

Mandiri Finance Assignment

Dipresentasikan oleh

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About the Data

01 DATA

This dataset contains information on e-commerce transactions and the cards used to complete them, consisting of 1.3 million transaction records, 2,000 users, and 6,146 cards.

02 OBJECTIVE

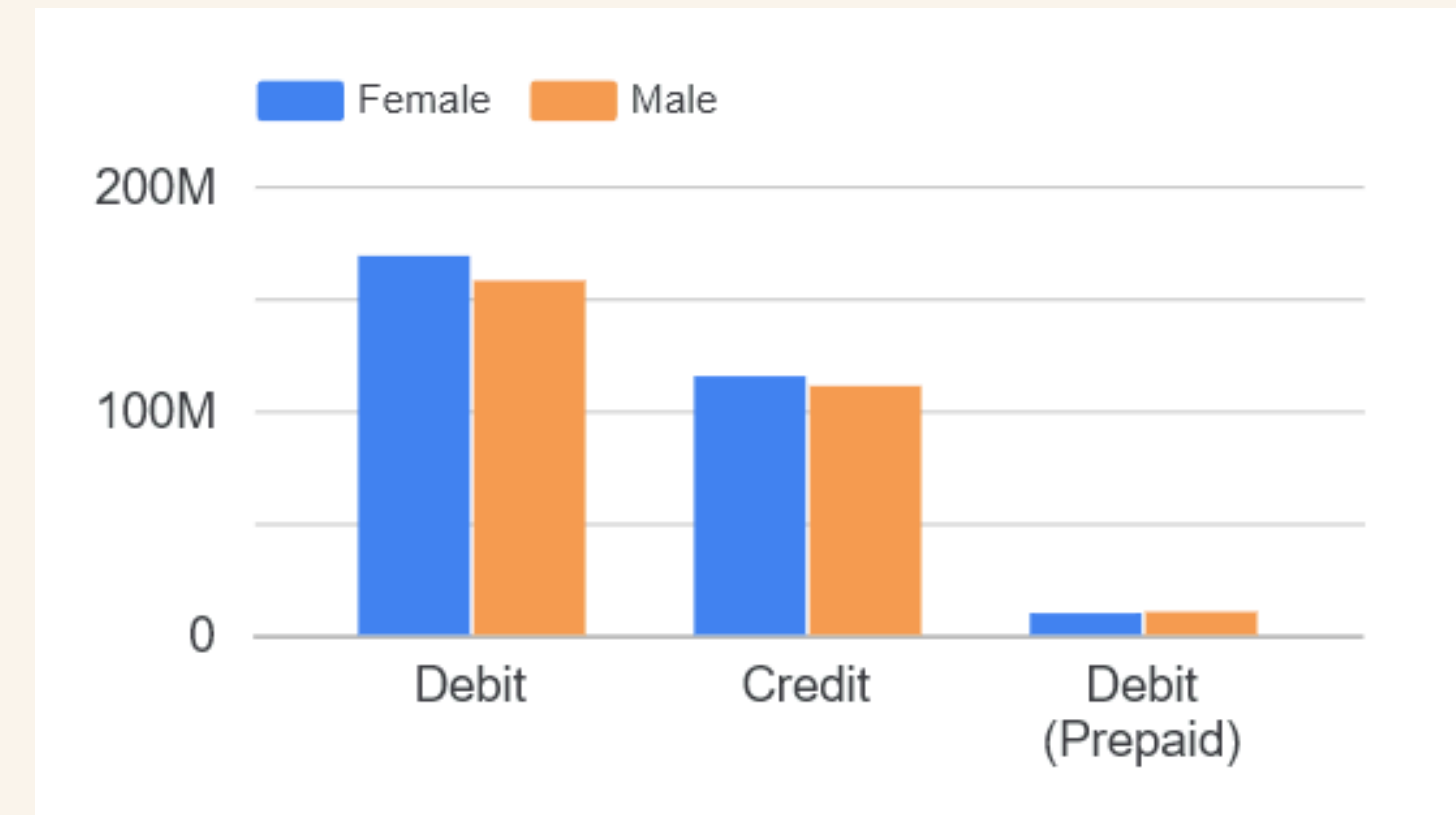
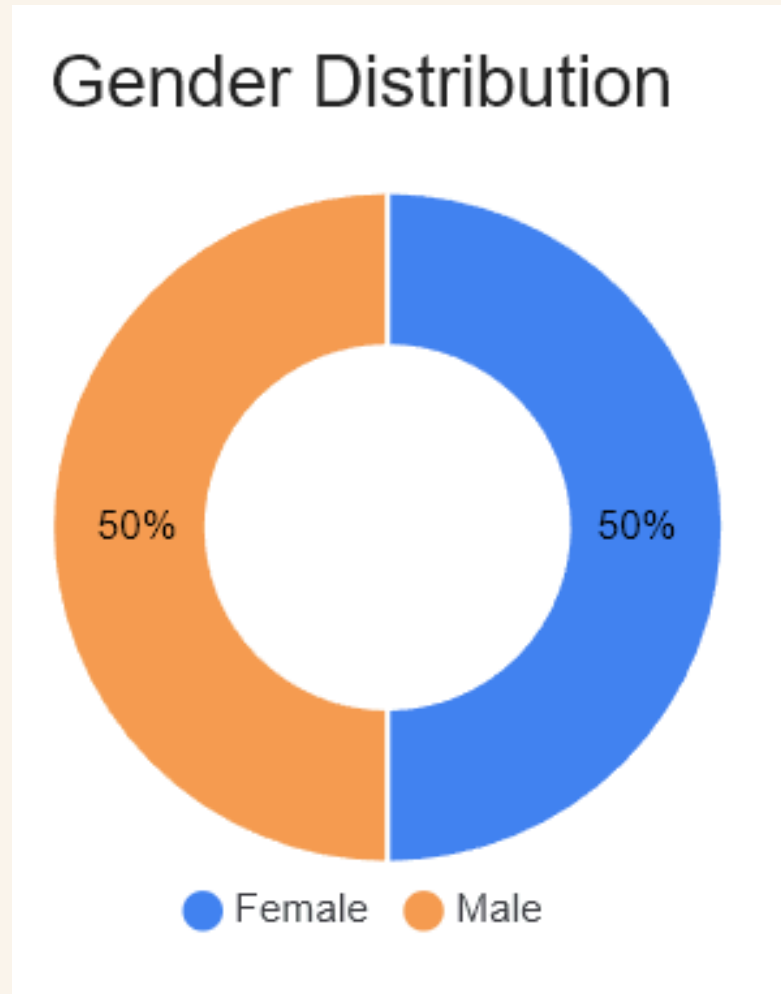
The goal of this project is to uncover patterns in user behavior, card usage, and transaction trends, which can help identify potential risks (such as fraud), understand customer purchasing habits, and optimize e-commerce operations.

Exploratory Data Analysis

About the Data

The gender distribution of users is an exact 50/50 split; however, female users contribute slightly more overall, accounting for 51.3% of transactions.

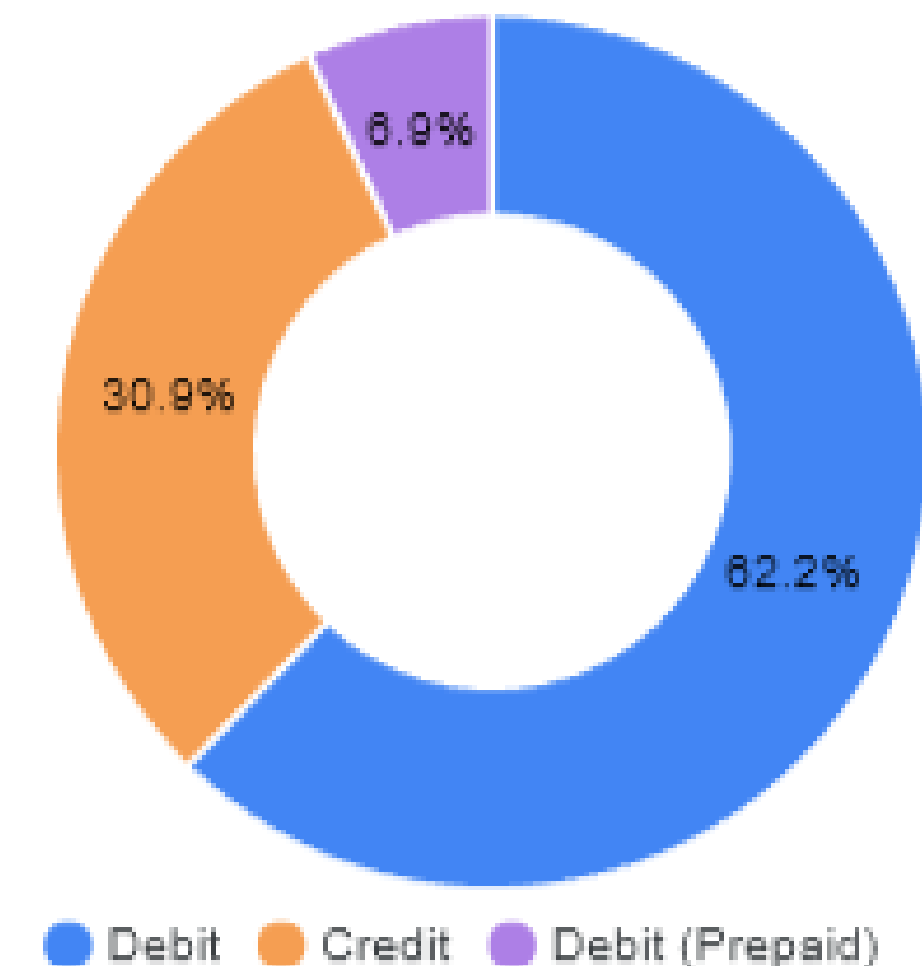
This suggests that tailoring marketing strategies or personalized promotions toward female users could further enhance engagement and sales.



About the Data

“The majority of transactions are made using debit cards (62.2%), followed by credit cards (30.9%), while prepaid debit cards account for only 5.9%. This indicates a strong user preference for debit payments, suggesting that enhancing debit card transaction features or offering incentives could further strengthen user engagement, while also leaving room to encourage greater adoption of credit and prepaid options.

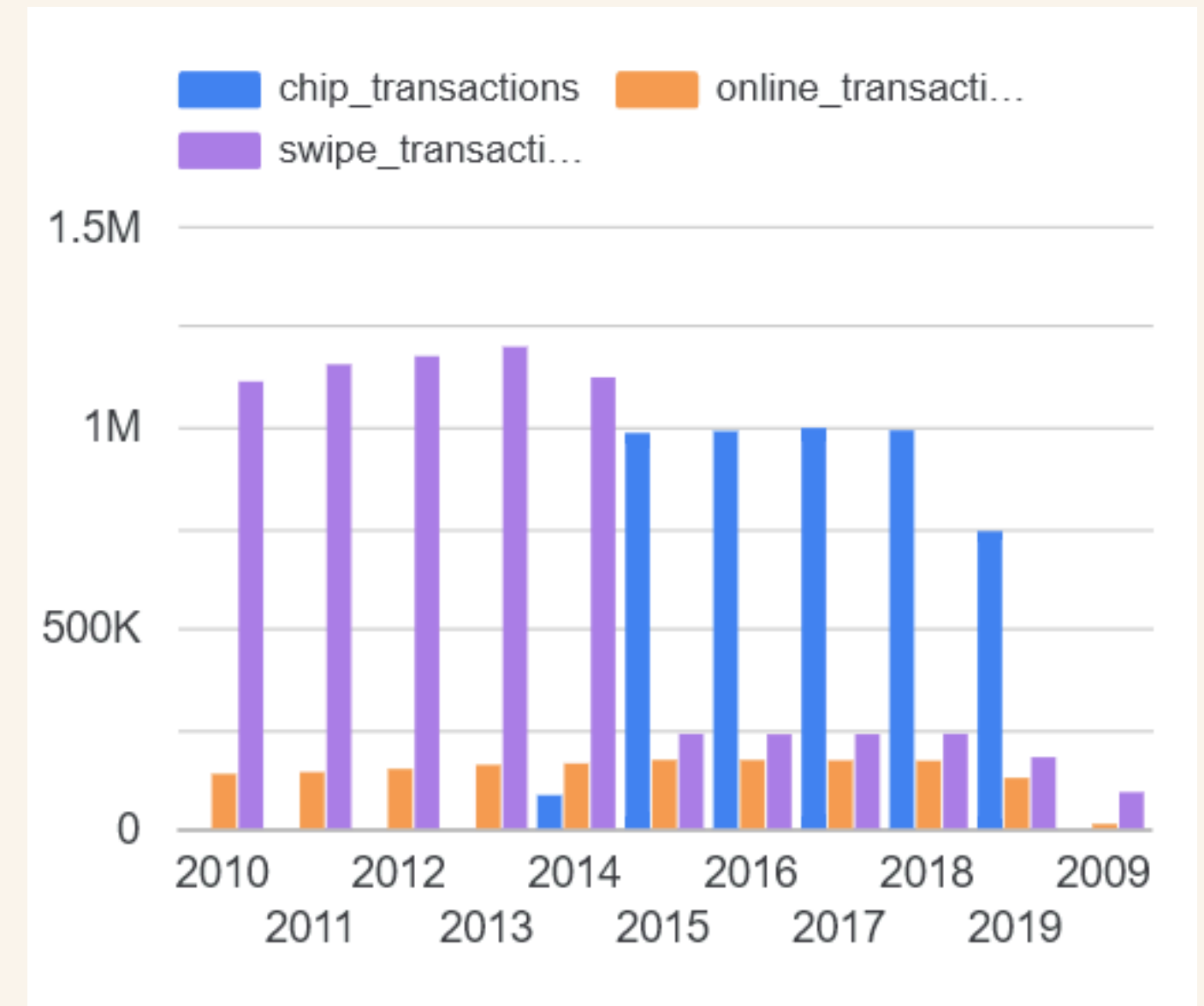
Transaction by Card



About the Data

“Swipe transactions dominated until 2014, but from 2015 onward chip payments overtook and became the main method, while online transactions stayed relatively low.

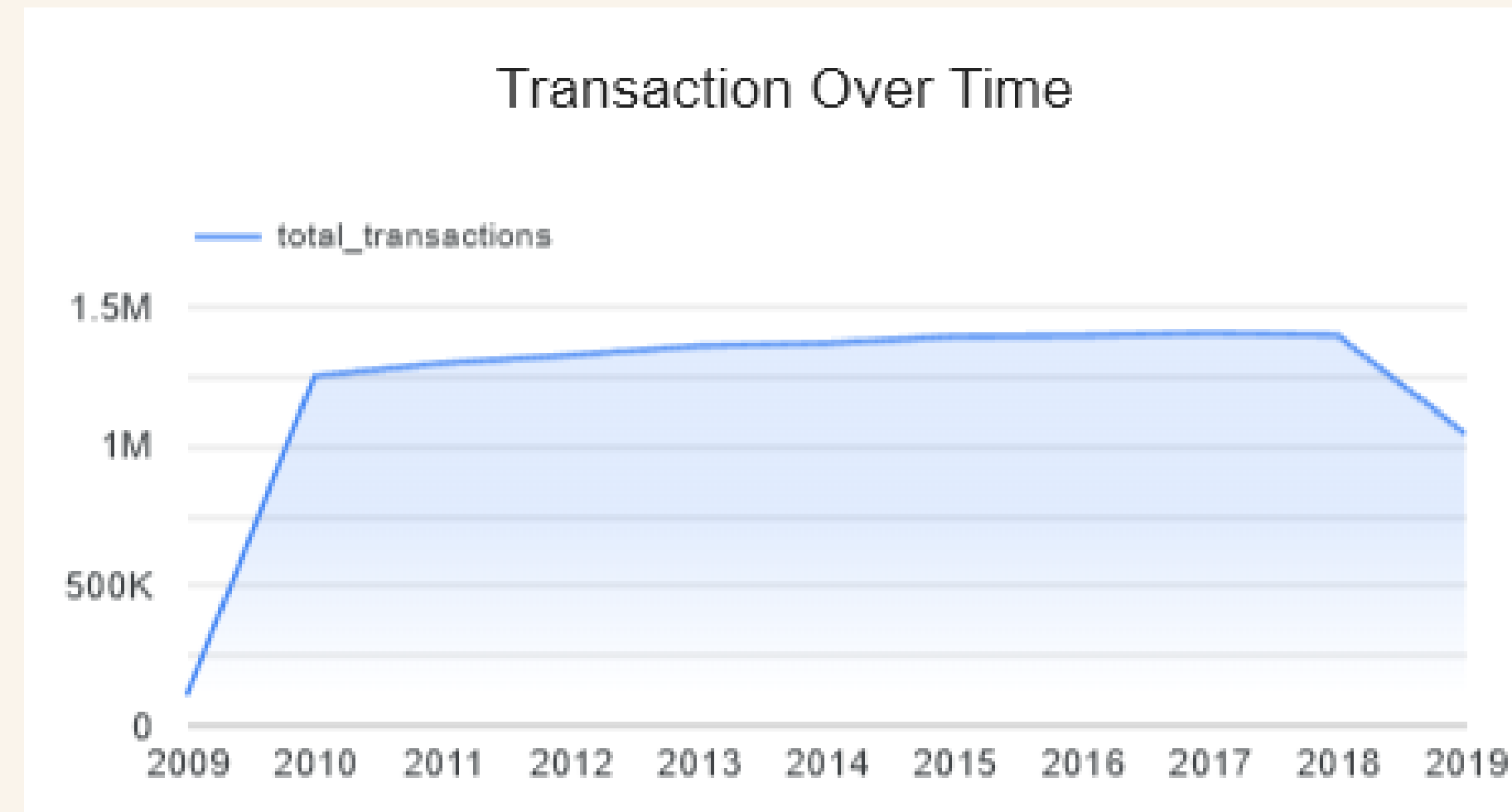
This shows the shift toward chip technology for security, and businesses should strengthen chip infrastructure while promoting secure online payments to boost adoption.



About the Data

Total transactions rose sharply from 2009 to 2010 and then maintained steady growth, peaking around 2017–2018, with the apparent 2019 decline explained by an early data cutoff.

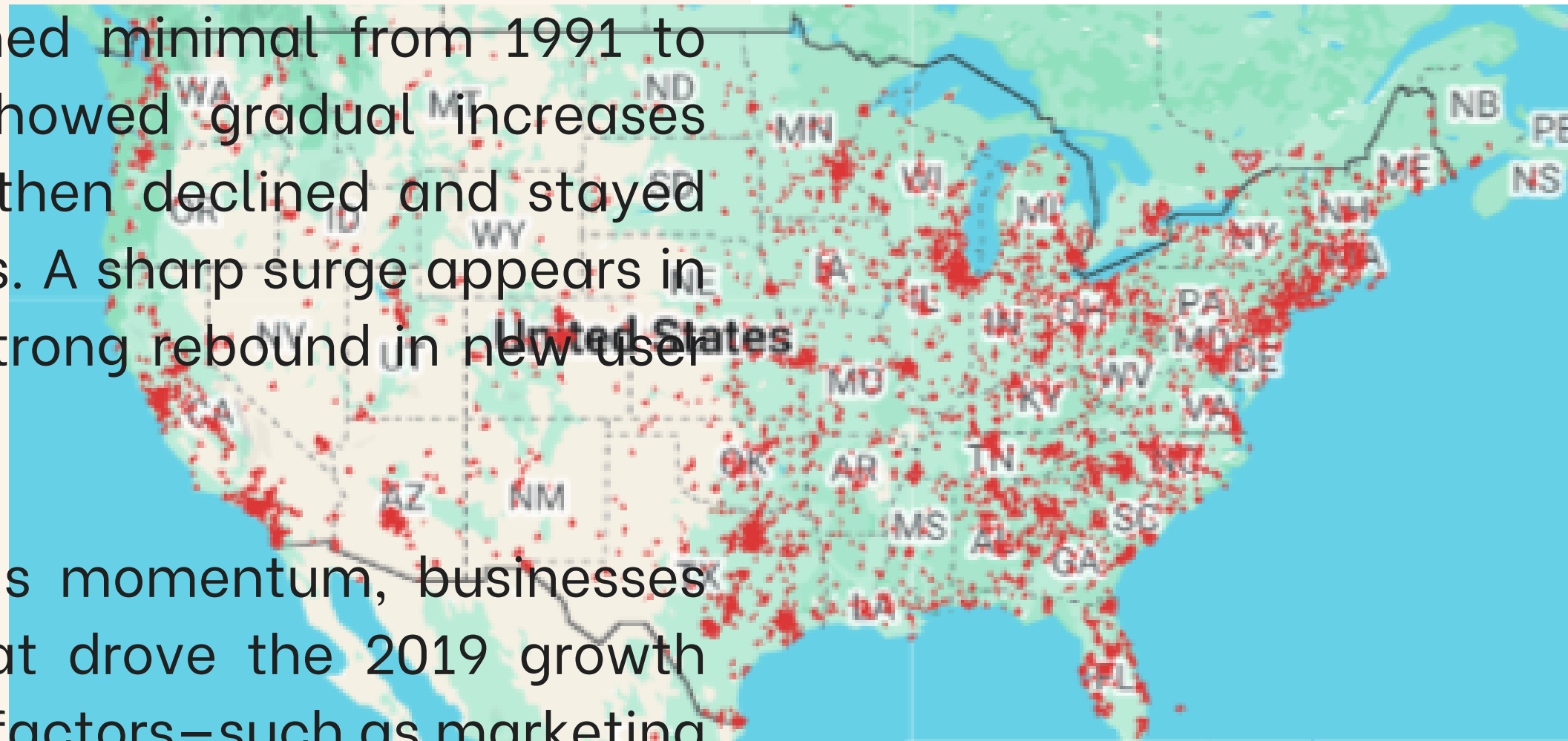
To sustain this strong performance, businesses should focus on customer retention while exploring new growth opportunities through digital channels and repeat purchase incentives.



About the Data

User growth remained minimal from 1991 to the early 2000s, showed gradual increases until around 2008, then declined and stayed flat for several years. A sharp surge appears in 2019, indicating a strong rebound in new user acquisition.

To capitalize on this momentum, businesses should analyze what drove the 2019 growth and reinforce those factors—such as marketing campaigns, product improvements, or partnerships—to sustain long-term user expansion.



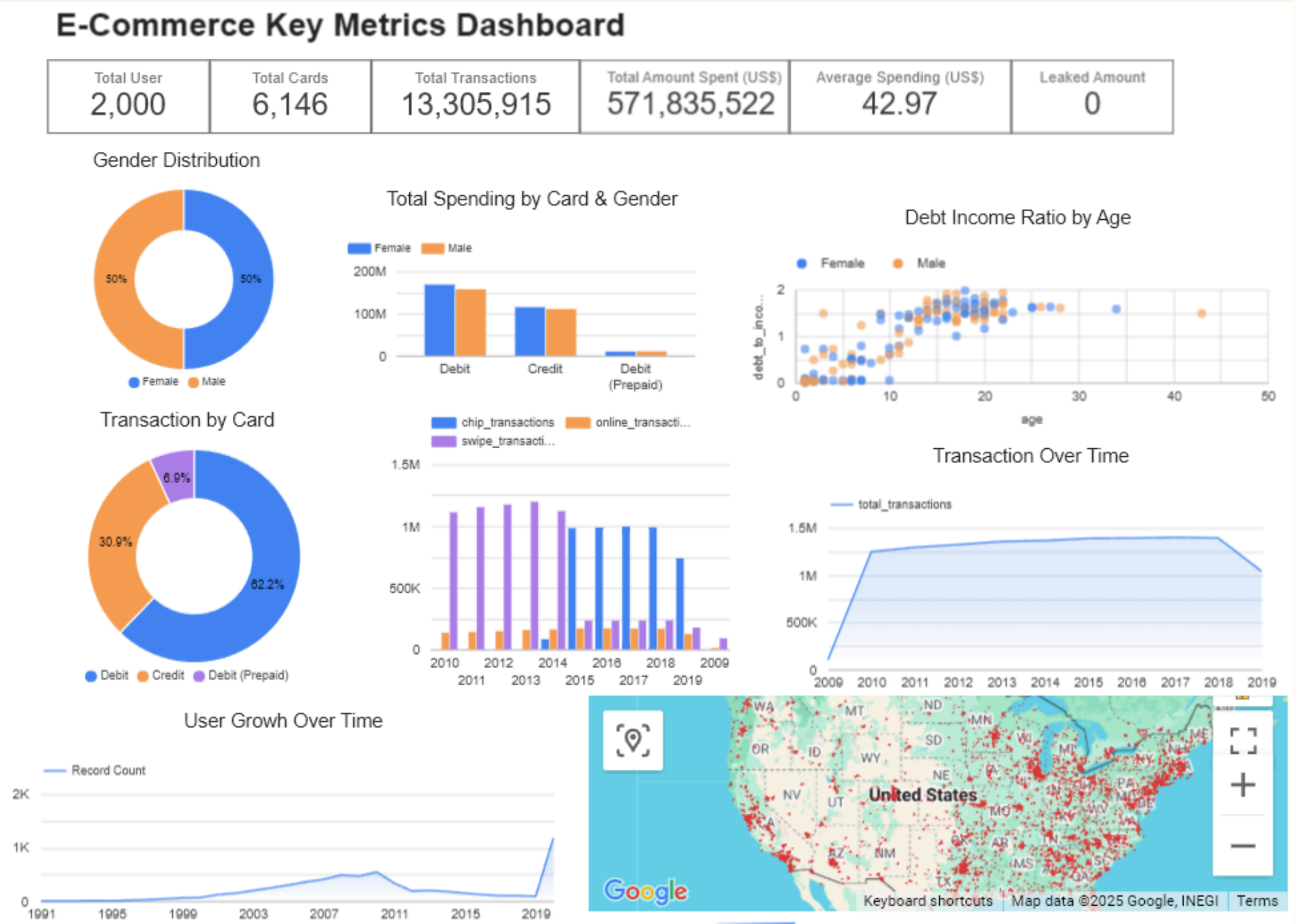
About the Data

The majority of merchant activity is concentrated in major urban hubs such as Los Angeles, San Francisco, Dallas, Washington, New York, Boston, Chicago, and Colorado. This concentration highlights strong business presence in economically vibrant cities.

To maximize growth, businesses should continue strengthening services in these high-demand areas while also exploring opportunities in emerging regions to diversify market reach and reduce dependency on major hubs.



Dashboard



Based on our analysis, we developed an interactive Looker Studio dashboard to provide stakeholders with a clear and accessible view of key insights.

[HERE](#)

Insight & Recommendation

Gender Split – Users are 50/50 male and female, but females contribute slightly more (51.3%). → Target marketing and promotions to female users to boost engagement.

Payment Methods – Debit dominates (62.2%), credit (30.9%), prepaid debit (5.9%). → Enhance debit features while encouraging adoption of credit and prepaid options.

Transaction Trends – Shift from swipe to chip payments after 2015. → Strengthen chip infrastructure and promote secure online transactions.

Total Transactions – Strong growth until 2018; 2019 dip due to cutoff. → Maintain high volume by focusing on retention and digital growth.

User Growth – Flat for years, but sharp rebound in 2019. → Leverage drivers of 2019 surge (marketing/product changes) to sustain expansion.

Thank you

Made by
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