

The Influence of Online Review Volume and Valence on Product Sales Performance in Bangladeshi E-Commerce: A Secondary Data Analysis

1. Background of the Study

The rapid expansion of e-commerce has transformed consumer decision-making. Online reviews have become a primary information source influencing purchasing behavior. Two key characteristics of reviews are review volume (number of reviews) and review valence (positivity or negativity of reviews).

A higher number of reviews often signals product popularity and reliability, while positive valence indicates customer satisfaction. In developing digital markets such as Bangladesh, consumers increasingly rely on review systems when purchasing products online. Major platforms like Daraz have integrated rating and review mechanisms that shape purchase decisions. Despite the importance of review systems, empirical evidence on how review quantity and sentiment influence product sales in Bangladesh remains limited. This study addresses that gap using secondary product-level data from Bangladeshi e-commerce platforms.

2. Aim of the Study

To examine how online review volume and review valence influence product sales performance in Bangladeshi e-commerce platforms.

3. Research Objectives

- 1) To analyze the relationship between review volume and product sales performance.
- 2) To examine the effect of review valence (positive vs negative sentiment) on product sales.
- 3) To determine whether review volume and valence together predict product sales outcomes.
- 4) To evaluate the statistical strength of these relationships using quantitative methods.

4. Research Questions

1. Does the number of online reviews influence product sales performance in Bangladeshi e-commerce platforms?
2. How does review valence (positive or negative sentiment) affect product sales outcomes?
3. Do review volume and valence together significantly predict product sales performance?

5. Selected Theoretical Framework

Information Adoption Model (IAM)

The Information Adoption Model explains how consumers adopt information from online sources when making purchasing decisions.

Core concepts:

- Information quality
- Information credibility
- Information usefulness

Online reviews act as electronic word-of-mouth (eWOM). According to IAM:

- i)High review volume increases perceived credibility.
- ii)Positive review valence increases perceived product quality.

Thus consumers are more likely to purchase products that have:

- many reviews
- highly positive ratings.

6. Variables Used in the Study

Independent Variables

- 1)Review Volume (Review-Count)
- 2)Review Valence (Review-Valence-Index)

Control Variables

- i)Price
- ii)Product Category
- iii)Average Rating
- iv)Dependent Variable
- v)Product Sales Performance (Sales-Index)

7. Expected Contribution of the Study

The research will contribute to:

- 1) Understanding consumer decision drivers in Bangladeshi e-commerce.
- 2) Providing evidence on the role of electronic word-of-mouth (eWOM).
- 3) Helping online retailers optimize review management strategies.

Database: https://docs.google.com/spreadsheets/d/1tVUooOvlj2Z2W-HV78TkeK-BBu_IQ_Bb5RWjH1SX2ys/edit?usp=drivesdk