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Does Who You Are Determine What Helps You? Role of Consumer Personality and the Perceived Helpfulness of Online Customer Reviews

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Abstract

Purpose: Online customer reviews (OCRs) are an essential informational resource in e-commerce, but little is known about the interaction between review type and reader type. This research explores whether consumer's hedonic or utilitarian personality orientation moderates the relationship between OCR type (hedonic vs. utilitarian) and perceived OCR helpfulness, and whether this moderation is further conditioned by product type. Design/methodology: A 2 (OCR type: hedonic vs. utilitarian) × 2 (product type: bar soap vs. perfume) × 2 (personality type: hedonic vs. utilitarian) mixed factorial experiment was conducted with 586 usable responses collected in South Korea. Review-type and product-type manipulations were validated, personality orientations were measured with established shopping-value scales, and hypotheses were tested using three-way ANOVA with simple-effects decomposition. Findings: Personality orientation significantly moderated the review type–helpfulness relationship ($F(1, 586) = 14.67$, $p < 0.0001$), and this moderation was itself qualified by product type (three-way interaction: $F(1, 586) = 24.23$, $p < 0.0001$). When the review type was congruent with the product context, personality-mismatched readers—hedonic consumers reading utilitarian reviews and utilitarian consumers reading hedonic reviews—reported the highest helpfulness, whereas reviews that mismatched both the product and the reader received the lowest helpfulness ratings. Implications and originality: The results indicate that review helpfulness is an emergent property of the review–reader–product configuration rather than of review text alone, providing e-commerce platforms with a basis for orientation-aware review ranking, solicitation, and page design.

Keywords: review helpfulness; hedonic product; utilitarian product; hedonic personality; utilitarian personality; online customer review; e-commerce

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1. Introduction

Online customer reviews (OCRs) have emerged as one of the most consequential features of contemporary e-commerce environments, granting prospective purchasers' direct access to experiential knowledge accumulated by prior buyers [1]. Consumers increasingly document their product interactions and assessments through e-commerce review platforms such as Amazon, Yelp, and TripAdvisor, transforming these portals into critical

touchpoints along the digital purchase journey. These user-generated evaluations supply potential buyers with an expansive base of product-related knowledge and have effectively become a modern incarnation of electronic word-of-mouth (eWOM) for the contemporary digital consumer [2,3]. The strategic value of OCRs for online retailers is well established: they reduce information asymmetry between sellers and buyers, and platforms with rich, credible OCR ecosystems consistently report higher conversion rates and stronger customer loyalty [4]. Nonetheless, the sheer proliferation of online reviews associated with any single product on e-commerce sites may induce information overload, making it arduous for online shoppers to distinguish genuinely valuable OCR content [5–7]. This concern was similarly articulated by Liu et al. [8]. To address this issue, many digital commerce platforms have instituted mechanisms that aid consumers in filtering through OCRs and recognizing high-quality contributions. Amazon.com was a forerunner in introducing a feedback mechanism that invites readers to assess the helpfulness of individual OCRs [9]. Online customer review helpfulness is operationally defined as the proportion of affirmative votes relative to total votes submitted by readers on e-commerce platforms, thereby establishing a practical measure of informational value within digital retail ecosystems. For terminological consistency, the focal construct of this study is hereafter referred to exclusively as perceived OCR helpfulness, defined as the extent to which a consumer perceives an online customer review to facilitate their purchase decision [10]. Where the terms "usefulness" or "utility" appear in connection with the prior literature, they denote this same underlying construct; the term "helpfulness" is used consistently throughout the remainder of the manuscript when referring to the dependent variable. Conceptually, the two notions are distinguishable: usefulness (or utility) denotes the general informational value of a review, whereas helpfulness refers specifically to the reader's perception that the review facilitates their purchase decision, which is the construct measured in this study. This definition is aligned with the measurement instrument (readers' five-point helpfulness ratings of the presented reviews) and with the analyses, in which these ratings serve as the sole dependent variable.

Perceived OCR helpfulness constitutes a pivotal informational attribute that empowers online consumers to make discerning, evidence-based purchase decisions on e-commerce platforms [10]. E-commerce environments featuring OCRs with elevated helpfulness ratings deliver substantive guidance to shoppers and tend to foster stronger consumer engagement, ultimately translating into higher levels of satisfaction [11,12]. Online customer reviews act as an informational conduit linking those who have already experienced a product with those still deliberating over a purchase in digital retail settings. The emotions expressed within OCRs, whether positive arousal or measured calm, have also been shown to differentially affect perceived OCR helpfulness depending on the cultural and product context of the e-commerce platform [13]. Within marketing discourse, the communicative function of OCRs acquires special relevance in the context of hedonic and utilitarian consumption orientations [14,15]. Earlier research [16,17] corroborates that both hedonic and utilitarian dimensions wield significant sway over e-commerce consumption drivers. Shoppers engaged in hedonic online purchasing tend to rely on social media platforms and product pages, whereas OCRs carry comparatively greater influence in utilitarian purchase scenarios on e-commerce platforms [18].

Hedonic consumption encompasses affective engagement, emotional arousal, imaginative fantasy, sensory pleasure, and the desire for amusement [19–23]. Earlier findings [24–26] demonstrate that consumers view entertainment-oriented digital media as especially relevant sources of information when making hedonic purchase decisions on e-commerce platforms. By contrast, utilitarian consumption is rationality-driven, shaped by cognitive processes, and fundamentally purpose-oriented [27,28]. Language constitutes the

principal medium through which communication in OCRs is transmitted. Luna et al. [29] showed that linguistic cues profoundly influence consumers' attitudes and perceptions regarding online commerce. More specifically, language modulates recipients' emotional states and affective moods in the context of OCRs posted on e-commerce platforms [30–32]. Kronrod et al. [14] further found that assertive forms of expression resonate more strongly with hedonic characteristics in online review communication [33]. Building on this foundation, the current investigation seeks to categorize OCRs posted on e-commerce platforms into hedonic and utilitarian types.

The prior literature has largely concentrated on how OCRs affect purchasing behavior and commercial performance in e-commerce settings [34–36]. Comparatively little scholarly effort has been directed at differentiating OCR categories and understanding how these distinctions shape perceived online review helpfulness. A central aim of the current study is to address this lacuna by probing the relationship between OCR type and OCR helpfulness on e-commerce platforms. In parallel, the investigation turns its focus toward consumer personality, which reflects the stable dispositional characteristics governing how individuals engage with digital retail environments. Alongside cognitive orientations, consumer personality exerts a meaningful influence on online buying behavior [37,38]. Although prior research has centered on the Big Five personality dimensions and their role in prompting consumers to author OCRs [39,40], the present study reframes personality in terms of hedonic and utilitarian orientations and investigates their moderating roles in shaping the perceived helpfulness of OCRs on e-commerce platforms.

2. Literature Review

2.1. Hedonic and Utilitarian Types of Online Customer Reviews

The categorization of OCRs as hedonic or utilitarian carries material consequences for how e-commerce shoppers assess their helpfulness. An online customer review can be deemed high quality when a reader assigns it a positive rating and considers it either pleasurable or functionally informative [41]. To illustrate: imagine two OCRs posted on an e-commerce platform, both awarded five stars, one reading, "I absolutely love this product; it is incredible," and another stating, "This product is genuinely functional and remarkably easy to use." Although both convey favorable impressions, the first exhibits emotional investment, hallmarks of a hedonic OCR, whereas the second stresses practical utility, making it a utilitarian online review. Ham et al. [42] similarly observed that the helpfulness assigned to a single OCR may vary substantially across readers due to differences in individual interpretive perspectives. The inherently divergent characteristics of these two OCR types suggest that e-commerce shoppers may assess and engage with them in quite different ways. Recent scholarship confirms that the linguistic style and rhetorical form of OCRs—whether analytical or emotional—significantly affects how helpful those online reviews are perceived to be by readers on e-commerce platforms [10]. Recent large-scale syntheses reinforce this view: meta-analytic evidence confirms the substantial influence of electronic word-of-mouth characteristics on consumer responses [43], and a systematic review of the online-review literature highlights the classification of review content as a central and still-developing research stream [44].

Heilman [45] and Lenski and Großschedl [46] suggested that elevated arousal states are linked to activation-oriented emotions such as excitement, whereas diminished arousal corresponds to experiences of calm, monotony, or low energy. Feelings of excitement may prompt action-oriented responses in individuals, thereby influencing their behavioral patterns in online shopping environments [47–49]. OCRs composed in emotionally expressive—or hedonic—language may be interpreted by e-commerce shoppers as authentic reflections of the reviewer's inner experience, potentially strengthening their credibility

and perceived truthfulness, and by extension boosting their perceived helpfulness on digital retail platforms [50–52]. The emotional tone of OCRs—including positive arousal emotions such as excitement—has been empirically shown to influence perceived online review helpfulness, with cultural context moderating these effects across different e-commerce markets [13]. Work by Namvar and Chua [52] specifically demonstrated that contextual cues embedded in OCR text significantly shape how helpful those reviews are perceived to be on e-commerce platforms. Conversely, factual or information-dense OCR writing frequently lacks the affective resonance found in personal storytelling, which may reduce its perceived appeal among certain consumer segments navigating e-commerce platforms [48,53]. Accordingly, it is anticipated that OCR type meaningfully moderates the degree to which an online customer review is regarded as helpful. Emerging evidence further shows that the visual and multimedia elements included in OCRs—such as images and videos—also modulate perceived online review helpfulness, particularly for hedonic product categories on e-commerce platforms [54,55]. Notably, prior studies further suggest that the persuasive impact of hedonic versus utilitarian review language is not uniform across offerings but varies with the nature of the product being reviewed [16], foreshadowing the product-contingent, three-way perspective developed in Section 2.2.

2.2. Hedonic and Utilitarian Types of Personality

Human beings differ not only in physical characteristics but also in the structure and configuration of their personalities, and these differences manifest clearly in how consumers interact with e-commerce platforms and interpret OCRs. Various theoretical frameworks enable the classification of personality types, each contingent on an individual's underlying cognitive tendencies. Among these, the Big Five personality taxonomy has attracted the broadest empirical attention [56]. Against this backdrop, the present paper examines personality through a different conceptual lens. The online purchasing choices individuals make—what they buy, how they buy it, and when—are substantially influenced by their personality traits [57,58]. Drawing on the insights of Bhatnagar and Ghose [59] and Li et al. [16], those who prioritize convenience, product variety, quality, and value-for-money considerations in their e-commerce activities may be characterized as utilitarian consumers. In contrast, those primarily driven by emotional satisfaction and the desire for pleasurable online shopping experiences tend to be classified as hedonic consumers [60].

Individuals who approach online purchase decision-making rationally tend to assess the functional value of a product, with attention directed toward concrete, performance-related benefits [61]. Holbrook and Hirschman [61] further noted that hedonic forms of consumption are accompanied by emotional stimulation and personally meaningful experiential responses in digital retail contexts [62]. Batra and Ahtola [63] proposed that consumers simultaneously hold both hedonic and utilitarian attitudinal dispositions in e-commerce contexts [64]. Hopkinson and Davashish [65] illuminated the attitudes and levels of involvement that characterize hedonic and utilitarian consumption styles, providing a conceptual foundation for distinguishing hedonic and utilitarian buyer profiles in online marketplaces [66]. Work by Voss, Spangenberg, and Grohmann [67] confirmed that online shoppers simultaneously hold hedonic and utilitarian attitudes, with emotional engagement defining the hedonic dimension and functional experience representing the utilitarian one [17]. Wolfinbarger and Gilly [68] further argued that online consumer buying orientations can be divided into two overarching categories: utilitarian and hedonic [16]. Recent cross-cultural research confirms that these dual motivations differentially shape satisfaction, repurchase intention, and eWOM behavior across diverse e-commerce markets, underlining the relevance of personality orientation for OCR-driven consumer journeys [69].

A note on conceptualization is warranted at this point. The terms hedonic personality and utilitarian personality, as employed in this study, do not refer to broad, decontextualized trait taxonomies such as the Big Five [56]. Rather, they denote stable, trait-like consumer dispositions—chronic hedonic or utilitarian shopping orientations—that individuals carry across consumption situations. This conceptualization follows a long-standing research tradition holding that, although hedonic and utilitarian shopping value was originally articulated as an episode-level perception [70], the corresponding orientations operate as enduring individual-difference variables: consumers display consistent, cross-situational tendencies to approach shopping either as an intrinsically enjoyable, experientially rewarding activity or as a goal-directed, efficiency-driven task [59,68,71]. Because these orientations are (a) temporally stable across shopping episodes, (b) consistent across product categories and retail channels, and (c) predictive of characteristic patterns of information processing and choice, they satisfy the defining criteria of dispositional, trait-like constructs and may legitimately be treated as personality orientations within consumer research [37,57,58]. Accordingly, the measurement items adapted from Babin, Darden, and Griffin [70] were reworded to capture respondents' general and enduring tendencies toward shopping rather than their evaluation of any single shopping episode (see Section 3.3) and we explicitly acknowledge that they are conceptually distinct from global personality inventories such as the Big Five.

Individuals characterized by utilitarian personality traits engage in purposeful, objective-oriented online buying, systematically assessing product features through rational, deliberative thinking [71,72]. Rather than pursuing enjoyment through the act of e-commerce shopping, these consumers prioritize product efficiency and practical attributes, applying pragmatic reasoning before finalizing a purchase. For utilitarian shoppers, online retail represents an expedient and effective means of satisfying their needs with minimum effort [71,73]. Monsuwe et al. [74] noted that consumers with hedonic personality orientations do not limit their engagement to OCR information retrieval; instead, they actively seek pleasure and stimulation as inherent components of the online shopping process [60]. Wolfinbarger and Gilly [68] emphasized that hedonic shoppers are inclined to invest themselves in the experiential aspects of e-commerce browsing rather than concentrating solely on task completion. Sorce, Perotti, and Widrick [75] suggested that medium characteristics serve as facilitators of positive emotional experiences among hedonic-type consumers navigating digital retail environments. Those with hedonic personalities gravitate toward e-commerce settings that are aesthetically engaging, visually rich, and thoughtfully designed [75–77]. Recent empirical work demonstrates that Gen Z consumers—now among the most digitally active segments on e-commerce platforms—are similarly motivated by both hedonic and utilitarian orientations, with these personality-driven motivations shaping how they search, evaluate OCRs, and ultimately complete purchases on digital retail platforms [78]. It follows that the language and substantive content of OCRs are likely to be pivotal in shaping perceived helpfulness, depending on the personality orientation of the e-commerce reader. Accordingly, shopper personality, whether hedonic or utilitarian—is anticipated to serve as a significant moderator of OCR helpfulness [79].

Grounded in the theoretical frameworks of Mandler [80] and Heckler and Childers [81], prior work has indicated that moderate incongruence between what a stimulus leads one to expect and what is actually encountered produces impressions of novelty and uniqueness [82]. When a partial mismatch is present—such as when utilitarian products are communicated via hedonic value messaging in OCRs posted on e-commerce platforms, or when hedonic products are described through utilitarian review appeals—online consumers often respond positively, as encountering unanticipated product dimensions can be a source of satisfaction. Gill [83] and Li et al. [16] contended that embedding hedonic

properties within utilitarian products delivers greater perceived value than the converse in online purchase contexts. The present investigation therefore explores whether incongruence between OCR type (hedonic vs. utilitarian) and consumer personality type (hedonic vs. utilitarian) heightens perceptions of online review helpfulness on e-commerce platforms. On the basis of the foregoing literature, the conceptual research model was drawn (Figure 1) and research hypotheses are developed: Two complementary theoretical mechanisms explain why such incongruence should elevate perceived OCR helpfulness. The first is an information-redundancy, or diagnosticity, mechanism. A consumer's chronic orientation functions as an interpretive lens that pre-filters product information: hedonically oriented consumers habitually attend to, and can spontaneously self-generate, experiential and affective product inferences, whereas utilitarian consumers habitually attend to functional and performance-related inferences. A review whose content mirrors the reader's own orientation therefore largely duplicates knowledge the reader already possesses or can readily infer, contributing little incremental diagnostic value. A mismatched review, by contrast, supplies complementary, non-redundant information that fills the reader's characteristic informational blind spot; because information that resolves residual uncertainty is judged more diagnostic for the purchase decision, such reviews should be perceived as more helpful [52,82]. The second mechanism derives from schema-incongruity theory [80,81]: message content that moderately deviates from the reader's expectation schema stimulates deeper cognitive elaboration, and this heightened processing increases the perceived informativeness of the message, provided the incongruity can be successfully resolved. A hedonic (utilitarian) review encountered by a utilitarian (hedonic) reader constitutes precisely such a moderate—rather than extreme—schema deviation; resolution is therefore attainable, and the elaboration it triggers should translate into higher helpfulness judgments. Jointly, these mechanisms predict a crossover (mismatch) pattern in which neither review type is universally superior; instead, perceived helpfulness depends on the complementarity between review content and reader disposition. In formal terms, the proposed model follows the classic moderation framework of Baron and Kenny [84], in which a moderator variable alters the strength and/or direction of the relationship between an independent variable and an outcome. Here, consumer personality orientation is posited as the moderator that conditions the effect of OCR type on perceived OCR helpfulness; statistically, this hypothesis corresponds to the OCR Type × Personality Type interaction term tested in Section 4.2, and the product-type qualification corresponds to the three-way interaction, which is formalized below as Hypothesis 3 (H3).

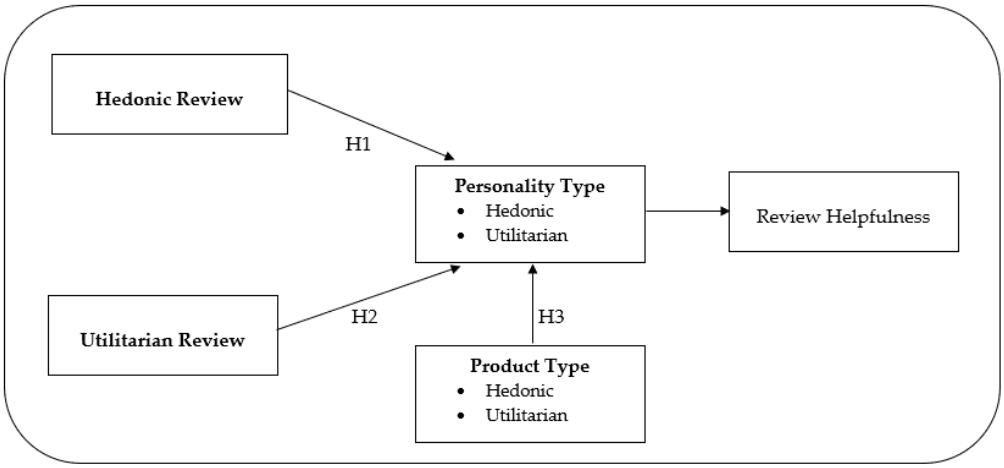


Figure 1. Research Model.

A well-established body of scholarly work indicates that e-commerce consumption activities may be driven by either hedonic or utilitarian motivations [25,61]. Hedonic products are predominantly sought for the sensory pleasure, experiential enjoyment, and emotional satisfaction they afford [62,85], whereas utilitarian products offer functional value and are typically selected through a deliberate, rationality-driven evaluation process that yields cognitively grounded benefits. Evidence from recent e-commerce studies further confirms that both hedonic and utilitarian values positively influence consumer satisfaction, trust, and repurchase intention on digital retail platforms, underscoring the importance of understanding how these orientations interact with OCR content [86].

The product context, however, is not merely a backdrop against which online reviews are read; it defines which category of information is decision-critical. For a predominantly utilitarian product, functional performance constitutes the pivotal purchase criterion, so attribute-focused review content forms the decision-relevant informational core; for a predominantly hedonic product, experiential quality is pivotal, and affect-laden review content assumes that role [16,25,61,62,83,85]. Integrating this insight with the complementarity mechanism developed above yields a clear expectation about how product type should condition the personality-based mismatch effect. When a review is congruent with the product's dominant consumption nature—a utilitarian review of a utilitarian product, or a hedonic review of a hedonic product—its content carries the information on which the purchase decision ultimately turns; readers whose dispositional orientation differs from that content style should benefit from it most, because they are least able to generate such inferences themselves. Conversely, when a review is incongruent with the product's dominant nature, its content is peripheral to the focal decision, and extracting value from peripheral content should require dispositional fluency with that style of information, implying that orientation-congruent readers will value it relatively more. The personality-based mismatch effect predicted in H1 and H2 is therefore expected to be conditional on the congruence between review type and product type, producing a three-way interaction among OCR type, personality type, and product type. Formally:

H1. *Individuals with a hedonic personality orientation will perceive utilitarian-type OCRs as more helpful than individuals with a utilitarian personality orientation will; that is, the incongruence between a hedonic personality and a utilitarian review type enhances perceived OCR helpfulness on e-commerce platforms.*

H2. *Individuals with a utilitarian personality orientation will perceive hedonic-type OCRs as more helpful than individuals with a hedonic personality orientation will; that is, the incongruence between a utilitarian personality and a hedonic review type enhances perceived OCR helpfulness on e-commerce platforms.*

H3. *Product type moderates the interaction between OCR type and personality type predicted in H1 and H2, such that the personality-mismatch effect on perceived OCR helpfulness emerges when the review type is congruent with the product's dominant consumption nature (utilitarian reviews of utilitarian products; hedonic reviews of hedonic products) and is attenuated or reversed when the review type is incongruent with the product type.*

3. Methods

3.1. Participants and Study Design

The experimental questionnaire was administered to a total of 598 individuals. Data obtained from these participants were organized within a 2 (OCR Type: Hedonic vs. Utilitarian) × 2 (Personality Type: Hedonic vs. Utilitarian) × 2 (Product Type: Hedonic vs. Utilitarian)

fully crossed factorial experimental design and SPSS 27 was used to analyze the data. Of the 598 completed responses, 12 were discarded on account of incomplete data or missing values, resulting in a final working sample of 586 participants. The majority were business undergraduates drawn from a sizable public university in South Korea. Each respondent was asked to complete a one-page survey questionnaire together with a supplementary page that presented two distinct OCRs for both hedonic and utilitarian product categories, simulating the experience of browsing online customer reviews on a live e-commerce platform. They were directed to read both OCRs, evaluate them critically, and report their perceived helpfulness. This sampling frame was chosen deliberately: student samples are homogeneous in age, education, and digital fluency, which reduces extraneous error variance and is therefore well suited to theory-testing experiments concerned with the existence and direction of interaction effects rather than with population point estimates. At the same time, this choice constrains external validity; the implications for generalizability are acknowledged and discussed in Section 5.2.

3.2. Experimental Manipulations

This study employed two types of independent variables: utilitarian-type online customer reviews and hedonic-type online customer reviews. The moderating variables were utilitarian personality and hedonic personality. Within a "personal use" product category—one capable of taking on either hedonic or utilitarian characteristics in e-commerce contexts—"bar soap" was designated as the representative utilitarian product and "perfume" as the representative hedonic product. The review stimuli themselves were constructed in accordance with established linguistic criteria that differentiate hedonic from utilitarian message appeals [14,29]. The hedonic-type OCR was written in emotionally expressive, experiential language emphasizing pleasure, sensory impressions, and affective reactions, whereas the utilitarian-type OCR employed factual, attribute-focused language emphasizing functionality, performance, and ease of use. The two versions were matched as closely as possible in length, valence (uniformly positive), and accompanying star rating, so that any difference in perceived helpfulness could be attributed to review type rather than to extraneous review characteristics. Constructed (simulated) reviews were used in preference to real reviews for reasons of experimental control: authentic reviews harvested from live platforms vary simultaneously in length, valence, star rating, reviewer identity, writing quality, and posting context, any of which could confound the review-type manipulation. Purpose-built stimuli allow these extraneous characteristics to be held constant across conditions, so that observed differences in perceived helpfulness are attributable to review type alone. The realism of the constructed stimuli was nevertheless verified empirically through the plausibility check reported in Section 4.1 ($M = 5.92$ on a seven-point scale), indicating that participants regarded the reviews as credible examples of genuine e-commerce content.

For the utilitarian product scenario, respondents were prompted to envision themselves planning to purchase bar soap through an e-commerce channel. They were shown two OCRs (Figure 2) and asked to determine which one they found more useful, then to quantify the degree of helpfulness on a scale from 1 (least helpful) to 5 (extremely helpful). Respondents were not told which OCR was hedonic and which was utilitarian in nature. A comparable procedure was followed for the hedonic product scenario (perfume), in which respondents assessed two OCRs—one hedonic and one utilitarian—drawn from a simulated e-commerce review page and reported their relative perceived helpfulness (Figure 3).

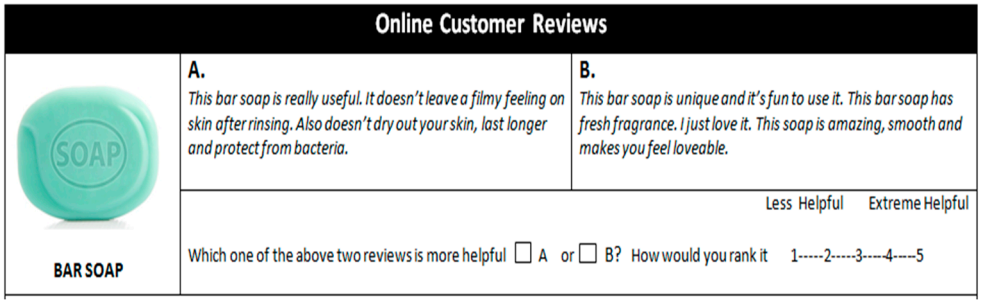


Figure 2. Utilitarian product with hedonic and utilitarian reviews.

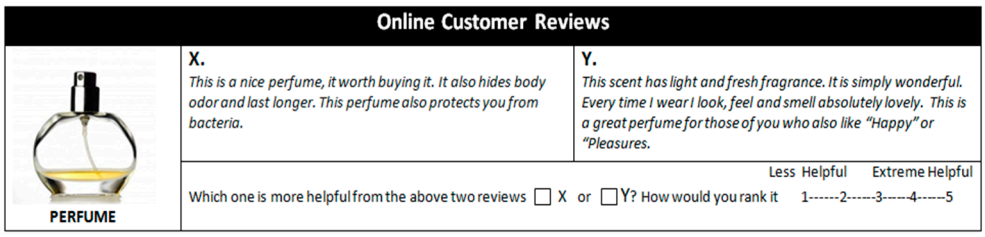


Figure 3. Hedonic product with hedonic and utilitarian reviews.

3.3. Measures and Scale Development

The independent variables—hedonic-type and utilitarian-type online customer reviews—were operationalized and assessed through a structured survey instrument (Figures 2 and 3). Measurement items for the moderating variables were adapted from Babin, Darden, and Griffin [70] to capture respondents' hedonic and utilitarian personality orientations as they relate to online shopping and e-commerce behavior, as presented in Table 1. The choice of this source instrument merits elaboration. Babin, Darden, and Griffin [70] developed and validated the hedonic and utilitarian shopping value scale through a multi-stage psychometric procedure, and it has since become one of the most widely applied instruments for capturing the dual hedonic–utilitarian structure of consumer motivation, demonstrating robust reliability across retail formats, cultures, and online channels [16,68,86]. Consistent with the trait-like conceptualization set out in Section 2.2, the items were adapted to refer to respondents' general and enduring tendencies toward shopping rather than to a single shopping episode.

Table 1. Survey Items for Hedonic and Utilitarian Personality.

Orientation	Survey Questions	Source
Hedonic Personality	While shopping, I experience a strong sense of pleasure and enjoyment. Shopping allows me to temporarily set aside my everyday concerns. I genuinely enjoy time spent on shopping activities. I engage in shopping because I find it personally fulfilling, not merely out of necessity. I derive enjoyment from shopping beyond just acquiring the items I need.	Babin, Darden, and Griffin (1994) [70]
Utilitarian Personality	During shopping trips, I tend to purchase precisely what I originally intended to buy. When I shop, I am generally successful in locating the specific items I am seeking. My shopping trips are typically completed in an efficient and timely manner. I prefer to complete my shopping with the least amount of time and inconvenience possible.	Babin, Darden, and Griffin (1994) [70]

3.4. Dependent Variables

Online customer review helpfulness served as the dependent variable in this research, measured in a manner consistent with Amazon.com's established approach to OCR evaluation. On the Amazon e-commerce platform, users are invited to judge the helpfulness of OCRs by responding to the question "Was this review helpful?" with a simple "Yes" or "No" answer. In the experimental context of this study, two distinct OCR types were constructed to simulate authentic e-commerce reviews, and participants were prompted to answer: "Of the two online customer reviews presented above (X or Y), which do you find more helpful, and to what degree?" (Figures 2 and 3). Responses were captured via five-point Likert scales designed to measure perceived OCR helpfulness on e-commerce platforms. A note on response formats: the focal constructs—the personality orientation measures and the helpfulness ratings—employed five-point scales, consistent with the format of the original source instrument [70] and with the simple comparative judgment task presented to respondents. The manipulation and realism checks, by contrast, employed seven-point scales to afford finer discrimination when validating the stimuli, in line with common practice in experimental consumer research. Because the five-point and seven-point measures enter entirely separate analyses and are never compared directly, the difference in scale length has no bearing on the hypothesis tests.

4. Results

4.1. Manipulation Checks

The manipulation checks required participants to assess the degree to which bar soap was perceived as a utilitarian product and perfume as a hedonic product, as they would typically be encountered and reviewed on an e-commerce platform. These assessments were made on a seven-point Likert scale. Outcomes confirmed that bar soap (the utilitarian product) was rated markedly higher in utilitarian character than perfume (the hedonic product) ($M = 5.74$ vs. $M = 5.32$; $t = 5.03$, $p < 0.001$). Perfume, conversely, scored significantly higher in hedonic character relative to bar soap ($M = 5.42$ vs. $M = 4.81$; $t = 5.12$, $p < 0.001$). Respondents were further asked to assess whether the OCRs presented—both hedonic and utilitarian versions—seemed realistic enough to appear on a genuine e-commerce platform. There was broad agreement that both types of online reviews were credible, yielding a mean plausibility rating of 5.92 on the seven-point scale with a standard deviation of 1.32. In addition to the product-type check, review types was well defined in earlier research paper published by Islam. M. et al. [48] in Journal of Global Information Management.

Personality Type Assessment: Hedonic personality was assessed using five five-point scale items, while utilitarian personality was evaluated through four five-point items. Acceptable levels of internal reliability were achieved for both constructs, as indicated by Cronbach's alpha coefficients: hedonic personality ($\alpha = 0.709$) and utilitarian personality ($\alpha = 0.704$) (Table 2, Figures 4 and 5).

Classification of respondents into personality groups: For each respondent, composite scores were computed by averaging the five hedonic-orientation items and the four utilitarian-orientation items, respectively. Because the two composites were based on unequal numbers of items, both scores were standardized (z-transformed) prior to classification. Each respondent was then assigned to the personality group corresponding to their relatively higher standardized composite score: respondents whose standardized hedonic score exceeded their standardized utilitarian score were classified as hedonic-personality consumers, and respondents whose standardized utilitarian score was higher were classified as utilitarian-personality consumers. This relative-score procedure was preferred over independent median splits because it preserves the theoretically grounded assumption that consumers hold both orientations simultaneously [63,67].

Table 2. Reliability Analysis and Factor Loadings.

Orientation	Survey Items	Factor Loading	Cronbach's α
Hedonic Personality	While shopping, I feel a sense of enjoyment.	0.807	0.709
	While shopping I am able to forget my problems.	0.713	
	Spending time on shopping is truly enjoyable.	0.758	
	I continue to shop not because I had to but because I want to.	0.756	
	I enjoy shopping beyond just the items I needed to purchase.	0.746	
Utilitarian Personality	When shopping, I generally buy what I wanted to buy.	0.736	0.704
	While purchasing, I generally find items I am looking for.	0.704	
	When shopping, I normally finish the trip rapidly.	0.861	
	I like to get in and out with a minimum amount of time wasted.	0.725	

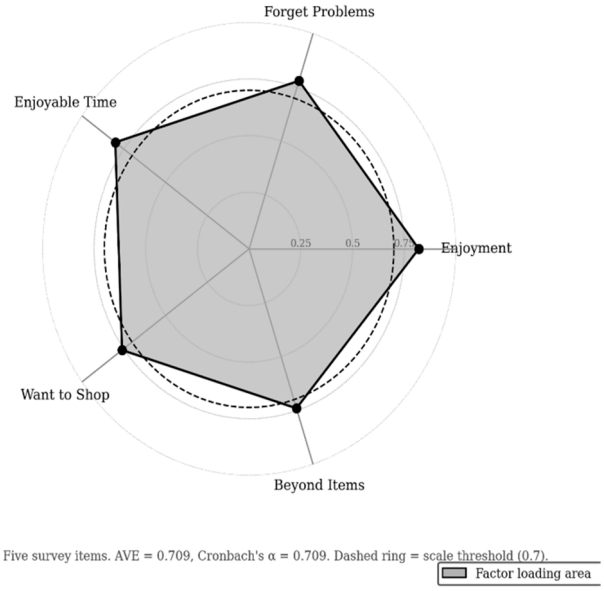


Figure 4. Factor loading: Hedonic personality scale.

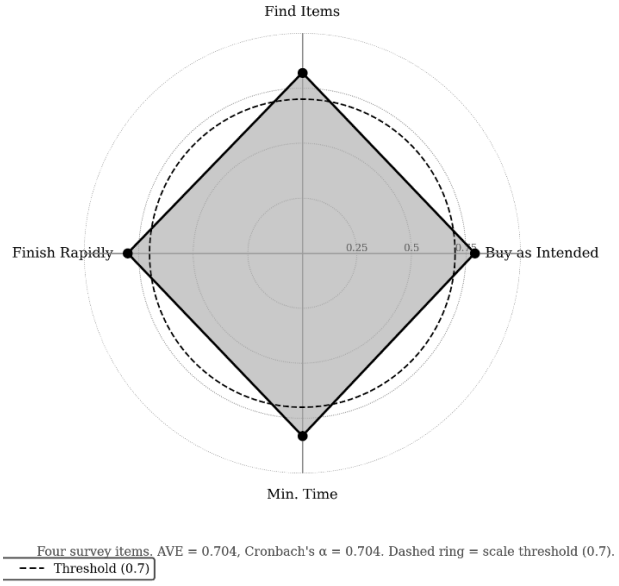


Figure 5. Factor Loading: Utilitarian personality scale.

4.2. Hypotheses Testing

Analytical procedure: The hypotheses were tested by means of a 2 (OCR type: hedonic vs. utilitarian) × 2 (product type: hedonic vs. utilitarian) × 2 (personality type: hedonic vs. utilitarian) mixed-design factorial ANOVA, in which OCR type and product type were within-subject factors (each respondent evaluated both review types for both products) and personality type was a between-subjects factor derived from the classification procedure described in Section 4.1. Perceived OCR helpfulness served as the dependent variable. Significant interaction effects were decomposed through simple-effects analyses that compared helpfulness means across personality groups within each OCR type × product type cell, with the alpha level set at 0.05.

The results of the three-way ANOVA confirm that the perceived helpfulness of online customer reviews (OCRs) is significantly driven by the interaction between review type and consumer personality. Central to the study's hypothesis, the data supports the "mismatch" effect, where consumers find reviews more helpful when the review type deviates from their own personality orientation. Specifically, for utilitarian products, consumers with a hedonic personality rated utilitarian OCRs as significantly more helpful (M = 3.361) than did consumers with a matching utilitarian personality (M = 3.138). A similar trend is observed in the context of hedonic products, where utilitarian personalities reported higher helpfulness for hedonic OCRs (M = 2.944) compared to their hedonic personality counterparts (M = 2.694). These findings, supported by a highly significant interaction between OCR Type and Personality Type ($F(1, 586) = 14.67$, $p < 0.0001$), suggest that a mismatch provides a "compensatory" information source that consumers value more highly than a review that merely mirrors their own cognitive style. Descriptive statistics and ANOVA output for OCR helpfulness by online review type and personality type are reported in Table 3 and Figure 6.

Table 3. Online Customer Review Type and Perceived OCR Helpfulness (Descriptive Statistics and ANOVA).

OCR Type	Product Type	Personality Type	Helpfulness Mean
Utilitarian OCR	Utilitarian	Utilitarian	3.138
		Hedonic	3.361
	Hedonic	Utilitarian	2.954
		Hedonic	2.571
Hedonic OCR	Utilitarian	Utilitarian	2.850
		Hedonic	3.052
	Hedonic	Utilitarian	2.944
		Hedonic	2.694

ANOVA (Within-Subject Effects)	df	MS	F	*p*-value
OCR Type	1	11.39	11.62	<0.001
Personality Type	1	3.21	3.28	0.070
Product Type	1	4.17	4.26	<0.05
OCR Type × Personality Type	1	14.38	14.67	<0.0001
OCR Type × Product Type	1	16.34	16.67	<0.001
OCR Type × Personality Type × Product Type	1	23.75	24.23	<0.0001
Error	586	0.98		

$R^2 = 0.137$.

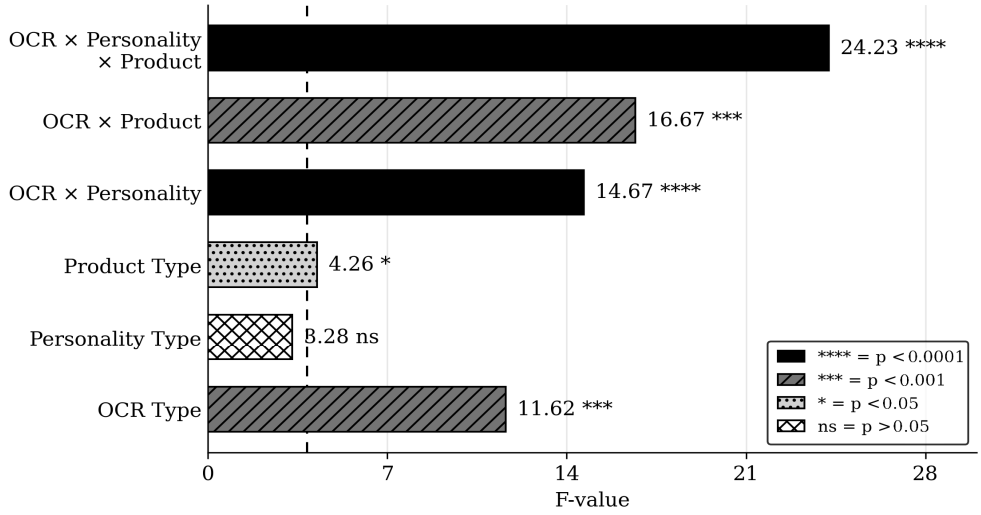


Figure 6. ANOVA F-Values by effect [within subject effect].

To test H1 and H2, the interaction between OCR type and personality type was examined. Results revealed a statistically significant interaction between online review type and personality type on OCR helpfulness ($F(1568) = 14.67$, $p < 0.0001$). Product type further moderated this interaction (OCR Type × Product Type × Personality Type: $F(1568) = 24.23$, $p < 0.0001$). This three-way effect corresponds directly to the prediction advanced in H3. Two methodological clarifications are warranted. First, the model explains 13.7% of the variance in helpfulness ratings ($R^2 = 0.137$). While modest in absolute terms, this magnitude is typical of single-exposure experimental studies of perceptual judgments, in which substantial idiosyncratic variance across individuals is expected; the purpose of the design is theory testing—establishing the existence, direction, and boundary conditions of the hypothesized interactions—rather than maximizing explained variance, and the focal interaction terms are highly significant and consistent in pattern. Second, the factorial ANOVA framework was retained as the primary analytical strategy because it is the canonical and most direct test for fully crossed experimental designs with categorical factors: in such designs the moderation hypothesis corresponds exactly to the interaction term [84], and ANOVA is mathematically equivalent to a moderated regression with effect-coded categorical predictors, so a regression specification would yield identical conclusions. Complementary analytical extensions—continuous operationalization of the orientations and qualitative triangulation—are outlined in Section 5.2 as avenues for future verification.

Simple-effects analyses decomposing the significant three-way interaction clarify how the personality-mismatch effect operates across product contexts (Table 3). When the review type was congruent with the product type, the across-personality mismatch effect predicted by H1 and H2 emerged clearly: utilitarian OCRs paired with the utilitarian product were rated as more helpful by hedonic-personality readers than by utilitarian-personality readers ($M = 3.361$ vs. $M = 3.138$), and hedonic OCRs paired with the hedonic product were rated as more helpful by utilitarian-personality readers than by hedonic-personality readers ($M = 2.944$ vs. $M = 2.694$). When the review type was incongruent with the product type, however, this across-personality pattern reversed: utilitarian OCRs for the hedonic product were rated higher by utilitarian-personality readers ($M = 2.954$ vs. $M = 2.571$), and hedonic OCRs for the utilitarian product were rated higher by hedonic-personality readers ($M = 3.052$ vs. $M = 2.850$). Notably, the lowest helpfulness ratings in the entire design occurred in the two cells of double incongruence, in which the review type mismatched both the product context and the reader's own orientation ($M = 2.571$ and $M = 2.850$). Taken together, these results support H1 and H2 in the theoretically focal, product-congruent con-

ditions while revealing that the mismatch premium is bounded by the congruence between review type and product type, as captured by the significant OCR Type × Personality Type × Product Type interaction. The crossover form of the interaction is depicted in Figure 7. Taken together, these patterns provide direct empirical support for H3.

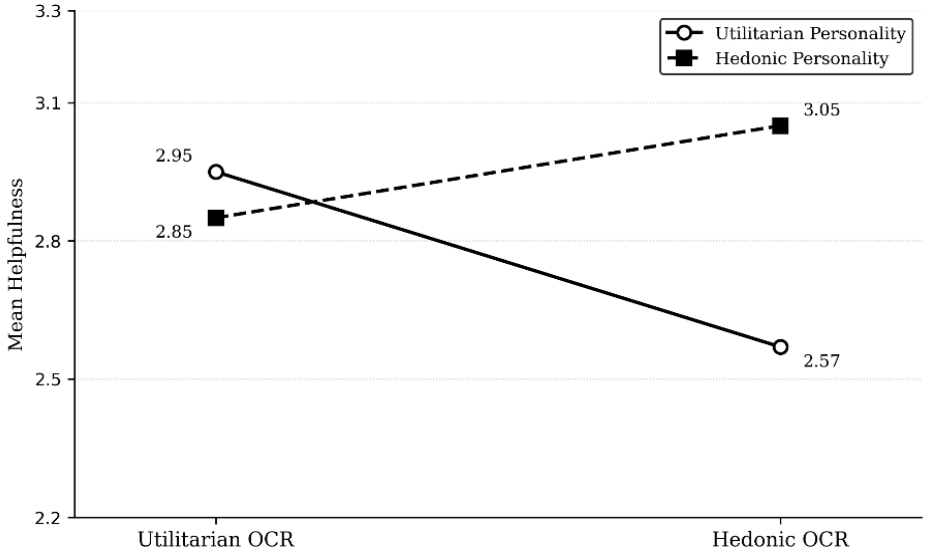


Figure 7. Interaction effect of OCR Type and Personality Type.

5. Discussion

The research outcomes indicate that individuals with utilitarian personality characteristics perceive OCRs as more informative and helpful when the online review itself is hedonic in nature. In parallel, individuals oriented toward a hedonic personality tend to assign greater helpfulness to OCRs that are utilitarian in character. Furthermore, the data reveals that utilitarian personality consumers derive limited value from utilitarian-type OCRs, while hedonic personality consumers similarly show little notable interaction with hedonic online review helpfulness. As elaborated below, and consistent with the three-way interaction, this mismatch pattern is not unconditional: it is qualified by the type of product to which the review refers.

This study therefore concludes that a mismatch—or incongruence—between OCR type and reader personality type amplifies perceived online customer review helpfulness on e-commerce platforms. This finding aligns with recent evidence demonstrating that the segmentation of online review readers based on heterogeneous personality and demographic attributes is critical for understanding the differential impact of OCR characteristics on e-commerce consumer behavior [4].

Why did the mismatch pattern emerge? The two-way interaction is most parsimoniously explained by the information-complementarity logic developed in Section 2.2. A consumer's chronic orientation acts as a lens that pre-filters product information: hedonic consumers spontaneously encode experiential benefits, and utilitarian consumers spontaneously encode functional benefits. A review that mirrors the reader's orientation therefore delivers largely redundant content, whereas a mismatched review supplies precisely the complementary information the reader is least able to self-generate, raising its incremental diagnostic value and, in turn, its perceived helpfulness. The crossover pattern displayed in Figure 7 is exactly the signature this mechanism predicts: neither review type is universally superior; rather, helpfulness depends on the complementarity between message content and reader disposition. The schema-incongruity account [80,81] converges on the same prediction, in that mismatched reviews provoke deeper elaboration, which is consistent with the higher helpfulness ratings observed in the incongruent cells.

The significant three-way interaction, predicted in H3, further qualifies this mechanism and constitutes, in our view, the most theoretically consequential finding of the study. The mismatch premium was conditional on the product context: the across-personality advantage of mismatched readers emerged when the review type was congruent with the product's dominant nature—utilitarian reviews of the utilitarian product and hedonic reviews of the hedonic product—whereas the pattern reversed when review type and product type were incongruent, and the lowest helpfulness ratings in the design occurred when a review mismatched both the product and the reader. This pattern suggests that product-congruent review content constitutes the decision-relevant informational core for a given product: for a functional product, functional review detail is what the purchase decision ultimately turns on, and for an experiential product, experiential review detail plays that role. Readers whose own orientation differs from that core content style benefit from it most, precisely because it conveys decision-critical information they are least able to generate for themselves—the complementarity mechanism developed in Section 2.2. By contrast, product-incongruent review content is peripheral to the focal decision; extracting value from such peripheral content appears to require dispositional fluency with that content style, which explains why it was appreciated relatively more by orientation-congruent readers. Theoretically, this refines the complementarity principle advanced above into a hierarchy: an OCR is judged most helpful when its content is relevant to the product's dominant consumption nature yet complementary to the reader's dispositional information style, and least helpful when it is complementary to neither the product nor the reader. For online review research, this reframes helpfulness from a property of the review text alone into an emergent property of the review–reader–product configuration, implying that models predicting helpfulness from textual features alone will systematically overlook reader- and context-dependent variance.

5.1. Theoretical and Practical Implications

From a broader e-commerce marketing perspective, the interplay between consumer personality and purchasing behavior has long been recognized by digital retailers, which is precisely why brand identities on e-commerce platforms are constructed to project distinct personality characteristics. It is widely understood among e-commerce marketers that personality exerts a substantial influence over what people choose to purchase online, and this tendency toward self-expression through consumption is clearly evident across digital retail environments. Li et al. [16] support this view, demonstrating that hedonic and utilitarian frameworks offer richer insights into consumer purchase perceptions in online settings [87]. E-commerce shoppers are motivated not solely by functional need but also by a drive toward self-consistency. Consequently, when online retailers present their products on digital platforms, they tend to highlight all functionally appealing and relevant product attributes. For utilitarian products in particular, e-commerce sellers and marketers typically foreground utilitarian attributes in product descriptions to resonate with consumers whose personalities align with those characteristics. In turn, a consumer seeking a utilitarian product can already access the relevant functional information through the product description page on the e-commerce platform; when subsequently reading OCRs, that buyer naturally gravitates toward a qualitatively distinct type of online review content.

Ham et al. [42] previously established that OCRs incorporating high-quality, professionally written content tend to enhance the hedonic value derived from online reviews on digital retail platforms [88]. OCR helpfulness is elevated when a hedonic personality type encounters a utilitarian online review, and symmetrically when a utilitarian personality type reads a hedonic OCR. It is similarly intuitive that introducing hedonic attributes into a utilitarian product's e-commerce description—or the reverse—enriches the offering by

fulfilling an informational need that would otherwise remain unmet. This finding is further corroborated by evidence that both hedonic and utilitarian values embedded in e-commerce content positively influence consumer trust and satisfaction, reinforcing the behavioral relevance of these dual orientations in shaping OCR-driven purchase journeys on digital retail platforms [86]. Furthermore, recent longitudinal work on social commerce platforms confirms that these hedonic and utilitarian value dimensions jointly moderate consumer trust and online purchase intentions over time [79], pointing to the sustained theoretical and practical relevance of the personality–OCR helpfulness framework proposed in the present study.

From a practical standpoint, these insights translate into the following concrete recommendations for e-commerce platforms. E-commerce platforms can use these findings to improve management and personalization. First, companies can infer a consumer's dominant orientation using behavioral signals like browsing patterns, image dwell times, review language, and voting history, or via onboarding data. Second, platforms can update review-ranking algorithms to counter the mismatch effect rather than relying only on recency or vote counts. Platforms should surface reviews congruent with a product's nature but complementary to the reader's orientation. Automated classification of review text into hedonic and utilitarian types is technically feasible with contemporary natural language processing tools, making such personalization implementable at scale. Third, the same logic can inform review solicitation: prompting reviewers to articulate rich product-congruent content—functional detail for utilitarian products and experiential detail for hedonic products—while also inviting the complementary dimension would give platforms the content mix that serves readers of both orientations. Fourth, product-detail-page design can make the dominant, decision-relevant review content easy to locate for every visitor while offering clearly labeled access to the complementary review type for readers who seek it. Managers should, of course, validate these interventions through controlled A/B testing and conduct any orientation inference within prevailing privacy and data-protection regulations. Platforms can operationalize the mismatch effect via a three-step pilot. First, classify the review corpus into hedonic or utilitarian types using text-classification models trained on emotional versus attribute-focused language features. Second, infer and dynamically update visitor orientation from behavioral signals. Finally, A/B test this mismatch-aware, product-congruent ordering against the default system using success metrics like helpful-vote rate, conversion rate, and return rate. For retailers without personalization infrastructure, a feasible low-cost alternative is a static design rule derived directly from the present results: ensure that the top-ranked reviews for any product always foreground product-congruent content, and label review sections by content type (e.g., "functional performance" vs. "experience and feel") so that readers of either orientation can self-select the complementary information they lack.

5.2. Limitations and Future Research Directions

As with any empirical study, the present investigation carries certain limitations. While two distinct product types drawn from the same category—perfume (hedonic) and bar soap (utilitarian)—were included, incorporating a wider range of product types spanning multiple e-commerce categories would strengthen the generalizability of the findings. Subsequent research efforts may examine whether analogous patterns manifest when contrasting search goods with experience goods in online retail contexts, and whether findings hold across different types of e-commerce platforms. A further limitation concerns the sample. Respondents were predominantly business undergraduates recruited from a single large public university in South Korea. Although student samples are widely used in experimental consumer research because their homogeneity reduces error variance

in tests of theoretical interactions, this sampling frame constrains the generalizability of the findings in at least three respects. First, the age range, income level, and accumulated consumption experience of undergraduates differ from those of the broader online shopping population. Second, the cultural context is confined to South Korea, and prior evidence indicates that the influence of review emotionality on perceived helpfulness varies across cultures [13]; the mismatch effect documented here should therefore be replicated in other cultural and market settings before broad claims are advanced. Third, because all participants were drawn from a single institution, unobserved homogeneity in digital literacy and platform familiarity cannot be ruled out. Future studies should replicate the design using demographically diverse consumer panels, cross-cultural samples, and field data from live e-commerce platforms. Relatedly, the dichotomous classification of respondents into dominant personality groups, while analytically transparent, sacrifices information contained in the continuous orientation scores; subsequent research could model hedonic and utilitarian orientations as continuous moderators to trace the mismatch effect across the full range of consumer dispositions. Finally, although Section 2.2 provides a theoretical justification for treating hedonic and utilitarian orientations as trait-like dispositions, these constructs remain distinct from formal personality inventories, and validating the present classification against established trait measures represents a valuable avenue for future work. Beyond sampling, several design and measurement constraints merit acknowledgment. The experiment involved a single exposure to short, constructed review stimuli for two products drawn from one category; although this maximizes internal validity, it abstracts from real browsing sessions in which consumers scan many reviews of varying length, valence, and format. The dependent variable was a self-reported comparative helpfulness judgment rather than observed helpful-voting behavior, and the personality measures, while acceptably reliable ($\alpha > 0.70$), rest on self-report scales whose trait-like temporal stability was assumed rather than verified through test–retest procedures. Replications employing behavioral helpfulness data, larger and more varied stimulus pools, and longitudinal measurement of consumer orientations would directly address these constraints. In particular, the homogeneity of the present sample in age, occupation, and consumption experience implies that the findings are most safely generalized to young, digitally fluent consumer segments; representativeness for the broader online-shopping population cannot be claimed and should be established through replication with probability-based or quota-controlled consumer samples. Future work could additionally adopt a mixed-methods design in which the present experimental findings are triangulated with qualitative evidence—for example, depth interviews with online shoppers about how they read and evaluate reviews, or a Delphi study with e-commerce practitioners and scholars—to enrich understanding of why mismatched review content is experienced as more (or less) helpful and to strengthen the ecological grounding of the proposed mechanism.

Given that this investigation focused specifically on hedonic and utilitarian personality dimensions as moderators in the personality–OCR helpfulness relationship, it is worth acknowledging that numerous alternative personality frameworks could be explored within this paradigm. Prospective research might consider deploying the Myers–Briggs Type Indicator (MBTI) to examine how different personality archetypes moderate the connection between OCR types and perceived helpfulness on e-commerce platforms. Future scholarship could also investigate Type A personality characteristics—marked by time pressure and rapid decision-making—and Type B personality characteristics—defined by a more leisurely and relaxed cognitive style—as moderating constructs, given that these orientations involve fundamentally distinct approaches to evaluating the helpfulness of OCRs on digital retail platforms. As e-commerce continues to evolve with richer multimedia review

formats, future research may also examine how hedonic versus utilitarian personality types respond differently to image- and video-enhanced OCRs, given that such visual elements are known to modulate perceived online review helpfulness particularly for hedonic product categories [54,55]. Broadly speaking, the results linking hedonic and utilitarian OCR typologies to online review helpfulness contribute theoretically by clarifying the influential role of product classification and by proposing a dual-dimensional conceptualization of OCR types as a driver of online review helpfulness in e-commerce.

6. Conclusions

In light of contemporary scholarly trends in e-commerce and information systems research, this paper argues that both academics and industry professionals stand to benefit considerably from treating OCR type and consumer personality type as meaningful analytical constructs in understanding online review helpfulness on digital retail platforms. The study provides compelling evidence that personality type functions as a significant moderator of OCR helpfulness. The findings suggest that perceived helpfulness is jointly determined by review type, product type, and reader orientation: reviews whose content is congruent with the product's dominant nature attract the highest helpfulness ratings overall, and within such product-congruent reviews, readers whose own orientation differs from the review's style derive the greatest value—hedonic-personality consumers from utilitarian reviews of utilitarian products, and utilitarian-personality consumers from hedonic reviews of hedonic products. Reviews that match neither the product context nor the reader's orientation are perceived as least helpful.

The implications of these findings span both theoretical and applied domains of e-commerce research, offering insights for digital marketers, e-commerce platform designers, and academic researchers alike. Consumer reflections and firsthand experiences shared as OCRs on e-commerce platforms constitute a dynamic, continuously refreshed informational resource for prospective online buyers. A crucial takeaway, however, is that the inherent attributes of the product—and the consumer's hedonic or utilitarian motivational orientation toward its purchase—determine how beneficially the reader perceives a given OCR on an e-commerce platform. This carries significant consequences for e-commerce researchers investigating the antecedents of OCR helpfulness and for digital marketing practitioners mindful of how online customer reviews shape brand perceptions and drive purchase outcomes.

This study's empirical evidence indicates that the value of a given review type cannot be assessed independently of the product context and the reader: helpfulness peaked when review content addressed the product's dominant consumption nature while complementing the reader's dispositional information style, and it was lowest when review content was incongruent with both. Whereas OCR helpfulness is commonly captured as a binary yes/no measure on most e-commerce platforms, this research demonstrates that such helpfulness can be further differentiated based on online review type and consumer personality. Given the omnipresence of OCRs within e-commerce ecosystems, the insights yielded by this study assist digital marketing practitioners in appreciating the significance of personality-based preferences in the evaluation of OCR helpfulness [1]. These findings can be translated into actionable frameworks for e-commerce platform managers and online retailers crafting and curating OCRs that deliver greater contextual relevance and informational value to diverse consumer segments. The corresponding concrete recommendations for e-commerce platforms are presented in Section 5.1.

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Informed Consent Statement: As informed consent was obtained from all participants prior to data collection. Each participant voluntarily agreed to share their personal information with a clear understanding that the data would be used exclusively for research purposes. Participants were also explicitly informed that their responses would be collected anonymously, ensuring that no personally identifiable information would be linked to the data. Given these protections, the study adheres to ethical guidelines while safeguarding participant privacy and confidentiality.

Data Availability Statement: The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest: The authors declare no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

OCR	Online Customer Review
(eWOM)	electronic word-of-mouth

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