## Assumptions

The task was to create a management dashboard specifically for the payment manager. With that in mind, we need to consider the objectives of the payment manager:

1. Maximizing transaction success rate
2. Preventing fraud
3. Minimizing payment processing cost
4. Ensuring smooth user experience

For Bolt's business operations, we are going to assume:

1. Bolt operates at multiple countries
2. Bolt offers multiple services, i.e. ride-hailing services, scooter/e-bike rentals, and food delivery services
3. Bolt has individual and business customers, where business customers will be invoiced monthly.

Using assumptions above, we are proposing some KPI metrics that payment manager might want to monitor:

1. **Success Rate** = Total Successful Transaction/Total Transaction
   Payment managers might want to see the success rate of every product, provider, and customer type.

2. **Fraud Rate** = Total Fraudulent Transaction/Total Transaction
   Payment managers might be interested to see the fraud behavior of every country or product and apply different detection strategies for each of them.

3. **Fee per Transaction** = Total Fee/Total Transaction
   Since the processing fee is tied to the providers, we want to compare the fee per transaction for every provider. We especially want to benchmark the fee to the success rate, whether the fee per transaction is justified for the success rate. We also want to see the fee per transaction by country, since different countries might have different foreign exchange fees or card scheme fees.

4. **Support Cost per Transaction** = Total Support Cost/Total Transaction
   We want to understand which product and provider caused the biggest support cost per transaction.

## Dashboard Design

(Design on the next page)

# Payment Management Dashboard

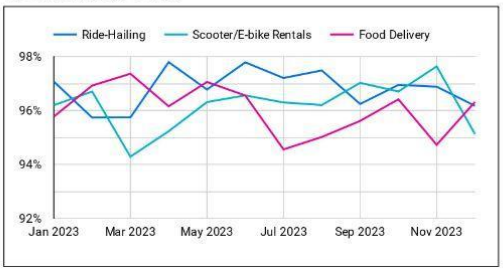
1

| Total Transactions (#) | Success Rate (%) | Fraud Rate (%) | Fees per Transaction ($) | Support Cost per Transaction ($) |
|---|---|---|---|---|
| 45,063 | 96.34% | 1.48% | 0.74 | 2.48 |

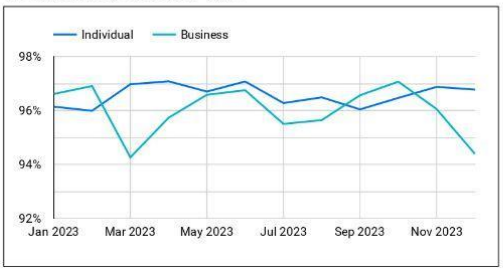
2

## Success Rate

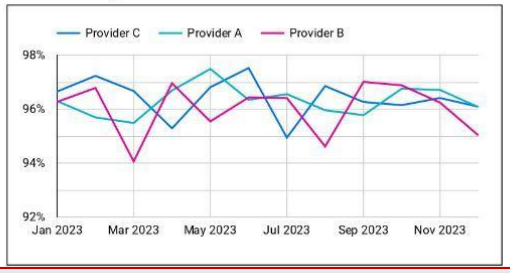
Breakdown by Product




Breakdown by Customer Type




Breakdown by Provider

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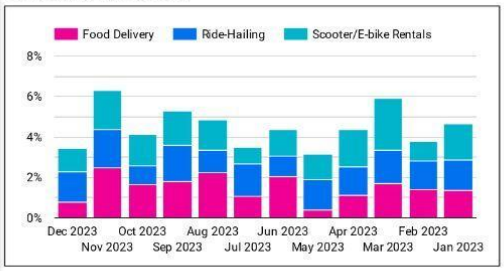
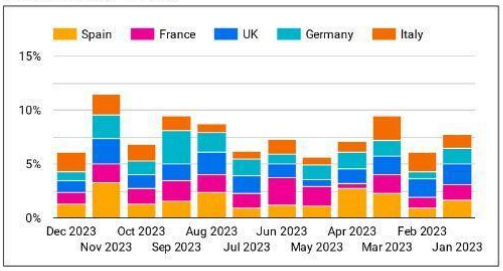
## Fraud Rate

Breakdown by Product



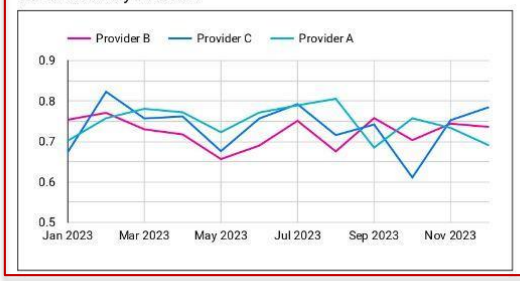

Breakdown by Country



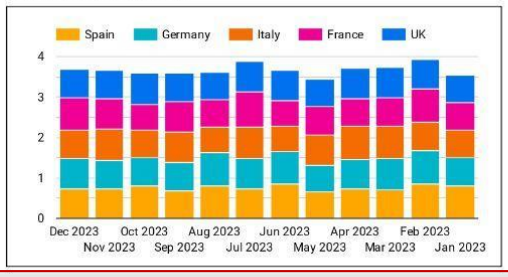

4

## Fees per Transaction

Breakdown by Provider




Breakdown by Country

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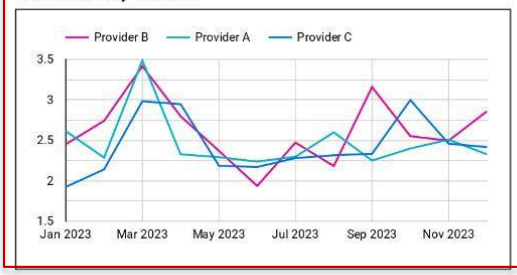
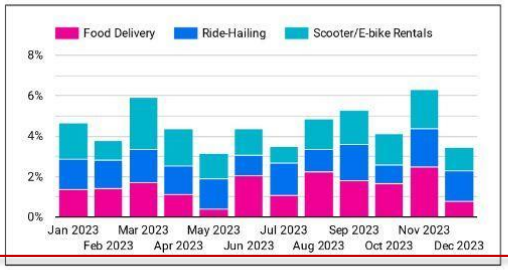
## Support Cost per Transaction

Breakdown by Provider




Breakdown by Product



There are five parts to the dashboard:

1. **Overall KPI metrics**
   This section gives the payment manager an overall view of Bolt's payment platform. For example, the current success rate from the dashboard is 96.34%. Suppose the company's target for payment success rate is 98%. From the section, the payment manager gets an insight that the company's current payment success rate is still below its target. As to answer why, the payment manager can see the reason from the next section.

2. **Success Rate breakdown**
   This section breaks the payment success rate by several dimensions for the payment manager to see further the trend of success rate:
   A. Product/service
      From this part, the payment manager can see the success rate for Bolt's services. This way, the payment manager can understand which services perform well and which needs improvement in their payment flows.

   B. Customer type
      The payment manager can also see the breakdown of success rate by customer type, i.e. individual or business. This will help the payment manager to understand the behavior of each segments, which segment is experiencing higher failure. From this insight, the payment manager can bring the issue to other stakeholders to fix and ultimately improving user experience, satisfaction, and retention.

   C. Provider
      It is also possible to see which of three providers are performing well. Suppose that one of the providers has a low success rate, the payment manager can evaluate whether they should disservice that provider and change it for another one.

3. **Fraud rate breakdown**
   Since Bolt has its own anti-fraud system, the payment manager will want to know whether the current fraud detection strategies are working well or not. To assist this, the section provides breakdown by two dimensions:
   A. Product
      Every product will different types of fraud cases. The payment manager will be interested to see if there is a spike in fraud rate for certain products in certain time. For example, in food delivery services, scammer might use a stolen credit card to make an order. Then, the legitimate cardholder will dispute the transaction to the credit card company. The credit card company then issued a chargeback to Bolt, where Bolt needs to pay the money. This case will be reflected as a spike in the visualization. Noticing the spike, the payment manager

can bring this up to management and develop a more robust fraud detection with the data and backend team.

B. Country
The visualization enables payment manager to monitor the fraud rate by country. Suppose in the visualization, the payment manager notice that a specific country has higher fraud rate from the other. From this insight, the payment manager can suggest to the product team to add additional authentication, like OTP, for customers from this country before they can complete their payment.

4. **Fees per transaction breakdown**
Different counties and providers have different processing fees. For that reason, we are breaking the section into two:
   A. Provider
   From this chart, the payment manager can compare the fee per transaction for a provider. Suppose we saw that a particular provider has high fee per transaction. The payment manager then can compare this information with the provider's success rate/transaction volume. If it's low, then payment manager can suggest to management to replace the provider.

   B. Country
   It is important to monitor the fee per transaction by country. It helps pinpoint which countries have higher transaction fees due to factors like foreign exchange rates, local card scheme fees, or provider-specific charges. By doing so, the payment manager can negotiate better terms with payment providers in high-cost countries or explore alternative payment methods to reduce fees. It also helps to decide pricing strategies by highlighting regions where higher fees might necessitate adjustments in service charges or customer pricing.

5. **Support Cost per Transaction breakdown**
   A. Product
   As the payment manager wants to ensure smooth experience for user, they want to ensure enough resource allocation was given for each products. By seeing the support cost per transaction by product, the payment manager can suggest to adjust staffing or training focus based on support cost data for products. They can also identify products that generate the highest support costs and implement more efficient support processes for those products.

   B. Provider
   Using this section, the payment managers are enabled to identify how different providers contribute to support costs, potentially due to issues with their services. Using this evidence, they can work with high-cost providers to improve their service or renegotiate contracts based on support cost data.