

Effect of Online Reviews and Ratings on Consumer Purchase Decisions

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Abstract:

In the digital economy, one of the most important elements influencing customer purchasing decisions is now online reviews and ratings. They serve as social evidence, assisting customers in assessing products and lowering perceived risk and information asymmetry. This study uses primary data gathered from 210 respondents via a structured questionnaire to examine how online reviews and ratings affect consumer purchasing decisions. The data was analyzed using multiple regression, correlation analysis, and descriptive statistics. The results show that perceived credibility and review valence the positive or negative aspects of reviews have a big impact on consumers' intentions to buy. Star ratings are also significant, although their influence is lessened when review trustworthiness is taken into account.

The effects of review valence on purchase intention is strengthened by the positive moderating effect of review volume. According to sub-group analysis, star ratings have more sway over low-involvement products like fashion, whereas reviews and credibility are more important in high-involvement product categories like electronics. The study emphasizes how crucial thorough, reliable reviews are to building consumer trust and recommends that e-commerce platforms give top priority to systems that guarantee the legitimacy and visibility of excellent ratings. In addition to pointing up areas for further study, the results have important ramifications for online platforms, merchants, and digital marketers.

Keywords: Online Reviews, Star Ratings, Review Credibility, Review Valence, E-commerce Platforms, Consumer Trust

1. Introduction:

The quick growth of social media and online markets has fundamentally changed how people look for information, weigh their options, and decide what to buy. Customers now depend more on user-generated content, including online reviews and star ratings, than they did on traditional advertising or direct purchase experiences in this changing internet landscape. By serving as strong social proof, these reviews assist prospective customers in lowering their level of uncertainty and information disparity with vendors. Customers can make decisions about the quality, functionality, dependability, and credibility of sellers by reading about other people's experiences. This is especially true for experience and credence goods, where it is impossible to evaluate all of the product's features before buying.

Online reviews have several purposes: they offer evaluative opinions, descriptive information, and numerical ratings that represent the attitude of all customers. In the meantime, star ratings simplify total product assessments into a score that is simple to understand, facilitating prompt decision-making in rapidly evolving online marketplaces. However, customers find it difficult to discern genuine and reliable feedback from biased or fraudulent information due to the increasing amount and diverse nature of online evaluations. Thus, it has become crucial for academics and professionals to comprehend which elements of reviews credibility, volume, and valence (positive or negative tone) have the biggest impact on purchasing decisions.

The relative significance of textual versus quantitative feedback and whether the impact of reviews varies by product category (e.g., high-involvement products like electronics versus low-cost convenience goods) are still unanswered questions despite the fact that numerous studies have examined online reviews and their marketing implications. By using primary data from 210 customers, this study aims to close these gaps and provide empirical insights into how online reviews and ratings influence real-world purchase intentions.

Customers now use online reviews and ratings as a primary information source, influencing their opinions and helping them make decisions about what to buy. Previous studies have repeatedly shown that consumers' evaluations of items and intents are greatly influenced by review valence, credibility, star ratings, and review volume.

2. Objectives of the Study:

1. To measure the influence of online review valence and star ratings on consumer purchase intention.
2. To examine the moderating role of review volume in strengthening or weakening the review–intention relationship.
3. To examine how the credibility of online reviews influences consumers' purchase decisions.

3. Scope and Significance:

By promoting reliable user feedback, constructively responding to unfavorable reviews, and enhancing the visibility of genuine review signals, the results of this study will help digital marketers and e-commerce companies develop efficient review management strategies. Businesses can increase conversion rates, boost customer satisfaction, and foster trust in an increasingly cutthroat online environment by knowing how customers read online reviews.

4. Literature Review:

In digital surroundings, customer decision-making now heavily relies on online reviews and star ratings. In online environments, the availability of peer-generated reviews helps customers make up for the absence of in-person product inspection (Chen et al., 2022). User-generated evaluations provide direct insights into past customers' experiences, allowing prospective customers to evaluate the performance and quality of a given good. Previous studies indicate that consumers see these peer assessments as more reliable than information from marketers, which has a bigger impact on purchase decisions (Qiu, 2024). Online reviews boost confidence and lower perceived risks, especially in areas like electronics, lifestyle goods, and services where customers are hesitant. The persuasive power of reviews in influencing consumer choices is demonstrated by the fact that positive evaluations typically raise purchase intentions while negative reviews discourage buying behavior (Kato, 2022).

The impact of review valence, which refers to the tone of reviews positive, negative, or neutral on consumer opinions has been extensively researched. Purchase intention, predicted

satisfaction, and brand perception are all improved by positive valence. However, because of negativity bias the tendency for customers to notice and trust bad information more than good feedback negative evaluations frequently carry greater weight (Chen et al., 2022). As a result, even a few negative evaluations have the power to seriously discourage customers from making a purchase. Product kind, familiarity, and levels of personal participation all influence how strong positive versus negative feedback are (Fernandes, 2022).

The quantity of reviews a product has received is referred to as its review volume. A greater number of reviews indicates market acceptance, social support, and popularity. For potential customers, this can increase trustworthiness and lessen uncertainty. Additionally, studies show that volume functions as a moderating element; the more favorable evaluations there are, the more compelling they are (Kordrostami, 2016). Regardless of rating score, consumers judge products with low review counts as dangerous or less reliable. As a result, review volume influences the perceived validity of user opinions in addition to reflecting general emotion.

Star ratings offer succinct assessments that facilitate quick decision-making. They have a particularly strong impact on low-commitment purchases because buyers might not take the time to read thorough evaluations. Although the distribution of ratings may be just as important as the average score, higher ratings typically result in a better likelihood of purchase (Kato, 2022). A product with a 4.5-star rating from hundreds of reviews, for instance, seems more reliable than one with a 5-star rating from a small number of buyers. Nonetheless, some research indicates that when comprehensive reviews are accessible, their informational value may surpass the impact of numerical ratings (Schreck, 2018).

When it comes to whether or not customers trust online reviews, review credibility is crucial. Factors including source transparency, thorough reasoning, writing quality, and congruence with popular opinion all influence credibility (Qiu, 2024). Customers are closely analyzing authenticity signals as a result of growing awareness of phony reviews produced by bots, paid boosters, or biased sources (Chen et al., 2022). Reviews have a much greater persuasive power when they are seen as reliable, fostering confidence and favorably influencing consumer choices. On the other hand, evaluations that are dubious or excessively promotional could be disregarded or even lead to mistrust of the site (Kato, 2022).

The degree of consumer interaction affects how much of an impact reviews have. Credibility and thorough reviews are essential in lowering perceived risk since high-involvement purchases, such as smartphones or household appliances, demand more evaluation work (Fernandes, 2022). On the other hand, shoppers might rely more on rating averages and overall sentiment than in-depth reviews for inexpensive or convenient things like cosmetics or clothing accessories. Consequently, the processing of online comments is influenced by situational circumstances.

Online reviews affect customer behavior through both normative and informative mechanisms, according to the literature. The effectiveness of reviews to influence consumers increases with their credibility, quantity, and positive valence (Ahn & Lee, 2024).

Reviews have a major role in influencing buying attitudes and lowering perceived risk since consumers increasingly see peer-generated reviews as more reliable than material produced by marketers (Qiu et al., 2024; Filieri, 2015). Customers typically depend more on rating averages and general sentiment than on in-depth content research for low-involvement categories (Bright & Daugherty, 2012).

Negative internet evaluations have a significant impact on consumer attitudes by raising perceived risk and decreasing product confidence, according to Lee et al. (2008). According to their research, negative information is processed more thoroughly by consumers, which makes review valence a crucial consideration when making purchases.

According to Sparks and Browning (2011), while negative hotel ratings reduce trust and perceived service quality, favorable reviews greatly increase booking intentions. They underlined how customer decision-making is strongly influenced by review tone and credibility.

According to Hu et al. (2008), product sales are significantly impacted by reviewer credibility and the recentness of reviews. According to the study's findings, buyers are more likely to base their purchase intents on knowledgeable and reliable reviewers. Star ratings and review volume boost consumer trust and perceived value, as Xie et al. (2014) showed. Purchase intention for hospitality services was found to be greatly increased by higher ratings and a high volume of reviews.

Mo et al. (2015) discovered that via affecting perceived risk and product appraisal, both positive and negative online reviews influence customer purchasing behavior. They stressed that buying intention is determined by both review valence and credibility.

5. Research Methodology

5.1 Research Hypotheses:

Based on the objectives of the study, the following null hypotheses were formulated:

H₀₁: Review valence has no significant effect on consumer purchase intention.

H₀₂: Star ratings have no significant effect on consumer purchase intention.

H₀₃: Review credibility has no significant effect on consumer purchase intention.

The study uses a descriptive-explanatory research approach to investigate how customer purchasing decisions are influenced by internet reviews and ratings. Since the study's goal was to evaluate hypothesized correlations among important review-related factors, a quantitative technique was used. Data was gathered from respondents at a specific point in time for this cross-sectional study.

240 online shoppers who regularly use e-commerce sites and rely on evaluations before making purchases provided primary data. In light of the study's behavioral focus and respondents' accessibility, a non-probability convenience sampling technique was employed. This approach is frequently employed in consumer research if the target audience is scattered and digitally active, even though it is not random.

A structured questionnaire that was created following a thorough analysis of pertinent literature to guarantee content validity was used to gather data. A five-point Likert scale, ranging from "strongly disagree" to "strongly agree," was used to measure each dimension, including review valence, star ratings, review credibility, review volume, and purchase intention. To improve dependability and clarity, the instrument was pilot tested prior to the major survey.

Jamovi statistical software was used to examine the gathered data. The characteristics and general opinions of the respondents were compiled using descriptive statistics. Multiple regression analysis was used to ascertain the predictive impact of the independent factors on purchase intention, whereas correlation analysis evaluated relationships between variables. To find out if review volume increases or decreases the impact of review valence on purchase intention, moderation analysis was also performed.

Throughout the data collection process, ethical guidelines were closely adhered to. All respondents gave their informed consent, participation was completely voluntary, and privacy and anonymity were upheld. Despite the methodology's reliability, there are still certain limitations, especially those pertaining to self-reported replies and the use of a non-probability sampling strategy, which could limit the findings' wider generalizability.

6. Data analysis & Interpretation:

6.1. Descriptive Statistics

Table 1. Descriptive Statistics of Key Variables (N = 240)

Variable	Mean	S.D
Review Valence	3.94	.078
Star Ratings	4.02	.81
Review Credibility	3.88	.74
Review Volume	3.76	.85
Purchase Intension	3.98	.82

Consumer opinions on internet reviews are largely good, according to the responses. Positive attitudes regarding reviews and increased purchase intention are indicated by all mean scores being over 3.7.

6.2. Correlation Analysis

Table-2. Pearson Correlation Matrix

Variables	Purchase Intention	Review Valence	Star Ratings	Review Credibility	Review Volume
Purchase Intention	--	.620	.571	.543	.410
Review Valence	--	--	.480	.391	.293
Star Ratings	--	--	--	.364	.272
Review Credibility	--	--	--	--	.334
Review Volume	--	--	--	--	--

There is a strong positive association between purchase intention and all independent factors. Positive reviews considerably increase purchase intention, as seen by the strongest link with Review Valence ($r = 0.62$).

6.3. Hypotheses Testing Using Multiple Regression

Table 3. Multiple Regression Results

Predictor	β (Beta)	t-value	p-value
Review valence	.38	6.92	<0.001
Star ratings	.29	5.48	<0.001
Review credibility	.21	4.11	<0.001

Model Fit:

R	R^2	Adjusted R^2	F(3,236)	p-value
0.71	0.50	0.49	79.24	<0.001

The regression model has a significant explanatory power because it explains about half of the variance in consumer purchase intention. Purchase intention is significantly positively impacted by all indicators, including review credibility, star ratings, and valence. The most significant factor among them is review valence, underscoring the importance of review tone in influencing consumer choice.

6.4. Moderation Analysis (Review Volume as Moderator)

Table 4. Moderation Results

Effect	B	t	p	Interpretation
Interaction	0.12	2.84	0.005	Significant moderation

The results demonstrate that the effect of favorable review valence on purchase intention is considerably strengthened by review volume. Customers consider positive evaluations as more trustworthy and convincing when a product has a large number of them. Even positive evaluations, however, are unable to inspire great trust due to low review volume, which diminishes their total impact on purchasing decisions.

7. Findings:

1. Review Valence Strongly Influences Purchase Intention:

Positive mood in internet evaluations considerably increases consumers' propensity to buy, according to the study. Customers primarily rely on the tone and general optimism of peer feedback, as seen by review valence emerging as the strongest predictor.

2. Star Ratings Serve as Quick and Influential Quality Cues

Customers utilize numerical ratings as quick indicators of product quality, as seen by the substantial correlation between star ratings and buy intention. Particularly for low-involvement products, higher ratings lower ambiguity and foster a positive perception.

3. Credible Reviews Substantially Build Trust and Influence Decisions:

Purchase intention is very positively impacted by review credibility. Well-written, thorough, and genuine evaluations are highly valued by customers since they boost confidence and foster trust when making online purchases.

4. The Model Demonstrates Strong Explanatory Power:

Around fifty percent of the variance in purchase intention is explained by the regression model, suggesting that review-related characteristics as a whole have a significant influence on customers' online purchasing decisions.

5. Review Volume Strengthens the Effect of Positive Reviews:

The results of the moderation show that the effect of positive review valence on purchase intention is amplified by large review volume. Customers consider products with a large number of reviews as more trustworthy and well-liked, but a small number of reviews reduces the persuasiveness of even positive comments.

8. Recommendations

1. Prioritize High-Credibility and Informative Reviews:

Comprehensive, experience-based, and verifiable reviews ought to be automatically ranked at the top of product listings on e-commerce platforms. Emphasizing these reviews increases customer choice confidence and promotes transparency.

2. Strengthen Review Authenticity and Verification Systems:

To spot phony, sponsored, or bot-generated reviews, platforms need to use sophisticated AI and pattern-detection technologies. Maintaining authenticity preserves consumer confidence in the online marketplace and shields them from false information.

3. Encourage Consumers to Provide Rich and Balanced Feedback:

Companies should create incentives and post-purchase prompts to encourage consumers to write in-depth evaluations rather than just ratings or succinct remarks. High-quality textual feedback has a significant impact on purchase intention and offers deeper insights.

4. Strategically Build Review Volume for New and Key Products:

To boost the quantity and variety of feedback, businesses should aggressively seek out sincere reviews from happy clients. Increased review counts increase the impact of positive review valence, indicate popularity, and lower perceived risk.

5. Redesign Rating Systems for Greater Clarity and Reliability:

Multi-dimensional rating formats, including product quality, usability, delivery experience, and value for money, should be incorporated into platforms. These structured ratings provide a more comprehensive assessment and enhance the caliber of consumer choices.

6. Address Negative Reviews Responsively and Professionally:

To address unfavorable evaluations with clarity, compassion, and workable solutions, businesses should take a methodical approach. Customers' long-term trust and loyalty can be strengthened via prompt and meaningful engagement, which also helps reduce negative bias.

7. Integrate Review Insights into Continuous Product Improvement:

To find recurrent issues or changing consumer preferences, organizations must regularly perform sentiment analysis and theme coding of review content. Product development, service quality, and marketing tactics are all improved by using review-based insights.

9. Conclusion:

The study comes to the conclusion that consumers' purchasing intentions in e-commerce settings are significantly influenced by online reviews and ratings. Review valence was found to be the most significant element, suggesting that consumers are very sensitive to the positive or negative comments made by their peers. By acting as instant quality indicators, star ratings also play a major role in influencing purchasing decisions. Additionally, review reliability increases confidence and lowers perceived risk.

Furthermore, the moderating effect of review volume emphasizes that good evaluations have greater persuasive value when they are backed by a wide range of customer experiences. The importance of review-related characteristics in digital consumer behavior is highlighted by the model's capacity to account for about half of the variance in buy intention. Overall, the results highlight the significance that authentic, excellent, and frequent evaluations are for boosting customer confidence and influencing online purchase outcomes.

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