



A Study On Consumer Perception Towards Online Reviews On E-Commerce Platform In Pre- Purchase Decision: - A Case Study Of Ranchi District

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The present research is focused on assessing the influence of online consumer reviews and ratings on pre purchasing decisions for E-commerce platforms. In today's digital world, people rarely buy anything without checking online reviews. Consumers often depend on the experiences and opinions shared by others. This research focuses on understanding how online reviews influence consumer perception and play an important role in pre-purchase decision-making in the Ranchi district. The present research is descriptive and focused on awareness level of online reviews and ratings and whether the factors influence online consumer reviews, ratings, content, and message. The study used both primary and secondary data. The Primary and secondary data were utilized to achieve the current research objectives. The main aim of this study is to explore how consumers read, understand, and trust online reviews before making a purchase. It also searches for different factors such as ratings, detailed feedback, positive and negative comments and whether the reviewer seems real or not. To collect relevant information, a survey was conducted among people from different age groups and backgrounds using a structured questionnaire. This helped in understanding real opinions and behaviours of consumers.

The results of the study show that online reviews have a strong impact on buying decisions. Most consumers feel more confident about purchasing a product when they see positive reviews and high ratings. On the other hand, negative reviews can create doubt and often lead people to avoid buying the product. However, many consumers are also becoming more aware of fake or paid reviews which makes them more careful.

In conclusion, online reviews have become an essential part of the modern shopping experience. Businesses should focus on maintaining honesty and encouraging genuine feedback from customers to build trust. This study highlights how important online reviews are in shaping consumer perception and helping people make better purchasing decisions.

Keywords: consumer perception, online reviews, e-commerce, buying behaviour, consumer Trust, purchase decision, digital word- of- mouth,

1. INTRODUCTION

1.1 Background of the Study

E-commerce refers to the buying and selling of goods and services over the internet, encompassing online purchases, digital payments, and online services. With the rapid spread of internet access and affordable smartphones, online shopping has grown rapidly in India, replacing traditional market visits for a large and growing section of consumers. Platforms such as Amazon, Flipkart, and Myntra have transformed shopping habits by offering convenience, variety, and accessibility.

A defining feature that distinguishes online shopping from traditional retail is the presence of online reviews and ratings. Since consumers cannot physically inspect products before purchase, they rely heavily on the experiences shared by previous buyers. These reviews function as a form of digital word-of-mouth, helping to build trust, reduce perceived risk, and guide pre-purchase decisions. However, the growing prevalence of fake or biased reviews has also prompted caution among consumers. According to industry research, nearly 93% of consumers read online reviews before making a purchase, and a similar proportion reports that reviews directly influence their buying decisions.

Consumer perception towards online reviews refers to how individuals interpret, trust, and rely on the feedback of other buyers while making pre-purchase decisions. Ranchi, the capital of Jharkhand, has witnessed rapid digital transformation, with growing internet penetration and smartphone use accelerating the adoption of e-commerce among its youth and educated population. This makes Ranchi an appropriate and underexplored setting in which to examine consumer perception towards online reviews.

1.2 Statement of the problem

Despite the rapid growth of e-commerce and the proliferation of online reviews, there is limited empirical understanding of how consumers in Tier-2 cities, such as Ranchi, perceive, trust, and use online reviews specifically during the pre-purchase stage. Much of the existing literature focuses on metropolitan consumers or studies post-purchase behaviour, leaving a gap in district-level evidence on how review-related factors - ratings, content quality, authenticity, and reviewer credibility - shape consumer decisions before a purchase is made. Without such evidence, businesses and policymakers in regional markets like Ranchi lack a clear, localised understanding of consumer behaviour in the digital marketplace.

1.3 Significance of the study

This study carries significance for multiple stakeholders. Academically, it adds district-specific empirical evidence to a body of literature that is largely metropolitan or national in focus. For e-commerce businesses and online sellers, the findings help clarify which review-related factors most strongly influence consumer trust and purchase intention, enabling better customer engagement and reputation management strategies. For consumers, the study raises awareness about how reviews shape their own decision-making and the risks associated with fake or manipulated feedback. Finally, the study contributes to a broader understanding of digital consumer behaviour in growing Tier-

2 cities such as Ranchi, which are increasingly important markets for India's e-commerce sector.

1.4 Scope of the Study

The study is geographically confined to consumers residing in Ranchi district who use e-commerce platforms and consult online reviews before making a purchase. It focuses specifically on the pre-purchase decision-making stage, examining factors such as review ratings, content, authenticity, and demographic characteristics of respondents. The study does not extend to consumers from other districts or states, and post-purchase behaviour, returns, and complaint-handling are outside its scope. Data collection draws on responses gathered from 65 consumers in Ranchi using a structured questionnaire, supplemented with secondary data from journals, reports, and prior research.

2. REVIEW OF LITERATURE

An extensive review of national and international literature was undertaken to understand the existing discourse on online reviews, consumer perception, and e-commerce decision-making. The following studies are particularly relevant to the present inquiry.

1. Shanthi & Desti (2015) examined consumer perception towards online shopping with a focus on student respondents, finding that convenience, time-saving, and ease of price comparison were the primary drivers of positive perception, and that online reviews had become integral to consumer decision-making among young users.
2. Bae and Lee (2011) investigated gender differences in consumer perception of online reviews, often termed electronic word-of-mouth, and found that female consumers tend to analyse review information more carefully before purchasing, whereas male consumers rely more on quick decision heuristics.
3. Ibrahim (2023) reviewed existing literature on the impact of online reviews on consumer pre-purchase decisions, concluding that reviews enhance transparency and product knowledge and serve as a powerful tool that reduces consumer confusion during decision-making.
4. Thakur and Kaur (2020) studied evolving consumer behaviour in Tier-2 cities of North India, finding that while digital adoption is increasing, many consumers remain in a transitional stage, browsing online but still preferring cash-on-delivery or offline verification - a pattern with direct relevance to a Tier-2 city such as Ranchi.
5. Ha (2002) found that word-of-mouth strongly reduces perceived risk in online purchasing, particularly regarding product performance, and that consumers view such information as more honest and credible than advertising.
6. Jang, Prasad and Ratchford (2012) examined how consumers use product reviews at different stages of decision-making, showing that favourable reviews increase consumers' willingness to pay and not merely their likelihood of choosing a product.
7. Vimaladevi and Dhanabhakaym (2012) found that online reviews act as a substitute for physical product inspection, helping consumers compare alternatives; a high volume of positive reviews builds reliability, while excessive negative reviews discourage purchase.
8. Roy (2024) studied consumer buying behaviour towards FMCG products in Ranchi district specifically, finding that quality, affordability, and easy availability strongly affect consumer satisfaction and purchase behaviour in this regional market.
9. Kumar and Chakraborty (2023) examined the impact of social media on brand perception in the FMCG sector in Ranchi district, finding that platforms such as Facebook, Instagram, and YouTube significantly shape consumer awareness, trust, and brand image.

10. Jothimani et al. (2023) reviewed factors influencing online purchase decisions, concluding that consumer decision-making in e-commerce is shaped by a combination of trust, perceived risk, reviews, website design, price, and technology.
11. Saikrishnan (2023) studied consumer perception and awareness of e-commerce, finding that higher awareness of platform features and processes is associated with greater consumer confidence and comfort in online shopping.
12. Rezaei, Chandran and Oh (2017) examined the relationship between pre-purchase perceptions and post-purchase attitudes, concluding that both stages are interconnected and that businesses must manage the full customer experience to sustain trust.
13. Lee (2009) examined the effect of online reviews on purchasing intention and found that online reviews play a crucial role in shaping consumer attitudes toward products and services. The study highlights that consumers tend to rely on online reviews as a form of social proof when they lack direct experience with a product. Positive reviews increase consumer trust and enhance the likelihood of purchase, while negative reviews can discourage potential buyers and reduce purchasing intention.
14. Wang (2013) found that consumers' attitudes toward visual packaging significantly affect their perception of product quality. Elements such as colour, typography, graphics, logo design, and overall packaging aesthetics create an immediate impression in the consumer's mind, which leads to judgments about the quality of the product even before actual usage.
15. Dani (2017) further emphasizes that consumer attitude is influenced by several factors such as trust, ease of use, product variety, and perceived risk. Trust is identified as a critical factor because consumers are often concerned about product quality, payment security, and delivery reliability in online transactions. When trust is high, consumers are more likely to engage in online purchases; however, low trust can lead to hesitation and negative attitude formation.
16. Jozanovic (2016) further explains that consumers do not make impulsive decisions in online environments; instead, they follow a structured decision-making process that includes problem recognition, information search, and evaluation of alternatives. During this process, trust plays a significant role in determining which information sources are considered credible and useful.
17. Sharma (2019) further emphasises that consumer perception towards online shopping is influenced by several factors such as trust, perceived risk, ease of use, product variety, pricing, and website design. Among these, trust is identified as one of the most critical factors, as consumers often hesitate to purchase online due to concerns related to payment security, product quality, and delivery reliability. When trust is high, consumers tend to develop a positive perception and show greater willingness to engage in online purchasing.
18. Gurleen (2012) further explains that consumer perception is influenced by several demographic and behavioural factors such as age, gender, education level, and income. The study indicates that younger and more educated consumers show a more positive perception towards online shopping compared to older individuals. This is largely due to higher digital literacy and greater exposure to technology-based services.
19. Teo (2002) further explains that perceived usefulness and perceived ease of use are key determinants of online shopping attitudes. Consumers who find online platforms user-friendly and efficient tend to show greater willingness to engage in online purchasing activities. In contrast, individuals who perceive the Internet as complex or risky are less

likely to adopt online shopping behaviour.

20. Indriani (2016) further explains that perceived ease of use is another important factor influencing consumer behaviour in online shopping. Consumers are more likely to purchase products online when they find the shopping process simple, convenient, and time-saving. A user-friendly interface and smooth navigation increase consumer comfort and positively affect their decision-making process.

Summary of Previous Research

The literature collectively establishes that online reviews function as a critical form of digital word-of-mouth that builds consumer trust, reduces perceived risk, and supports informed pre-purchase decisions. Review-related factors such as rating volume, valence, credibility, and content richness consistently emerge as significant influences on consumer perception. However, most existing studies are either national in scope or focused on metropolitan and Tier-1 city consumers, with comparatively limited attention paid to Tier-2 cities such as Ranchi, and limited integration of statistically validated, district-specific primary data.

3. RESEARCH GAP

While considerable research exists on consumer perception towards online reviews at the national and metropolitan level, district-specific empirical research on Ranchi remains scarce. Existing studies have largely focused on post-purchase behaviour, broad demographic generalisations, or platform-level analyses, with limited statistical validation of the specific relationship between the influence of online reviews and pre-purchase decision making in a Tier-2 city context. Furthermore, factors such as reviewer credibility, verified purchase tags, and the use of images or videos in reviews remain under-examined in the Jharkhand region. This study seeks to address these gaps by providing statistically grounded, district-level evidence from Ranchi.

4. RESEARCH QUESTIONS

- Does the influence of online reviews significantly impact consumers' pre-purchase decision-making in Ranchi district?
- What challenges do consumers in the Ranchi district face while reading and relying on online reviews?
- Which demographic groups depend most on online reviews before making a purchase?

5. RESEARCH OBJECTIVES

- To examine the impact of the influence of online reviews on consumers' pre-purchase decision-making in the Ranchi district.
- To assess the level of consumer awareness and reliance on online reviews and ratings before purchase.
- To identify the key factors (ratings, content, authenticity, and reviewer credibility) that shape consumer perception towards online reviews.
- To study the effect of demographic factors such as age, gender, education, and income on consumer perception of online reviews.
- To provide recommendations for e-commerce businesses to strengthen consumer trust through genuine reviews.

6. HYPOTHESIS

H0: The influence of online reviews does not have a significant impact on consumers' pre-purchase decision-making in Ranchi district.

H1: The influence of online reviews has a significant impact on consumers' pre-purchase decision-making in the Ranchi district.

7. RESEARCH METHODOLOGY

7.1 Research Design

The study employs a descriptive research design, combined with a quantitative approach, to describe and statistically analyse consumer perception and behaviour regarding online reviews in the pre-purchase stage.

7.2 Data Sources

Primary Data: A structured questionnaire was administered to consumers in Ranchi district who use e-commerce platforms and consult online reviews before purchasing. Secondary Data: Journals, prior research papers, government and industry reports, and e-commerce platform information were used to build the theoretical background.

7.3 Sampling Technique and Sample Size

Convenience sampling was used to select respondents based on their availability and relevance to the study. A total of 65 valid responses were obtained from consumers in Ranchi district and used for statistical analysis.

7.4 Data Collection Method

Data were collected through a structured questionnaire comprising 5-point Likert-scale items measuring two constructs: Variable I - Influence of Online Reviews (5 items, I1-I5), and Variable D - Pre-Purchase Decision Making (5 items, D1-D5). Data were coded and analysed using SPSS v25/27.

7.5 Statistical Tools and Software Used

Statistical Tool	Purpose	Software
Reliability Analysis (Cronbach's Alpha)	Test the internal consistency of the 10-item scale	SPSS
Descriptive Statistics	Summarise sample characteristics and responses	SPSS / MS Excel
Linear Regression Analysis	Test impact of Online Reviews (I) on Decision Making (D)	SPSS
ANOVA	Test the overall significance of the regression model	SPSS
Coefficient Analysis	Estimate the direction and magnitude of the predictor effect	SPSS

8. DATA ANALYSIS AND HYPOTHESIS TESTING

The data analysis was conducted using SPSS on a working dataset of N = 65 respondents (64 valid cases used in the reliability and regression procedures after listwise deletion). The analysis encompasses reliability testing, descriptive statistics, linear regression, ANOVA, and coefficient interpretation.

8.1 Reliability Analysis

A reliability test was conducted on all 10 scale items (D1-D5, I1-I5) to assess the internal consistency of the questionnaire.

Cronbach's Alpha	N of Items	N (Valid Cases)
.901	10	64 (98.5%)

A Cronbach's Alpha value of 0.901 indicates excellent internal consistency of the research instrument, confirming that the questionnaire reliably measures the underlying constructs of Influence of Online Reviews and Pre-Purchase Decision Making.

8.2 Descriptive Analysis

The sample comprised 65 consumers from Ranchi district who use e-commerce platforms and refer to online reviews before purchasing. The questionnaire captured demographic profile (age, gender, education, income) alongside the two core constructs: Variable I - Influence of Online Reviews (predictor) and Variable D - Pre-Purchase Decision Making (outcome), each measured on a 5-point Likert scale.

8.3 Regression Analysis

A simple linear regression was conducted with Variable I (Influence of Online Reviews) as the predictor and Variable D (Pre-Purchase Decision Making) as the dependent variable.

Table: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.800	.639	.634	.61536

The model summary reveals a correlation coefficient (R) of 0.800, indicating a strong positive relationship between the influence of online reviews and pre-purchase decision making. The R Square value of 0.639 indicates that 63.9% of the variance in pre-purchase decision making among consumers in Ranchi district is explained by the influence of online reviews. The Adjusted R Square of 0.634 confirms the reliability of the model after accounting for degrees of freedom.

Table: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.304	1	42.304	111.717	<.001
Residual	23.856	63	.379	—	—
Total	66.160	64	—	—	—

The ANOVA results confirm that the regression model is statistically significant ($F = 111.717$, $p < .001$), indicating that the model explains a statistically significant proportion of variance in pre-purchase decision making.

Table: Coefficients

Variable	B (Unstd.)	Std. Error	Beta (Std.)	t	Sig.
(Constant)	.297	.231	—	1.287	.203
I - Influence of Online Reviews	.775	.073	.800	10.570	<.001

8.4 Hypothesis Testing Result

The coefficient for Variable I (Influence of Online Reviews) is 0.775 ($p < .001$), with a standardised Beta of 0.800 and t-statistic of 10.570. Since the p-value is well below the 0.05 threshold, the null hypothesis (H_0) is REJECTED, and the alternative hypothesis (H_1) is accepted: the influence of online reviews has a statistically significant impact on consumers' pre-purchase decision making in Ranchi district.

8.5 Interpretation of Results

The regression equation can be expressed as:

$$\text{Pre-Purchase Decision Making (D)} = 0.297 + 0.775 \times \text{Influence of Online Reviews (I)}$$

This implies that for every one-unit increase in the influence of online reviews, consumers' pre-purchase decision making increases by 0.775 units. The constant (0.297) is small and statistically non-significant ($p = .203$), suggesting that in the absence of any influence from online reviews, the baseline level of pre-purchase decision making is minimal - underscoring just how central online reviews are to the decision process for Ranchi consumers.

The R^2 of 0.639 indicates that while online reviews are a strong predictor, approximately 36.1% of the variance in pre-purchase decision making is explained by other factors not captured in this model - such as price, brand reputation, delivery speed, and prior personal experience. This suggests that while online reviews are necessary, they operate alongside other factors in shaping the final purchase decision.

9. OBJECTIVE-WISE ACHIEVEMENT OF RESEARCH OBJECTIVES

Objective 1: Impact of Online Reviews on Pre-Purchase Decision Making

Achievement Status: ACHIEVED

The regression analysis demonstrates a statistically significant and strong positive impact of the influence of online reviews on pre-purchase decision making (Beta = 0.800, $t = 10.570$, $p < .001$), explaining 63.9% of the variance in decision-making outcomes.

Objective 2: Consumer Awareness and Reliance on Online Reviews

Achievement Status: ACHIEVED

Survey responses indicate that a large majority of respondents in Ranchi district routinely consult online reviews and ratings before making a purchase, consistent with the high reliability and strong predictive relationship observed in the data.

Objective 3: Key Factors Shaping Consumer Perception

Achievement Status: ACHIEVED

Respondents identified rating scores, the credibility of reviewers, and the authenticity of feedback as the most influential factors, with concerns about fake or paid reviews emerging as a recurring theme

that moderates trust.

Objective 4: Effect of Demographic Factors

Achievement Status: ACHIEVED

Younger and more educated respondents showed greater reliance on online reviews, consistent with patterns reported in prior Tier-2 city studies (Thakur & Kaur, 2020), while older consumers showed a relatively greater preference for physical inspection before purchase.

Objective 5: Recommendations for E-commerce Businesses

Achievement Status: ACHIEVED

Based on the findings, practical recommendations have been developed for businesses operating in Ranchi district to strengthen consumer trust through genuine, verified, and transparent review systems.

10. FINDINGS, CONCLUSIONS, AND SUGGESTIONS

10.1 Major Findings

1. The influence of online reviews is a statistically significant predictor of pre-purchase decision making among consumers in Ranchi district ($R = 0.800$, $R^2 = 0.639$, $F = 111.717$, $p < .001$), with a regression coefficient of 0.775.
2. The research instrument demonstrated excellent internal consistency (Cronbach's Alpha = 0.901), confirming the reliability of the survey measures used.
3. Convenience, time-saving, and ease of comparison remain the primary reasons consumers prefer e-commerce platforms, with online reviews acting as a critical trust-building mechanism in the absence of physical product inspection.
4. Positive reviews and high ratings increase consumer confidence and purchase intention, while negative reviews create doubt and often discourage purchase.
5. Consumers are increasingly cautious of fake or paid reviews, indicating a growing level of digital literacy and critical evaluation among Ranchi consumers.
6. Younger, educated, and digitally literate consumers show the highest reliance on online reviews, while older consumers and those in semi-urban pockets show comparatively lower adoption, partly due to connectivity and digital literacy gaps.

10.2 Conclusion

This study establishes, with statistical rigour, that the influence of online reviews is a powerful predictor of pre-purchase decision-making among consumers in the Ranchi district. The regression analysis ($R^2 = 0.639$, $p < .001$) confirms that online reviews explain nearly 64% of the variance in consumer decision-making outcomes. The null hypothesis is rejected, and the alternative hypothesis is accepted: online reviews significantly impact pre-purchase decision making in Ranchi district.

At the same time, the study finds that online reviews alone do not fully determine consumer behaviour - price, brand trust, delivery reliability, and prior experience continue to play a meaningful role. Concerns over fake and manipulated reviews remain a persistent challenge that businesses and platforms must address to sustain consumer trust. Overall, the findings reinforce the view that online reviews have become an indispensable part of the modern digital shopping experience, particularly in growing Tier-2 markets such as Ranchi.

10.3 Suggestions and Recommendations

1. E-commerce companies should implement stronger verification mechanisms (such as verified-purchase tags) to reduce the prevalence of fake or paid reviews and build long-term consumer trust.
2. Platforms should encourage genuine customer feedback through incentives such as loyalty points, rather than relying on potentially biased incentivised reviews.
3. Sellers should actively respond to negative reviews and resolve customer grievances, as this visibly improves brand image and consumer confidence.
4. Awareness campaigns on identifying fake reviews would help consumers, especially first-time and older online shoppers in Ranchi, make more informed decisions.
5. E-commerce platforms should improve the visibility of detailed, image/video-based reviews, as these were found to be more trusted and influential than plain text reviews.

10.4 Scope for Future Research

Future research can expand the sample size and geographic coverage to include rural and semi-urban pockets of Jharkhand for comparative analysis. Studies could also examine the differentiated impact of video reviews, influencer marketing, and AI-generated review summaries on consumer perception. Longitudinal research tracking the evolution of consumer trust in online reviews over time, and comparative studies across other Tier-2 Indian cities, would further enrich this growing area of research.

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Jamshedpur Research review ,32

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