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Report on SEBI PMS Data Extraction and Analysis

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1.Introduction:

1.1 Objective of the Project

The primary objective of this project was to extract, preprocess, and analyse data from the SEBI PMS (Portfolio Management Services) website. The extracted data includes details about portfolio managers, client segmentation, and Assets Under Management (AUM). This report summarizes the findings and provides actionable insights derived from the analysis.

1.2 **Scope of Work**

- Scrape data from SEBI PMS dropdown menus and tables.
- Process and structure the data for analysis.
- Perform meaningful analysis to identify key trends and insights.
- Provide actionable recommendations based on findings.

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2. Data Collection

To collect data from the SEBI PMS website, web scraping techniques were implemented using Python. The key tools and methods used were:

Tools and Libraries:

1. **Selenium**: To automate interaction with the website's dropdown menus and submission forms.
2. **BeautifulSoup**: To parse and extract HTML content from the page source.
3. **Pandas**: To structure and save the data into a tabular format for analysis.
4. **WebDriverManager**: To manage the ChromeDriver dynamically.

Steps for Data Extraction:

1. **Initialization**:
    - The ChromeDriver path was defined using Service from Selenium.
    - The website URL (https://www.sebi.gov.in/sebiweb/other/OtherAction.do?doPmr=yes) was loaded using Selenium's webdriver.
2. **Dropdown Interaction**:
    - All available values in the **Portfolio Manager ID (pmrId)** dropdown were fetched.
    - The desired **year** (2024) and **month** (December) were selected programmatically.
3. **Data Submission**:

- The "Search" button was identified using a CSS selector and clicked to retrieve the table data dynamically.

4. **Data Parsing**:
    - The page source was extracted, and the relevant table rows were located using BeautifulSoup.
    - Client and AUM data were extracted from specific rows (rows[2] and rows[3]).
5. **Error Handling**:
    - A try-except block was implemented to manage missing data or unexpected HTML structure gracefully.
6. **Data Structuring**:
    - Extracted data was stored in a dictionary and appended to a Pandas DataFrame (df1) iteratively.
    - Columns included client categories and AUM values, with total counts for each.
7. **Output**:
    - The final DataFrame containing all portfolio managers' data was saved to a structured format (e.g., CSV).

2.2 **Extracted Data Categories**

- **Company Name**: Name of the portfolio manager.
- **Client Segments**:
    - Domestic PF/EPFO
    - Domestic Corporates
    - Domestic Non-Corporates
    - Foreign Non-Residents
    - Foreign FPI
    - Foreign Others
    - Total Clients
- **Assets Under Management (AUM)**:
    - Domestic PF/EPFO
    - Domestic Corporates
    - Domestic Non-Corporates
    - Foreign Non-Residents
    - Foreign FPI
    - Foreign Others

- Total AUM

3.Data Preprocessing:

1. Removing Irrelevant Columns

2. Cleaning the Company Name Column

- The raw data for the "Company Name" column contained a concatenated string in the format INPxxxxx@@INPxxxxx@@Company Name.
- To extract only the actual company name, the following transformation was applied:

  df['Company Name'] = df['Company Name'].str.split('@@').str[2]

3.Saving the Cleaned Data:

- After cleaning and preprocessing, the final DataFrame was saved in CSV format using the to_csv() method:

4. final data format

- Company Name
- Clients (Domestic PF/EPFO)
- Clients (Domestic Corporates)
- Clients (Domestic Non-Corporates)
- Clients (Foreign Non-Residents)
- Clients (Foreign FPI)
- Clients (Foreign Others)
- Clients (Total)
- AUM (Domestic PF/EPFO)
- AUM (Domestic Corporates)
- AUM (Domestic Non-Corporates)
- AUM (Foreign Non-Residents)
- AUM (Foreign FPI)
- AUM (Foreign Others)
- AUM (Total)

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4. Analysis Techniques

The cleaned and **preprocessed** data was analysed using **Power BI**, a powerful business intelligence tool, to derive meaningful insights. Below are the key steps and techniques used in the analysis process:

1. **Data Import**:
    a. The structured data saved in SEBI_PMS_Data.csv was imported into Power BI for analysis and visualization.

2. **Data Modeling**:
    a. The dataset was modeled with clear relationships between columns to ensure the smooth creation of visuals and insights
3. **Visualization Techniques**:
4. A variety of visualizations were employed to effectively present the data, including:
    a. Line Charts
    b. Bar and Column Charts
    c. Pie Charts
    d. Tree Maps
    e. Matrix Visuals
    f. Cards
    g. Slicers and Filters
5. **DAX Calculations and Measures**:
    - new measures to identify companies with more foreign clients than domestic clients.
    - Calculated inactive companies with no clients or assets.
    - Distinguished foreign and domestic client assets and calculated their totals.

Link of my PowerBI Report:

https://app.powerbi.com/view?r=eyJrIjoiODQzOTcyNDktODczYS00ODljLThhYzYtYWUxYTRkNjljNjg2IiwidCI6ImExYjE4NWQ1LThlNzktNGRkOS05YmI4LThhZWYyM2NiNjY2MyJ9&pageName=70132b2a503017109b18

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5. Key Findings

1. Top 2 Companies by Assets Under Management (AUM):
    - SBI Funds Management Limited and UTI Asset Management Company are Pvt Ltd among the top companies in terms of AUM, contributing 39.79% and 36.92%, respectively.
    - Interestingly, neither of these companies ranks among the top 10 in terms of the number of clients, yet their asset values are significantly high.
2. **AUM Contribution Breakdown:**
    - A significant **75.3%** of the total assets originate from **Domestic PF/EPFO** clients.
    - Top three companies have their major assets originating from **Domestic PF/EPFO** clients.
        - **SBI Funds Management Limited**

- **UTI Asset Management Company Pvt Ltd**
- **Darashaw and company ltd**

3. Disparities in Asset and Client Contributions

- Foreign Clients: While FPI clients account for a minimal share of foreign clients (0.44%), they dominate foreign assets, contributing a significant 80.57%. Conversely, foreign non-residents make up nearly all foreign clients (99.49%) but contribute only 15.57% to foreign assets.
- Domestic Clients: PF/EPFO entities manage the majority of domestic assets (79.85%) despite representing a small client base of 219. Meanwhile, domestic non-corporates account for a vast majority of domestic clients (93.09%) but manage only 8.92% of domestic assets.

4. Exceptional Asset Trends Among Foreign Clients

In general, domestic clients tend to have higher asset values compared to foreign clients. However, an exception was observed in the dataset where 21 companies have foreign clients with higher asset values than their domestic counterparts.

5. High Assets with Few Domestic Clients

The UIT Assets Management Company has only 6 domestic clients, but their asset value is very high. This shows that even with a small number of clients, the company manages a lot of assets, likely due to having very valuable clients**.**

6. Non-Active Companies with No Clients or Assets

There are a total of 80 companies that are non-active, meaning they have no clients and no assets.

6.Recommendations

1. **Focus on High-Value Client Segments:**
   Companies should prioritize acquiring and retaining high-value client segments like **PF**(Provident Fund)/**EPFO**(Employees' Provident Fund Organization) **entities** and **FPI**(Foreign Portfolio Investment) **clients**, as they contribute significantly to asset management despite their small numbers.
2. **Address Disparities Between Client Base and Asset Contribution:**
   Domestic non-corporates and foreign non-residents make up the majority of clients but contribute a smaller share of assets. We need to focus on this issue and create strategies to increase their asset contribution
3. **Analyse and Activate Non-Active Companies:**
   Study the 80 inactive companies to understand why they are not getting clients or generating assets. Once you know the reasons, you can either improve their operations or combine them with successful companies to make them more efficient.
4. Strategic Growth Beyond Top Asset Contributors:
   SBI Funds Management and UTI Asset Management have the most assets. But other companies, which have fewer assets, can grow by targeting special groups of clients or markets that are not getting much attention right now.

Conclusion:

This project successfully collected, cleaned, and analysed data from the SEBI PMS website to gain important insights into portfolio managers and their client asset distribution. The analysis revealed that high-value client segments, such as Domestic PF/EPFO and FPI clients, play a major role in asset growth, even though their numbers are small. On the other hand, there is a big gap between the number of clients and the assets they contribute, especially for domestic non-corporates and foreign non-residents, which shows room for improvement.

We also found that 80 companies are not active—they don't have any clients or assets—giving us a clear opportunity to investigate and take corrective actions. Additionally, some companies manage very high assets with only a few clients, showing that focusing on high-value clients can lead to significant growth.

Using tools like Python for data extraction and Power BI for analysis, this report gives a clear picture of how the SEBI PMS sector is performing. The recommendations, such as focusing on high-value clients, reducing client-asset gaps, and activating inactive companies, can help improve the sector and support future growth.