

Mental Load and Consumer Decisions: Do More Choices Lead to Worse Decisions?

1. Introduction

Decision-making can be influenced by cognitive load. This study investigates whether increasing the number of choices negatively impacts decision quality, satisfaction, and regret.

2. Methodology

- Participants: 500 simulated individuals
- Choice scenarios: 6 per participant, categorized as Simple, Medium, Complex
- Variables: decision_time, mental_load_score, satisfaction_score, regret_score, demographic variables

3. Analysis

- **EDA:** Distributions of decision time, mental load, satisfaction, regret; correlation matrices
- **ANOVA:** Tested differences across scenario types
- **Correlation:** Pearson correlations between mental load, satisfaction, regret, decision time
- **Regression:** Multiple linear regression predicting satisfaction

4. Results

- Scenario type significantly affects mental load, decision time, satisfaction ($p < 0.001$)
- Mental load strongly predicts lower satisfaction (coef=-0.37)
- Decision time and regret also negatively affect satisfaction
- Correlations support “choice overload” theory

5. Discussion

Participants experience cognitive overload with complex scenarios, leading to slower decisions, lower satisfaction, and higher regret. This aligns with psychological literature on decision fatigue and choice overload.

6. Conclusion

Reducing cognitive load by limiting options can improve consumer decision satisfaction and reduce regret.

7. Visuals

Include EDA plots, boxplots, scatterplots, and heatmaps (from Python or Tableau/Power BI dashboards)

8. References

Optional: cite choice overload / cognitive load literature