

Business Intelligence & Business Analytics
(MSCDAD_C, H9BIBA 2019)
PROJECT IMPLEMENTATION REPORT

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1. Abstract

This report aims to implement the objectives defined in the specification report for Quantum Pay through the Power BI dashboard, where KPI's are tracked in an effective and interactive manner. This will enable all the key stakeholders to track the metrics every day and take necessary decisions and alert the respective teams. With the major dip in any of the KPIs, Root Cause Analysis (RCA) can be performed. The CRM is set up to manage customer relationships. Send offers and promotional emails to the users. Track CSAT and NPS through surveys and forms sent to the user email. Surveys and feedback forms are implemented through CRM.

The actions mentioned in the Fit Gap analysis in specification report will be implemented in the step-by-step process.

2. Introduction

The Key Performance Indicators (KPIs) are the most important part to check the health of the company performance in all the segments of the Quantum Pay banking products. With the dataset, a schema is created to create an effective relationship between the fields and data. KPIs are defined and tracked through Power BI dashboard and CRM dashboard. Tracking the metrics and taking relevant actions are done in this report, with the help of these actions mentioned in the specification report will be answered. Along with it, customer profiling is done which enables us to understand Quantum Pay users and cater them with the right banking services and offers.

3. Dataset Description

The banking dataset is divided into various segments, for each segment their relevant KPIs (metrics) are defined.

- Onboarding Dataset: Consists of users who opened savings accounts along with their *account_number* and account opening date.
- Customer Data: Users' Personal Information is stored like *full_name*, *contact*, *email*. These details are redacted due to security concerns.
- Transactions: All the transaction data on day-to-day basis is stored in the table, along with *transaction_id*, *transaction_date*, and *transaction_type*.
- CS – CX: This table is used to store the customer satisfaction rating of the user and survey details for a user. From this we can calculate CSAT and NPS.
- Balance: Day end balance for all the users is stored here.
- Customer Demographic: User's demographic details like age, gender, occupation are stored in this dataset. This will be used in customer profiling. The banking data set follows star schema and contains all the necessary and relevant data.

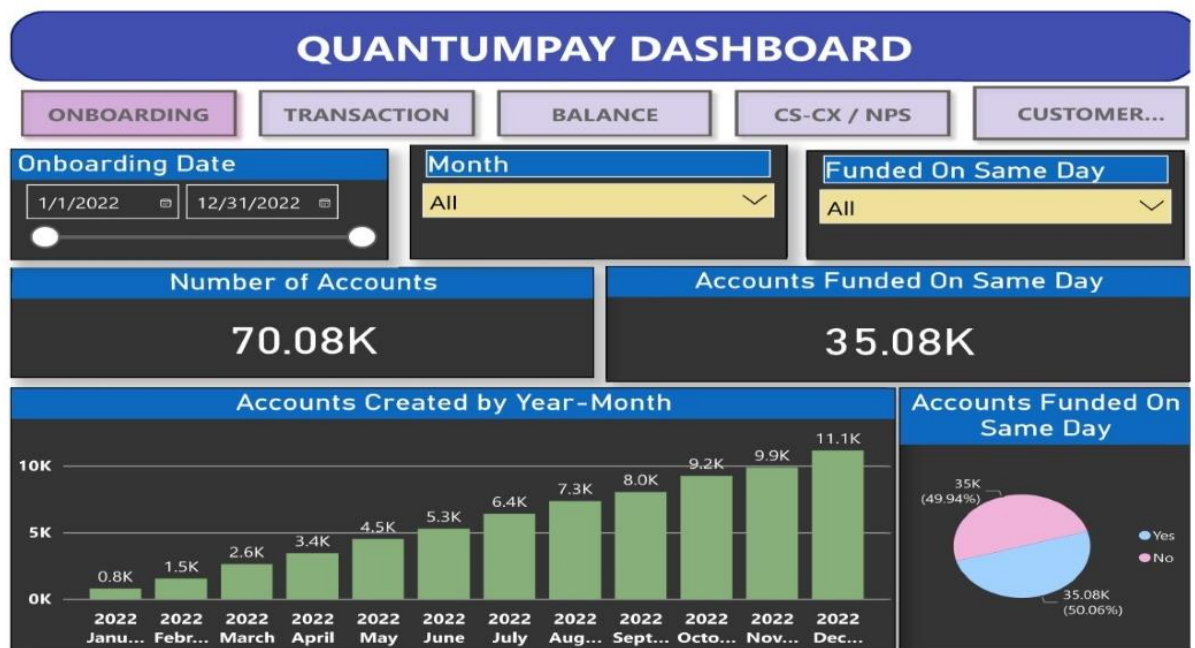
4. Power BI Dashboards

The Quantum pay Dashboard provides date-based explanations of customer profile interaction, CS-CX/NPS, onboarding, transactions, and balance.

4.1 Onboarding Details:

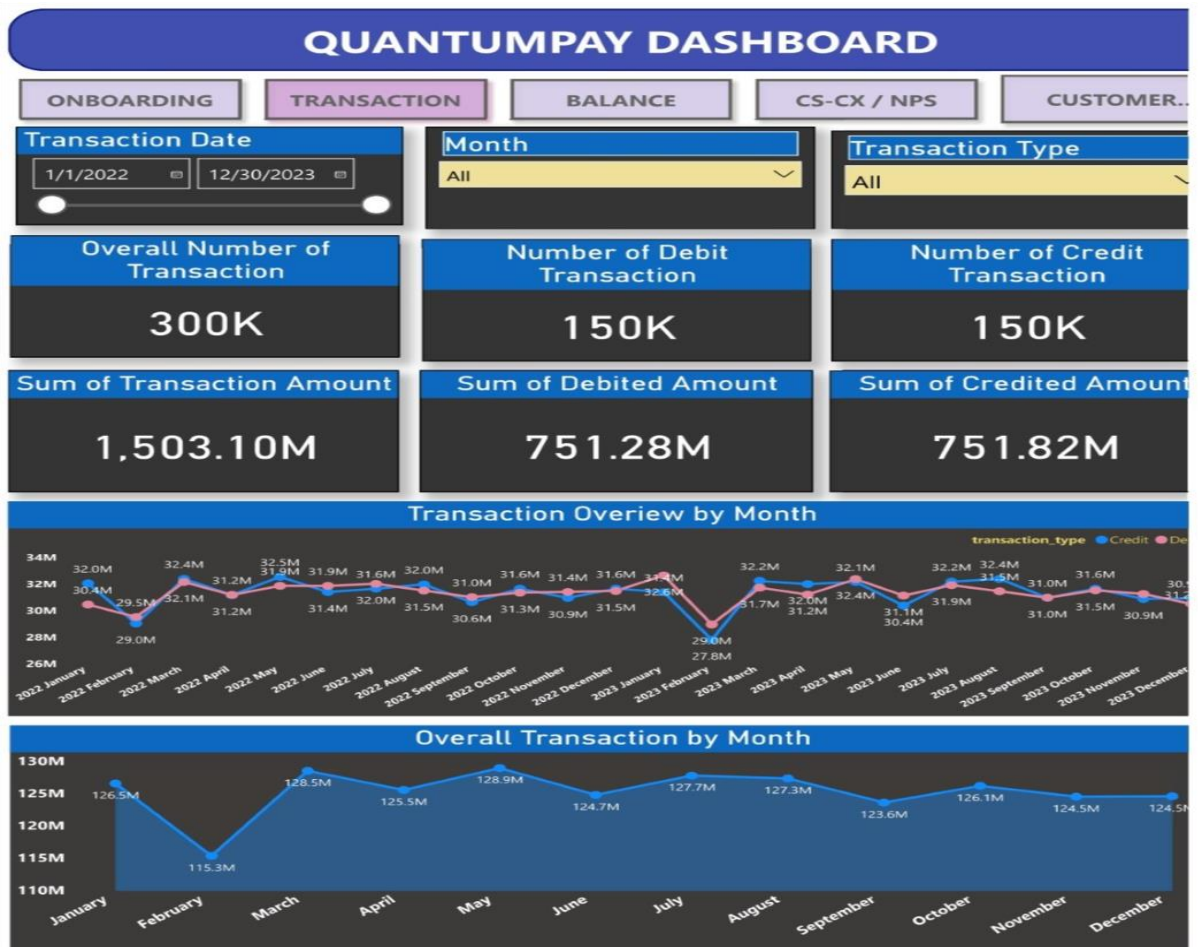
The onboarding report below shows how many accounts were opened on a given day and how many accounts were funded on the same day for the same account. As of right now, 70.08k accounts have been created, of which 35.08k are funded on the same day.

- The number of accounts created monthly and daily is shown in a bar graph, while the number of funded and unfunded accounts on an account-created day is shown in a pie chart.



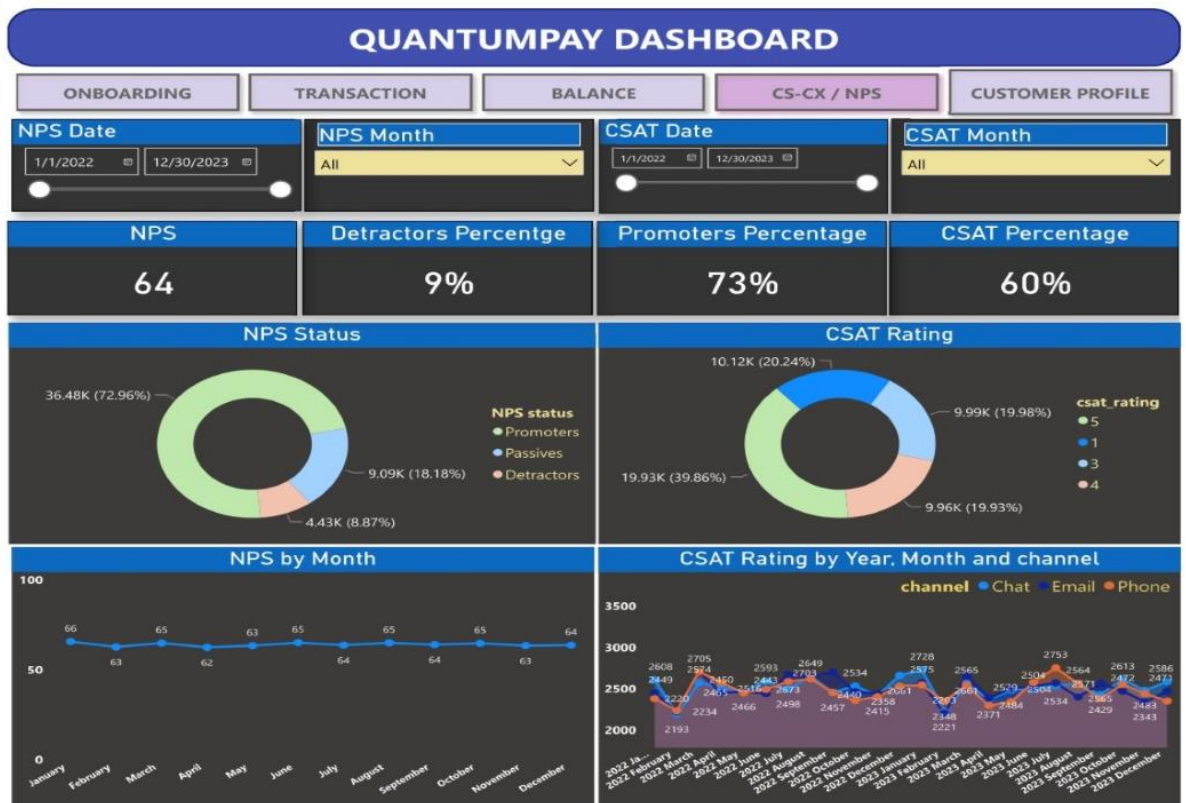
4.2 Transactions Overview:

- The transaction report provides information on the number of transactions, debit transactions, and credit transactions in addition to summarizing the transaction amount, total amount of debit transactions, and total amount of credit transactions.
- There are two charts in this report, a line chart and an area chart. The line chart depicts the total credit and debit transactions on a daily and monthly basis, while the area chart depicts the total transactions on a daily and monthly basis.



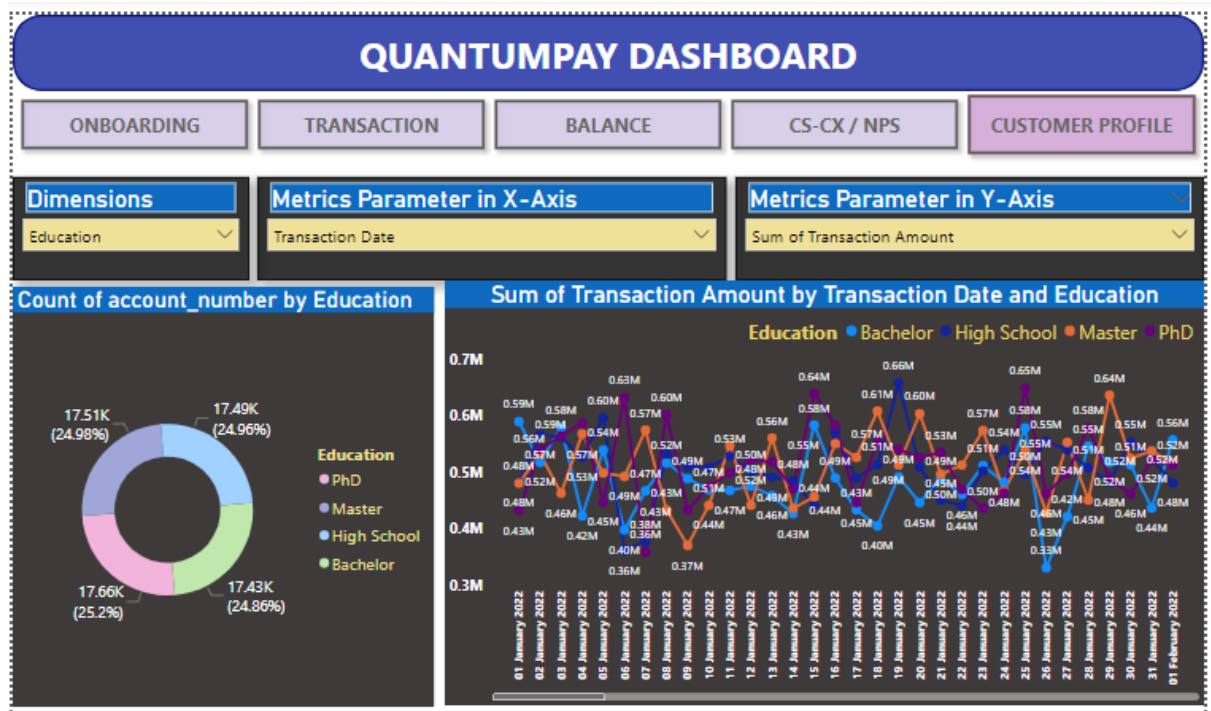
4.3 CS-CX/NPS:

- To track Customer Satisfaction (CSAT) of the QuantumPay, there is a CS-CX / NPS dashboard to view the overall CSAT of the company, and CSAT rating distribution with the help of Pie chart. We can check the trend of CSAT for Day-on-Day, likewise WoW, MoM, and YoY. We can check the trend daily and could work on it if we see any dip in the ratings. CSAT can be viewed by channel wise like CSAT for Chat, Email and Phone.
- To calculate CSAT = (Count of 4, 5 Ratings / Total Responses Count) * 100
- Net Promoter Score (NPS) can be checked in this dashboard along with Promoters and Detractors.
- NPS metrics range is -100 to +100 which will tell us how likely our user will promote our bank to others.
- To calculate the NPS = %Promoters - %Detractors.



4.4 Customer Profile:

- Dimensions and metrics factors are included in the consumer profile report. Age, Gender, Occupation, Education, Housing Loans, and Other Loans are the six dimensions in this report.
- The X-Axis parameter includes dates from several columns such as onboarding, Transaction, NPS, and CSAT. The Y-Axis parameters include the number of accounts created, the number of accounts funded on the same day, the number of transactions, the sum of the transactions, the number of credit transactions, the sum of the credited amount, the number of debited transactions, number of debited transactions, the sum of the debited amount, NPS Score, and CSAT percentage.
- The fields listed above are used in dimensions and parameters to interact with the line chart and donut chart with various fields in dimensions and metrics, for example, Education vs Transactions to understand which Education background group is transacting high.



5. Customer Relationship Management (CRM)

5.1 Creation of Contacts in HubSpot CRM

In this part, we have shown in the below figure, how we can create contacts manually, but in our project, we have imported all the existing customers of our Quantum Pay neo-bank from a CSV file, secondly, we have mapped all the columns with HubSpot contact properties and then we have selected Account number as a unique column in our CRM software and then it finally imported all the existing customers of the neo-bank.

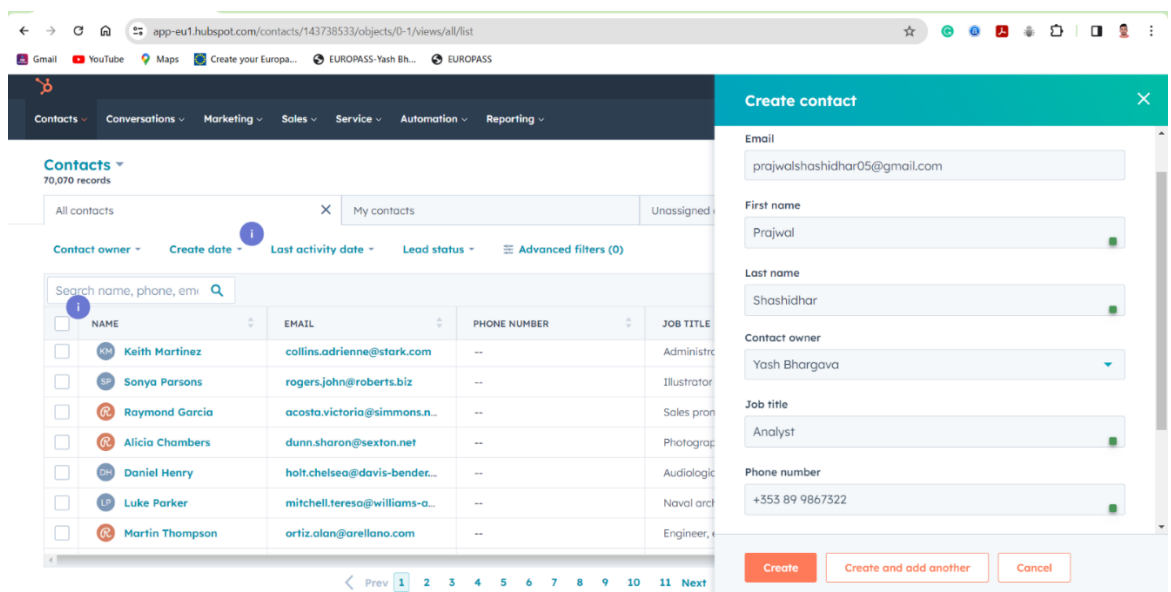


Fig.1 Contact Creation on HubSpot CRM

5.2 Created forms for Customer Acquisition

The main motivation to implement this step in our project is to acquire customers in the neo-bank to provide more of the good services of the bank like investment banking and more and for that, we have created forms using the HubSpot CRM and shared these forms to the customers as a link to their emails as to send them marketing deals and promotions later after the acquisition.

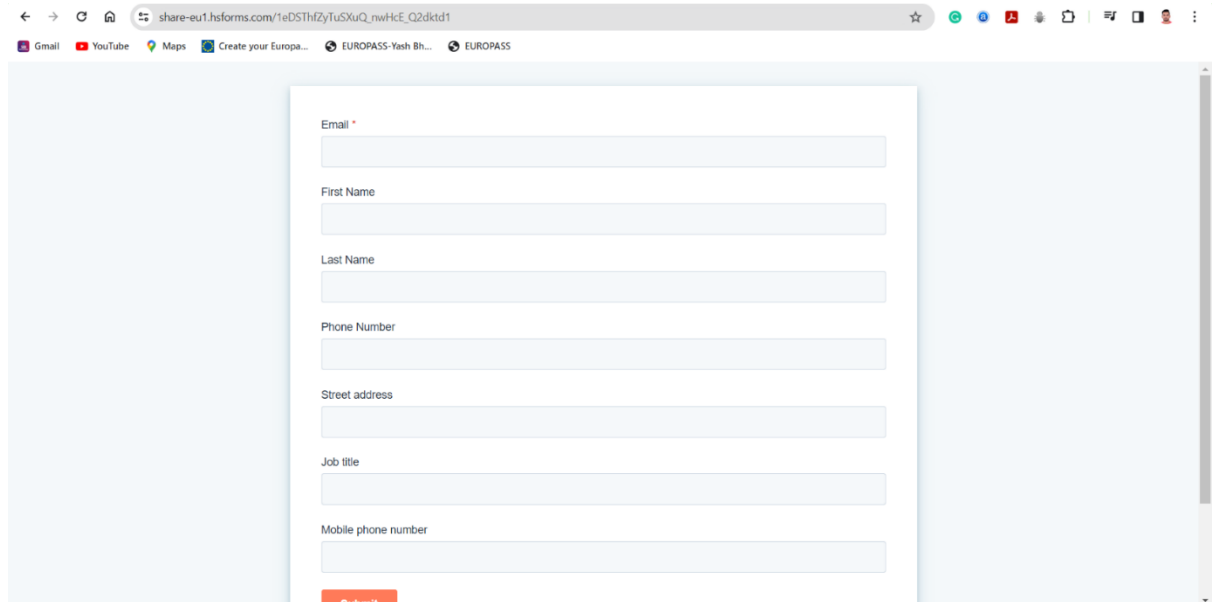
A screenshot of a web browser displaying a HubSpot form. The form is titled "Create your Europa..." and is part of a collection of forms. It contains several input fields: "Email" (marked with an asterisk), "First Name", "Last Name", "Phone Number", "Street address", "Job title", and "Mobile phone number". At the bottom of the form is a red "Submit" button. The browser's address bar shows the URL "share-eu1.hsforms.com/1eDSThIZyTuSXuQ_nwHcE_Q2dkt1".

Fig.2 Customer Acquisition forms using HubSpot Forms

5.3 Created form for taking Customer queries and Generation of tickets

In this step, we have created a form for the customers to fill out with their issues and submit it so that it will generate the tickets on our CRM as shown in Fig.3.

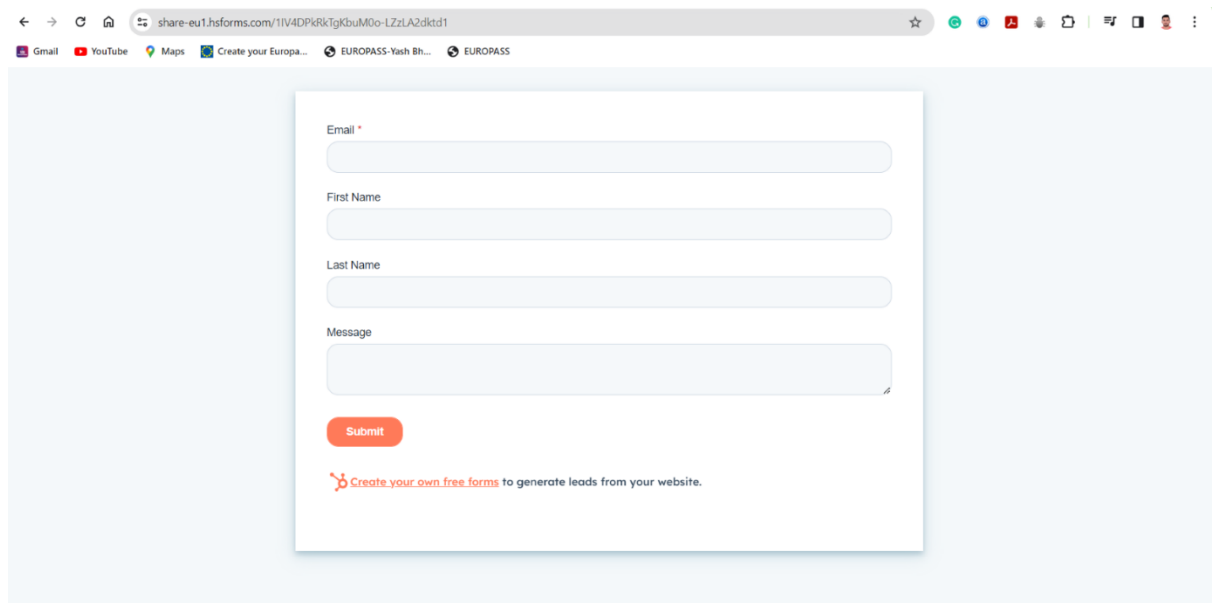
A screenshot of a web browser displaying a HubSpot form. The form is titled "Create your Europa..." and is part of a collection of forms. It contains several input fields: "Email" (marked with an asterisk), "First Name", "Last Name", and "Message". At the bottom of the form is a red "Submit" button. Below the form, there is a link that says "Create your own free forms to generate leads from your website." The browser's address bar shows the URL "share-eu1.hsforms.com/11V4DPkRkTgKbuM0o-LZzLA2dkt1".

Fig.3 Collection of Customer's Queries

We can also manually generate can map the tickets as that it is a low, medium, and high priority so that we can provide the solutions to the customers as soon as possible for an efficient smooth customer experience as shown in Fig.4.

The screenshot shows the HubSpot CRM interface with the 'Create ticket' form open on the right. The form fields are as follows:

- Ticket name ***: Debit freeze
- Pipeline ***: Support Pipeline
- Ticket status ***: Waiting on contact
- Ticket description**: The debit on account has frozen
- Source**: (empty dropdown)
- Ticket number**: (empty field)

Buttons at the bottom of the form: Create, Create and add another, Cancel.

The left sidebar shows the 'Tickets' view with 0 records. A message states: 'Keep track of issues with your customers. Create tickets and assign them to a member of your team so they can offer the right help at the right time. Want to learn more about tickets? Read the knowledge base article.'

Fig. 4 Generation of Ticket in HubSpot CRM

5.4 Creation of Deals for the customers

In this step, we have created different deals for the customers as a part of our marketing strategy of the bank and providing different offers, deals like redemption of cashback on spending with bank’s card, high interest diamond and platinum savings account etc., and assign the deals in the Sales Pipeline with the closing date of that deal as shown in Fig. 5

The screenshot shows the HubSpot CRM interface with the 'Create deal' form open on the right. The form fields are as follows:

- Deal name ***: Cashback on Spending
- Pipeline ***: Sales Pipeline
- Deal stage ***: Appointment Scheduled
- Amount**: \$1,000.00
- Close date**: 12/31/2023
- Deal owner**: (empty field)

Buttons at the bottom of the form: Create, Create and add another, Cancel.

The left sidebar shows the 'Deals' view with 1 record. A table lists the deal:

| DEAL NAME | DEAL STAGE | CLOSE DATE (GMT) | DEAL OWNER |
|-------------------------------|-------------------------------|--------------------------|------------|
| High-interest savings acco... | Appointment Scheduled (Sal... | Dec 31, 2023 5:39 PM GMT | Yash |

Fig. 5 Creation of Deals

5.5 Getting Customer Satisfaction Score (CSAT) Survey

In our project, our focus is to improve the customer satisfaction score (CSAT) by reducing the time of resolution of the queries of customers, providing the customers with great deals and investment options to increase their wealth and as the customer is satisfied with the bank services and most importantly the bank can retain its customers for the longer period. So before improving the customer satisfaction, we have done the CSAT Survey using HubSpot CRM as shown in Fig. 6

The screenshot shows the HubSpot CRM interface for editing a survey titled "Customer Satisfaction Survey 2". The left sidebar contains settings for the survey, including "From name" (www.ncirl.ie), "From address" (noreply@hubspot.com), and "Subject line" (Hey, how'd we do?). The main area displays a preview of the survey email. The email content includes a greeting "Hey [Contact: First name], Your opinion matters", a message "You recently subscribed to a service from Quantum Pay. We'd love to know what you thought.", and a question "How happy were you with the overall buying experience?" with three smiley face options (sad, neutral, happy). The interface also shows tabs for "Survey", "Feedback", "Thank you", "Recipients", and "Automation".

Fig.6 Customer Satisfaction Score (CSAT) Survey

5.6 Calculation of Net Promoter Score (NPS)

In this part of our project, we have created a Net Promoter Score (NPS) survey for the customers of the neo-bank and sent them through emails to calculate the NPS score and how likely they will refer the services of the bank to their family and friends. So that we can improve the policies, terms and conditions, and services of the bank as shown in Fig. 7.

The screenshot shows the HubSpot CRM interface for editing a survey titled "NPS Survey". The left sidebar contains settings for the survey, including "Email settings", "Survey language" (English), "Company name" (Quantum Pay), "From name" (www.ncirl.ie), and "From address" (noreply@hubspot.com). The main area displays a preview of the survey email. The email content includes a greeting "Hey [Contact: First name], Your opinion matters", a question "How likely is it that you would recommend Quantum Pay to a friend or colleague?", and a 0-10 scale with a legend "0 - Not at all likely" and "10 - Extremely likely". The interface also shows tabs for "Survey", "Feedback", "Thank you", "Recipients", and "Automation".

Fig.7 Net Promoter Score Survey