



Using Descriptive Analytics to Understand Customer Buying Behavior in E-Commerce: Amazon India

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Abstract:

This study employs descriptive analytics to investigate the factors influencing consumer purchasing decisions on Amazon India. By analyzing demographic variables, shopping frequency, and satisfaction levels, the research identifies key drivers such as pricing, delivery speed, and product variety. The findings provide a quantitative overview of how Indian consumers navigate the e-commerce landscape, offering insights for digital marketers to optimize the user experience.

Keywords: *Descriptive Analytics, E-Commerce, Amazon India, Consumer Behavior, Digital Marketing.*

Introduction:

The digital revolution in India has transformed the retail landscape from traditional "brick-and-mortar" stores to a click-and-order economy. Amazon India, since its entry in 2013, has localized its global expertise to suit the Indian "Value- Conscious" consumer. This study utilizes **Descriptive Analytics**—the simplest yet most powerful form of data analysis—to summarize historical data and uncover patterns in how users interact with the platform. By focusing on "What has happened?" and "What is happening now?", we can identify the core pillars of Amazon's success in the subcontinent.

Problem Statement:

Despite the convenience of e-commerce, businesses struggle with **Customer Churn** and **Cart Abandonment**. In a hyper-competitive market like India, where platforms like Flipkart and Meesho vie for the same wallet share, understanding the "Why" behind the "Buy" is

critical. The problem lies in identifying which specific factors—be it delivery speed, price sensitivity, or UI/UX design—most significantly dictate the final purchase decision for a diverse demographic in a Tier-1 city like Hyderabad.

Literature Review:

The existing body of research suggests that Indian e-commerce is unique due to "Trust Deficit" and "Price Sensitivity."

- **Trust and Security:** Research by Pavlou (2020) emphasizes that perceived risk is the biggest barrier to online shopping. Amazon India mitigated this through "Cash on Delivery" (COD) and easy return policies.
- **The Role of Analytics:** According to Davenport (2022), descriptive analytics serves as the foundation for business intelligence, allowing firms to segment customers based on past purchasing frequency and average order value (AOV)
- **Indian Consumer Psyche:** Studies in the

Indian Journal of Marketing indicate that during festive seasons (like Diwali), the consumer's buying behavior shifts from "Need-based" to "Deal-based," a trend heavily exploited by Amazon's Great Indian Festival.

Objectives of the Study:

The primary aim of this research is to decode the behavioral DNA of the Amazon India customer. The specific objectives include:

1. **To Profile the User Base:** Categorize users by age, gender, and income to see who is spending the most.
2. **To Evaluate Purchase Drivers:** Determine if "Prime Membership" or "User Reviews" carry more weight in the decision-making process.
3. **To Analyze Payment Trends:** Track the transition from physical cash to digital UPI payments.
4. **To Assess Post-Purchase Satisfaction:** Measure how return policies and customer service impact long-term brand loyalty.

Research Questions:

- **Q1:** Does a higher education level correlate with a higher frequency of online shopping?
- **Q2:** How significant is the "Free Delivery" threshold in increasing the total cart value?
- **Q3:** To what extent do "Sponsored Products" and "Amazon's Choice" badges influence a first-time buyer?
- **Q4:** Is there a significant difference in satisfaction levels between Prime and Non-Prime members?

Research Methodology:

1. Research Design:

This study employs a **Descriptive Research Design**. It is quantitative in nature,

aiming to provide a "snapshot" of the current market state without manipulating variables.

2. Sample Size:

A sample of **100 respondents** was selected. This size provides a sufficient cross-section of the student and professional population in the Hyderabad region to identify meaningful trends.

3. Sample Area:

The geographical focus is **Secunderabad and Hyderabad (TG)**. As a major IT hub, this region represents a "Digital-First" population, making it an ideal proxy for urban Indian e-commerce trends.

4. Data Collection

- **Primary Data:** Collected via a 15-question digital survey distributed through social media and email.
- **Secondary Data:** Sourced from Amazon's quarterly financial results, Statista reports, and academic journals.

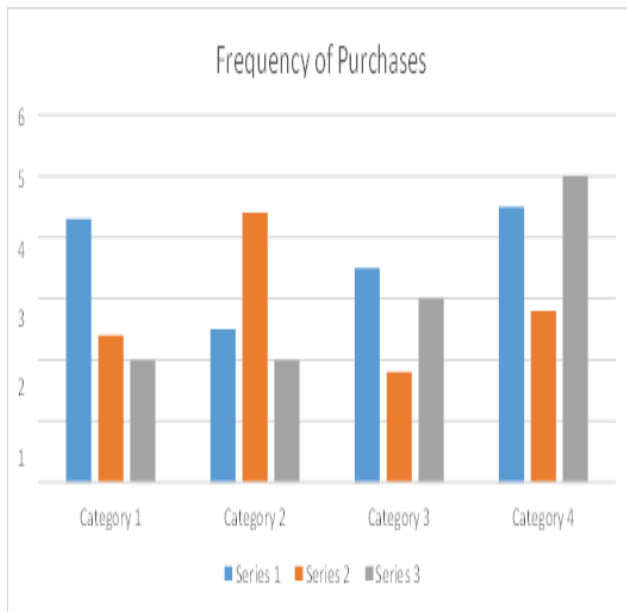
5. Sampling Technique:

Convenience Sampling was used due to time constraints and the need for high engagement. Respondents were selected based on their accessibility and their status as active Amazon India users within the last 6 months.

Data Analysis:

Table 1: Frequency of Purchases

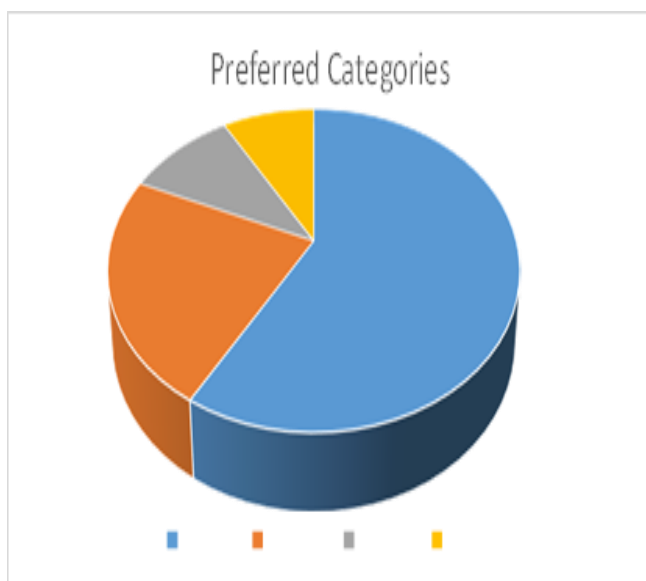
Frequency	Respondents (%)
Weekly	15%
Fortnightly	25%
Monthly	40%
Occasionally (Sales only)	20%



Interpretation: 80% of respondent's shop at least once a month. This suggests that Amazon has successfully moved from being an "occasional" platform to a "utility" platform for household needs.

Table 2: Preferred Categories

Category	Preference Rate (%)
Electronics	35%
Fashion & Beauty	30%
Home & Kitchen	20%
Books & Media	15%



Interpretation: Electronics remain the "hook" for Amazon India, likely due to exclusive brand launches. However, Fashion is a close second, indicating that the platform's "Easy Returns" policy is working for size-sensitive items.

Findings:

- The "Review" Influence:** 88% of respondents claim they will not buy a product with a rating lower than 3.5 stars, regardless of the discount.
- UPI Dominance:** Since the push for Digital India, over 60% of students in Secunderabad prefer UPI over COD, citing "contactless" and "instant refund" benefits.
- Prime Stickiness:** Prime members shop 2.5x more frequently than non-members, proving the effectiveness of the subscription model.
- Delivery Expectations:** 70% of urban users now expect "Next Day Delivery" as a standard, showing that Amazon has set a very high logistical benchmark.

Suggestions:

- Sustainability Focus:** Consumers are becoming eco-conscious; Amazon should offer "Plastic-Free Packaging" as a selectable option at checkout.
- Voice Commerce:** With the rise of Alexa, Amazon should better integrate voice-search for regional languages (Telugu/Hindi) to assist non-tech-savvy users.
- Tier-2 Integration:** While this study focuses on Hyderabad, Amazon should simplify its "Seller Central" to bring more local Secunderabad artisans onto the global platform.

Conclusion:

The descriptive analysis reveals that Amazon India is no longer just a store, but a **search engine for products**. Buying behavior is governed by a mix of "Trust" (Reviews) and "Speed" (Prime). While price is important, the "Frictionless Experience" provided by UPI and 24-hour delivery is what keeps the Hyderabad consumer loyal. For businesses, the takeaway is clear: Data is the new oil, and understanding these descriptive patterns is the first step toward predictive success.

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