

## **Project Overview: Gender Discrimination Experiment on Facebook Marketplace**

### **Project Description**

This project aimed to investigate potential gender discrimination in seller responses on Facebook Marketplace. By using a set of fictitious buyer profiles, the study examined whether male and female buyers received different levels of service and attention from sellers when inquiring about products.

### **How Python Was Used**

Python was utilized to automate the matching process of buyer profiles with sellers on Facebook Marketplace, ensuring consistent and unbiased data collection. The script handled several key tasks:

#### **1. Profile Selection and Confirmation:**

- Randomly selected one male and one female profile from a predefined list of six fictitious profiles.
- Required user confirmation to proceed with the selected profiles.

#### **2. Facebook Login and Data Scraping:**

- Logged into Facebook using the credentials of the selected profiles.
- Scraped Facebook Marketplace for product listings within a 40 km radius and under 1000 rupees.
- Collected data on product titles, prices, locations, times posted, and links to the listings.

#### **3. Data Combination and Filtering:**

- Combined data from both male and female profiles, ensuring no duplicate entries.
- Filtered the combined data to include only products meeting the specified criteria.

#### **4. Product Selection and Confirmation:**

- Randomly selected a product from the filtered list and displayed its details and link for user review.
- Required user confirmation to proceed with the selected product or to try again.

## 5. Recording Transaction Information:

- Recorded all relevant transaction information on Google Sheets and Excel, such as delivery times of products between male and female buyers, product quality, and seller responsiveness.

## 6. Output and Documentation:

- Displayed the matched buyer profiles and product details, including the link to the Facebook Marketplace listing.
- Ensured all interactions were documented and data integrity was maintained.

## Main Tasks

- **Profile Matching:** Automated the selection and confirmation of buyer profiles, ensuring unbiased matching with sellers.
- **Web Scraping:** Utilized Selenium and BeautifulSoup to log in to Facebook and scrape data from Marketplace listings.
- **Data Management:** Combined and filtered data to meet specified criteria, ensuring accuracy and relevance.
- **Interactive Validation:** Incorporated user confirmation steps to validate profile selections and product listings.
- **Recording Transactions:** Meticulously recorded transaction details such as delivery times, product quality, and seller responsiveness in Google Sheets and Excel, providing a comprehensive dataset for analysis.
- **Documentation:** Maintained detailed records of interactions and data, ensuring transparency and traceability.

## Policy Implications

The findings of this project have significant implications for policy discussions related to e-commerce and gender equality:

### 1. E-Commerce Regulations:

- The study's results can inform policymakers about potential biases in online marketplaces. This could lead to the development of regulations to ensure fair treatment of all buyers, regardless of gender.

## **2. Gender Equality:**

- Highlighting disparities in seller responses to male and female buyers can drive initiatives to promote gender equality in e-commerce. Policies could be developed to support female buyers and sellers, ensuring equitable treatment and opportunities.

## **3. Consumer Protection:**

- The insights gained from this study could lead to enhanced consumer protection laws. Ensuring that all consumers receive fair and unbiased service is crucial for maintaining trust in online marketplaces.

By systematically investigating gender discrimination and utilizing Python to ensure accurate and unbiased data collection, this project provides valuable insights that can inform policy decisions and contribute to a more equitable online shopping environment.