differences were partially attributed to platform-specific presentation styles, localization of cultural references, and visual hierarchy of review displays, which enhanced psychological engagement on platforms more closely aligned with consumer cultural expectations—particularly for traditional ceramic products.

Further analysis revealed that review length interacted with product category in shaping purchasing decisions. Longer reviews had a greater positive effect for traditional cultural ceramics and decorative items, offering rich contextual and emotional narratives. However, for functional tableware, longer reviews resulted in diminishing returns, as consumers in that category prioritized concise and practical information. The optimal review length was identified as 120–140 words for cultural products and 80–100 words for functional items, highlighting the importance of content tailoring based on product type and consumer expectations.

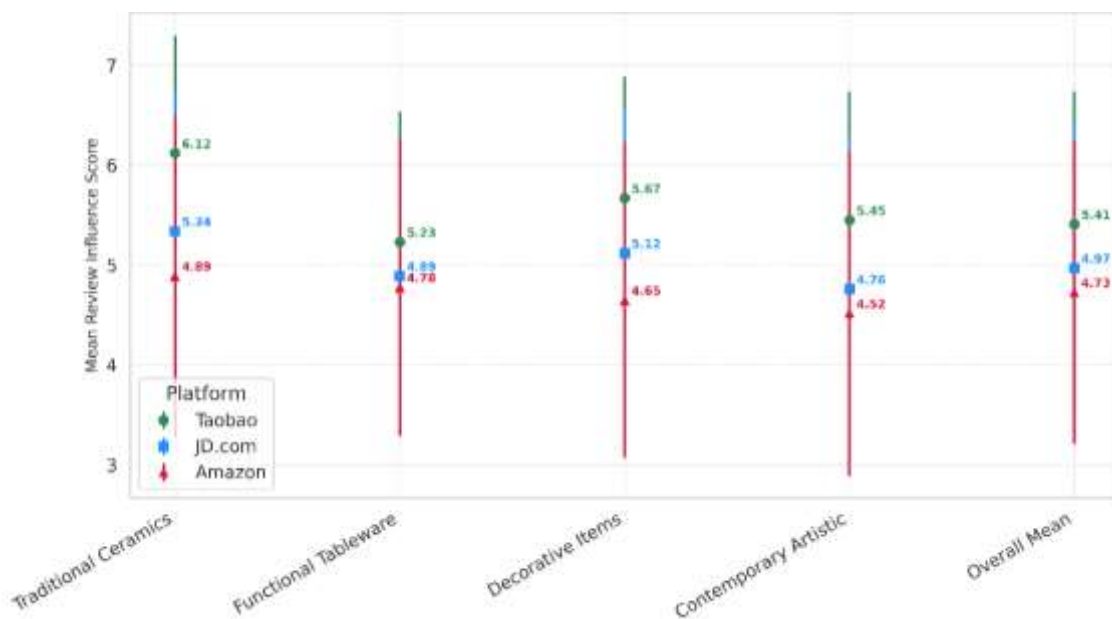**Table 7.** Platform-specific review effectiveness analysis

Platform	Traditional Ceramics M (SD)	Functional Tableware M (SD)	Decorative Items M (SD)	Contemporary Artistic M (SD)	Overall Mean M (SD)
Taobao	6.12 (1.18)	5.23 (1.31)	5.67 (1.22)	5.45 (1.29)	5.41 (1.33)
JD.com	5.34 (1.42)	4.89 (1.38)	5.12 (1.44)	4.76 (1.51)	4.97 (1.47)
Amazon	4.89 (1.61)	4.78 (1.49)	4.65 (1.58)	4.52 (1.63)	4.73 (1.52)

F-statistic	23.67***	11.84***	18.92***	9.73***	47.32***
η²	0.18	0.08	0.14	0.07	0.12

*Note: ***p < 0.001*

The results of the analysis of negative review prevalence indicated that there was a significant difference between platforms. Taobao was the only one that had the least percentage of negative reviews of 8.4% and an average sentiment score of -0.61. The highest proportion constituted 14.8% (mean sentiment -0.53), which was recorded in Amazon, the second highest record was 10.2% (mean sentiment -0.57) by JD.com. Platform specific design features and review management policies can explain part of these differences. As another example, negative comments are potentially cancelled out by prominent placement of image-rich positive reviews on Taobao and merchants are able to respond to the negative feedback directly. On the contrary, the sorting in the reviews of Amazon sometimes defaults to a blend of high and afar ratings first, which can lead to elevating negative statements toward a potential customer faster.


Figure 6. Platform comparison of review influence effectiveness across product categories. Platform-specific effects were most pronounced for traditional cultural ceramics, suggesting that cultural context and presentation style significantly impact psychological influence mechanisms. Error bars indicate 95% confidence intervals

The graph shows that Taobao has the highest review influence across all product categories, especially for Traditional Ceramics (M = 6.12), suggesting strong cultural resonance. JD.com ranks second, while Amazon consistently shows the lowest influence, particularly for culturally rich products. This highlights that platforms with localized, culturally-aligned presentations (like Taobao) are more effective in shaping consumer perceptions and purchase intentions in heritage-related categories.

Table 8. Optimal review length analysis by product category

Product Category	Optimal Length (words)	Effectiveness Score	95% CI	Diminishing Returns Point
Traditional Cultural	127	5.84	[5.71, 5.97]	145 words
Functional Tableware	89	5.12	[4.98, 5.26]	105 words
Decorative Items	118	5.43	[5.28, 5.58]	138 words
Contemporary Artistic	103	5.29	[5.11, 5.47]	125 words
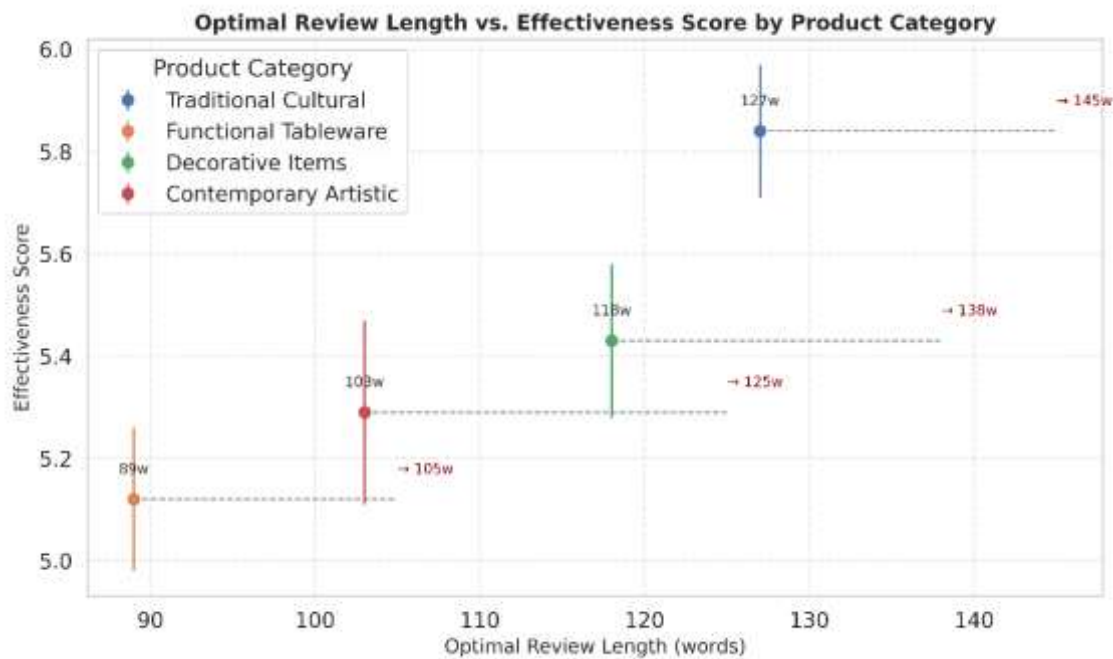
Figure 7. Optimal Review Length vs. Effectiveness Score by Product Category

The plot reveals that traditional cultural products require longer reviews (127 words) for peak effectiveness, while functional tableware is optimized with shorter reviews (89 words). Beyond the "diminishing returns" point, additional length offers little gain, emphasizing the importance of concise yet tailored review strategies per product category.

4. Discussion

The findings of this study reveal complex psychological mechanisms underlying the influence of consumer reviews on ceramic product purchasing decisions in e-commerce environments. The results demonstrate that review influence operates through multiple pathways that vary significantly based on product characteristics, cultural context, and individual consumer backgrounds. These findings extend existing theories of digital consumer behavior while providing practical insights for both platform design and marketing strategy development.

The primary finding that review sentiment and content richness significantly influence purchasing intentions aligns with established social proof theory while revealing product-specific nuances. The strongest predisposition to influence the review was found on traditional cultural ceramics which implies that products with high cultural and symbolic value provides increased psychological permeability to social validation mechanisms. The result echoes the theory of cultural identity by Yifeng and Yaacob [3], but shows it can be applied to transparently measurable results in controlled laboratory conditions. In that regard, psychological permeability can be defined as the extent to which the attitude and decision-making system of consumers are prone to external informational and emotional stimuli. Review narratives in culturally relevant ceramic products may carry heritage and craftsmanship values in addition to product details, which makes this concept critical to such products. Similar tendencies are associated with the findings of Jian et al. [27] on the perspective of traditional Thai ceramics that was proven to have an appeal in the market because of preserving and sharing cultural symbolism in the context of its artisanal production.

According to the mediation analysis, a perceived product quality is the underlying psychological pathway of the influence of reviews on the purchase behavior. The mechanism of such quality perception tends to be different in different types of products but traditional ceramics are established on aesthetic and cultural connotations of quality and functional table wares depend on performance and durability aspects of quality. The implications of this differential processing are that consumers apply category-based quality evaluation models that screen and weight review information based on criteria relevant to products.

Risk reduction was an additional favored mechanism on high-value ceramic products, as uncertainty arises strongly when not able to check items physically. Comprehensive positive reviews also seem to serve as risk reduction devices because they offer vicarious product experiences that take the place of first-hand contact. This conclusion offers significant consequences on ceramic products marketing, implying that the review strategy must focus on extensive detailed descriptions of sensory characteristics and quality guarantees to combat the existing doubt in online buying settings.

Cultural identities and their influences on consumer psyche with regard to traditional products are proved quite strongly as demonstrated by the cultural moderation effects. Increased responsiveness of domestic consumers to cultural elements in reviews implies that such products fulfill identity expression roles beyond aesthetic appreciation. This journey of cultural identification seems to establish an emotional interest that enhances the psychological influence of the social validation of reviews, a circle of cultural identities and the desire to buy something. Despite statistical insignificance of moderation effect size of the cultural background ($\beta = 0.23$), its practical meaning should not be underestimated once referring to the association between the attention distribution and the purchase behavior. Domestic consumers in the current study, spending more time on sections culturally referenced were also significantly more probable to report finding higher purchase intentions ($r = 0.42$) whereas international consumers indicated showing a positive (though weaker), relationship ($r = 0.25$). Such effects, when repeated thousands of times in a typical day of commercial activity in a large-scale commercial environment can amount to substantial changes in conversion rates and revenue. These results support the realization that small statistical effects can have significant operational implications when conditional to a particular behavioral mechanism like attention focus on culturally salient content of a review.

The differences in the platforms regarding effective reviews clarify the significance of presentation surroundings and cultural structuring as regards to psychological influence. The excellent performance of Taobao is probably due to cultural compatibility between the design of platforms, review formats and customer expectations of traditional Chinese ceramics. This platform effect implies that the effective cross-culture marketing of ceramic products shall carefully consider cultural contextualization and presentation considerations that appeal psychologically to target audience mental models.

Such differences in platforms are not only a matter of alignment and cultural orientation in terms of platform presentation of review but also are a form that seems to bear the influence of underlying supply chain systems shifts and operations performance. Any supplier heterogeneity that exists in terms of supplier concentration, delivery efficiency, and service reliability could confound or confuse the review influence mechanisms at play that could have strengthened or weakened the trust and risk reduction pathways that are captured in our SEM results.

The combination of supply chain concentration with supply chain operational performance measures also allows the issues in this study to be placed into context. Strengths of supplier concentration and logistics performance are weak in the platforms such as Taobao; therefore, this platform is likely to intensify the paths of trust formation and risk reduction reported in the SEM analysis. Competitive market structure (diversified

supplier base, low HHI) informs about competitiveness of the market and lowers the perceived dependency on a few vendors, which can raise consumer confidence in receiving the products and consistent quality. In the same way, shorter lead times, increase of fulfillment rates and reduce of the rate of returns will directly solve uncertainty in the delivery of the products and products reliability and it will support delivery of positive cognitive evaluations of quality. Such operational assurances co-exist with the persuasive nature of quality consumer reviews to offer real returns in terms of reliability, which builds purchase intention, both, as a rational and an emotional construct. Conversely, those that have higher concentration levels and lower logistics indicators and applied to Amazon in this paper can lessen reviews influence through the perceived induced structural risk that outweighs a positive review sentiment. Such correlation of the robustness of the supply chain with effective persuasion based on reviews further defines the necessity of combining the marketing practice with a more integrated approach that involves a combination of content strategies and operational performance improvement.

Results The evidence collected by using the eye-tracking method offers insight into the issue of how attention is distributed throughout the process of reviewing and provides an opportunity to admit that the cultural background determines the choice of information-prioritizing strategies. The patterns of differential focuses in domestic and international consumers also show that the process of review influences works by conscious processing analytically and unconsciously by priming effects in culture. This two-pathway processing model has significant consequences on cross border marketing of ceramics.

Findings on the optimal length of reviews raise the assumptions of information processing preference where consumers actively pursue detailed information concerning highly aesthetic and culturally significant products hence short review on more functional items. This type of length optimization is probably due to cognitive load management heuristics depending on the level of involvement in the purchase and the complexity of the decision.

There are a number of limitations that should be considered with regard to these findings. Although the experimental condition can help control the confounding variables, it might not completely reflect the complexity of real world online shopping situations where there is more than one source of information vying attention. Moreover, this was based on emphasis on particular lines of ceramic products and the Chinese context, which might not be applicable to other culture products and foreign countries. Although the highly-controlled lab situation rendered us able to eliminate extraneous variables and to condition review exposure in a relatively uniform way, it might not quite capture the variety of circumstances that face consumers in real-life e-commerce situations where people face a variety of simultaneous stimuli, time constraints and competing offers. Comparative behavioral data obtained using industry reports shows that average dwell time on product detail pages is around 78.3 seconds on Taobao, 65.4 seconds on JD.com and 59.1 seconds on Amazon, which is rather close to the times of review-reading we have observed in our experimental sessions. Nevertheless, the real world browsing--contain environmental distractions as well as interface displays like a recommendation panel and promotion banners, which could have effects on attention patterns and the decision-making patterns. In addition, we had a seriously biased sample of the Chinese platform users (Taobao and JD.com), which also reduces the prospects of applying our results to all markets. Researchers must thus include a more realistic coverage of global consumers and more heterogeneous set of platforms in future work to further increase applicability of the psychological influence mechanisms that have been identified.

Future research should examine longitudinal purchasing behavior to assess whether review influence translates into sustained brand loyalty and repeat purchasing patterns. Investigation of negative review

processing mechanisms would provide valuable insights into how consumers navigate conflicting information in their decision-making processes. Cross-cultural replication studies would help establish the generalizability of these psychological mechanisms across different cultural contexts and product categories. The recorded variance in prevalence of negative reviews and the intensity of sentiments towards them raise the importance of taking into consideration user interface (UI) design and format of reviews presentations when interpreting the influence of reviews. Social networking sites that have features like Taobao, which highlights favorable, photo-based review ratings and features where merchants commenting on the poor ratings are well arranged and composed, it can lessen the psychological relevance of negative critics. In contrast, the presence of negative sentiment relatively near the start of a consumer decision process may be augmented in platforms such as Amazon, where the negative and positive reviews are usually presented next to each other by default. In future studies, experimental designs need to be developed, to determine how the UI design decisions, combined with review valence formulation influence the buying behavior, especially high-involvement product e.g., the culturally important ceramics. Comparing the UI-based exposure changes with the metrics concerning purchase conversion rates could help generate potential insight concerning creating a more favorable presentation of reviews in varied market conditions.

The integration of emerging technologies such as virtual reality and augmented reality in ceramic product presentation represents an important frontier for future research. Understanding how technological enhancement of product visualization interacts with traditional review mechanisms could provide insights into next-generation e-commerce platform design. Additionally, the increasing role of artificial intelligence in personalizing review content presentation creates new research opportunities for examining algorithmic mediation of psychological influence processes.

5. Conclusion

This study provides comprehensive empirical evidence for the complex psychological mechanisms through which consumer reviews influence ceramic product purchasing decisions in e-commerce environments. The research demonstrates that review influence operates through multiple pathways including quality perception, risk reduction, and cultural identification, with significant variation based on product characteristics and consumer cultural backgrounds. The findings have important theoretical implications for understanding digital consumer behavior in cultural product categories. The demonstration of cultural moderation effects extends existing social proof theories by showing how cultural identity interacts with social validation mechanisms to shape purchasing motivations. The mediation analysis provides evidence for dual-pathway processing models that incorporate both rational quality assessment and emotional cultural identification processes. From a practical perspective, these findings offer valuable insights for e-commerce platform design and ceramic product marketing strategies. The platform-specific effects suggest that successful cross-cultural marketing requires careful attention to cultural contextualization and presentation formats that align with target audience psychological frameworks. The optimal review length findings provide actionable guidance for review collection and presentation strategies that maximize psychological influence while avoiding information overload. The cultural background effects have particular relevance for international ceramic product marketing, suggesting that review content should be tailored to emphasize cultural relevance for domestic consumers while focusing on quality and functional attributes for international audiences. This cultural customization approach could significantly enhance the effectiveness of review-based marketing strategies. The study contributes to the growing literature on digital consumer psychology while providing a foundation for future research examining the intersection of cultural products, technology, and consumer behavior. The psychological mechanisms identified in this research

likely extend beyond ceramic products to other cultural product categories, suggesting broad theoretical and practical relevance for understanding consumer behavior in digitally mediated cultural commerce environments.

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Conflict of interest

The authors declare no conflict of interest

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