

MANDIRI SEKURITAS

TECHNICAL TEST: DATA ANALYS

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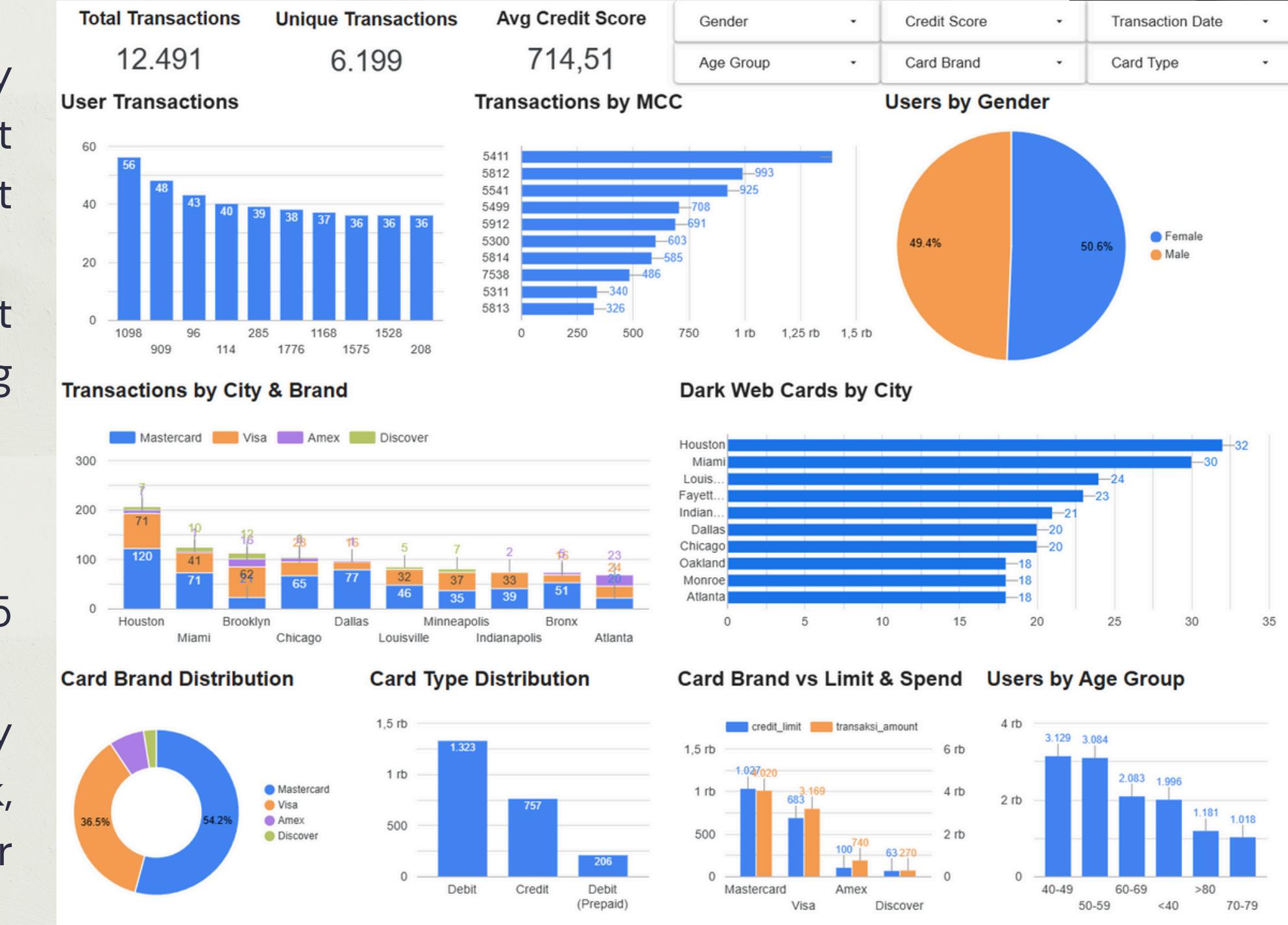
Overview

1. Total Transactions & Unique Transactions

- Insight:** Of the 12,491 transactions, only 6,199 were unique, meaning that consumers actively made repeat transactions.
- Analysis:** The high number of repeat transactions indicates user loyalty in using their cards.

2. Avg Credit Score

- Insight:** Average credit score = 714.5 (medium category).
- Analysis:** Consumer profiles are relatively financially healthy, with low default risk, making them suitable for credit/investment product promotions.

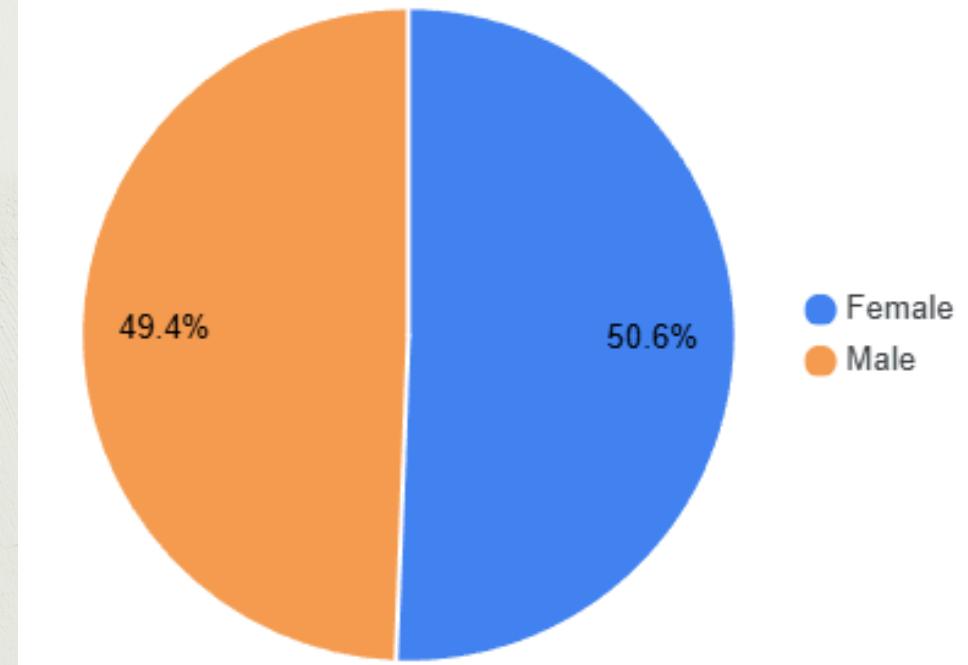


User Behavior Analysis

3. Users by Gender

- **Insight:** The user composition is almost balanced (50.6% female, 49.4% male).
- **Analysis:** There is no gender dominance, therefore the marketing strategy must be gender neutral, or can be tailored to specific products/services for each gender.

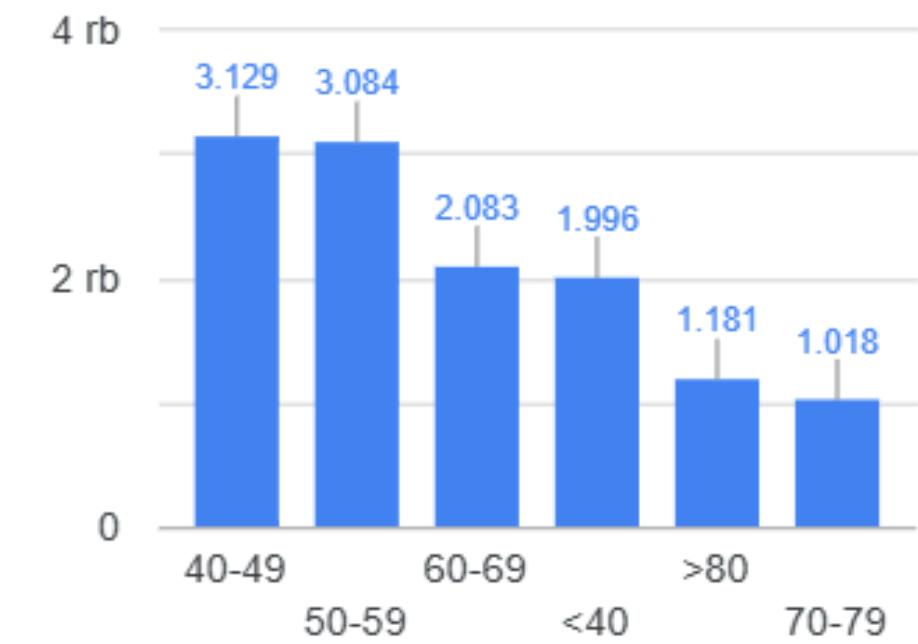
Users by Gender



4. Users by Age Group

- **Insight:** The 40–49 and 50–59 age groups are the most dominant.
- **Analysis:** The majority of users are of productive age and approaching retirement. They tend to be more financially stable, but also sensitive to investment products and retirement planning.

Users by Age Group

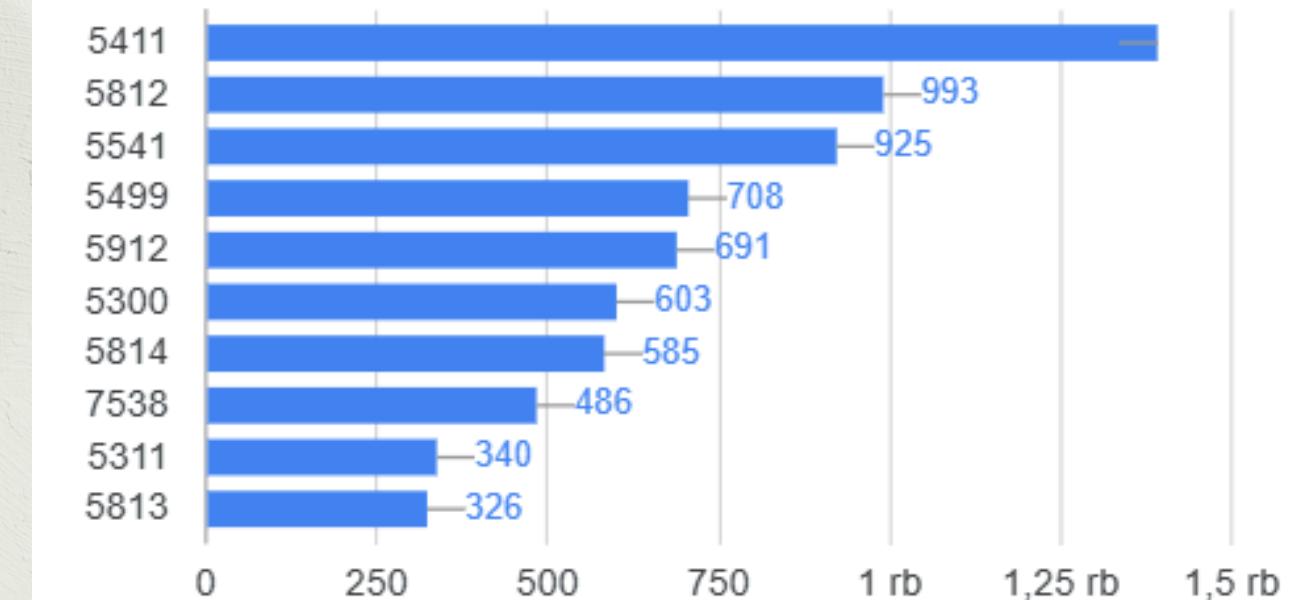


User Behavior Analysis

5. Transactions by MCC (Merchant Category Code)

- Insight:** The highest transactions were in MCC 5411 (Grocery Stores), followed by restaurants (5812), gas stations (5541), and other retail outlets.
- Analysis:** Consumption patterns are dominated by daily necessities (food, transportation, retail), indicating that cards are primarily used for essential needs rather than lifestyle purposes.

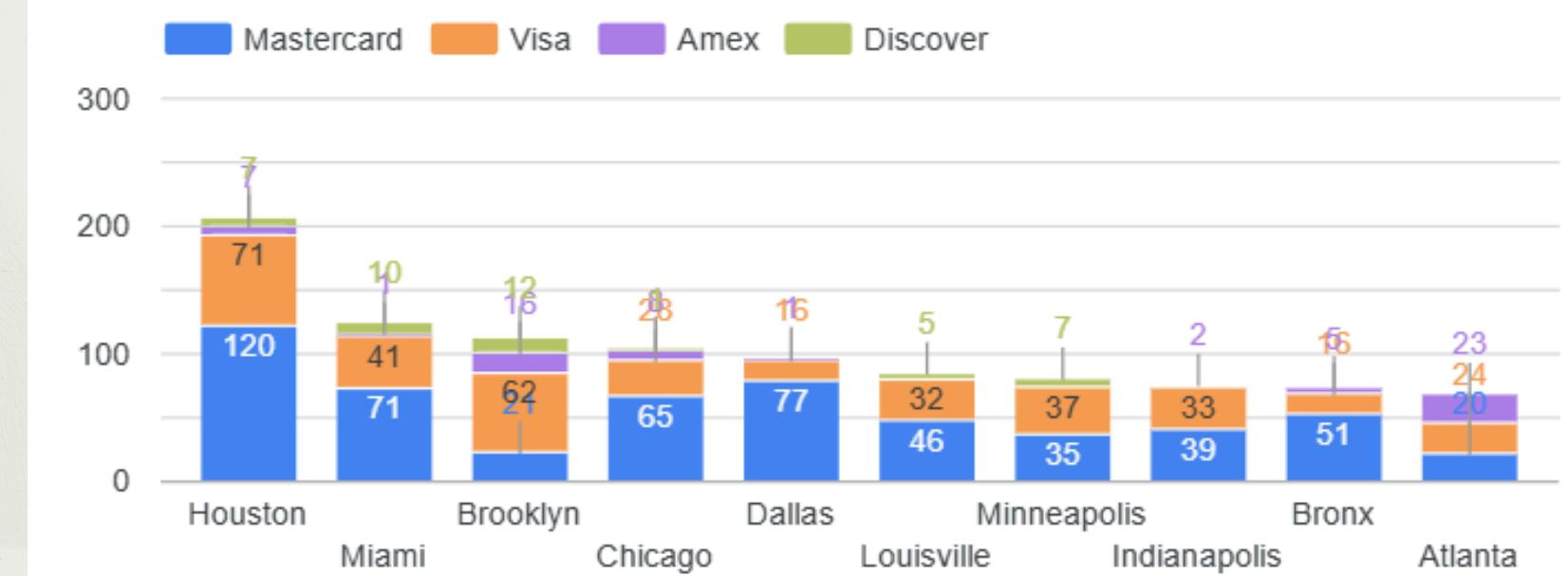
Transactions by MCC



6. Transactions by City & Brand

- Insight:** Houston and Miami have the highest transaction volumes, with Mastercard and Visa as the dominant brands.
- Analysis:** Large cities are the centers of transaction activity, with a strong preference for Mastercard & Visa, so promotional strategies can be focused on cities with high volumes.

Transactions by City & Brand

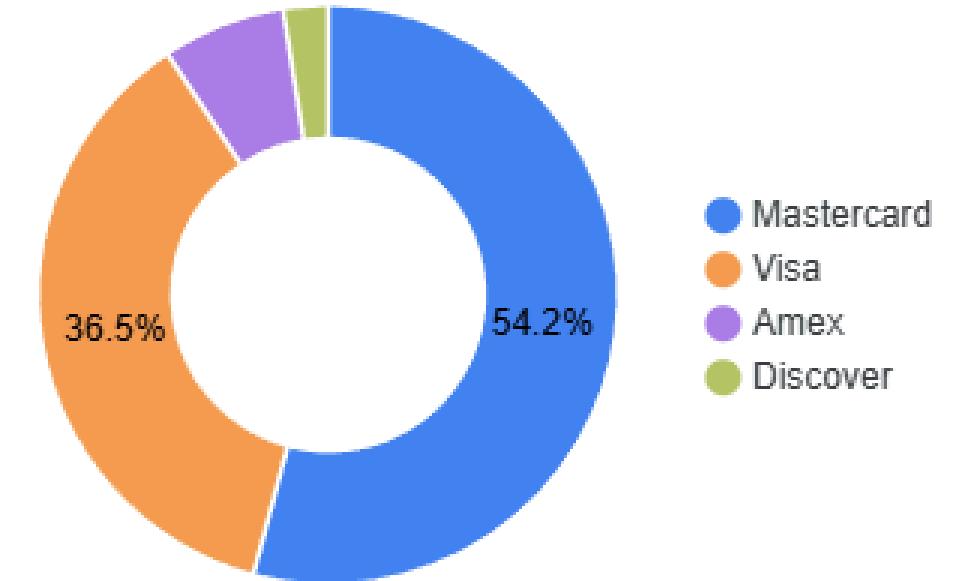


User Behavior Analysis

7. Card Brand Distribution

- **Insight:** Mastercard (54.2%) dominates, followed by Visa (36.5%), then Amex & Discover.
- **Analysis:** Consumers trust and prefer major international brands.

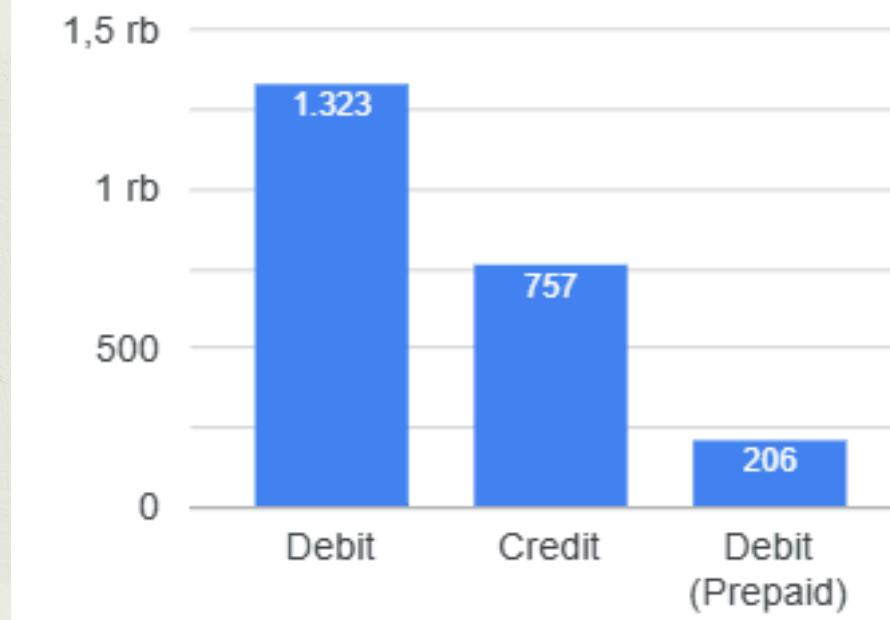
Card Brand Distribution



8. Card Type Distribution

- **Insight:** Debit cards are the most widely used (1,323), followed by credit cards (757) and prepaid cards (206).
- **Analysis:** Users are more comfortable using debit cards for real funds rather than credit cards.

Card Type Distribution

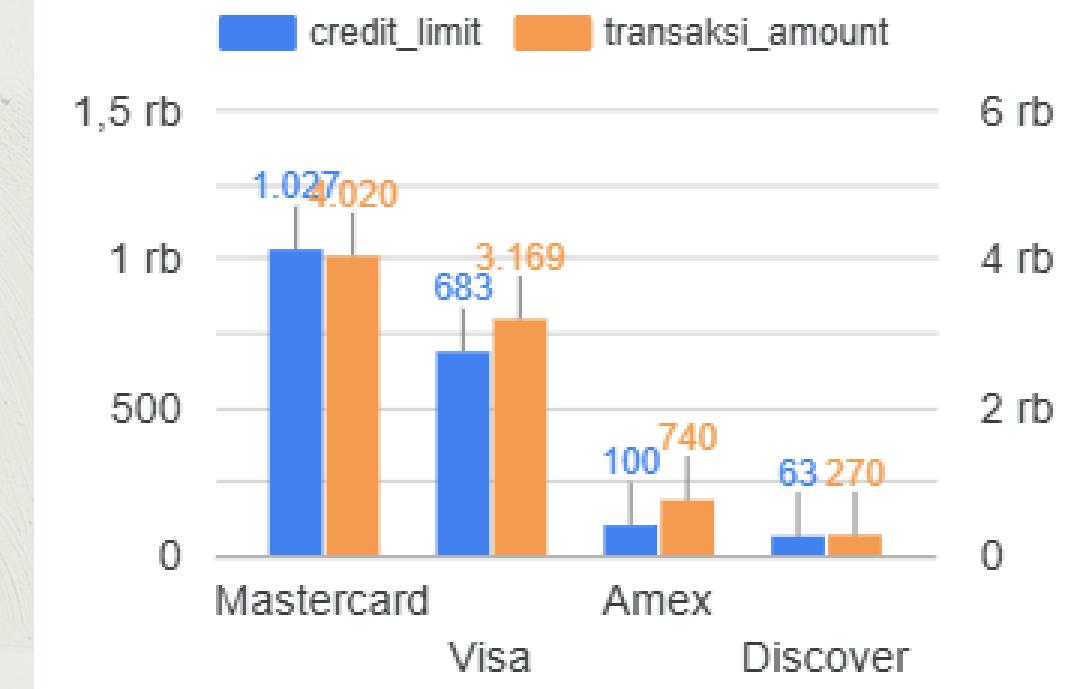


User Behavior Analysis

9. Card Brand vs Limit & Spend

- Insight:** Visa and Mastercard have higher credit limits and larger transaction values than Amex & Discover.
- Analysis:** Consumers of major brands have higher purchasing power, resulting in potential for cross-selling and premium products.

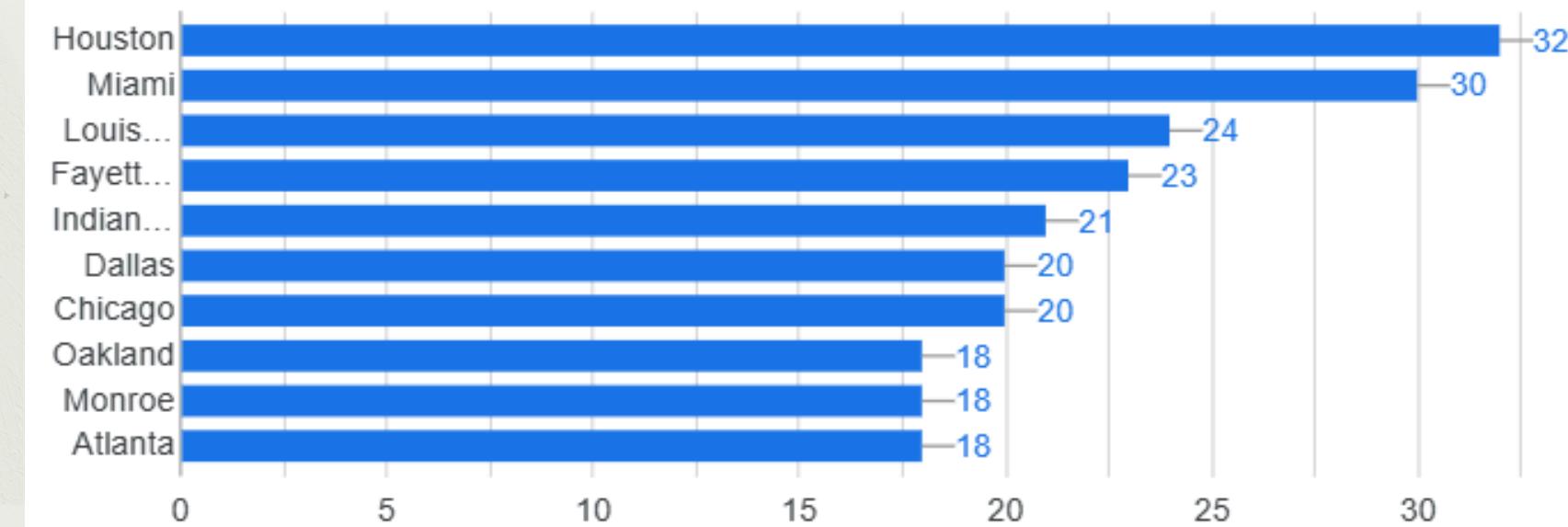
Card Brand vs Limit & Spend



10. Dark Web Cards by City

- Insight:** Houston and Miami have the most cards appearing on the dark web.
- Analysis:** There is a high security risk in large cities, so fraud mitigation measures and security education for consumers are necessary.

Dark Web Cards by City

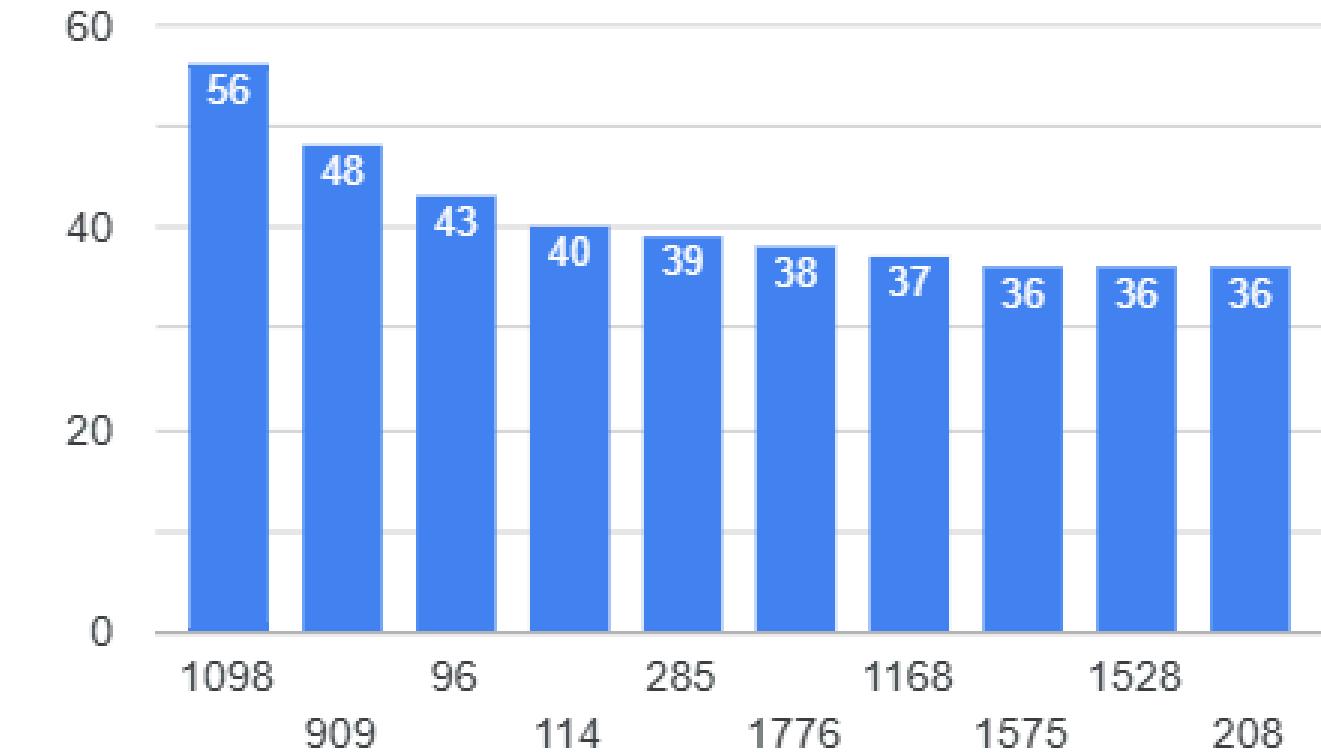


User Behavior Analysis

11. User Transactions

- **Insight:** A small number of users dominate transactions (high spenders), while the majority of users transact less.
- **Analysis:** There is a segment of “VIP users” who need to be treated differently (loyalty programs, special rewards).

User Transactions



Business Strategy

1. Segmentation & Targeting

- Focus on the 40–59 age segment (majority of users).
- Differentiate strategies for high spenders (VIP users) from regular users.

2. Products & Services

- Develop investment and retirement savings products for the productive age segment, namely the pre-retirement age segment.
- Enhance features and promotions for daily transactions (groceries, dining, transportation).

3. Brand Partnership

- Strengthen partnerships with Mastercard & Visa (dominant brands).
- Create exclusive promotions in major cities like Houston & Miami.

4. Risk Management

- Mitigate fraud in cities with high dark web activity (Houston, Miami).
- Educate customers on digital security & card usage.

5. Customer Loyalty

- Special reward programs for loyal/high spenders.
- Encourage debit users to try credit cards with small limits to increase engagement.