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A STUDY ON CONSUMER TRUST TOWARDS AI-GENERATED PRODUCT REVIEWS ON E-COMMERCE PLATFORMS WITH SPECIAL REFERENCE TO RAMANATHAPURAM DISTRICT

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ABSTRACT

The rapid growth of e-commerce has significantly transformed the way consumers search for product information and make purchase decisions. Among the various elements that guide online buying behavior, product reviews play a crucial role by offering insights into product quality, performance, and user satisfaction. With advancements in Artificial Intelligence (AI), many e-commerce platforms have started integrating AI-generated product reviews and AI-driven review summaries to enhance user experience. While these AI-generated reviews aim to provide clear, concise, and relevant information for customers, they also create new concerns regarding their authenticity, reliability, and overall trustworthiness. Understanding how consumers perceive and trust such AI-generated reviews has become increasingly important in today's digital marketplace.

This study aims to examine the level of consumer trust in AI-generated product reviews on e-commerce platforms and analyze the factors that influence this trust. The research explores consumer awareness of AI-generated content, their ability to differentiate between human-written and AI-generated reviews, and the extent to which AI-generated reviews shape purchasing decisions. Key factors such as review transparency, perceived authenticity, platform reputation, content quality, and previous online shopping experience are also evaluated to understand their contribution to building or reducing trust. The study further investigates potential risks, such as the possibility of AI being used to create misleading or biased reviews, and the role of ethical AI practices in ensuring credibility.

Keywords:

Artificial Intelligence, Consumer Trust, AI-Generated Reviews, E-Commerce Platforms, Online Shopping Behavior, Review Authenticity, Review Transparency, Review Quality.

CHAPTER I – INTRODUCTION AND DESIGN OF THE STUDY

1.1 INTRODUCTION

Online shopping has become an essential part of modern consumer behavior, with millions of people relying on e-commerce platforms such as Amazon, Flipkart, Myntra and Nykaa to purchase products. One of the most important elements that influence online purchase decisions is product reviews. Traditionally, these reviews were written by customers who had already used the product. However, with the rapid advancement of technology, Artificial Intelligence (AI) is now being used to generate, filter, summarize, and organize product reviews.

AI-generated reviews are becoming increasingly common as e-commerce platforms seek to improve user experience and reduce the problem of fake or biased reviews. While AI-generated content can provide clear, structured, and quick information, it also raises an important question: Do consumers actually trust reviews written by AI? Trust is a critical factor in online shopping, and when consumers suspect that reviews are not genuine, their confidence in the platform may decrease.

This study focuses on understanding how consumers perceive AI-generated product reviews, whether they can differentiate them from human-written reviews, and how these reviews influence their buying decisions. It also examines the factors that build or reduce trust, such as transparency, review quality, platform reputation, and users' familiarity with AI technologies.

As AI continues to evolve, analyzing consumer trust becomes important for e-commerce companies, marketers, and policymakers. The findings of this study will help platforms design better and more trustworthy review systems, ensuring a reliable shopping experience for users.

1.2 STATEMENT OF THE PROBLEM:

The rapid digitalization of commerce has made online product reviews a crucial source of information for consumers when making purchase decisions. As e-commerce platforms continue to enhance user experience, many have started using Artificial Intelligence (AI) to generate product reviews or summarize existing ones. While these AI-generated reviews aim to provide quick, clear, and relevant insights, they have also introduced new concerns regarding trust, authenticity, and transparency. Given these concerns, e-commerce platforms face difficulties in ensuring review transparency, maintaining user trust, and safeguarding the authenticity of information. Although AI-generated reviews are becoming increasingly common, research on how consumers perceive them, what factors shape their trust, and how these perceptions impact online buying decisions is still limited.

Therefore, this study aims to address the gap in understanding consumer trust in AI-generated product reviews, examine the factors that influence this trust, and explore the implications for consumer decision-making and platform credibility. Gaining such insights is essential for designing ethical, transparent, and trustworthy AI-driven review system

1.3 OBJECTIVES OF THE STUDY:

- To analyze the level of consumer trust in AI-generated product reviews on e-commerce platforms.
- To evaluate how AI-generated reviews influence consumer perceptions of product quality and authenticity.
- To assess the impact of AI-generated product reviews on consumers' purchase decisions.
- To study how the quality and clarity of AI-generated reviews affect user trust.
- To examine the role of AI-generated reviews in shaping consumer confidence during online shopping.

1.4 SCOPE OF THE STUDY:

- To examine how consumers perceive and trust AI-generated product reviews on e-commerce platforms.
- To analyze the influence of AI-generated reviews on consumers' purchase decisions.
- To study consumers' ability to differentiate between AI-generated and human-written reviews.

- To evaluate the role of transparency and AI-disclosure labels in shaping consumer trust.
- To identify key factors (authenticity, quality, platform reputation) that affect trust in AI-generated reviews.
- To examine how age, gender, and online shopping experience influence trust in AI-generated reviews

1.5 AREA COVERAGE:

The study is conducted in Ramanathapuram District, where the use of e-commerce platforms has increased steadily in recent years. Consumers in this region including students, professionals, and homemakers frequently rely on online product reviews while shopping. This makes Ramanathapuram an appropriate and natural choice for examining trust in AI-generated product reviews. The district's mix of rural and semi-urban areas, along with varied levels of digital awareness, provides a suitable environment for understanding diverse consumer perceptions.

1.6 RESEARCH METHODOLOGY:

This study follows a descriptive research methodology to examine consumer trust in AI-generated product reviews on e-commerce platforms. A sample of 50 young consumers from Ramanathapuram district was selected using convenient sampling. Primary data was collected through a structured questionnaire designed to measure trust levels, perceptions, and the influence of AI-generated reviews on purchase decisions. Secondary data from journals and online sources was also used to support the study. This approach ensures a clear and systematic understanding of consumer attitudes toward AI-generated reviews.

1.7 SOURCES OF DATA COLLECTION:

The study relies on two main sources of data to analyze consumer trust in AI-generated product reviews on e-commerce platforms:

Primary data:

Primary data was collected from respondents in Ramanathapuram district through a structured Google Forms questionnaire to understand their trust and perception of AI-generated product reviews.

Secondary Data:

Secondary data was obtained from journals, research articles, websites, industry reports, and published studies

related to AI-generated reviews and online consumer behaviors.

1.8 SAMPLING DESIGN:

The study uses a structured sampling approach to collect data from e-commerce users in Ramanathapuram district who read online product reviews.

1.8.1 SAMPLING METHOD:

The study adopts a convenience sampling method, as respondents were selected based on their accessibility and willingness to participate. Since the research focuses on consumers who actively use e-commerce platforms and rely on online product reviews, the questionnaire was distributed digitally through Google Forms to reach tech-savvy users within Ramanathapuram district. This method was chosen due to its practicality, time efficiency, and suitability for studies involving online behaviors. Convenience sampling also allows the researcher to gather relevant insights from individuals who frequently interact with AI-generated reviews, ensuring that the responses accurately reflect the perceptions and trust levels of actual e-commerce users. And Research has been done for both male and female candidates of the e-commerce users who rely on AI-generated reviews.

1.9 SAMPLE SIZE:

The study was conducted with a sample size of 50 respondents from Ramanathapuram district who actively use e-commerce platforms.

1.10 TOOLS FOR ANALYSIS:

- Simple Percentage analysis
- Weighted average mean
- Correlation
- Chi-square test

1.11 LIMITATIONS OF THE STUDY:

- The study is limited to respondents from Ramanathapuram district, which may not fully represent consumers from other regions.
- The sample size is restricted, which may affect the generalization of the findings
- Responses are based on self-reported data, which may contain bias or inaccurate perceptions.
- The study focuses only on AI-generated product reviews, excluding other factors that may affect purchasing decisions.
- The use of an online questionnaire may limit participation from consumers with low digital

literacy.

CHAPTER II – REVIEW OF LITERATURE

2.1 REVIEW OF LITERATURE:

Davoodi (2025) The study introduced novel aspect-based sentiment analysis techniques and showed how factors such as delivery, customer service, pricing, and refund processes affect trust and satisfaction. It demonstrated that transformer-based models like BERT and RoBERTa capture complex sentiment nuances more effectively than traditional methods, offering deeper insights into consumer perceptions. Although this research takes the form of a doctoral thesis, its findings are directly relevant to understanding how AI-generated insights from reviews shape consumer trust and satisfaction on e-commerce platforms. Davoodi, L. (2025). Decoding Customer Sentiment: AI-Driven Insights into E-Commerce Trust and Satisfaction (Doctoral dissertation). Åbo Akademi University, Finland.

Rolando (2025) investigated the impact of artificial intelligence-based recommendation systems on consumer purchase decisions in e-commerce. The study found that variables such as system personalization, recommendation accuracy, user interface quality, trust and privacy, and perceived value significantly influence consumer purchase intentions. System personalization emerged as the strongest predictor, while trust and privacy also played critical roles. These results indicate that AI recommendation systems shape purchase behavior by enhancing relevance and trustworthiness, making them highly relevant for understanding how AI-generated content and automated decision support systems influence consumer trust and buying behavior on e-commerce platforms. Rolando, B. (2025). The impact of artificial intelligence-based recommendation systems on consumer purchase decisions in e-commerce. AIRA (Artificial Intelligence Research and Applied Learning), 4(2), 14–38.

Kumawat & Mathur (2025) investigated the impact of artificial intelligence driven personalization on consumer purchase decisions in e-commerce. Using survey data from 152 respondents and statistical analysis, their study revealed that AI personalization, perceived relevance of recommendations, and consumer satisfaction all had significant positive relationships with purchasing behavior. The results indicate that AI-based personalization enhances consumer satisfaction and perceived relevance, which in turn positively

influences purchase decisions on e-commerce platforms. These findings underscore the importance of AI personalization strategies in shaping consumer behavior and offer insights into personalized AI interactions can foster consumer trust and engagement in online shopping environments.

Bian and Che (2025) examined the impact of AI-generated review summaries on consumer perceptions in e-commerce platforms. Their study found that AI review overviews significantly enhance perceived usefulness, diagnostic, and decision efficiency compared to traditional lists of individual reviews. Consumers were better able to process large volumes of feedback when AI summaries highlighted key positive and negative aspects, leading to greater confidence in purchase decisions. However, the study also noted that consumer trust in AI summaries depends on transparency and perceived objectivity of the AI system. This research provides strong empirical evidence that AI-based review summarization can improve customer experience and trust when implemented responsibly, making it highly relevant to studies on AI review summaries and customer ratings in e-commerce.

Jiang, Wu, and Yu (2024) examined how artificial intelligence generated content influences consumer trust in digital environments. Their study highlighted that while AI-generated content improves efficiency and personalization, it can reduce trust when transparency and authenticity are lacking. The authors emphasized that disclosure of AI involvement and high content quality are essential for maintaining consumer trust. Although the study focused on AI-generated content broadly, its findings are highly relevant to AI-generated reviews in e-commerce platforms. Jiang, X., Wu, Z., & Yu, F. (2024). Constructing consumer trust through artificial intelligence generated content. Academic Journal of Business & Management, 6(8), 263–272.

Tabaku (2024) investigated the transformative influence of artificial intelligence on e-commerce by conducting a case study of Albanian customers. The study used a combination of survey data and literature analysis to explore how AI applications such as personalized recommendations, customer service automation, and predictive analytics affect customer satisfaction and business growth. The findings highlighted that integrating AI technologies in e-commerce operations enhances customer experience, expands the customer base, and supports business development. While focused on the Albanian market, the study underscores broader implications for AI's role in improving consumer engagement and perceived usefulness core factors linked to consumer trust in AI-enabled e-commerce systems. Tabaku,
E. (2024). Artificial intelligence in e-commerce: A case study of Albanian customers. Interdisciplinary Journal of Research and Development.

Kanwal et al. (2024) examined the impact of artificial intelligence on e-commerce and found that AI improves operational efficiency, personalization, and customer experience through automation and data-driven decision-making. The study also noted that consumer trust in AI-enabled systems depends on transparency, data privacy, and perceived usefulness. These findings are relevant to the present study, as trust in AI-generated reviews on e-commerce platforms is influenced not only by technological accuracy but also by consumers' confidence in how AI systems are implemented and governed. Kanwal, F., Bibi, N., Jan, F. U., Arslan, M. A., Ali, A., &

Ajmal, S. (2024). The impact of artificial intelligence on e-commerce. Asian Journal of Research in Computer Science, 17(11), 81–91.

Shree (2024) investigated how ChatGPT and generative AI technologies transform e-commerce by enabling personalized customer engagement and enhanced shopping experiences. The study highlighted that generative AI systems can tailor interactions, provide real-time product guidance, and offer contextually relevant recommendations, increasing consumer satisfaction and interaction efficiency. It also noted that AI-powered conversational interfaces help bridge gaps in customer support and reduce decision-making uncertainty. Although published in a specialized journal, this research underscores how AI-driven personalization influences consumer perceptions and trust in automated systems, illustrating the potential of generative AI to shape consumer confidence and engagement in e-commerce environments.

Azizul Hakim Rafi (2023) examined the effects of artificial intelligence on customer experience in e-commerce platforms, focusing on how AI technologies such as chatbots, recommendation engines, visual search, and predictive analytics reshape interactions between businesses and consumers. The study found that AI significantly enhances personalization, efficiency, and convenience, thus positively influencing customer satisfaction and engagement. However, it also identified challenges such as data privacy concerns, algorithmic bias, and reduced human interaction, which can undermine consumer trust if not addressed. Although the research centered on customer experience broadly, its findings are relevant to the study of AI-generated reviews because trust and perceived authenticity are key determinants of how consumers respond to AI-enabled content in e-commerce environments

Wahsheh & Al Moaiad (2023) explored how GPT-4's knowledge and language understanding capabilities can be used to improve product retrieval in e-commerce search systems. Presented at the 2023 International Conference on Computer Science and Emerging Technologies (CSET), their study proposed methods that leverage GPT-4 to interpret complex user queries and match them with relevant product listings more effectively than traditional keyword-based search models. Their findings showed that integrating generative language models into product search enhances the accuracy and relevance of search results, ultimately improving user experience. Although this research focuses on retrieval systems rather than reviews, it is relevant to understanding how AI-driven language models like GPT-4 influence consumer interactions with e-commerce platforms, which in turn can shape trust in AI-generated content and recommendations.

Suresh & Rani (2020) investigated consumer perceptions of artificial intelligence in e-commerce with a field study of 100 respondents in Chennai. The study identified real-time product targeting, voice-powered search, and virtual personal shoppers as the most influential AI applications shaping consumer experience. While respondents appreciated AI's convenience and personalization benefits, the authors reported concerns about authenticity, data privacy, and transparency factors that directly affect trust. The paper concludes that effective AI adoption in e-commerce requires clear communication about AI use and safeguards to protect user data and perceived authenticity. These findings are particularly relevant for research on consumer trust in AI-generated

reviews, since the same transparency and authenticity cues determine whether consumers accept or reject machine-produced review content.

Spiegel Research Center (2017) released an industry research report demonstrating that the presence of online reviews significantly increases consumer conversion rates on e-commerce platforms. The study found that consumers perceive products with a balanced mix of positive and negative reviews as more trustworthy than those displaying only highly positive feedback. This is because imperfect reviews create a sense of authenticity, reducing suspicion of manipulation or bias. Although the report is not a peer-reviewed academic study, its findings are widely cited in digital marketing and provide valuable insights into how consumers judge the credibility of online information. These insights are relevant to the context of AI-generated reviews, as they highlight that transparency and perceived authenticity play a central role in shaping consumer trust in online review systems.

Kim, Maslowska, and Malthouse (2018) analyzed how different features of online reviews influence consumers' purchase probabilities. Their study focused on key review characteristics such as valence, argument strength, review helpfulness, and source credibility. The authors found that reviews containing strong arguments and clear, detailed information significantly increase consumers' likelihood of purchasing a product, as these features enhance perceived credibility and usefulness. They also showed that both the tone of the review and the reviewer's perceived expertise play an important role in shaping consumer responses. Although the study examined human-written reviews, its findings are highly relevant to current discussions on AI-generated reviews, as the factors that make reviews persuasive and trustworthy such as clarity, depth, and credibility signals remain essential regardless of the review's origin. Their work provides a strong foundation for understanding how the structure and quality of review content influence consumer trust in e-commerce environments.

Filieri (2015) investigated the fundamental factors that shape consumers' trust in online product reviews, focusing on how users evaluate the credibility and usefulness of digital information. The study demonstrated that high-quality information characterized by accuracy, completeness, clarity, and logical structure significantly increases consumer trust in reviews. Filieri found that consumers particularly value reviews containing experiences and specific product insights, as these signal authenticity and reliability. Furthermore, the research highlighted the importance of reviewer expertise and strong argument quality, showing that knowledgeable and objective reviews are perceived as more trustworthy. In addition, the credibility of the hosting platform and its reputation were identified as critical elements influencing how consumers judge the authenticity of online feedback. Overall, the study established that information quality and credible sources are central to building trust in digital review environments, directly influencing consumers' purchase decisions.

Mayzlin, Dover, and Chevalier (2014) conducted one of the most important empirical studies on deception in online review platforms. Using hotel data from multiple travel websites, they showed that firms engage in strategic review manipulation posting fake positive reviews for themselves and negative reviews for

competitors. Their analysis revealed that platforms with weaker monitoring systems had higher levels of suspicious or biased reviews. The study demonstrated how manipulated reviews can mislead consumers and distort competition in digital marketplaces. Although their research focused on human-generated fake reviews, it directly relates to today's concerns about AI-generated reviews. The findings highlight that the credibility and transparency of online review systems are essential for preserving consumer trust in e-commerce environments.

Filieri and McLeay (2014) examined the factors that influence consumers' trust and adoption of online product reviews, focusing mainly on information quality and reviewer credibility. Their study found that consumers trust reviews that are detailed, logical, accurate, and perceived as unbiased. They also showed that argument quality and the reviewer's expertise strongly affect how reliable a review appears. The research highlighted that consumers rely on high-quality information when making online purchase decisions. Although the study dealt with human-written reviews, its insights are directly relevant to AI-generated reviews: it emphasizes that trust depends on clarity, completeness, and credibility qualities that AI-generated content must meet for consumers to trust it in e-commerce platforms.

Jalilvand & Samiei (2012) examined the influence of electronic word-of-mouth (eWOM) on consumer purchase behavior and brand attitude. Their study found that online reviews significantly shape consumers' perceptions, with credible and persuasive reviews leading to stronger purchase intention. They highlighted that eWOM acts as a powerful source of social influence, reducing uncertainty and guiding decision-making. Although their study predates AI-generated content, the findings remain relevant because they show how consumers rely on perceived credibility when evaluating online information, a key factor affecting trust in AI-generated product reviews.

Baek, Ahn, and Choi (2012) examined how the emotional tone of online reviews affects consumer trust and perceived helpfulness. Their study found that reviews with a moderate and balanced emotional tone are viewed as more credible, while extremely positive or negative reviews often appear biased or unreliable. They also highlighted that detailed and well-structured reviews increase trust because consumers rely on specific information when evaluating product quality. Although the study focused on human-generated reviews, its insights are relevant to AI-generated reviews, as similar patterns of emotional extremity or lack of depth can influence consumer trust in e-commerce platforms.

Luca (2011) conducted one of the most influential empirical studies on how online reviews affect business performance, using restaurant data from Yelp. The study found that a one-star increase in Yelp ratings leads to a significant rise in restaurant revenue, demonstrating that consumers rely heavily on online review scores when making purchase decisions. Luca also showed that the impact of reviews is stronger for independent restaurants compared to chain restaurants, because consumers depend more on online information when brand familiarity is low. Although the research was based on human-generated reviews, its findings are highly relevant to the context of AI-generated reviews. The study highlights that consumers place substantial trust in online rating

systems, meaning that the accuracy and authenticity of reviews whether written by humans or AI are critical for maintaining trust in e-commerce platforms.

Ott et al. (2011) identified linguistic patterns that distinguish fake reviews from real ones, showing that deceptive reviews use more emotional words and fewer specific details. Their study also demonstrated that machine-learning models can detect fake reviews more accurately than humans. These findings are relevant today, as similar detection methods are used to identify AI-generated reviews and protect consumer trust.

Mudambi and Schuff (2010) examined how specific characteristics of online reviews particularly review depth, quality, and rating extremity—shape consumer decision-making in e-commerce environments. Using a large dataset of Amazon reviews, they found that detailed and information-rich reviews are perceived as significantly more helpful than short or vague evaluations. Their results also showed that extreme reviews, whether highly positive or highly negative, attract more attention and are viewed as more credible for experience-based products, as consumers interpret strong emotions as signs of authenticity. In contrast, balanced and moderately toned reviews were considered more helpful for search products, where objective information is preferred. Overall, their study demonstrated that review depth, quality, and extremity play crucial roles in determining consumer trust and purchase intention, emphasizing the importance of well-written user-generated content in online marketplaces.

Zhang, Craciun & Shin (2010) examined how online consumer reviews affect trust and purchase intention in e-commerce. Their study found that consumers rely more on reviews perceived as credible and informative, and that higher review quality increases consumer confidence in purchase decisions. Although focused on human-generated reviews, the findings highlight the key role of review credibility in shaping trust, making them relevant for understanding consumer responses to AI-generated review.

Park and Lee (2009) examined how review valence and review volume influence consumer trust in online product evaluations. Their study found that a larger number of reviews increases credibility by creating a sense of social agreement, while negative reviews tend to have a stronger effect than positive ones due to consumers' sensitivity to risk. They also noted that review impact varies by product type, with experience goods being more influenced by online opinions. Although conducted before the rise of AI-generated reviews, the study provides valuable insights into how consumers rely on review quantity and tone factors that remain essential when evaluating AI-generated content on e-commerce platforms

Cheung, Luo, Sia & Chen (2009) examined how online review ratings and valence influence consumer judgment. They found that higher ratings and consistent positive reviews increase trust and purchase intention, while mixed or negative reviews make consumers more cautious. Their work highlights that the coherence and credibility of review information strongly shape how authentic consumers perceive the reviews to be, making it relevant even in the context of AI-generated review environments.

Forman, Ghose & Wiesenfeld (2008) investigated how consumer-generated product reviews relate to

subsequent product sales in online markets. Their study found that reviews containing identity-descriptive information (e.g., reviewer characteristics) are rated more positively by consumers, and products with more such detailed reviews are associated with higher subsequent sales. The research suggests that reviewer identity and community norms influence how consumers judge reviews and make purchase decisions, enhancing market transparency and trust in online review systems. These findings help explain why credible review content is important, a concept also relevant to understanding trust in AI-generated reviews on e-commerce platforms

Sen and Lerman (2007) examined consumer motivations for posting online reviews and how audiences interpret them. Their study found that negative reviews are often perceived as more credible because consumers believe they are written with fewer persuasive intentions and contain more objective information. They also showed that readers pay closer attention to negative feedback due to its higher diagnostic value in reducing uncertainty. Although the study focused on human-generated reviews, its findings are relevant today, as similar credibility biases influence how consumers judge the authenticity of AI-generated reviews in e-commerce platforms.

Chevalier and Mayzlin (2006) examined how online product reviews influence consumer purchasing behavior using data from Amazon and Barnes & Noble. They found that positive reviews and higher ratings significantly increase sales, while negative reviews reduce sales performance. Their study showed that consumers rely heavily on online reviews as credible information sources and that electronic word-of-mouth strongly affects purchase decisions.

They also observed that negative reviews often have a stronger impact than positive ones and that consumers read review text, not just star ratings. Although the study focused on human written reviews, it provides an important basis for understanding trust and credibility in the context of AI-generated reviews.

Hu, Pavlou, and Zhang (2006) found that online ratings typically follow a J-shaped pattern, with many highly positive reviews and few moderate ones. This skew suggests bias or possible manipulation, meaning consumers may not get an accurate picture of product quality. Their findings remain relevant today, as similar patterns can also appear in AI-generated reviews, influencing how consumers judge authenticity and trust.

Dellarocas (2003) explored how online word-of-mouth systems transform consumer behavior and marketplace dynamics. His seminal work examined the rise of digital review platforms and explained how they help reduce information asymmetry by enabling consumers to publicly share experiences and evaluations. Dellarocas also highlighted vulnerabilities within these systems, including review manipulation, biased feedback, and strategic rating behavior, all of which pose challenges to maintaining trustworthy online environments. These insights remain highly relevant today, especially as AI-generated reviews introduce new complexities in detecting authenticity. The study provides a strong theoretical foundation for understanding the need for transparent, credible, and well-regulated review systems in digital marketplaces.

Senecal & Nantel (2004) examined how online consumer reviews influence purchase decisions and found that positive, credible, and relevant reviews significantly increase consumers' likelihood of buying a product. Their research demonstrated that online reviews act as a strong form of electronic word-of-mouth, helping consumers reduce uncertainty and make more confident purchase choices. Although their study predates the era of AI-generated reviews, the insights it provides on trust, credibility, and reliance on online reviews continue to be highly relevant, especially when evaluating how consumers assess the authenticity of AI-generated review content in modern e-commerce platforms.

CHAPTER III

OVERVIEW OF E-COMMERCE INDUSTRY AND AI-GENERATED PRODUCT REVIEWS

3.1 INDUSTRY PROFILE

The e-commerce industry is an important segment of the global retail and digital services sector. It includes online marketplaces, mobile commerce applications, and digital platforms that facilitate buying and selling of goods and services through the internet. With the rapid growth of digitalization, e-commerce has become an essential part of consumers' everyday purchasing behaviors. Online product reviews play a critical role in this industry by helping consumers evaluate product quality, reduce uncertainty, and build confidence before making purchase decisions.

Global Trends

Globally, the e-commerce industry has witnessed significant growth due to increased internet penetration, technological advancements, and the adoption of artificial intelligence (AI). AI is increasingly used to personalize shopping experiences, recommend products, detect fake reviews, and generate or summarize product reviews. AI-generated reviews aim to save time and provide quick insights; however, they also raise concerns regarding transparency, authenticity, and consumer trust.

Indian Scenario

In India, the e-commerce industry has grown rapidly due to affordable smartphones, improved logistics, digital payment systems, and government initiatives promoting digital transactions. Indian consumers heavily rely on online reviews to assess products, especially in the absence of physical inspection. With the introduction of AI-

generated and AI-assisted reviews on major platforms, trust in online information has become an important issue influencing purchase decisions.

Technology Adoption in E-commerce

E-commerce platforms in India are increasingly investing in AI technologies to enhance user experience. These technologies include automated review summarization, sentiment analysis, recommendation engines, and fake review detection systems. While these tools improve efficiency and decision-making, consumers may not always be aware of whether the reviews they read are human-written or AI-generated, leading to trust-related concerns.

Consumer Behavior in Ramanadhapuram District

Ramanathapuram district has shown steady growth in internet usage and online shopping, particularly among young and tech-savvy consumers. Residents increasingly use e-commerce platforms for purchasing electronics, fashion, household items, and daily necessities. Consumers in the district often depend on online product reviews to guide their buying decisions. However, varying levels of digital literacy and awareness may influence how consumers perceive and trust AI-generated reviews.

Industry Outlook

The future growth of the e-commerce industry in India, including Ramanathapuram district, is closely linked to the ethical and transparent use of AI technologies. Building consumer trust through clear disclosure, reliable review systems, and authentic information will be essential for long-term sustainability. Understanding consumer trust in AI-generated product reviews is therefore crucial for improving platform credibility and enhancing customer satisfaction.

3.2 HISTORY OF E-COMMERCE AND ONLINE PRODUCT REVIEWS

E-commerce in India began to develop in the late 1990s with the introduction of internet-based services and early online portals. Initially, e-commerce platforms were limited to basic product listings and online transactions. With the expansion of internet connectivity and increasing digital awareness, online shopping gradually gained acceptance among consumers. The growth of smartphones and affordable data plans further accelerated the adoption of e-commerce across urban and semi-urban regions.

In the early stages of e-commerce, consumers faced difficulties in trusting online sellers due to the inability to physically inspect products. To overcome this challenge, online product reviews emerged as an important feature. Customers started sharing their experiences, opinions, and feedback, which helped other buyers evaluate product quality and reduce uncertainty. These reviews acted as electronic word-of-mouth and became a major influence on purchase decisions. As e-commerce platforms expanded in the 2000s, structured review systems such as star ratings, written reviews, verified purchase tags, and helpfulness votes were introduced to improve transparency and credibility. Consumers increasingly relied on these reviews while making buying

decisions, making them a central component of the e-commerce ecosystem. With the rapid growth in the volume of online reviews, platforms began adopting Artificial Intelligence (AI) technologies to manage and analyze review data efficiently. AI tools were introduced for sentiment analysis, fake review detection, and personalized review recommendations. In recent years, AI-generated product reviews and automated review summaries have been developed to provide quick and concise insights to consumers.

However, the use of AI-generated reviews has also raised concerns related to authenticity, bias, and transparency. While AI improves efficiency and user experience, consumers may question whether such reviews genuinely reflect real user experiences. Thus, the evolution of e-commerce and online product reviews highlights the continuous effort to balance technological advancement with consumer trust and ethical practices.

3.3 COMPANY PROFILE (E-Commerce Platforms)

E-commerce platforms are digital marketplaces that enable consumers to buy and sell goods and services through the internet. These platforms offer a wide range of products, including electronics, fashion, household items, and daily essentials, along with features such as secure digital payment systems, efficient delivery services, and customer support. In India, major e-commerce platforms such as Amazon, Flipkart, Myntra, and Snapdeal play a significant role in shaping online shopping behavior. Online product reviews and ratings are an essential feature of these platforms, helping consumers evaluate product quality, compare alternatives, and reduce uncertainty before making purchase decisions. Reviews act as electronic word-of-mouth and strongly influence consumer trust and buying behaviors. To handle the growing volume of customer feedback, e-commerce platforms increasingly use Artificial Intelligence (AI) technologies. AI is applied to analyze review sentiment, detect fake or misleading reviews, generate review summaries, and personalize review displays for users. While AI-driven review systems improve efficiency and user experience, they also raise concerns related to transparency and authenticity. Therefore, leading e-commerce platforms focus on ethical AI practices and credible review mechanisms to maintain consumer trust and long-term platform reputation.

3.4 ADVANTAGES OF AI-GENERATED PRODUCT REVIEWS IN E-COMMERCE

AI-generated product reviews offer several advantages in the e-commerce environment by enhancing convenience, reliability, user experience, and platform efficiency. One of the major benefits is convenience, as AI can quickly summarize a large number of customer reviews and provide clear insights about product quality. This helps consumers save time, as they no longer need to read hundreds of individual reviews to make a decision. By automatically highlighting key advantages and disadvantages of a product, AI also improves navigation and enables faster decision-making.

In terms of reliability and trust, AI systems can detect and flag fake or suspicious reviews, thereby improving the overall credibility of the review system. The use of standardized and structured summaries ensures consistency and reduces bias, making it easier for consumers to compare products. Furthermore, AI enhances the overall user experience by offering personalized review recommendations based on customer preferences

and previous browsing behavior. This structured and relevant presentation of information reduces confusion and supports better purchasing decisions.

From the platform's perspective, AI-generated reviews allow efficient management of thousands of customer responses without requiring extensive manual effort. By maintaining a transparent and organized review system, e-commerce platforms can increase customer confidence, improve satisfaction levels, and encourage repeat purchases. Overall, AI-generated product reviews contribute to a more efficient, trustworthy, and user-friendly online shopping experience.

3.5 DISADVANTAGES OF AI-GENERATED PRODUCT REVIEWS

Although AI-generated product reviews provide efficiency and structured information, they also have certain limitations that may affect consumer trust. One major drawback is the lack of human touch. Human-written reviews usually include personal experiences, emotions, and specific usage details that make them relatable and authentic. In contrast, AI-generated reviews may appear formal, generic, or impersonal, which can reduce their credibility in the eyes of consumers.

Another important issue is transparency. Consumers are not always clearly informed whether a review is written by a real customer or generated by artificial intelligence. When proper disclosure is missing, it may create confusion and reduce trust in the e-commerce platform.

Since trust plays a vital role in online purchasing decisions, any uncertainty regarding the authenticity of reviews can negatively influence consumer confidence.

There is also the risk of bias or errors in AI systems. AI tools depend on training data and algorithms, and if the data contains inaccuracies or bias, the generated summaries may reflect those issues. Additionally, AI summarization may oversimplify complex opinions by omitting important details, which can limit a consumer's full understanding of the product. Over-reliance on automated systems may further increase the chances of misinterpretation.

Finally, dependence on technology can create challenges for users with lower digital literacy, and technical issues or poorly designed algorithms may negatively impact the overall user experience. Therefore, while AI-generated reviews offer convenience, these disadvantages highlight concerns related to authenticity, accuracy, and transparency, all of which directly influence consumer trust in e-commerce platforms.

3.6 TYPES OF ONLINE PRODUCT REVIEWS

Online product reviews are presented in various formats on e-commerce platforms, each serving a unique role in guiding consumer decision-making. These different types of reviews help consumers evaluate product quality, compare alternatives, and build trust before making a purchase. The major types of online product reviews are explained below:

1. Text-Based Reviews

Text-based reviews are the most traditional and widely used form of online feedback. In this format, consumers write detailed descriptions of their experiences, including product performance, quality, usability, and overall satisfaction. These reviews often include personal opinions, practical usage details, and recommendations. On modern e-commerce platforms, AI tools may also summarize or refine text reviews to improve clarity and readability. Text-based reviews are highly influential because they provide in-depth information that helps consumers assess whether a product meets their needs.

2. Star or Numerical Ratings

Star ratings or numerical ratings provide a simplified method for consumers to evaluate products. Typically displayed on a scale from one to five stars, this system offers a quick visual representation of overall customer satisfaction. Higher ratings generally indicate positive experiences, while lower ratings signal dissatisfaction. Many consumers rely on star ratings as a first step in the decision-making process before reading detailed reviews. This format is particularly useful for comparing multiple products within a short period.

3. Video Reviews

Video reviews have gained popularity due to their ability to visually demonstrate product features and usage. In this format, consumers record and share videos showing unboxing experiences, product demonstrations, and honest opinions. Video reviews provide greater transparency, as viewers can see the product in real-life conditions. Some e-commerce platforms use AI technologies to analyze or generate video summaries based on textual feedback, further enhancing user experience. This format helps build stronger trust as it reduces uncertainty about product appearance and functionality.

4. AI-Generated Summaries

AI-generated summaries are created using artificial intelligence tools that analyze large volumes of customer feedback. These summaries highlight key advantages, disadvantages, and common themes within reviews. Instead of reading numerous individual comments, consumers can quickly understand the general perception of a product. This format improves efficiency and saves time, especially for products with thousands of reviews. However, the effectiveness of AI-generated summaries depends on the accuracy and transparency of the underlying algorithms.

5. Verified Purchase Reviews

Verified purchase reviews are marked to indicate that the reviewer has actually bought the product through the platform. This verification process increases credibility and reduces the likelihood of fake or manipulated reviews. E-commerce platforms often use AI systems to validate transactions and identify genuine buyers. Consumers generally trust verified reviews more because they are perceived as authentic and based on real experiences.

6. Sentiment-Based Reviews

Sentiment-based reviews involve the use of AI technology to classify customer feedback into categories such as positive, neutral, or negative. By analyzing language patterns and emotional tone, AI systems provide an overview of the general sentiment surrounding a product. This classification helps consumers quickly understand overall satisfaction levels without reading every review. Sentiment analysis also assists platforms in monitoring customer opinions and identifying potential product issues.

3.7 BENEFITS OF AI-ENABLED REVIEW SYSTEMS FOR CONSUMERS AND PLATFORMS

AI-enabled review systems offer significant advantages for both consumers and e-commerce platforms. By summarizing large volumes of reviews, they save time and provide clear insights that help shoppers make informed decisions. These systems also enhance trust by detecting fake or biased reviews and delivering reliable information. Personalization features ensure that users see reviews most relevant to their preferences, while structured summaries make understanding product quality simpler and more consistent.

Key Benefits:

- **Time-saving:** Quick summaries reduce the need to read every individual review.
- **Improved decision-making:** Highlights key pros and cons to assist consumer choices.
- **Trust and reliability:** Flags fake or misleading reviews to increase confidence.
- **Personalization:** Suggests reviews relevant to user preferences or purchase history.
- **Platform efficiency:** Automates review management and enhances credibility.
- **Market insights:** Analyses consumer sentiment to guide product improvement.
- **Competitive advantage:** Strengthens customer engagement and platform differentiation.

3.8 FEATURES OF AI-GENERATED PRODUCT REVIEWS ON E-COMMERCE PLATFORMS

AI-generated product reviews are transforming the way consumers interact with online marketplaces. These reviews leverage advanced algorithms and natural language processing to provide concise, structured, and highly relevant insights about products. One of their key characteristics is automation, which allows platforms to efficiently process and summarize large volumes of feedback without manual effort. The system ensures consistency in style and format, making the information easier to read and understand. Another important feature is summarization, where AI condenses multiple user opinions into coherent overviews, highlighting the

most common advantages and drawbacks of a product.

Sentiment analysis further categorizes feedback as positive, neutral, or negative, helping consumer quickly gauge overall satisfaction levels. Some platforms also incorporate personalization, presenting review insights that are tailored to individual consumer preferences and previous purchase behavior. Additionally, modern AI-generated systems often include transparency indicators to disclose machine-generated content and fraud detection mechanisms to flag suspicious or potentially fake reviews, thereby enhancing trust in the platform.

By integrating these features, AI-generated reviews not only improve decision-making efficiency for consumers but also strengthen credibility and engagement for e-commerce platforms, ultimately contributing to a more transparent and reliable online shopping ecosystem.

CHAPTER IV
ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter presents and analyzes the results of the survey conducted for the present study. Data analysis is an important stage in the research process, as it helps in converting raw data into meaningful information for proper interpretation. The main objective of this chapter is to examine consumer awareness, perception, and behavior towards AI-generated product reviews and their influence on online purchasing decisions. The data collected from 50 respondents have been systematically classified and presented in tables for better understanding. To analyze the collected data, statistical tools such as the Simple Percentage Method, Weighted Average Method, Pie Chart, Correlation, and Chi-Square Test have been applied. These tools help in interpreting the data accurately and drawing valid conclusions.

This chapter forms the basis for the findings and conclusions of the study.

4.2 SIMPLE PERCENTAGE METHOD

Percentage is used in data presentation to simplify numbers by reducing them to a scale of 0 to 100. Through the use of percentages, the data are converted into a standard form with a base equal to 100, which facilitates easy comparison and better understanding of the results

$$percentage\ of\ Respondents = \frac{No.\ of.\ Respondents}{total\ number\ of\ respondents} \times 100$$

4.2.1 GENDER OF THE RESPONDENTS

The following table is the gender of the sample respondents;

TABLE 4.2.1
GENDER OF THE RESPONDENTS

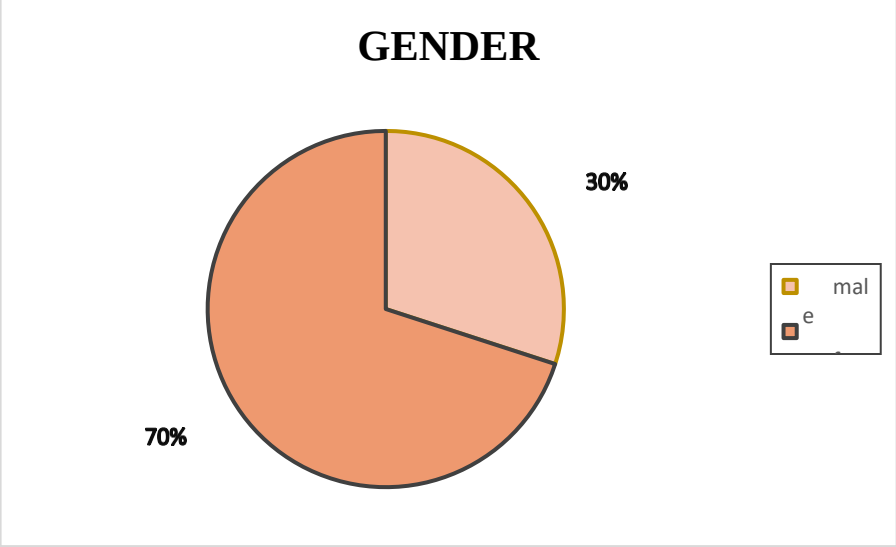
S.NO	GENDER	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Male	15	30
2	Female	35	70
	TOTAL	**50**	**100**

Source: primary data

INTERPRETATION:
The above table 4.2.1 shows that 70% of the respondents are female and 30% of the respondents are male.

It can be concluded from the above table that majority of the respondents are female by 70%

FIGURE 4.2.1
GENDER OF THE RESPONDENTS



4.2.2 MARITAL STATUS OF THE RESPONDENTS

The following table gives the information about marital status of the respondents

TABLE 4.2.2

MARITAL STATUS OF THE RESPONDENTS

S.NO	MARITAL STATUS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Married	10	20
2	Unmarried	40	80
	TOTAL	**50**	**100**

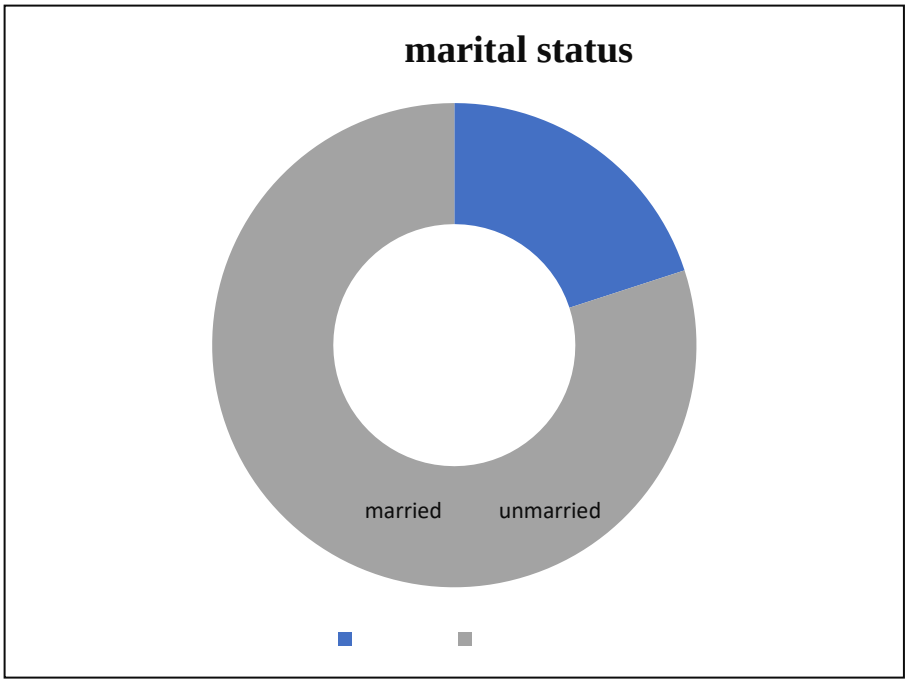
Source: primary data

INTERPRETATION

It is observed from Table 4.2.2 that out of 50 respondents, 80% are unmarried and 20% are married.

Therefore, the majority of the respondents are unmarried.

FIGURE 4.2.4
MARITAL STATUS OF THE RESPONDENTS



4.2.3 AGE OF THE RESPONDENTS

The age wise distribution of the level of respondents at the time of conducting the present study presented in the following table:

TABLE 4.2.3

AGE OF THE RESPONDENTS

S.NO	AGE	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Below 20 years	27	54
2	21-30 years	17	34
3	31-40 years	3	6
4	Above 40 years	3	6
	TOTAL	**50**	**100**

Source: Primary data

INTERPRETATION:

It is evident from Table 4.2.3 that 54% of respondents belong to the below 20 age group, followed by 34% in the 21–30 age group. Only 6% each belong to the 31–40 and above 40 age groups.

Hence, the majority of respondents are below 20 years of age.

FIGURE 4.2.3
AGE WISE CLASSIFICATION OF THE RESPONDENTS

4.2.4 EDUCATIONAL QUALIFICATION OF THE RESPONDENTS

The following table gives the information about the qualification of respondents;

TABLE4.2.4

EDUCATIONAL QUALIFICATION OF THE RESPONDENTS

S.NO	EDUCATIONAL QUALIFICATION	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	School	6	12
2	Undergraduate	40	80
3	Postgraduate	1	2
4	Professional	3	6
	TOTAL	**50**	**100**

Source: primary data

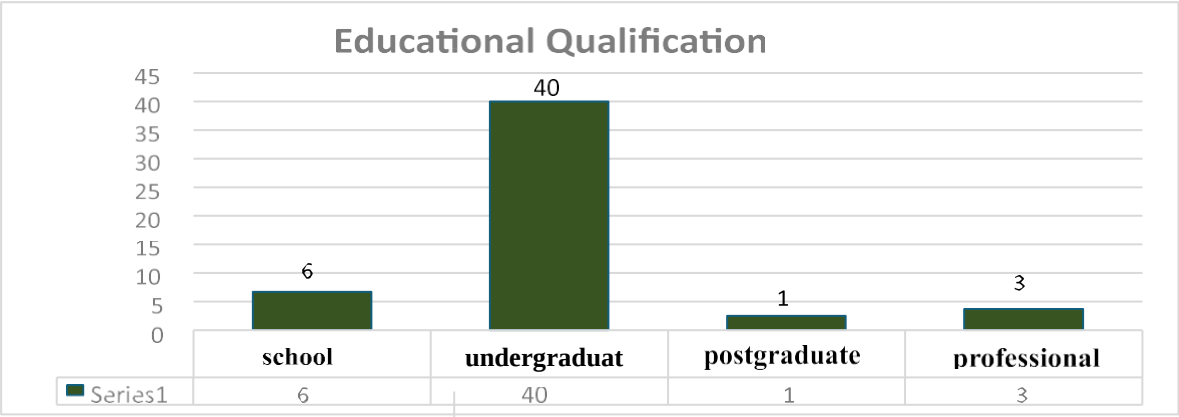
INTERPRETATION:

The above table 4.2.4 shows that 80% of respondents are undergraduates, 12% have completed school education, 6% possess professional qualifications, and only 2% are postgraduates.

Therefore, the majority of respondents are undergraduates.

FIGURE 4.2.4

EDUCATIONAL QUALIFICATION OF THE RESPONDENTS



4.2.5 OCCUPATION OF THE RESPONDENTS

The following table depicts the occupation of respondents;

TABLE4.2.5

OCCUPATION OF THE RESPONDENTS

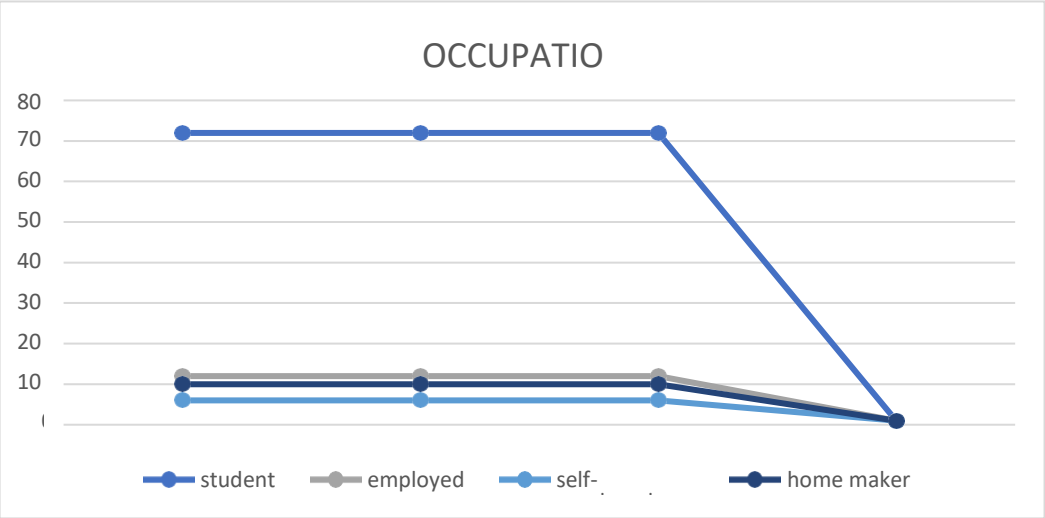
S.NO	OCCUPATION	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Student	36	72
2	Employed	6	12
3	Self-employed	3	6
4	Home maker	5	10
	TOTAL	**50**	**100**

Source: primary data

INTERPRETATION:

The above table 4.2.5 reveals that 72% of the respondents are students, 12% are employed, 10% are homemakers, and 6% are self-employed. **Thus, students form the majority of the respondents. This suggests that the findings of the study largely reflect the views and purchasing behavior of students**.

FIGURE 4.2.5 OCCUPATION OF THE RESPONDENTS



4.2.6 MONTHLY INCOME OF THE RESPONDENTS

Monthly income of the customer is presented in the following table;

TABLE 4.2.6

MONTHLY INCOME OF THE RESPONDENTS

S.NO	MONTHLY INCOME	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Below 10,000	27	54
2	10,000 – 20,000	14	28
3	20,001 – 30,000	6	12
4	Above 30,000	3	6
	TOTAL	**50**	**100**

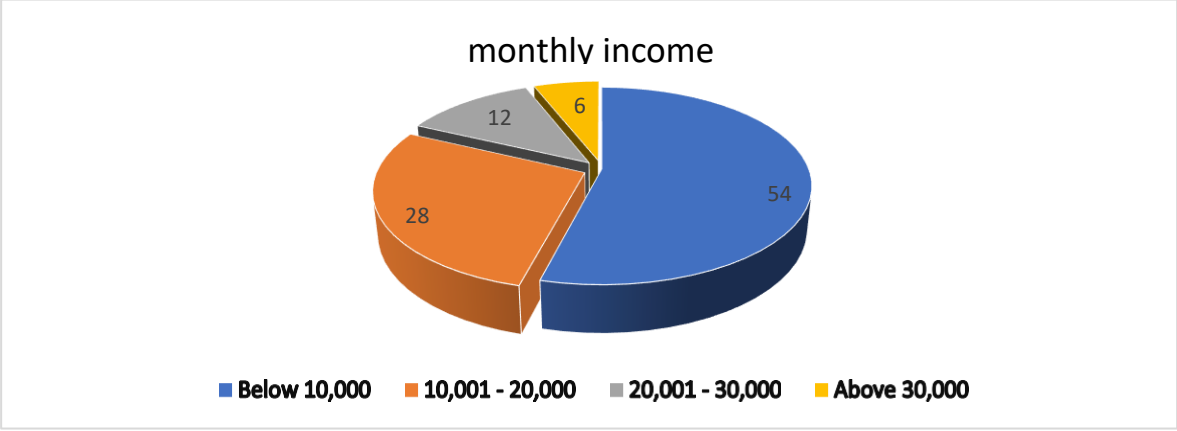
Source: primary data

INTERPRETATION:

The above table 4.2.6 shows that 54% of the respondents earn below ₹10,000 per month, 28% earn between ₹10,000–₹20,000, 12% earn between ₹20,001–₹30,000, and 6% earn above
₹30,000. Hence, the majority of respondents fall under the lowest income category. This indicates that most participants belong to a lower income group, which may affect their purchasing decisions.

FIGURE 4.2.6

MONTHLY INCOME OF THE RESPONDENTS



4.2.7 E-COMMERCE PLATFORM MOSTLY USED BY THE RESPONDENTS

The following table depicts the e-commerce platform mostly used by the respondents**.**

TABLE 4.2.7

E-COMMERCE PLATFORM MOSTLY USED BY THE RESPONDENTS

S.NO	E-COMMERCE PLATFORM	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Amazon	14	28
2	Flipkart	17	34
3	Meesho	18	36
4	Myntra	1	2
	TOTAL	**50**	**100**

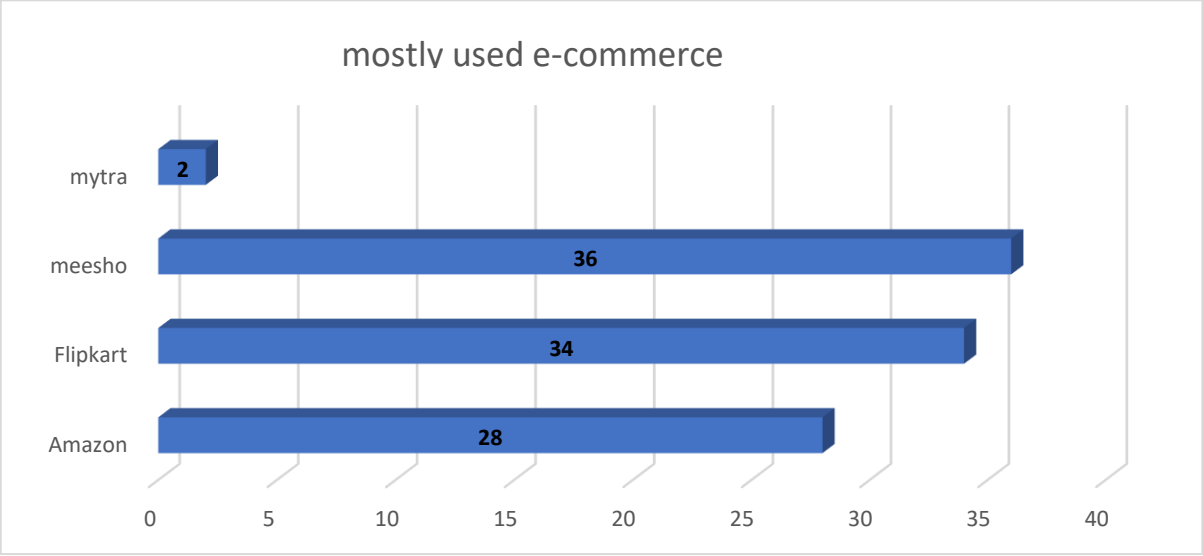
Source: primary data

INTERPRETATION:

The above table 4.2.7 reveals that 36% of the respondents use Meesho, 34% use Flipkart, 28% use Amazon, and 2% use Myntra. **Therefore, Meesho is the most preferred platform among respondents. This shows that Meesho has a slightly higher usage compared to other platforms in the study.**

FIGURE 4.2.7

E-COMMERCE PLATFORM MOSTLY USED BY THE RESPONDENTS



4.2.8 TYPE OF PRODUCTS MOSTLY PURCHASED ONLINE

The following table depicts the type of products mostly purchased by the respondents.

TABLE4.2.8

TYPE OF PRODUCTS MOSTLY PURCHASED ONLINE

S.NO	TYPE OF PRODUCTS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Electronics	5	10
2	Fashion	30	60
3	Groceries	6	12
4	All of the above	9	18
	TOTAL	**50**	**100**

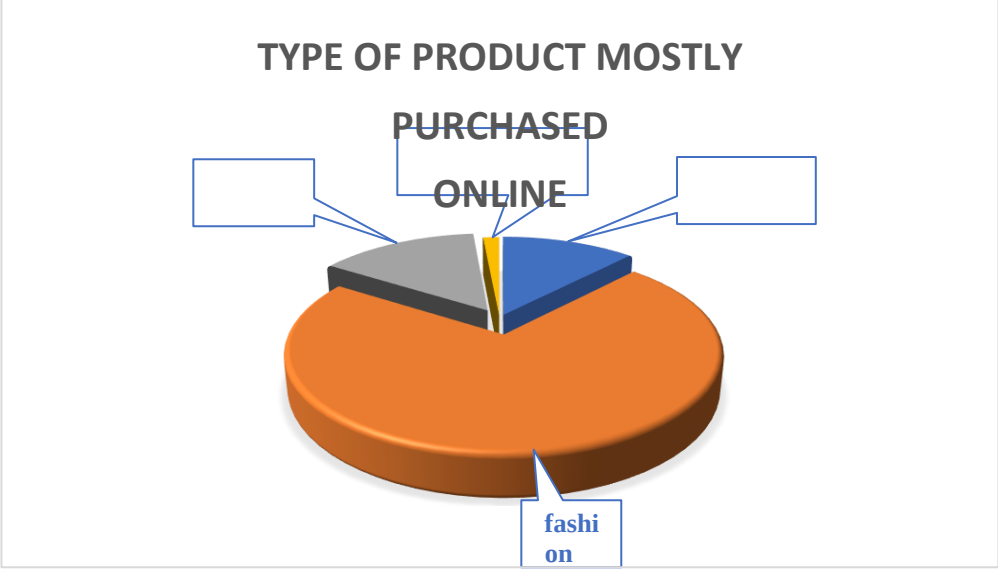
Source: primary data

INTERPRETATION:

The above table 4.2.8 indicates that 60% of the respondents mostly purchase fashion products, 18% purchase all types of products, 12% purchase groceries, and 10% purchase electronics. **Hence, fashion products are the most commonly purchased items. This suggests that respondents show greater interest in clothing and related items.**

TABLE4.2.8

TYPE OF PRODUCTS MOSTLY PURCHASED ONLINE



4.2.9 FREQUENCY OF READING PRODUCT REVIEWS BEFORE BUYING

The following table depicts how frequently respondents read product reviews before purchasing.

TABLE4.2.9

FREQUENCY OF READING PRODUCT REVIEWS BEFORE BUYING

S.NO	FREQUENCY OF READING REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Always	29	58
2	Often	8	16
3	Sometimes	13	26
4	Never	0	0
	TOTAL	**50**	**100**

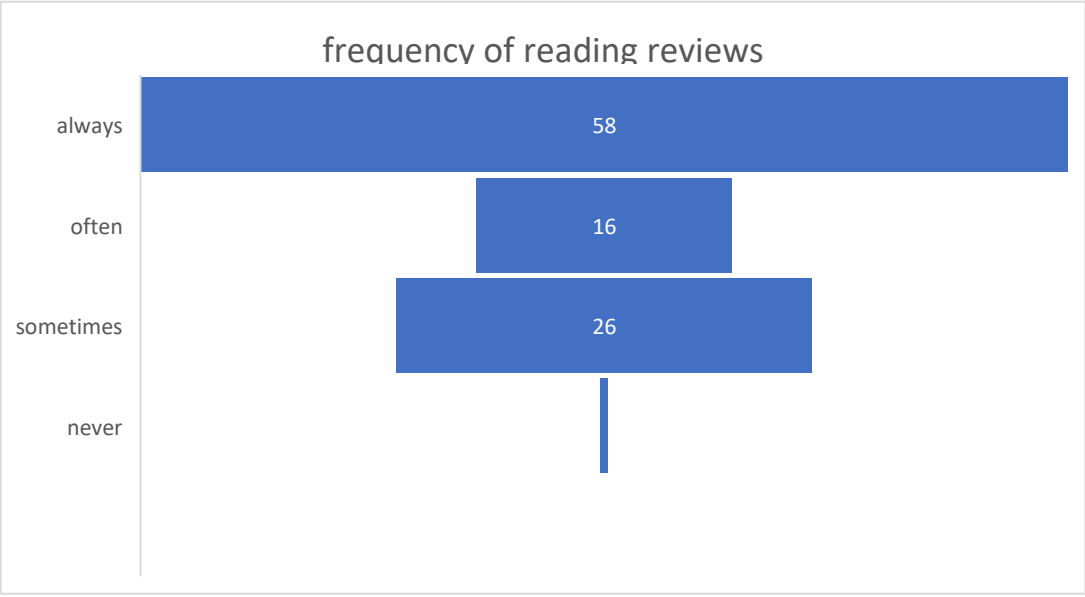
Source: primary data

INTERPRETATION:

The above Table 4.2.9 shows that 58% of the respondents always read product reviews before purchasing, 26% sometimes read reviews, and 16% often read reviews. **It is clear that most respondents consider reviews as an important factor before making a purchase decision.**

TABLE4.2.9

FREQUENCY OF READING PRODUCT REVIEWS BEFORE BUYING



4.2.10 REASONS FOR READING PRODUCT REVIEWS

The following table depicts the reasons why respondents read product reviews

TABLE 4.2.10

REASONS FOR READING PRODUCT REVIEWS

S.NO	REASON FOR READING REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	To check product quality	22	44
2	To compare alternatives	11	22
3	To see other customer experience	14	28
4	I rarely depend on review	3	6
	TOTAL	**50**	**100**

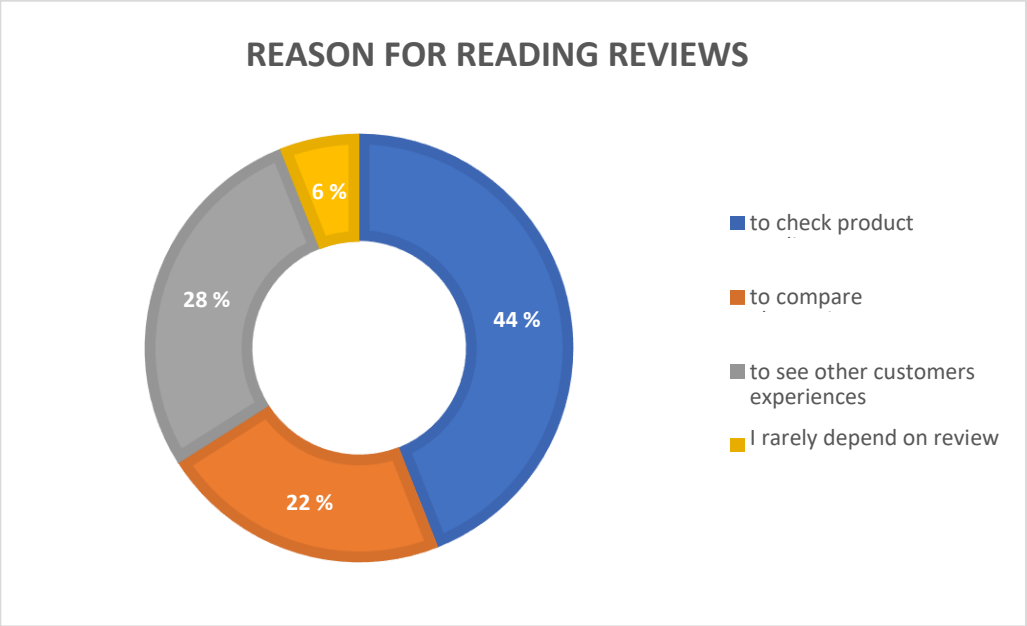
Source: primary data

INTERPRETATION

The above Table 4.2.10 reveals that 44% of respondents read reviews to check product quality, 28% to understand other customers' experiences, 22% to compare alternatives, and 6% rarely depend on reviews. **Therefore, checking product quality is the main reason for referring to reviews.**

TABLE 4.2.10

REASONS FOR READING PRODUCT REVIEWS



4.2.11 FACTORS THAT MAKE RESPONDENTS TRUST ONLINE REVIEWS

The following table depicts the factors that build trust in online product reviews.

TABLE 4.2.11

FACTORS THAT BUILD TRUST IN REVIEWS

S.NO	TRUST FACTORS IN REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Verified purchase badge	8	16
2	Detailed explanation	13	26
3	Photo's/videos included	16	32
4	High rating	13	26
	TOTAL	**50**	**100**

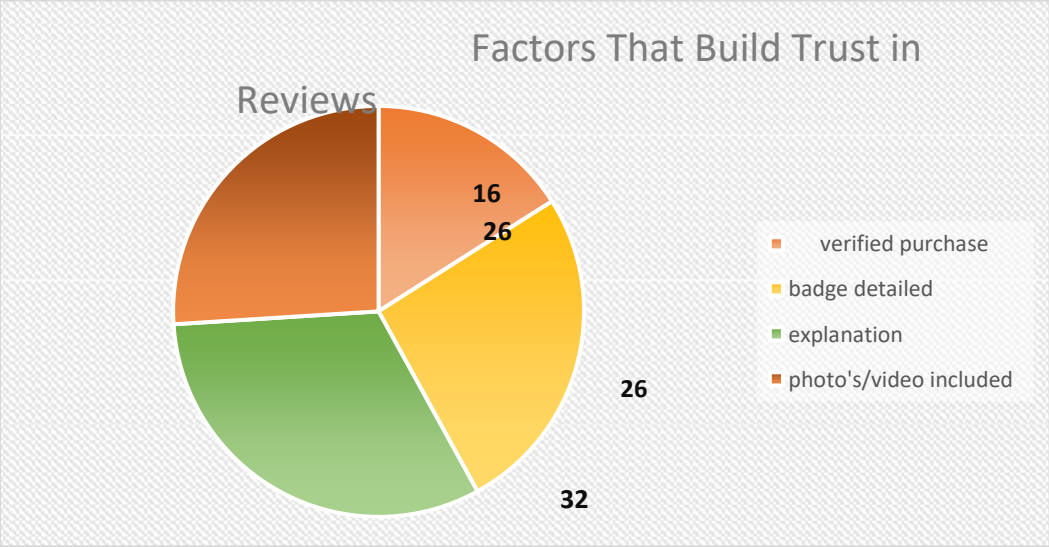
Source: primary data

INTERPRETATION:

The above Table 4.2.11 shows that 32% of respondents trust reviews with photos or videos, 26% trust detailed explanations, 26% trust high ratings, and 16% trust verified purchase badges. **Thus, reviews with visual proof are considered more reliable by most respondents.**

TABLE 4.2.11

FACTORS THAT BUILD TRUST IN REVIEWS



4.2.12 AWARENESS OF AI-GENERATED PRODUCT REVIEWS

The following table depicts the level of awareness among respondents regarding AI-generated reviews.

TABLE 4.2.12

AWARENESS OF AI-GENERATED REVIEWS

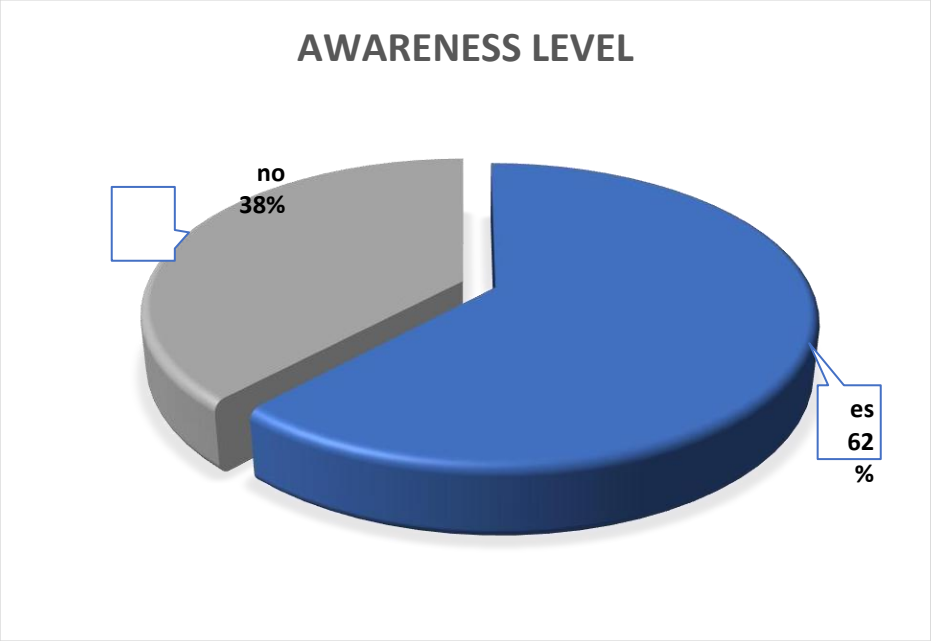
S.NO	AWARENESS LEVEL	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Yes	31	62
2	No	19	38
	TOTAL	**50**	**100**

Source: primary data

INTERPRETATION

The above Table 4.2.12 indicates that 62% of respondents are aware of AI-generated reviews, while 38% are not aware. **Therefore, a majority of respondents have knowledge about AI- generated content in online reviews.**

FIGURE 4.2.12
AWARENESS OF AI-GENERATED REVIEWS



4.2.13 SOURCE OF KNOWLEDGE ABOUT AI-GENERATED REVIEWS

The following table depicts the source through which respondents became aware of AI-generated reviews.

TABLE 4.2.13

SOURCE OF KNOWLEDGE ABOUT AI-GENERATED REVIEWS

S.NO	SOURCE OF AWARENESS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Social media	31	62
2	News/Article	5	10
3	Friends	12	24
4	Platform media	2	4
	TOTAL	**50**	**100**

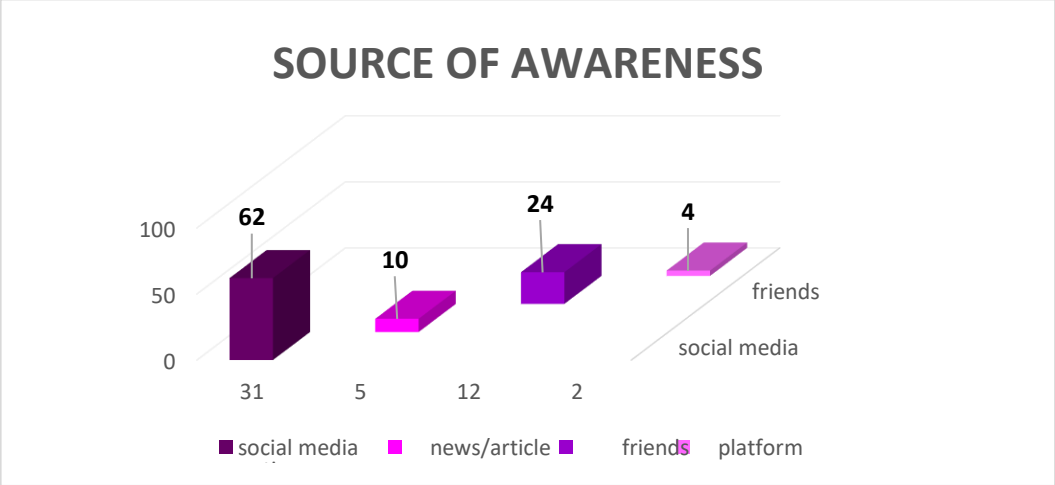
Source: primary data

INTERPRETATION:

The above Table 4.2.13 reveals that 62% of respondents learned about AI-generated reviews through social media, 24% through friends, 10% through news or articles, and 4% through platform notices. **Hence, social media is the major source of awareness.**

TABLE 4.2.13

SOURCE OF KNOWLEDGE ABOUT AI-GENERATED REVIEWS



4.2.14 OPINION ON WHETHER SOME REVIEWS ARE WRITTEN BY AI.

The following table depicts the opinion of respondents regarding AI-written product reviews.

TABLE 4.2.14
OPINIONS ON AI WRITTEN REVIEWS

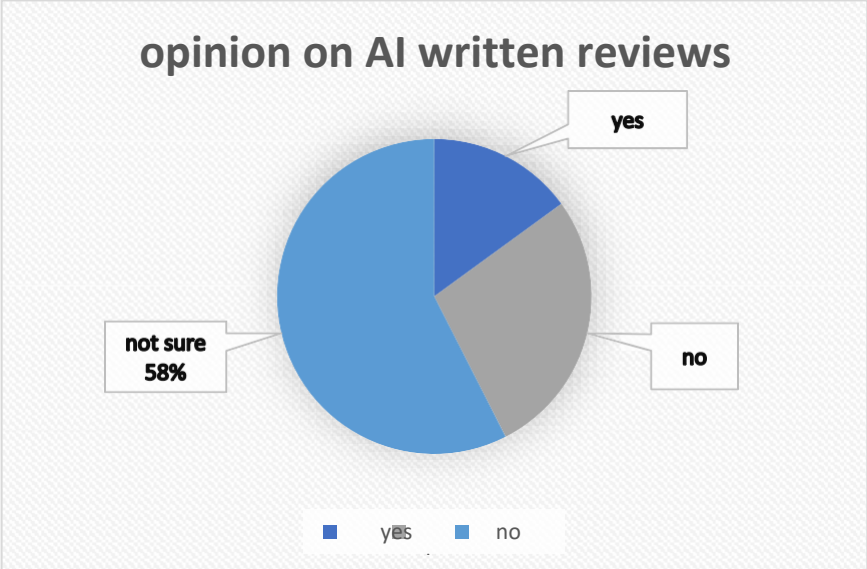
S.NO	OPINION ON AI REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Yes	6	12
2	No	11	22
3	Not sure	23	46
	TOTAL	**50**	**100**

Source: primary data

INTERPRETATION:

The Table 4.2.14 shows that 46% of respondents are unsure whether some reviews are written by AI, 22% believe they are not AI-written, and 12% believe they are AI-written**. This indicates that there is uncertainty among respondents regarding the authenticity of online reviews.**

FIGURE 4.2.14
OPINIONS ON AI WRITTEN REVIEWS



4.2.15 UNDERSTANDING OF AI-GENERATED PRODUCT REVIEWS

The following table depicts the respondents' understanding of AI-generated reviews

TABLE 4.2.15

UNDERSTANDING OF AI-GENERATED PRODUCT REVIEWS

S.NO	UNDERSTANDING OF AI REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Reviews written by customer	15	30
2	Reviews created by AI	17	34
3	Reviews verified by sellers	3	6
4	I don't know	15	30
	TOTAL	**50**	**100**

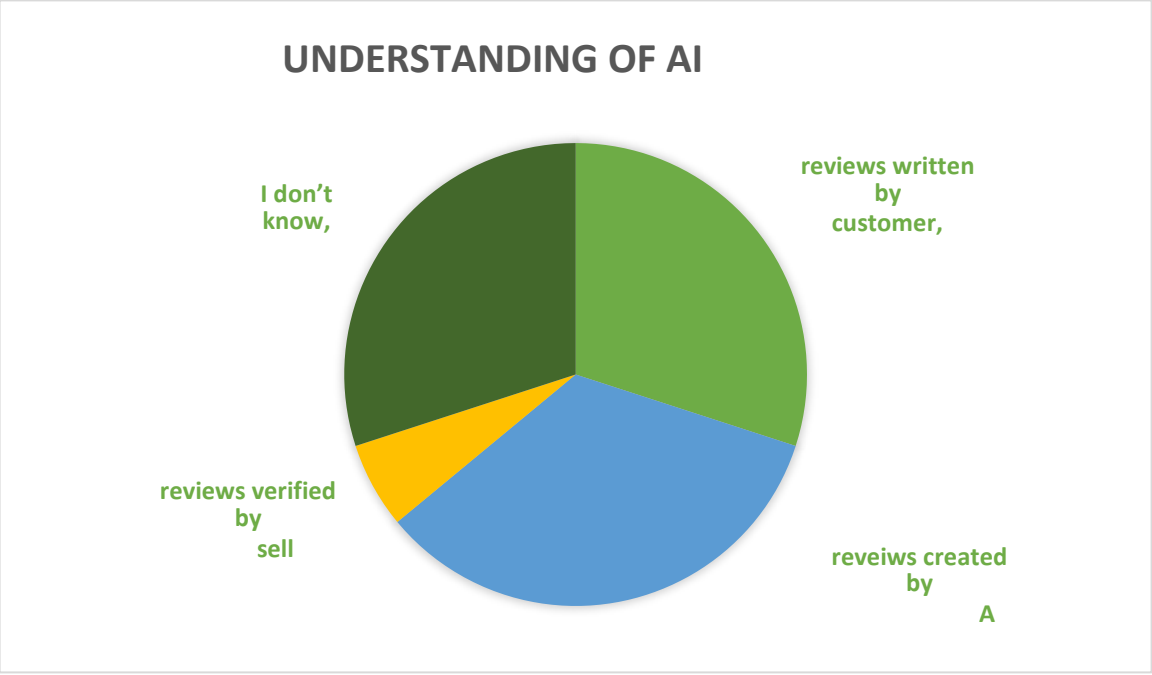
Source: primary data

INTERPRETATION:

The above Table 4.2.15 reveals that 34% understand AI-generated reviews as content created by artificial intelligence, 30% believe they are written by customers, 30% do not know, and 6% think they are verified by sellers. **This shows that there is mixed understanding among respondents regarding AI-generated reviews.**

TABLE 4.2.15

UNDERSTANDING OF AI-GENERATED PRODUCT REVIEWS



4.2.16 ABILITY TO IDENTIFY AI-GENERATED REVIEWS

The following table depicts whether respondents are able to identify AI-generated reviews.

TABLE 4.2.16

ABILITY TO IDENTIFY AI-GENERATED REVIEWS

S.NO	ABILITY TO IDENTIFY AI REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Easily	18	36
2	With difficulty	10	20
3	Cannot identify	9	18
4	Not sure	13	26
	TOTAL	**50**	**100**

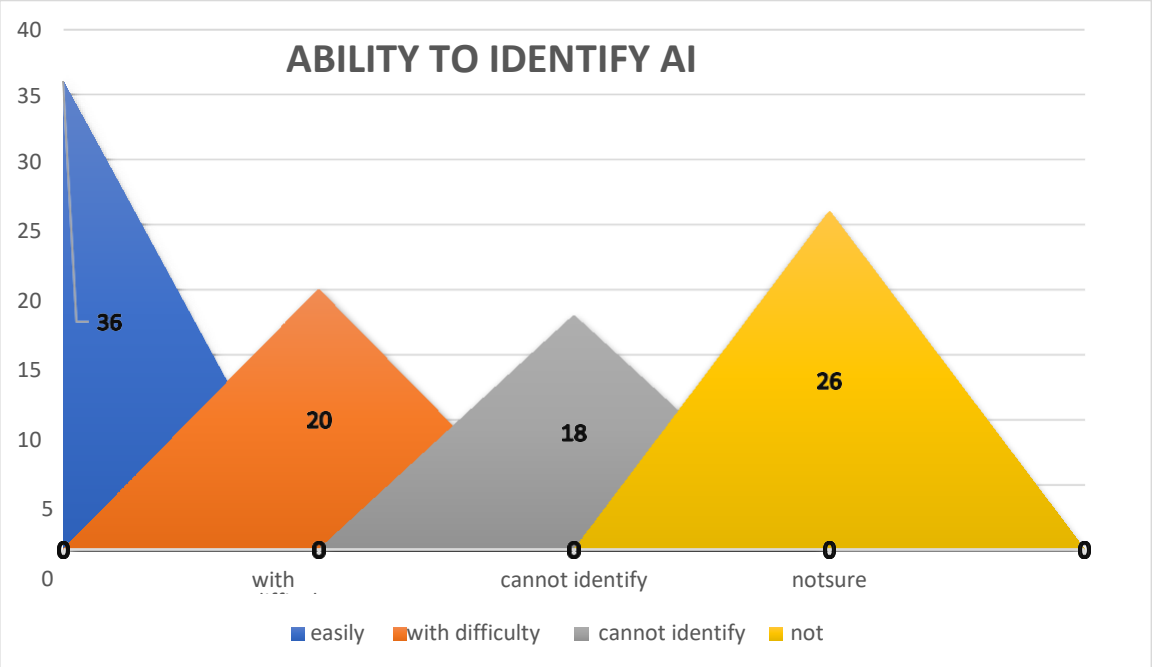
Source: primary data

INTERPRETATION:

The above Table 4.2.16 indicates that 36% of respondents can easily identify AI-generated reviews, 26% are unsure, 20% identify them with difficulty, and 18% cannot identify them. **Hence, only a portion of respondents are confident in recognizing AI-generated reviews**.

TABLE 4.2.16

ABILITY TO IDENTIFY AI-GENERATED REVIEWS



4.2.17 METHODS USED TO IDENTIFY AI-GENERATED REVIEWS

The following table depicts the methods used by respondents to identify AI-generated reviews.

TABLE 4.2.17

METHODS USED TO IDENTIFY AI-GENERATED REVIEWS

S.NO	METHOD OF IDENTIFICATION	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Repetitive language	8	16
2	Too positive / Too negative tone	14	28
3	Lack of personal experience	15	30
4	I cannot identify	13	26
	TOTAL	**50**	**100**

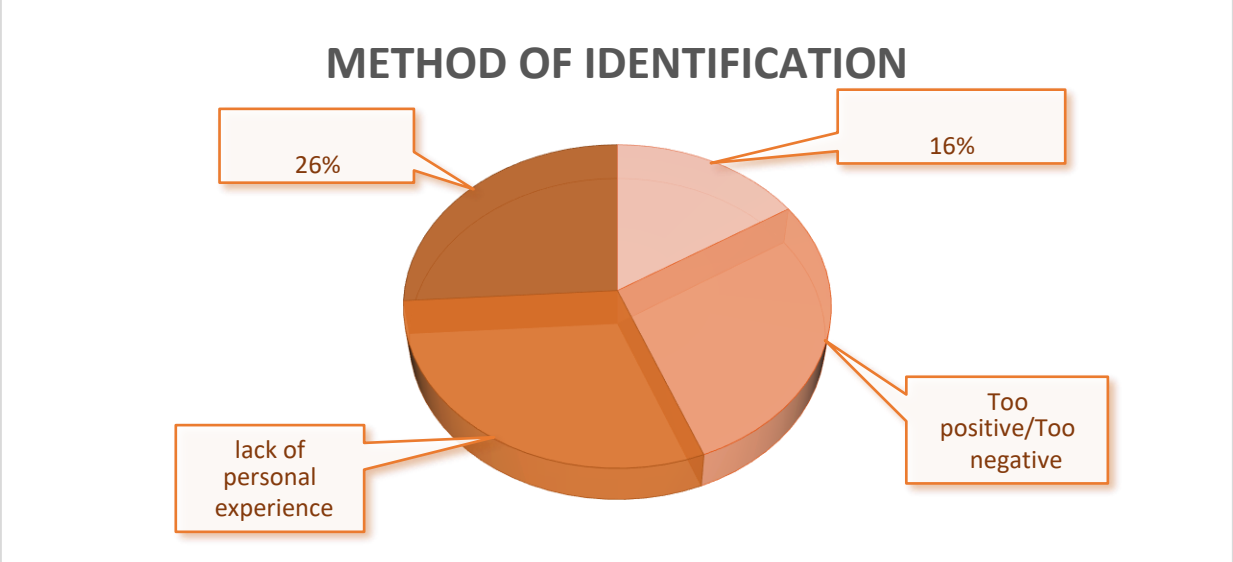
Source: primary data

INTERPRETATION:

The above Table 4.2.17 shows that 30% identify AI reviews due to lack of personal experience, 28% due to extreme positive or negative tone, 16% due to repetitive language, and 26% cannot identify them**. This suggests that respondents rely on writing style and content clues to detect AI-generated reviews.**

TABLE 4.2.17

METHODS USED TO IDENTIFY AI-GENERATED REVIEWS



4.2.18 TYPE OF REVIEWS TRUSTED MORE

The following table depicts the type of product reviews trusted more by the respondents.

TABLE 4.2.18

TYPE OF REVIEWS TRUSTED MORE

S.NO	TYPE OF REVIEWS TRUSTED	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Human reviews	33	66
2	AI-generated reviews	6	12
3	Both equally	9	18
4	None	2	4
	TOTAL	**50**	**100**

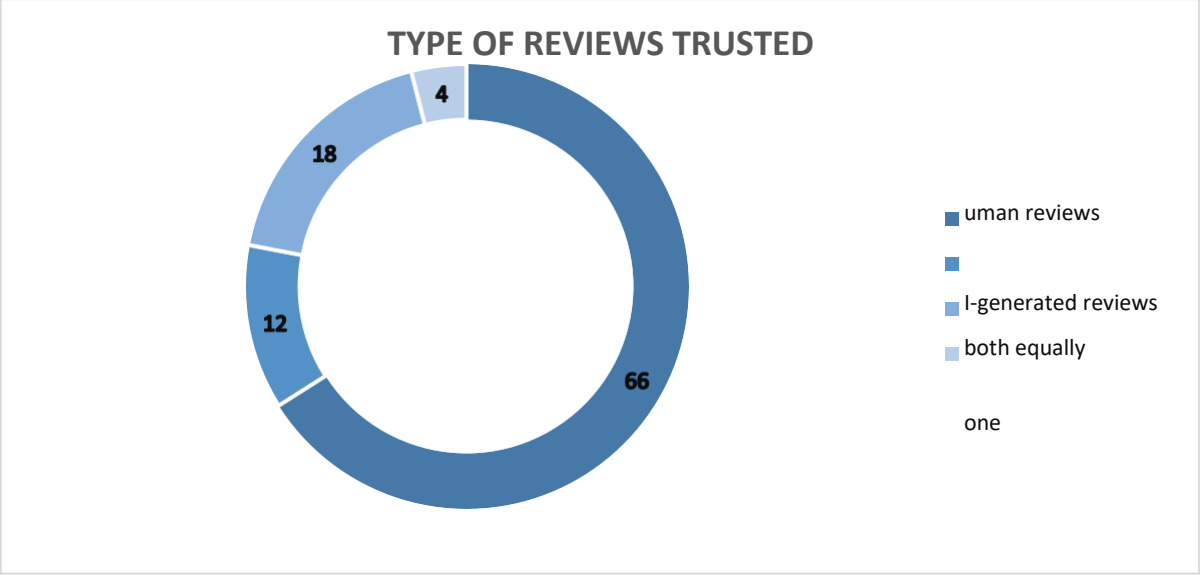
Source: primary data

INTERPRETATION:

The above Table 4.2.18 reveals that 66% of respondents trust human-written reviews, 18% trust both equally, 12% trust AI-generated reviews, and 4% trust none. **Therefore, the majority of respondents show greater trust in human-written reviews.**

TABLE 4.2.18

TYPE OF REVIEWS TRUSTED MORE



4.2.19 INFLUENCE OF AI-GENERATED REVIEWS ON BUYING DECISION

The following table depicts whether AI-generated reviews influence the buying decision of respondents

TABLE 4.2.19
INFLUENCE OF AI-GENERATED REVIEWS ON BUYING DECISION

S.NO	INFLUENCE ON BUYING DECISION	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Yes	15	30
2	No	16	32
3	Sometimes	19	38
	TOTAL	**50**	**100**

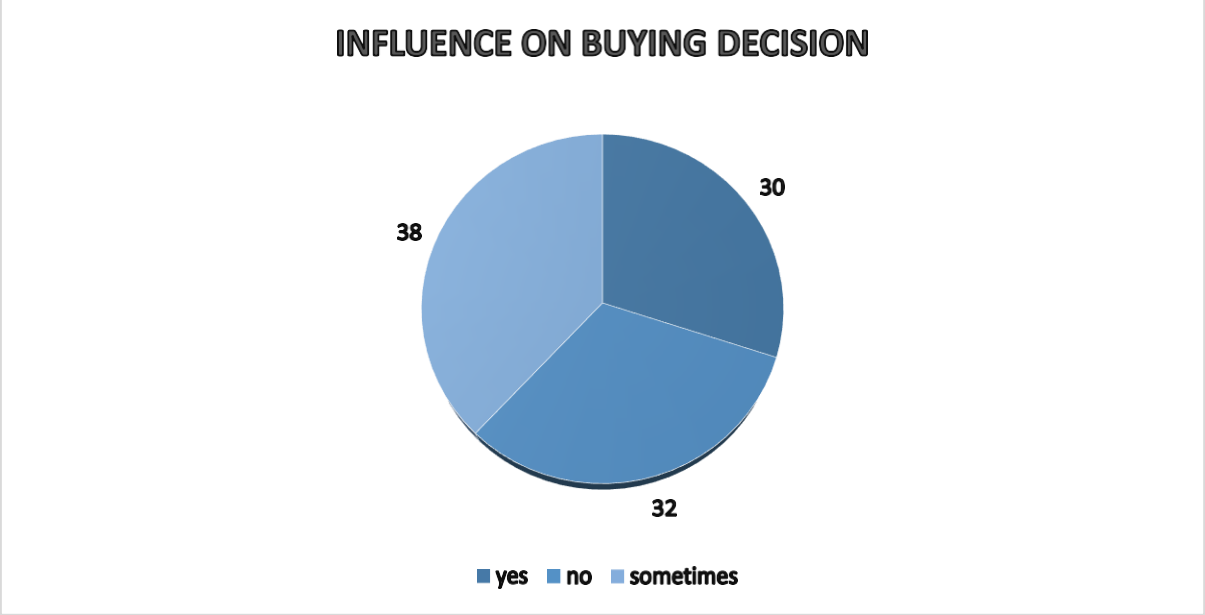
Source: primary data

INTERPRETATION:

The Above Table 4.2.19 shows that 38% of respondents are sometimes influenced by AI-generated reviews, 32% are not influenced, and 30% are influenced. **This indicates that AI-generated reviews have a moderate impact on consumer buying decisions.**

FIGURE 4.2.19

INFLUENCE OF AI-GENERATED REVIEWS ON BUYING DECISION



4.2.20 ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE POSITIVE

The following table depicts the action taken by respondents when product reviews are positive.

TABLE 4.2.20

ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE POSITIVE

S.NO	ACTION FOR POSITIVE REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Buy the product	12	24
2	Check other reviews	27	54
3	Compare brands	8	16
4	Skip the product	3	6
	TOTAL	**50**	**100**

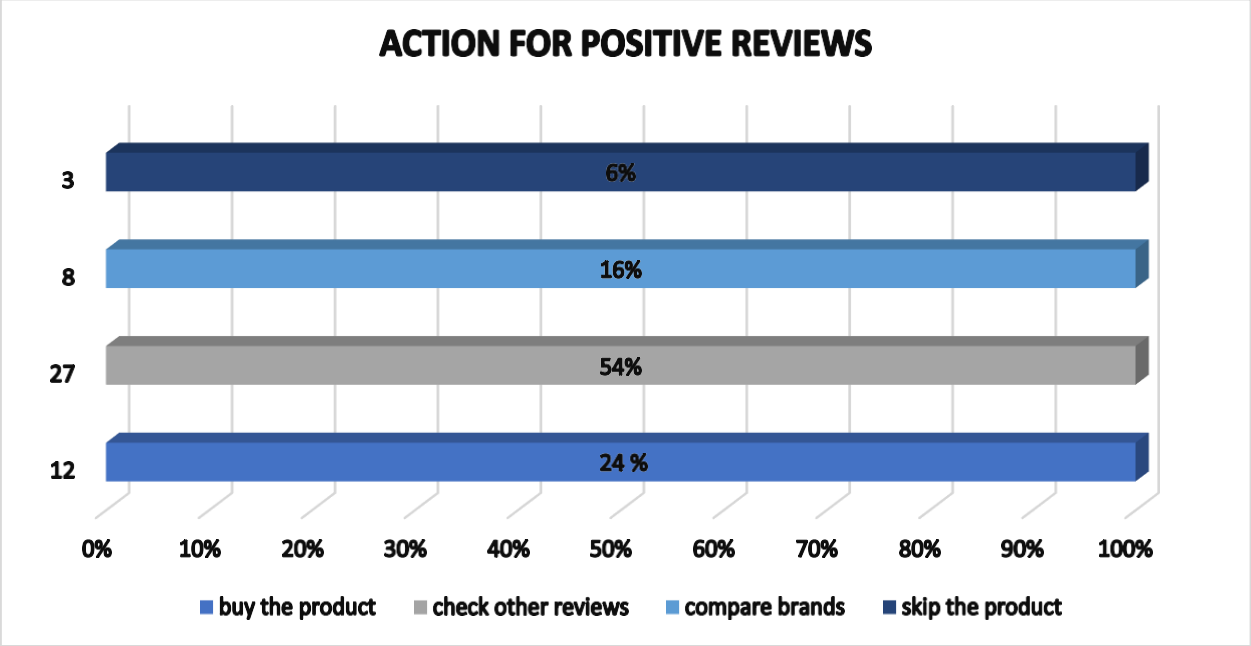
Source: primary data

INTERPRETATION:

The above Table 4.2.20 reveals that 54% of respondents check additional reviews, 24% proceed to buy the product, 16% compare with other brands, and 6% skip the product**. This shows that most respondents prefer further verification even when reviews are positive.**

TABLE 4.2.20

ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE POSITIVE



4.2.21 ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE NEGATIVE

The following table depicts the action taken by respondents when product reviews are negative.

TABLE 4.2.21

ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE NEGATIVE

S.NO	ACTION FOR NEGATIVE REVIEWS	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Cancel the purchase	15	30
2	Search for more information	20	40
3	Ignore them	7	14
4	Buy anyway	8	16
	TOTAL	**50**	**100**

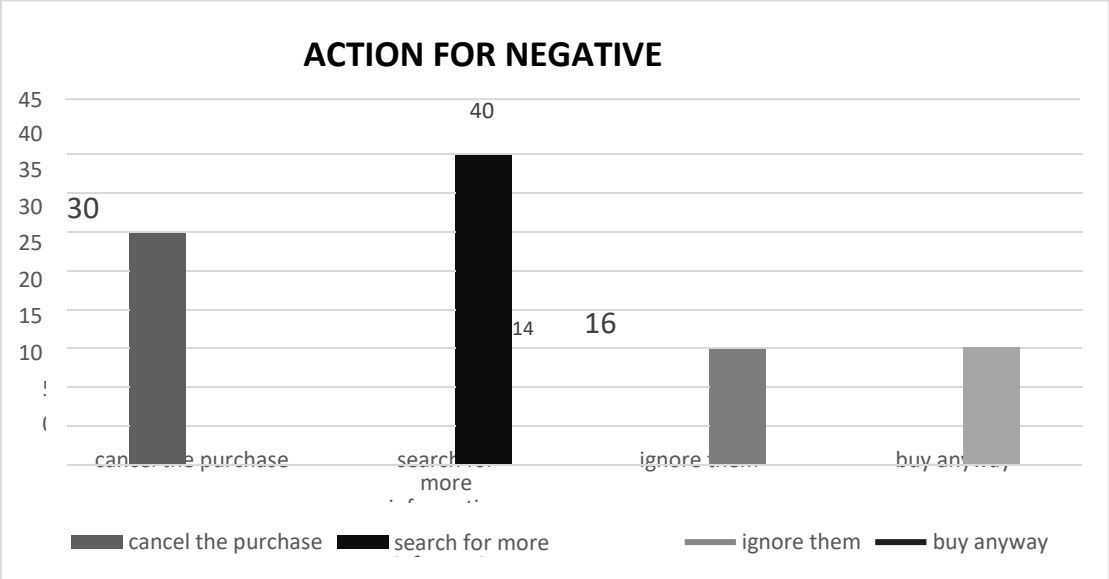
Source: primary data

INTERPRETATION:

The above Table 4.2.21 indicates that 40% of respondents search for more information, 30% cancel the purchase, 16% still buy the product, and 14% ignore the reviews. **Therefore, negative reviews create hesitation and encourage respondents to reconsider their purchase decisions.**

TABLE 4.2.21

ACTION TAKEN WHEN AI-GENERATED REVIEWS ARE NEGATIVE



4.2.22 OPINION ON E-COMMERCE PLATFORMS SHOULD DO REGARDING AI-GENERATED REVIEWS

The following table depicts the opinion of respondents regarding what e-commerce platforms should do concerning AI-generated reviews.

TABLE 4.2.22

OPINION ON E-COMMERCE PLATFORMS SHOULD DO REGARDING AI-GENERATED REVIEWS

S.NO	OPINION ON PLATFORM ACTION	NO. OF RESPONDENTS	% OF THE RESPONDENTS
1	Clearly label them	13	26
2	Remove them	18	36
3	Improve transparency	14	28
4	No changes required	5	10
	TOTAL	**50**	**100**

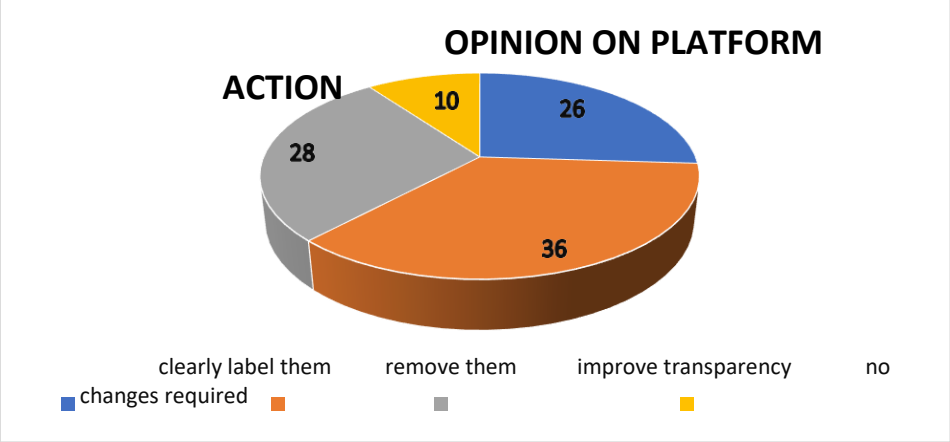
Source: primary data

INTERPRETATION:

The above Table 4.2.22 shows that 36% of the respondents prefer removing AI-generated reviews, 28% suggest improving transparency, 26% recommend clearly labeling them, and 10% feel no changes are required. **Therefore, the majority of respondents expect e-commerce platforms to take action regarding AI-generated reviews**

TABLE 4.2.22

OPINION ON E-COMMERCE PLATFORMS SHOULD DO REGARDING AI-GENERATED REVIEWS



4.3 WEIGHTED ARITHMETIC MEAN

Weighted Average Mean has been adopted to study the level of consumer trust and perception towards AI-generated product reviews on e-commerce platforms among respondents in Ramanathapuram District. Simple average mean gives equal importance to all the items. However, in practice, the relative importance of each factor may not be the same. Hence, Weighted Average Mean is computed to assign appropriate importance to each factor.

The term "weight" refers to the relative importance assigned to different response categories. Weights may be either actual or arbitrary. Weighted Average Mean is calculated by multiplying each response with its corresponding weight, summing the weighted scores, and dividing by the total weight.

$$Xw = \frac{\sum WX}{\sum W}$$

Where,

Xw = Weighted Average Mean W = Weights
X = Variables

The researcher has classified the factors influencing consumer trust in AI-generated product reviews into three categories based on the total weighted score. They are High level of trust, Moderate level of trust, and Low level of trust.

If the sum of weighted scores of any factor computed under weighted average is more than 75% of the total weight, it is assumed that the level of trust towards AI-generated product reviews is **High.**

If the sum of weighted scores of any factor is between 50% and 75% of the total weight, the level of trust towards AI-generated product reviews is considered **Moderate.**

If the sum of weighted scores of any factor is less than 50% of the total weight, the level of trust towards AI-generated product reviews is considered **Low.**

4.3.1 Overall Opinion on AI–Generated Product Reviews

The overall opinion of buyers may influence their trust and usage of AI–generated product reviews. The following table presents the opinion level of respondents towards AI–generated product reviews.

TABLE 4.3.1

OVERALL OPINION ON AI–GENERATED PRODUCT REVIEWS

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	14	70
2	Agree	4	15	60
3	Neutral	3	13	39
4	Disagree	2	5	10
5	Strongly disagree	1	3	3
	TOTAL	**15**	**50**	**182**
OPINION SCORE PERCENTAGE = 182 / 250 × 100 = 72.8%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is 182 out of a maximum possible score of 250. The opinion score percentage is 72.8%, which indicates a high level of agreement among respondents. Hence, it can be concluded that the overall opinion towards AI–generated product reviews is positive.

4.3.2 TRUST IN PRODUCT REVIEWS BEFORE BUYING ONLINE

Customer trust in product reviews plays an important role before purchasing products online. The following table shows the level of trust among respondents.

TABLE 4.3.2

TRUST IN PRODUCT REVIEWS BEFORE BUYING ONLINE

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	14	70
2	Agree	4	23	92
3	Neutral	3	11	33
4	Disagree	2	1	2
5	Strongly disagree	1	1	1
	TOTAL	**15**	**50**	**198**
OPINION SCORE PERCENTAGE = 198 / 250 × 100 = 79.2%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is **198** out of a maximum possible score of **250**. The opinion score percentage is **79.2%**. This shows a high level of agreement among respondents regarding trust in product reviews before purchasing online. Therefore, it can be concluded that respondents largely depend on reviews before making buying decisions.

4.3.3 ABILITY TO IDENTIFY DIFFERENCE BETWEEN HUMAN AND AI REVIEWS

The ability to differentiate between human-written and AI–generated reviews influence customer perception. The following table presents the respondents' opinions.

TABLE 4.3.3

ABILITY TO IDENTIFY DIFFERENCE BETWEEN HUMAN AND AI REVIEWS

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	8	40
2	Agree	4	13	52
3	Neutral	3	22	66
4	Disagree	2	3	6
5	Strongly disagree	1	4	4
	TOTAL	**15**	**50**	**168**
OPINION SCORE PERCENTAGE = 168 / 250 × 100 = 67.2%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is **168** out of a maximum possible score of **250**. The opinion score percentage is **67.2%**. This indicates a moder- ate level of agreement among respondents regarding their ability to identify the difference between human-written and AI–generated reviews. Hence, respondents are somewhat confident but not fully certain in distinguishing between them.

4.3.4 AI–GENERATED REVIEWS PROVIDE MISLEADING INFOR- MATION

Sometimes AI–generated reviews may provide misleading information. The following table shows the respondents' opinion regarding this statement.

TABLE 4.3.4

AI–GENERATED REVIEWS PROVIDE MISLEADING INFORMATION

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	8	40
2	Agree	4	12	48
3	Neutral	3	16	48
4	Disagree	2	10	20
5	Strongly disagree	1	4	4
	TOTAL	**15**	**50**	**160**
OPINION SCORE PERCENTAGE = 160 / 250 × 100 = 64%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is **160** out of a maximum possible score of **250**. The opinion score percentage is **64%**. This indicates a moderate level of agreement among respondents that AI–generated reviews may sometimes provide misleading information. Therefore, there exists a certain level of concern regarding the reliability of AI–generated reviews.

4.3.5 AI–GENERATED REVIEWS INFLUENCE PURCHASE DECISION

AI–generated reviews may influence customers' purchase decisions. The following table presents the respondents opinion.

TABLE 4.3.5

AI–GENERATED REVIEWS INFLUENCE PURCHASE DECISION

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	10	50
2	Agree	4	18	72
3	Neutral	3	15	45
4	Disagree	2	4	8
5	Strongly disagree	1	3	3
	TOTAL	**15**	**50**	**178**
OPINION SCORE PERCENTAGE = 178 / 250 × 100 = 71.2%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is **178** out of a maximum possible score of **250**. The opinion score percentage is **71.2%**. This indicates a high level of agreement among respondents that AI–generated reviews influence their purchase decisions. Hence, AI–generated reviews play a significant role in shaping buying behavior.

4.3.6 AI–GENERATED REVIEWS REDUCE TRUST IN SHOPPING PLATFORMS

The presence of AI–generated reviews may affect trust in online shopping platforms. The following table presents the respondents' opinion.

TABLE 4.3.6

AI–GENERATED REVIEWS REDUCE TRUST IN SHOPPING PLATFORMS

S.NO.	Opinion	Weight	No. of respondents	Weighted score
1	Strongly agree	5	7	35
2	Agree	4	18	72
3	Neutral	3	19	57
4	Disagree	2	3	6
5	Strongly disagree	1	3	3
	TOTAL	**15**	**50**	**173**
OPINION SCORE PERCENTAGE = 173 / 250 × 100 = 69.2%				

Source: Primary data

INTERPRETATION:

It is observed from the above table that the total weighted score obtained is **173** out of a maximum possible score of **250**. The opinion score percentage is **69.2%**. This indicates a moder- ate level of agreement among respondents that AI–generated reviews may reduce trust in shopping platforms. Therefore, while AI reviews are influential, they may also create concerns about platform credibility.

4.4 CORRELATION ANALYSIS

Correlation analysis is used to measure the degree of relationship between two variables. The correlation coefficient summarizes the direction and strength of the relationship between variables in a single numerical value. It helps in understanding whether an increase or decrease in one variable affects another variable.

Correlation is a statistical technique which measures the closeness of the relationship between two variables. In this study, correlation analysis is used to identify the relationship between monthly income of the respondents and the type of product they mostly buy online.

4.4.1 APPLICATION OF CO-EFFICIENT OF CORRELATION

The correlation technique is adopted to find out the relationship between **monthly income of the respondents and the type of products mostly purchased online**.

Here,

Monthly income is taken as **X**

Type of product mostly bought online is taken as **Y**

KARL PEARSON'S CO-EFFICIENT OF CORRELATION:

Among the different mathematical methods used for measuring correlation, **Karl Pearson's method** is the most widely used. It is also known as the **Pearson Product Moment Correlation Coefficient** and is denoted by the symbol **r**.

This method measures the degree of linear relationship between two variables.

The formula used to calculate Karl Pearson's coefficient of correlation is:

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2]}\sqrt{[N\Sigma Y^2 - (\Sigma Y)^2]}}$$

Where,

N = Number of observations X = Monthly income

Y = Type of product mostly bought online The value of ***r lies between +1 and − 1***.

If **r = +1**, there is perfect positive correlation. If ***r = − 1***, there is perfect negative correlation.

If **r = 0**, there is no correlation between the variables.

4.4.2 RELATIONSHIP BETWEEN MONTHLY INCOME AND TYPE OF PRODUCT MOSTLY BOUGHT ONLINE

TABLE 4.4.2

Monthly In-come	**Below ₹10,000**	**₹10,000 – ₹20,000**	**₹20,001–₹30,000**	**Above ₹30,000**	**TOTAL**
No of re-spondents (x)	27	14	6	3	50
Product Type	**Electronics**	**Fashion**	**Groceries**	**All of the above**	**TOTAL**
No of re-spondents (y)	5	30	6	9	50

CALCULATION OF CORRELATION

s.no	X	x^2	Y	y^2	XY
1	27	729	5	25	135
2	14	196	30	900	420
3	6	36	6	36	36
4	3	9	9	81	27
N = 4	$\sum x=50$	$\sum x^2=970$	$\sum y=50$	$\sum y^2=1042$	$\sum XY=618$

CALCULATION:

$$r = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2]}\sqrt{[N\sum Y^2 - (\sum Y)^2]}}$$

$$r = \frac{4(618) - (50)(50)}{\sqrt{[4(970) - 2500][4(1042) - 2500]}}$$

$$r = \frac{2472 - 2500}{\sqrt{3880 - 2500} \times \sqrt{4168 - 2500}}$$

$$r = \frac{-28}{\sqrt{1380} \times \sqrt{1668}}$$

$$r = \frac{-28}{37.14 \times 40.84}$$

$$r = \frac{-28}{1517.99}$$

$$r = -0.018$$

INTERPRETATION

From the above calculation, *the value of the coefficient of correlation r = − 0·018*. This indicates that there is a very weak negative relationship between the monthly income of respondents and the type of products they mostly buy online.

Therefore, it can be concluded that monthly income has very little influence on the type of products purchased online by the respondents.

4.5 CHI-SQUARE TEST

Chi–Square test is a statistical tool used to examine whether there is a significant relationship between two categorical variables. It compares the observed frequencies with the expected frequencies to determine whether any difference between them is due to chance or due to an actual relationship.

In simple terms, the Chi–Square test helps to identify whether two variables are independent or associated with each other. The test is widely used in research studies involving survey data and classification of responses.

In this study, the Chi–Square test is applied to analyze the relationship between selected variables of the respondents in order to understand whether there exists any significant association between them.

The formula used for calculating Chi–Square value is:

$\chi^2 = \Sigma (O - E)^2 / E$

E = (Row Total x Column Total) / Grand Total Degree of Freedom (DOF) = (R − 1)(C − 1) Where,

O = Observed Value E = Expected Value

R = Total number of rows

C = Total number of columns

If the calculated value of Chi–Square is greater than the table value, the relationship between the variables is considered significant. If the calculated value is less than the table value, it indicates that there is no significant relationship between the variables.

4.5.1 AGE GROUP AND PREFERRED E-COMMERCE PLATFORM

TABLE4.5.1

Age Group & E-Commerce platform	**Amazon**	**Flipkart**	**Meesho**	**Myntra**	**Total**
Below 20	8	9	9	1	27
21–30	4	6	6	1	17
31–40	1	1	1	0	3
Above 40	1	1	2	0	3
Total	**14**	**17**	**18**	**1**	**50**

$E1 = \frac{27\times14}{50} = 7.56$	$E2 = \frac{27\times17}{50} = 9.18$	$E3 = \frac{27\times18}{50} = 9.72$	$E4 = \frac{27\times1}{50} = 0.54$
$E5 = \frac{17\times14}{50} = 4.76$	$E6 = \frac{17\times17}{50} = 5.78$	$E7 = \frac{17\times18}{50} = 6.12$	$E8 = \frac{17\times1}{50} = 0.34$
$E9 = \frac{3\times14}{50} = 0.84$	$E10 = \frac{3\times17}{50} = 1.02$	$E11 = \frac{3\times18}{50} = 1.08$	$E12 = \frac{3\times1}{50} = 0.06$
$E13 = \frac{3\times14}{50} = 0.84$	$E14 = \frac{3\times17}{50} = 1.02$	$E15 = \frac{3\times18}{50} = 1.08$	$E16 = \frac{3\times1}{50} = 0.06$

THE TABLE OF EXPECTED FREQUENCY

7.56	9.18	9.72	0.54	27
4.76	5.78	6.12	0.34	17
0.84	1.02	1.08	0.06	3
0.84	1.02	1.08	0.06	3

CALCULATION OF CHI-SQUARE

O	E	O-E	(O-E)^2	(O-E)^2/E
8	7.56	0.44	0.1936	0.026
9	9.18	-0.18	0.0324	0.003
9	9.72	-0.72	0.5184	0.053
1	0.54	0.46	0.2116	0.392
4	4.76	-0.76	0.5776	0.121
6	5.78	0.22	0.0484	0.008
6	6.12	-0.12	0.0144	0.002
1	0.34	0.66	0.4356	1.281
1	0.84	0.16	0.0256	0.030
1	1.02	-0.02	0.0004	0.000
1	1.08	-0.08	0.0064	0.006
0	0.06	-0.06	0.0036	0.060
1	0.84	0.16	0.0256	0.030
1	1.02	-0.02	0.0004	0.000
2	1.08	0.92	0.8464	0.784
0	0.06	-0.06	0.0036	0.060
TOTAL				**2.85**

$DOF=(R-1)(C-1)$

$= (\mathbf{4}-\mathbf{1})(\mathbf{4}-\mathbf{1})$

$= \mathbf{3} \times \mathbf{3} = \mathbf{9}$

Table value at 5% level:

$\chi^2(\mathbf{0.05}, \mathbf{9}) = \mathbf{16.919}$

INTERPRETATION

The calculated value of Chi-square (2.85) is less than the table value (16.919) at 5% level of significance. Therefore, the **null hypothesis is accepted**. Hence, there is **no significant relationship between the age group and the preferred e-commerce platform among the respondents.**

CHAPTER V

FINDINGS, SUGGESTION AND CONCLUSION

5.1 INTRODUCTION

This chapter presents the summary of the findings obtained from the analysis and interpretation of data in the previous chapter and provides suggestions based on the results of the study. In the present digital era, online shopping has become an important part of consumers' daily lives, and product reviews play a major role in influencing purchase decisions. With the increasing use of artificial intelligence, many e-commerce platforms have introduced AI-generated product reviews and summaries. Therefore, this study focuses on analyzing consumer trust in AI-generated product reviews on e-commerce platforms and understanding their influence on consumer buying behavior.

5.2 FINDINGS OF THE STUDY

The research was conducted with the objective of analyzing consumer trust in AI-generated product reviews on e-commerce platforms. From the entire study, the following findings were obtained from the data analysis:

❖ The study shows that the majority 82% of the respondents belong to the age group of 18–25 years.

❖ It is noted that 70% of the respondents are female, while the remaining respondents are male.

❖ It is found that 80% of the respondents are unmarried, indicating that most respondents are young consumers.

❖ It is observed that the majority 80% of the respondents are undergraduates.

❖ The occupation of the respondents shows that the majority are students.

❖ It is clear that most of the respondents belong to lower- and middle-income groups.

❖ The study indicates that the majority of respondents frequently use e-commerce platforms for purchasing products online.

❖ It is found that respondents mostly prefer popular e-commerce platforms for their online purchases.

❖ It is observed that a large number of respondents check product reviews before making a purchase decision.

❖ The study shows that many respondents have heard about AI-generated product reviews.

❖ It is found that some respondents believe that AI-generated reviews can influence their buying decisions.

❖ It is observed that positive AI-generated reviews encourage respondents to purchase products online.

❖ It is found that negative AI-generated reviews discourage respondents from purchasing products.

❖ The analysis indicates that many respondents find it difficult to distinguish between human-written reviews and AI-generated reviews.

❖ It is observed that respondents believe AI-generated reviews may sometimes contain misleading or incomplete information.

❖ The study shows that respondents expect e-commerce platforms to clearly disclose whether a review is AI-generated or written by a real customer.

❖ It is found that transparency in product reviews increases consumer trust in online platforms.

❖ The study indicates that respondents prefer genuine reviews written by real users rather than automated reviews.

❖ On the basis of the weighted arithmetic mean analysis, the study indicates that the level of consumer trust in AI-generated reviews is moderate.

❖ The weighted average results show that AI-generated product reviews influence consumer buying decisions to some extent.

❖ The coefficient of correlation analysis shows that there is no significant relationship between monthly income and the type of product mostly bought online by the respondents.

❖ The Chi-Square analysis shows that there is no significant relationship between age group and preferred e-commerce platform among the respondents.

5.3 SUGGESTIONS

Based on the findings of the study and the suggestions provided by the respondents, the following recommendations are made:

➢ E-commerce platforms should clearly label AI-generated reviews or AI-generated summaries so that consumers can easily identify whether the review is written by a human or generated by artificial intelligence.

➢ Some respondents suggested that AI-generated reviews should be limited or removed, as they may sometimes create misunderstanding or misperception among consumers while making online purchase decisions.

➢ Product reviews should primarily reflect the personal experiences of real customers, which will help in improving the credibility and trustworthiness of the review system.

➢ E-commerce platforms should clearly differentiate between human-written reviews and AI-generated reviews, enabling consumers to compare both before making a purchase decision.

➢ There is a need to create awareness among consumers about AI-generated reviews, since many respondents

indicated that they are not fully familiar with this concept.

➢ Platforms should ensure greater transparency in their review systems so that consumers can easily understand the source and authenticity of product reviews.

➢ Proper monitoring and regulation of AI-generated content should be implemented in order to maintain consumer trust and avoid misleading information on e-commerce platforms.

5.4 CONCLUSION

From the study, it can be concluded that product reviews play a very important role in influencing consumer purchase decisions on e-commerce platforms. With the increasing use of artificial intelligence, AI-generated product reviews are becoming more common in the digital marketplace.

The results of the study show that many consumers are aware of AI-generated reviews, but their level of trust in such reviews is moderate. Although AI-generated reviews help consumers quickly understand product information, many consumers still prefer reviews written by real users because they consider them more trustworthy.

Therefore, maintaining transparency and authenticity in product reviews is essential for building consumer trust. E-commerce platforms should ensure that AI-generated reviews are clearly identified and that genuine customer feedback is encouraged.

Overall, the study highlights the importance of responsible use of artificial intelligence in online platforms and emphasizes the need for reliable and transparent product review systems to maintain consumer confidence in e-commerce platforms.

5.5 FUTURE SCOPE

The present study focuses on analyzing consumer trust in AI-generated product reviews on e- commerce platforms. However, there are several opportunities for further research in this area as technology and consumer behavior continue to evolve.

Technological Advancements

➢ With the rapid development of artificial intelligence, future research can explore how advanced AI technologies generate more accurate and reliable product reviews.

➢ Researchers can also analyze how AI tools can be improved to detect fake or misleading reviews on e-commerce platforms.

➢ The integration of artificial intelligence with data analytics can help platforms provide more personalized and trustworthy review summaries for consumers.

Consumer Behavior Studies

➢ Future studies can examine how different age groups and demographic factors influence consumer trust in AI-generated reviews.

➢ Researchers can also analyze how consumer awareness of AI-generated content affects their online purchasing decisions.

➢ Further studies can explore how consumers differentiate between human-written reviews and AI-generated reviews.

Transparency and Ethical Use of AI

➢ Future research can focus on the importance of transparency in AI-generated content and how disclosure of AI-generated reviews affects consumer trust.

➢ Studies can also analyze ethical concerns related to the use of artificial intelligence in generating online reviews.

Comparative Studies

➢ Researchers can conduct comparative studies between different e-commerce platforms to analyze how review systems influence consumer trust.

➢ Future research can compare the effectiveness of AI-generated reviews with traditional human-written reviews.

Global Research Opportunities

➢ Further research can be conducted in different regions or countries to understand how cultural and regional differences influence consumer trust in AI-generated product reviews.

➢ Researchers can also study the long-term impact of AI-generated reviews on online shopping behavior.

Thus, the future scope of research in this area is very broad as artificial intelligence continues to play an important role in shaping the digital marketplace and consumer decision-making.

Thus, the study highlights the growing importance of artificial intelligence in the digital marketplace and its influence on consumer decision-making. As technology continues to evolve, maintaining transparency, reliability and consumer trust in AI-generated product reviews will remain essential for the sustainable growth of e-commerce platforms

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BOOK REFERENCES

➢ *Artificial Intelligence: A Modern Approach* by Stuart Russell and Peter Norvig – a widely used book that explains the fundamentals of artificial intelligence and its applications in modern technology.

➢ *Digital Marketing and E-Commerce* by Dave Chaffey – a book that discusses the role of digital technologies and online platforms in influencing consumer behavior.