HITACHI
Inspire the Next

Hitachi provides Global Investment Bank with insight through innovative custom dashboard

FINANCE SECTOR

About the client

The client is one of the world's leading providers of financial services. It caters to private, corporate and institutional clients in all major financial centers. With offices in over fifty countries, the client employs tens of thousands of people globally.

Hitachi Consulting (formerly Information Management Group Ltd.) is currently working with the client's Treasury department. The functions of the Treasury department include: cash management; liquidity planning and control; management of interest, currency and commodity risks; procurement of finance and financial investments; contacts with banks and rating agencies; corporate finance.

As well as ensuring efficient allocation and use of capital, the department's work provides a framework for optimal liquidity management. The department also ensures that there is an adequate, lean and transparent legal structure underpinning the client's commitment to meeting international standards of corporate governance, and reports externally to the regional regulators.

Overview

Hitachi's work for the client's Treasury department is an extension of project work previously carried out for their Risk division. In order to visualize risk data and facilitate improved decision-making, Hitachi built a bespoke data visualization dashboard and dashboard landing page for the client's Risk division. The landing page identified and analyzed a number of risk areas at a glance. From this point, the situation moved rapidly. Whitfield says: "We spoke to Microsoft, who provided the right level of expertise for this kind of implementation. We then prepared a business case internally for our investment committee, which approved the plan."

This implementation was so successful that the client requested that Hitachi develop a similar solution for its Treasury department. Though built using the same technology stack, this new solution had to cater to a distinct list of requirements.

The challenge

At the time that Hitachi was engaged to work with it, the Treasury department was tasked with gathering data - relating to a range of departments and stored in a variety of systems —from across the organization, in order to produce a comprehensive financial report.

Naturally, there was a regimented process in place for gathering this information; this process, however, was unsatisfactory in certain respects. In order to create its financial reports, the Treasury department was obliged to stitch together multiple spreadsheets to create a comprehensive master spreadsheet. It took the efforts of up to fifteen of the department's employees — with an additional employee working full-time - to perform this process. For obvious reasons, the department was only able to produce one report per month.

Not only was the production process outdated, inefficient and vulnerable to human error, but the document produced by this process failed to deliver fully interactive and up-to-date insight.

Annotations were added to the document before it was finalized; the finished document offered no scope for interactivity. Aside from a couple of graphs, there were scarcely any visual aids included — in a document running some fifty to sixty pages — to help facilitate reader comprehension and active interpretation of the data.

Furthermore, the report was not accessible via mobile platforms.

This meant that access to this crucial data was restricted to certain places and people, even when this restriction was not in the interest of the department.

The Treasury department, therefore, was in need of a new method for gathering and interpreting the relevant data. Hitachi's project aims to deliver a process that will:

- Eliminate the need for manual processing, which is time consuming, a w aste of resources, and vulnerable to human error.

- Have a rapid turnover, so as to be able to give the department a clear, 'real-time' picture of its organization's finances and adherence to standards of corporate governance.

- Render its findings visually, so as to enable at-a-glance analysis.

- Give scope for interactivity, enabling closer analysis and interpretation through end user conversation.

- Be accessible on PC, Mac and iPad.

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The solution

Over the course of six months, Hitachi has developed a suite of powerful visualization tools for use by the Treasury department. Hitachi's Business Intelligence (BI), Enterprise Content Management (ECM), and Development and Integration (DnI) practices have collaborated to build the prototype product. Combining their expertise, these practices have built a state-of- the-art solution that uses SSAS, SQL Server, SSRS, SharePoint, and custom visualisations created using d3 and JavaScript coding.

The key metrics are visualized as diamonds, which move along vertical axes according to data input. Two horizontal lines define a 'safe zone', which the Treasury department will seek to ensure that the diamonds stay within. If the diamonds stray above this safe-zone, into the 'high utilization zone', it indicates that the organization is stretching its financial resources. A diamond dropping below the safe-zone, into the 'low utilization zone', indicates that there is capacity not being utilized.

A 'breach line' delineates the boundary limit of each zone; if a metric-diamond is permitted to touch or cross a breach line, there could be serious financial repercussions for the organization (if the metric represented by the diamond is subject to financial regulation). Using the solution, however, the Treasury department will be able to quickly detect when a metric is approaching a danger-zone, and adjust its organization's spending accordingly. The Treasury can rest assured that the data it sees reflected in the visualization is completely up-to-date and accurate.

Crucially, users are able to 'drill down' into individual metrics in order to investigate in more detail what numbers have been aggregated to determine the position of each diamond. They can split each metric by department and time-period, and can even analyze trends over time — something which would have been impossible with the department's lengthy and laborious system of compiling spreadsheets to produce reports.

The solution offers further interactivity to end users, who are able to leave comments and conduct discussions on any single page of analysis (e.g. to explain any apparently anomalous patterns in the data). Collaboration is, therefore, built into the solution, complementing the insight derived from the automated analytics.

The benefits

The solution is a clear improvement on the Treasury department's previous system for generating reports, and promises to dramatically increase the department's effectiveness. And, as the Treasury department is of such huge importance — in both helping the client to comply with regulatory requirements, and in advising the client on its spending capacity and strategy across all departments—the solution is positioned to improve the client's overall operational effi- ciency and strategic decisions.

Where the previous system was outdated, Hitachi's solution is state-of-the-art, pushing boundaries in terms of front end applications and bespoke visualizations. Where the previous system was inefficient, eating up the working hours of an entire team, Hitachi's solution will streamline and automate these previously manually performed processes — and will perform them without the risk, attendant with manual labor, of human error corrupting its findings.

The reports that will be produced by this new system will also be superior to those produced by the old system in all respects. Instead of fifty pages of data, difficult to grasp and interpret intuitively, there will be a visualization. This will show end users what is going on in their organization — and will even be able to show them how the current data fits into trends over time.

Rather than waiting a month for this data to be available, the Treasury department will be able to refresh it daily, and call it up with a few clicks of a mouse — or on the phone: the new 'reports' being remotely accessible (to those who have been granted access) on PC, Mac and iPad.

Finally, while the reports previously produced offered extremely limited scope for either inter- action or collaboration, Hitachi's solution allows for instant drill-down into the data, and an option to attach comments to any page of data, open- ing it up as a powerful tool for discussion and collaboration.

Conclusion

Thanks to Hitachi's solution, the Treasury department will soon be able to access and analyze the data it requires with much greater speed and ease. The data will be visualized in a way that gives the department a much clearer view of what is going on at any given moment. Furthermore, the option to drill-down — 'behind the visualization', as it were — means that the end user will be able to investigate and get to the root causes (including identifying trends that would be near-impossible to identify without the aid of computers) behind the story that the dia- monds are telling.

Equipped with this insight, the department will be able to make better decisions, aiming more accurately at its targets. In addition, it will be able to comply more easily with international standards of corporate governance, and find out exactly why it is not complying if it fails to do so.

Hitachi, meanwhile, has accumulated a great deal of experience in developing ground-breaking visualization tools, and has developed a prototype that can serve as a conceptual foundation for future projects that aim to deliver insight in the form of visualization, particularly in the financial sector.

Learn More

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