**BANKING**

**ATM TRANSACTION DATA ANALYSIS REPORT**

**OVERVIEW OF THE DATA:**

The dataset provides a comprehensive picture of ATM transactions for the year 2020. The total balance across all ATMs is 751 million, with a total of 3 million transactions. The total income from these transactions is 93 million, while total expenditures amount to 107 million, with 1 million income transactions and 2 million outcome transactions. This data is essential for evaluating the operational efficiency of the ATM network, including identifying high-transaction areas and analyzing overall transaction patterns.

**ANALYSIS BY ATM:**

**ATMS WITH THE HIGHEST NUMBER OF INCOME TRANSACTIONS:**

The ATMs with the highest number of income transactions indicate areas with a significant demand for deposits. **Point Bornova AVM** leads with 6,926 income transactions, signaling a high volume of deposits. Other ATMs like **Urla Meydan AVM ONU** (6,888 transactions) and **Egepark Mavisehir AVM** (6,829 transactions) also show a substantial number of income transactions, highlighting high foot traffic or large transactions in these areas, where people tend to deposit money.

**ATMS WITH THE HIGHEST NUMBER OF OUTCOME TRANSACTIONS:**

The ATMs with the highest number of outcome transactions, such as **Kasaba AVM Menemen** (7,629 transactions) and **Point Bornova AVM** (7,628 transactions), indicate a high demand for withdrawals. This suggests that people frequently withdraw money from these ATMs, either for personal use or due to large cash withdrawals. The trend at these locations could be driven by a high volume of people or businesses requiring cash on hand, especially in busy retail or residential areas.

**ATMS WITH THE HIGHEST TOTAL INCOME:**

The ATMs with the highest total income are typically located in strategic areas, such as **Point Bornova AVM** with a total income of 448,765. This ATM leads not only in the number of income transactions but also in total income, suggesting that this location receives a high volume of deposits. **Izmir Optimum AVM -2** and **Urla Meydan AVM ONU** also have significant total income, indicating that these high-traffic commercial areas attract a substantial amount of deposit activity.

**ATMS WITH THE HIGHEST TOTAL OUTCOME:**

**Izmir Ege Perla AVM** and **Kasaba AVM Menemen** have the highest total outcome, with amounts of 495,465 and 494,440, respectively. This shows that these ATMs see more withdrawals than deposits, which could indicate that people in these areas tend to withdraw larger amounts of money or make frequent withdrawals. **Point Bornova AVM** also shows a significant total outcome (490,110), reflecting its role as a major site for cash withdrawals.

**ANALYSIS BY TIME (YEAR, QUARTER, MONTH, DAY):**

**TOTAL NUMBER OF TRANSACTIONS BY DAY IN Q1 2020:**

In Q1 2020, the number of daily transactions at the ATMs ranged from 442,959 to 446,630 transactions. This reflects a stable demand for ATM services, with only slight fluctuations in transaction volumes. Some days show a small increase in transactions, which may be attributed to factors like higher cash demand on specific days or changes in consumer behavior.

**TOTAL INCOME AND TOTAL OUTCOME BY DAY IN Q1 2020:**

Data for total income and total outcome shows a stable trend, with daily income and outcome figures fluctuating within a narrow range. However, total outcome always exceeds total income, indicating that withdrawals consistently outnumber deposits. This trend suggests that customers tend to use the ATMs more for withdrawing money than depositing it. The difference between income and outcome may reflect changes in consumer spending behavior, especially in areas where cash withdrawals are more frequent.

**CONCLUSION:**

* **Point Bornova AVM** stands out as the ATM with the most activity, both in terms of the number of transactions and total income and outcome. This suggests that locations in large commercial areas or high-traffic zones have the highest volume of ATM transactions.
* **Izmir Ege Perla AVM** and **Kasaba AVM Menemen** are also significant, with high total outcomes, indicating that people in these areas frequently withdraw cash, which may reflect local demand for cash.
* ATMs in shopping malls or busy commercial districts are essential for handling large volumes of transactions, and monitoring cash supply in these locations is crucial to ensure that they can meet demand.
* The consistent trend of higher withdrawals than deposits suggests that ATMs in these regions are primarily used for cash withdrawals, which could influence how cash is managed and replenished at these locations.

This data analysis provides valuable insights into consumer behavior, ATM usage trends, and areas where ATM service optimization could be needed to ensure efficient cash management and improved user experience.