

Babu Banarasi Das University



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Class: BBAB-33

Topic:

*The Influence of Artificial
Intelligence in E-Commerce: A Power
BI Case Study*

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	
47	1848125	Female	Undergra	Employee	Frequent	Very	Fam	Product	In	Frequent	Strongly	Yes, man	Yes	Yes	Often	Yes, sign	Yes, alw	Yes	It isn't	fa	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly
48	1848125	Male	Postgrad	Student	Occasion	Very	Fam	Product	In	Frequent	Strongly	Yes, man	Yes	Often	Yes, sign	Yes, alw	Yes	It isn't	fa	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly
49	1848125	Male	Undergra	Student	Occasion	Very	Fam	Product	In	Frequent	Strongly	Yes, man	Yes	Often	Yes, sign	Yes, alw	Yes	It isn't	fa	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly
50	1848125	Male	Undergra	Student	Occasion	Very	Fam	Product	In	Frequent	Strongly	Yes, man	Yes	Often	Yes, sign	Yes, alw	Yes	It isn't	fa	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly
51	2618400	Female	Undergra	Employee	Occasion	Slightly	F	Voic	e	Occasion	Agree	Rarely	Somewh	Somewh	Somewh	Possibly	Only in a	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
52	1848125	Male	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
53	1848125	Female	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
54	1848125	Female	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
55	1848125	Female	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
56	1848125	Female	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
57	1848125	Female	Undergra	Student	Occasion	Somewh	Product	In	Occasion	Agree	Occasion	Never	Not real	Not at all	Somewh	Possibly	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
58	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
59	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
60	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
61	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
62	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
63	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
64	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
65	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
66	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
67	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
68	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
69	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
70	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
71	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
72	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
73	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
74	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
75	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
76	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
77	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
78	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
79	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
80	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
81	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
82	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
83	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
84	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
85	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
86	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
87	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
88	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
89	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
90	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
91	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
92	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
93	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
94	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
95	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
96	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	
97	1848125	Male	High Schi	Student	Rarely	Somewh	Product	In	Occasion	Agree	Yes, man	Yes	Somewh	Somewh	Somewh	Possibly	Yes, sign	Yes, alw	Acceptab	Agree	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly	Strongly		

3. About the Respondents

- **Age Group:**
18–25 years (87%), 26–40 years (11%), Above 40 years (2%).
- **Gender:**
Male (63%), Female (36%), Prefer not to say (1%).
- **Education Level:**
Postgraduate (49%), Undergraduate (40%), High school or below (8%),
Doctorate/Professional (3%).
- **Occupation:**
Students form the majority (69%), followed by employed (16%) and unemployed (13%).

Interpretation: The dataset is heavily youth-focused, indicating insights largely reflect the perceptions of young, tech-savvy shoppers.

4. Data Quality & Preprocessing Considerations

- **Missing Values:** None detected in key variables.
- **Text Cleaning:** Removed extra spaces, standardized category labels.
- **Multi-Select Columns:** Certain questions allow multiple responses separated by semicolons. These were tokenized into separate binary flags.
- **Column Name Normalization:** Long survey question text shortened for readability.
- **Data Type Setting:** Converted Likert scale questions into ordinal variables for ordered analysis.
- **Bias Acknowledgment:** Sample heavily skewed toward students and younger users.

5. Suggested Analyses

- **Descriptive Statistics:** Frequency distribution of demographics and responses.
- **Cross-Tabulation:** Relation between *AI familiarity* and *influence on purchase decisions*.
- **Correlation Analysis:** Between *comfort with data collection* and *trust in AI*.
- **Chi-Square Test:** To check association between age group and influence of AI recommendations.
- **Ordinal Regression:** To predict level of influence based on familiarity and trust variables.
- **Visualization:**
 - Bar charts for age, familiarity, and comfort levels.
 - Pie/Donut charts for gender and education.
 - Word Cloud for top concerns.
 - Heatmaps for relationships between familiarity and comfort.

6. Analytical Insights (Illustrative)

- Users *very familiar* with AI tools are more likely to be influenced by recommendations.
- Even those who find AI recommendations helpful still express discomfort with data collection.
- Urgency messages (e.g., “Only 2 left!”) are moderately effective, influencing over half the sample.
- There’s a strong demand for AI regulation, reflecting growing awareness of ethical challenges.

7. Limitations

- **Demographic Bias:** The data mainly represents students aged 18–25.
- **Self-Reporting:** Responses may reflect perceptions, not actual behaviors.
- **Limited Sample Size:** Only 102 responses, limiting statistical generalization.
- **Multi-Select Complexity:** Responses with multiple answers need extra cleaning to avoid misinterpretation.

8. Recommendations

1. **Increase Transparency:** E-commerce platforms should explain how AI-driven recommendations work.
2. **Privacy Protection:** Ensure clear consent and control over data collection.
3. **Balanced Use of Urgency Messages:** Effective for conversion, but should avoid manipulation.
4. **Ethical Regulation:** Support policies that ensure fairness, non-bias, and explainability in AI algorithms.
5. **Future Research:** Include diverse demographics and behavior-based data for broader insights.

Conclusion

The analysis of “The Influence of AI in E-Commerce” dataset shows that Artificial Intelligence has become an integral part of online shopping, influencing how users browse, choose, and purchase products.

Most respondents, primarily young and educated individuals, are familiar with AI-driven tools like chatbots and recommendation systems and acknowledge their usefulness in improving convenience and personalization. However, despite these positive perceptions, a significant portion of users express concerns about data privacy, transparency, and ethical usage. The findings highlight that while AI enhances customer engagement and decision-making, building trust through clear data practices and responsible AI implementation is essential. Overall, the study concludes that AI in e-commerce represents both an opportunity and a challenge, offering innovation and efficiency, but requiring ethical regulation and user-centric data protection to ensure long-term consumer trust.

Thank You