Part A: Data Processing

(10 points)

Part A

Question	Answer	Excel file data location (sheet/cell)
1) Total revenue in January 2020:	1,409,827.02	Jupyter Notebook attached
2) Most profitable month:	September 2020	Jupyter Notebook attached
3) Day of week (most money):	Wednesday	Jupyter Notebook attached
3) Day of week (least money):	Monday	Jupyter Notebook attached
4) Total number of New users in Dec 2020:	**72**	Jupyter Notebook attached
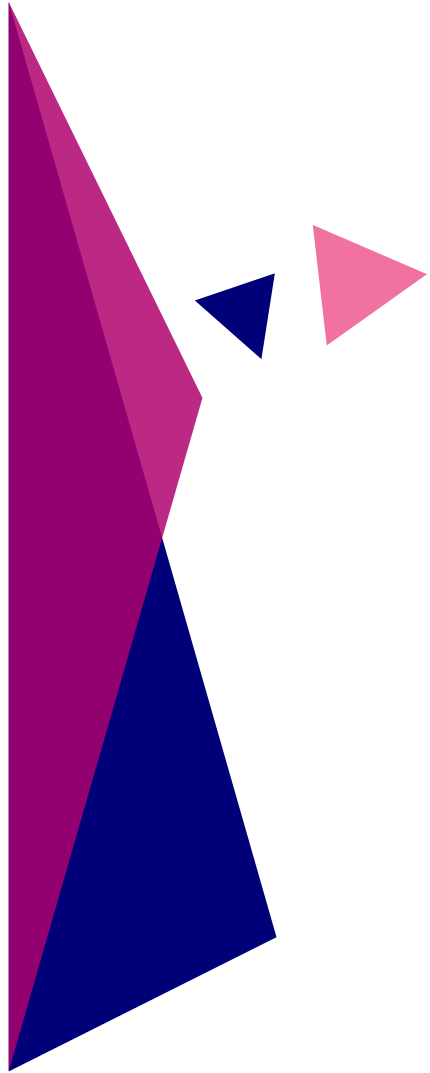
Part B: Data Visualization
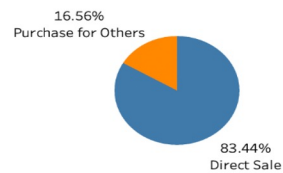
(10 points)

Part B: Q5: Performance Dashboard

MBI

Total Orders
13,495

Total Amount
694,604,234

Total Revenue
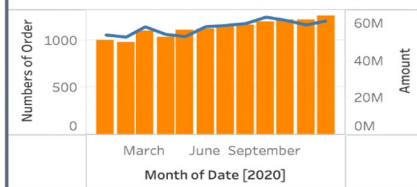18,712,727

Purchase Status Breakdown:

16.56%
Purchase for Others

83.44%
Direct Sale

Top Performing Merchants:

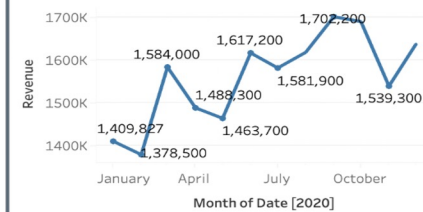| Merchant nam..	
Viettel	Market Distribution: 50.22% Comission Percentage: 2.000
Mobifone	Market Distribution: 28.03% Comission Percentage: 3.000
Vinaphone	Market Distribution: 17.20% Comission Percentage: 4.000
Vietnamobile	Market Distribution: 4.53% Comission Percentage: 4.000
Gmobile	Market Distribution: 0.02% Comission Percentage: 4.000

Major metropolian 's Merchant Preference

		Merchant name			
Location	Gmobile	Mobifo..	Vietna..	Viettel	Vinapho..
Ha Noi		139	64	949	285
Ho Chi Minh City	1	1,696	237	1,627	626
Other	2	1,738	284	3,774	1,273
Unknown		199	27	403	132

Total Transaction Volume and Amount Spending Monthly

Numbers of Order / Amount

Month of Date [2020]

Total Commission Earned by Month:

1,409,827
1,378,500
1,584,000
1,488,300
1,463,700
1,617,200
1,581,900
1,702,200
1,539,300

Month of Date [2020]

Total New User Acquisition Monthly:

84
90
112
81
72
62
72
84
82
79
90
72

Month of Date [2020]
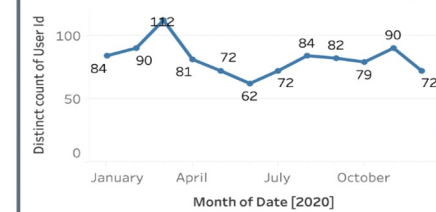
Part C: Analysis & Business Insights

(10 points)

Part C: Q6

- Majority up to 84% is Direct Sale from the customers, there are still 16% is Purchase for Others which indicate a potential population MoMo can target to acquitisite to convert them to our customer.

- Viettel leads with more than half of the market distribution (50.22%) but has lowest commision percentage (2%) compared to other merchants. This suggests that we should negotiate with Viettel to increase the commission, which increase our revenue overall.

- In major metropolitan such as HCMC and Hanoi, Viettel and Mobile are preferred , while in other, we also see the relative strong presence of Vinaphone. This will lead us the direction to perform the customized marketing based on the location to achieve the best result

Part C: Q6

- There is a consistent transaction volume throughout the year, but the total spending fluctuates more, with September being the highest. This could mean that while the number of transaction does not vary much, the amount spent in each transaction can vary, perhaps due to seasonal factors or promotions activities

- Commission earned by month exhibits some fluctuation, with peaks in March and July, suggesting that these months may feature promotional events or higher sales activities leading to more commission. The lowest commission was earned in January. By tracing back and cross-functional discussion, we will understand more the reason behind the trends.

- New User Acquisition Monthly: There is a visible trend of fluctuating new user acquisition with peaks in January and April, followed by a drop and a slight recovery in July and October. This could be influenced by marketing campaigns or external factors affecting new user engagement.

- For a comprehensive analysis, it would be beneficial to understand the context of the data, such as any marketing campaigns that were running, economic factors that might influence purchasing power, or seasonal trends affecting buyer behavior. Additionally, combining this data with qualitative insights, like customer satisfaction or service quality, would help build a more complete picture of the market dynamics at play.

MBI

- **Targeted Promotions**: Identify specific user segments or demographics that are less active in using the Topup service. Tailor promotions and incentives to target these segments, such as offering discounts, cashback rewards, or exclusive deals.

- **Referral Programs**: Implement referral programs to incentivize existing users to refer new users to the Topup service. Offer rewards or bonuses to both the referrer and the new user upon successful sign-up and completion of their first transaction.

- **Bundle Deals**: Bundle Topup transactions with other MoMo services or products to create value-added packages for users. For example, offer discounted rates or bonus rewards for users who top up their accounts along with purchasing other MoMo services like bill payments or money transfers.

- **Cross-Promotions**: Partner with other brands, merchants, or platforms to cross-promote the Topup service to their customer base. Collaborate on joint marketing campaigns or co-branded promotions to reach a wider audience and attract new users to the Topup service.

- **Measure and Optimize**: Track the performance of promotion campaigns using relevant KPIs such as transaction volume, user acquisition, and revenue generated. Analyze the results to identify successful strategies and areas for improvement, and iterate on future campaigns based on data-driven insights.

Part C: Q8

- **User Acquisition and Retention**: may attract new users to the MoMo platform, especially those who frequently use services from these Telcos. It could also enhance user retention by encouraging existing users to continue using MoMo for their transactions.

- **Transaction Volume**: The prospect of earning higher cashback may incentivize users to increase their spending through MoMo, leading to a potential boost in transaction volume. This could positively impact MoMo's revenue through increased transaction fees and merchant commissions.

- **Merchant Partnerships**: The proposed change could strengthen MoMo's relationships with Telco merchants, as they may benefit from increased customer traffic and sales driven by the higher cash back incentives. This could lead to more strategic partnerships and collaborations in the future.

- **User Experience**: Offering higher cash back percentages can enhance the overall user experience by providing more value and rewards for transactions. It may contribute to higher user satisfaction and engagement with the MoMo platform.

- **Revenue Impact**: Deducting a portion of revenue to fund the increased cashback offers will directly impact MoMo's revenue margins. While higher cashback may attract more users and transactions, the reduction in revenue could affect the company's profitability in the short term.

- **Long-Term Sustainability:** While increasing cashback may yield short-term benefits in terms of user acquisition and engagement, MoMo needs to assess the long-term sustainability of this strategy. Continuously funding cashback offers through revenue deductions could pose challenges in maintaining profitability and sustainability over time.

- Regarding whether this option is agreeable, it depends on various factors such as MoMo's current financial health, strategic objectives, and competitive landscape. While offering higher cashback can be an effective short-term strategy to drive user acquisition and engagement, MoMo needs to **carefully evaluate the trade-offs and consider the long-term implications** on its business model and profitability. Additionally, MoMo should **monitor the results of this initiative closely** and be **prepared to adjust** its approach based on market dynamics and user feedback.

Part C: Q9

- **Enhanced Loyalty Programs**: Introduce or enhance loyalty programs that reward users for frequent Topup transactions. Offer incentives such as exclusive discounts, bonus points, or cashback rewards to incentivize ongoing usage and customer loyalty.
- **User Education and Awareness**: Invest in user education initiatives to raise awareness about the benefits and convenience of the Topup service. Provide resources, tutorials, and guides to help users understand how to use Topup effectively and maximize its value.
- **Innovative Features and Services**: Continuously innovate and introduce new features and services within the Topup ecosystem to differentiate MoMo from competitors. Explore opportunities such as split payments, group gifting, or cross-border remittance to cater to evolving user needs.
- **User Experience Improvements**: Prioritize user experience enhancements across all touchpoints of the Topup journey, including the app interface, payment process, customer support, and post-purchase interactions. A seamless and intuitive user experience can drive higher user satisfaction and retention.
- **Community Engagement**: Foster a sense of community among Topup users through social media engagement, user forums, and community events. Encourage user-generated content, testimonials, and referrals to amplify the reach and impact of the Topup service through word-of-mouth marketing.

THANK YOU