**EIR\_Home-Task Assignment**

**Introduction:**

In this report, we present the insights derived from the analysis of a dataset containing user transaction information. The dataset includes columns such as user ID, transaction ID, currency type, amount, type of transaction, date, and time. The analysis was conducted using Power BI, a powerful business intelligence tool that facilitates data visualization and exploration.

**1)Insights:**

1. Data Analysis Platform: Power BI

Utilizing Power BI, we conducted a comprehensive analysis of the provided dataset to extract meaningful insights and trends.

2. Total Transactions and Users:

- The dataset contains a total of 1,000,000 transactions.

- There are 1,134 unique users associated with these transactions.

3. Transaction Types:

- The most frequently used transaction types are top-up, bank transfer, and ATM transactions.

- The least utilized transaction type is peer-to-peer (P2P) transfer.

4. Currency Type Insights:

- GBP (British Pound) is the most commonly used currency type in the transactions.

5. Currency Type and P2P Transactions:

- GBP currency type is predominantly used for P2P transfer transactions.

6. Monthly Activity Peaks:

- The month of December shows the highest user engagement, with 421 user IDs observed during this period.

- December also experiences the highest transaction activity, with 1,286 transactions recorded.

7. Monthly Activity Lows:

- The month of February exhibits the lowest user engagement, with only 105 user IDs recorded.

- Correspondingly, February has the lowest transaction count, with a total of 284 transactions.

**2)Problem Identification and Potential Root Causes**

Problem:

The dataset analysis has revealed certain areas of concern and potential issues that warrant attention. These problems could have implications for user experience, business operations, and overall performance.

1. Low Utilization of P2P Transfer:

- Potential Root Cause: The low usage of peer-to-peer (P2P) transfers might indicate a lack of awareness or perceived value among users. It could also imply that the platform's P2P transfer functionality needs improvement, making users opt for other transaction types.

- Impact: The underutilization of P2P transfers might limit the platform's utility for users who frequently engage in such transactions, affecting user satisfaction and potentially leading to user attrition.

2. Inconsistent User Engagement:

- Potential Root Cause: The significant variation in user engagement across different months, with a peak in December and a low in February, could be due to seasonality, holidays, or external factors. It might also indicate that the platform's marketing efforts or features are more effective during certain periods.

- Impact: Inconsistent user engagement could lead to revenue fluctuations and resource allocation challenges, making it essential to understand the reasons behind these fluctuations to develop more targeted engagement strategies.

3. Overrepresentation of GBP Currency for P2P Transactions:

- Potential Root Cause: The observation that GBP currency is predominantly used for P2P transfer transactions could be due to incentives, transaction fees, or a user preference for using GBP for such transactions.

- Impact: If the platform aims to promote other currency types or transaction types, this skew towards GBP for P2P transactions might need to be addressed through targeted marketing, user education, or adjustments to transaction fees.

4. Limited Transaction Type Diversity:

- Potential Root Cause: The data shows that certain transaction types, such as top-up, bank transfer, and ATM transactions, are heavily favored, while P2P transfers are underutilized. This might be due to the ease of use, perceived benefits, or marketing emphasis on these preferred transaction types.

- Impact: A lack of diversity in transaction types might limit the platform's appeal to users who prefer alternative methods of conducting transactions, potentially leading to missed revenue opportunities.

**3)Recommendations:**

1. P2P Transfer Promotion: Consider running targeted campaigns or incentives to promote P2P transfer usage. Educate users about the benefits of this transaction type and address any potential barriers to adoption.

2. Seasonal Engagement Strategies: Analyze the reasons behind the fluctuation in user engagement across months. Develop tailored engagement strategies for different periods to maintain a more consistent user base.

3. Currency Diversification: If desired, promote the usage of other currency types for P2P transfers by providing incentives, reducing fees, or highlighting their advantages.

4. Transaction Type Innovation: Explore opportunities to enhance less-utilized transaction types. Introduce new features, benefits, or rewards to encourage users to diversify their transaction behaviors.

5. User Experience Enhancement: Continuously monitor user feedback and suggestions to identify areas for improving the overall user experience and addressing potential pain points.

By addressing these potential root causes and implementing strategic recommendations based on the data insights, the platform can enhance user satisfaction, drive engagement, and optimize the transaction landscape for sustained growth.

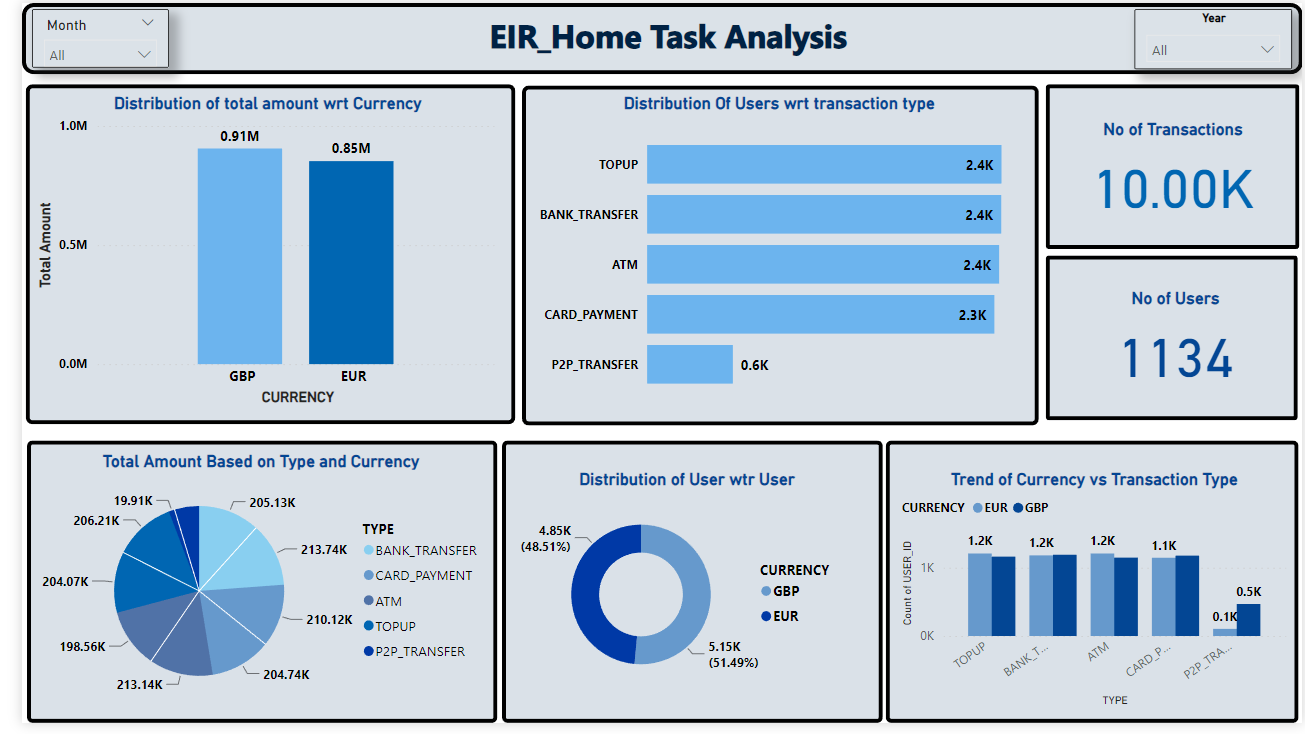
Conclusion:

The analysis of the user transaction dataset using Power BI has provided valuable insights into user behavior and transaction trends. Notable findings include the dominance of GBP currency type, the prevalence of top-up, bank transfer, and ATM transactions, and the fluctuation in user engagement and transaction activity across different months. These insights can guide decision-making in areas such as marketing strategies, transaction processing, and customer engagement efforts.

By utilizing Power BI's capabilities, we have been able to transform raw data into actionable insights, empowering organizations to make informed decisions based on the trends and patterns discovered within the dataset.

In conclusion, this report demonstrates the power of data analysis tools in uncovering hidden insights that can drive strategic decision-making and enhance business performance.

**Screenshot of Power BI Analysis:**

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