ChatGPT

Share Market Dashboard (Power BI Star Schema)

We model the data in a classic **star schema**, with fact tables for financial events and a shared calendar dimension. The central fact tables – **Fund_Transaction_Master**, **Fact_Trade_Master**, **Dividend_Master**, and **Holding_Master** – each contain numeric measures. Dimension tables (like a **Calendar** table for dates) support filtering and grouping, while the fact tables store the quantitative metrics [1] [2] . For example, we include a Date/Calendar table so users can slice all reports by Year or Month (a common best practice [2]). We also use dimensions like *SourceName* and *ISIN/Symbol* to link trades and dividends to descriptive attributes. This structure ensures efficient summarization (facts) with flexible filtering (dimensions) [1] .

Fund Transactions KPIs

Figure: Example dashboard with KPI cards (top) and trend charts (bottom).

At the top of the dashboard, we use **KPI Card visuals** to spotlight the key fund metrics. Each card shows a headline measure from *Fund_Transaction_Master*: **Total Amount Added**, **Total Amount Withdrawn**, and **Total Transaction Charges** (sum of all deposits, withdrawals, and fees). KPI cards provide at-a-glance insight into progress against targets or budgets [3] . We keep the design simple by focusing on only a few critical KPIs [4] , avoiding clutter. These cards update dynamically with the date or *SourceName* slicers selected.

- **Total Amount Added:** sum of all fund inflows (deposits).
- **Total Amount Withdrawn:** sum of all fund outflows.
- **Total Transaction Charges:** sum of all fees and charges on transactions.

By summarizing cash movements in large number cards, users can immediately see net funding (inflows vs outflows) and costs.

Trade KPIs

We then present trading performance metrics from *Fact_Trade_Master*. The top row of cards shows **Total Net Profit**, **Total Buy Value**, **Total Sell Value**, and **Total Quantity Traded**. For example, *Total Net Profit* sums all (sell proceeds minus buy costs) across the filtered trades. These cards highlight cumulative performance and volume.

Below the cards, a **trend chart** (line or combo chart) plots **Profit by Month** over time. A line chart is ideal for visualizing changes and trends over successive time periods [5] . By drilling down or filtering by year/month, the chart reveals seasonal patterns or shifts in profitability.

- **Total Net Profit:** sum of (sell minus buy) values across all trades.
- **Total Buy Value:** sum of all purchase (buy) transaction values.
- **Total Sell Value:** sum of all sale transaction values.
- **Total Quantity Traded:** sum of all shares/contracts traded.

The monthly profit trend line shows how profitability evolves (e.g. peaks or dips each month). Using a continuous date axis (from the Calendar) makes it easy to spot patterns, since line charts "excel at revealing patterns, seasonal effects, and long-term changes" [5] .

Dividend KPIs

Dividend data from *Dividend_Master* is summarized similarly. We include a card for **Total Dividend Received** (the sum of all dividends). Next to it, a **line chart** plots **Dividend Received Over Time**. This chart typically has *Date* on the x-axis and *Dividend Amount* on the y-axis, so analysts can see how dividend income accrues each month or year. Line charts are well-suited for this financial time series [5] . For example, a steadily rising line indicates regular dividend payments, while spikes highlight large payouts. This section uses the Calendar to filter dividends by year or month, making it easy to drill into specific periods.

Holdings Overview

The bottom section provides a snapshot of current positions from *Holding_Master*. We show a **Total Investment** card (the sum of Buy Values of all current holdings) so the user knows the portfolio's cost basis. To compare holdings, we use a **bar chart** (horizontal or vertical) of **Quantity Held by Symbol (or ISIN)**. Bar charts work well here because they let the viewer compare quantities across different stocks or instruments [6] . Longer bars indicate larger positions.

Finally, we include a **holding summary table** (matrix visual) listing each security's *Symbol*, *Quantity*, and *Buy Value*. A tabular (matrix) visual organizes these details in rows and columns, similar to a pivot table. This lets the user sort or drill into each holding. Matrix visuals are often used in finance to display detailed metrics across dimensions (e.g. by product or security) [7] [8] . By aligning the table under the charts, users can scroll or filter to the current holding list at any time.

- **Total Investment (Buy Value):** total cost of current holdings.
- **Quantity Held by Symbol:** bar chart showing share count per symbol (for comparing positions) [6] .
- **Holding Summary Table:** rows for each symbol, showing quantity and buy value (uses a matrix/ table visual for clarity) [7] [8] .

Interactivity & Layout

We add **slicers** so users can slice all visuals by *Year*, *Month* (from the Calendar) and *SourceName*. These dropdown or list slicers let anyone filter the report easily [9] . For example, selecting a particular year in the Year slicer instantly updates all KPIs and charts to that year's data. This matches best practice: use slicers for key self-serve filters like Time or Category, so non-technical users can interactively explore the data [9] .

Visually, the report follows a clean, grid-based layout. We place the KPI cards in a row at the top, charts in the middle, and the table at the bottom, guiding the eye left-to-right and top-to-bottom. A simple and decluttered design helps the user focus on the most important insights [10] . Consistent fonts, colors, and spacing (e.g. color-coding positive profit in green, negative in red) further enhance readability. In summary, this modern dashboard layout – with KPI cards, trend charts, and a table – provides an intuitive, at-a-glance view of portfolio performance, while allowing drill-down analysis via the slicers [10] [11] .

Sources: Design principles are informed by Power BI best practices and financial visualization guidance [2] [1] [3] [5] [4] [6] [9] [7] [10] .

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