



Holmes and the case of the hidden insights

A Microsoft Fabric Adventure





My dear Watson, you know my methods well: I observe, analyse, and unravel the hidden connections between seemingly disparate facts. Imagine my delight upon encountering Microsoft Fabric and the quantum speed it adds to my own significant deductive powers! It is, I dare say, the digital embodiment of my investigative ethos.

A drizzly morning at 221 Baker Street finds Sherlock digging into a new and peculiar case—one involving no stolen jewels, no hounds howling on a dark moor, and no cryptic letters.

Instead, the client is the recently appointed CEO of mid-sized business: 500 employees, a stable yet stagnant revenue stream, challenged by aggressive competitive encroachment on the customer base.

Once a market leader, the business has struggled to maintain competitive pace. The CEO explains that her broad remit to turn around company fortunes will include a wide-ranging

operational review. It is imperative she gain insight to the root cause of dipping profitability, soaring overheads and customer turnover.

She suspects the answers are buried deep within the company's own data. Sherlock's task? To uncover them using a singular tool: Microsoft Fabric.

With Fabric as his digital magnifying glass, Holmes launches the most modern investigation he has ever taken on.

ACT I

The Revenue Riddle

The first rule of financially motivated investigation is always ‘follow the money.’

True to form, Sherlock commences the case by delving into his client’s company sales data.

Using Microsoft Fabric’s Data Integration feature of Shortcut & Mirroring, Holmes unifies disparate data silos—e-commerce logs, CRM entries, and even inventory spreadsheets—into a cohesive whole. Within moments, the platform’s Data Lakehouse brings everything into sharp focus.

Drawing on Power BI’s AI-driven analytics within Fabric, the first clue is revealed within an intriguing pattern: sales are spiking in certain geographies after targeted email campaigns but plateauing elsewhere.

“Observe, Watson!” Sherlock exclaims, pointing excitedly at a new visualisation on his screen. By integrating marketing data, Fabric reveals the culprit: the lack of personalised follow-ups in low-performing regions.



In my work, I have often bemoaned the inefficiency of scattered clues—missing fingerprints, stray fibers, elusive alibis. With Fabric, every fragment, no matter how minor, becomes part of the grand design. The Data Lakehouse, in particular, is an innovation of which even Mycroft would approve—a repository of endless knowledge, distilled for clarity.



CASE NOTES

Deduction:

Geo-targeted personalisation could significantly boost revenue.

Elementary Actions:

Automate personalised follow-ups with Fabric’s Synapse Real-Time Analytics.

ACT 2

The Profitability Puzzle

Holmes continues to follow the dollars, turning his attention to a close inspection of where operational costs could be eroding profit margins.

Fabric's Data Factory capabilities make short work of ingesting and transforming financial records, shipping logs, and supplier contracts. Using Synapse Data Science notebooks, Holmes applies predictive models to identify cost-saving opportunities.

Another anomaly. Another clue. Fabric's insights pinpoint inefficiencies in procurement processes—specifically, overstocking of certain inventory items. Further digging reveals a lack of demand forecasting.



What fascinates me most is Fabric's capacity to unify data from countless sources into a singular, coherent picture. It is as if one could piece together fragments of a shattered vase, not merely restoring its form but revealing the story of its creation, its use, and what led to its destruction. A sure way to predict and reduce the risk of history repeating itself!



CASE NOTES

Deduction:

Optimising procurement could reduce waste and improve profitability.

Elementary Actions:

Work with finance teams to deploy AI-powered forecasting models, embedded directly into Fabric for procurement adjustments that reduce inventory holding costs.

ACT 3

The Optimisation Opportunity

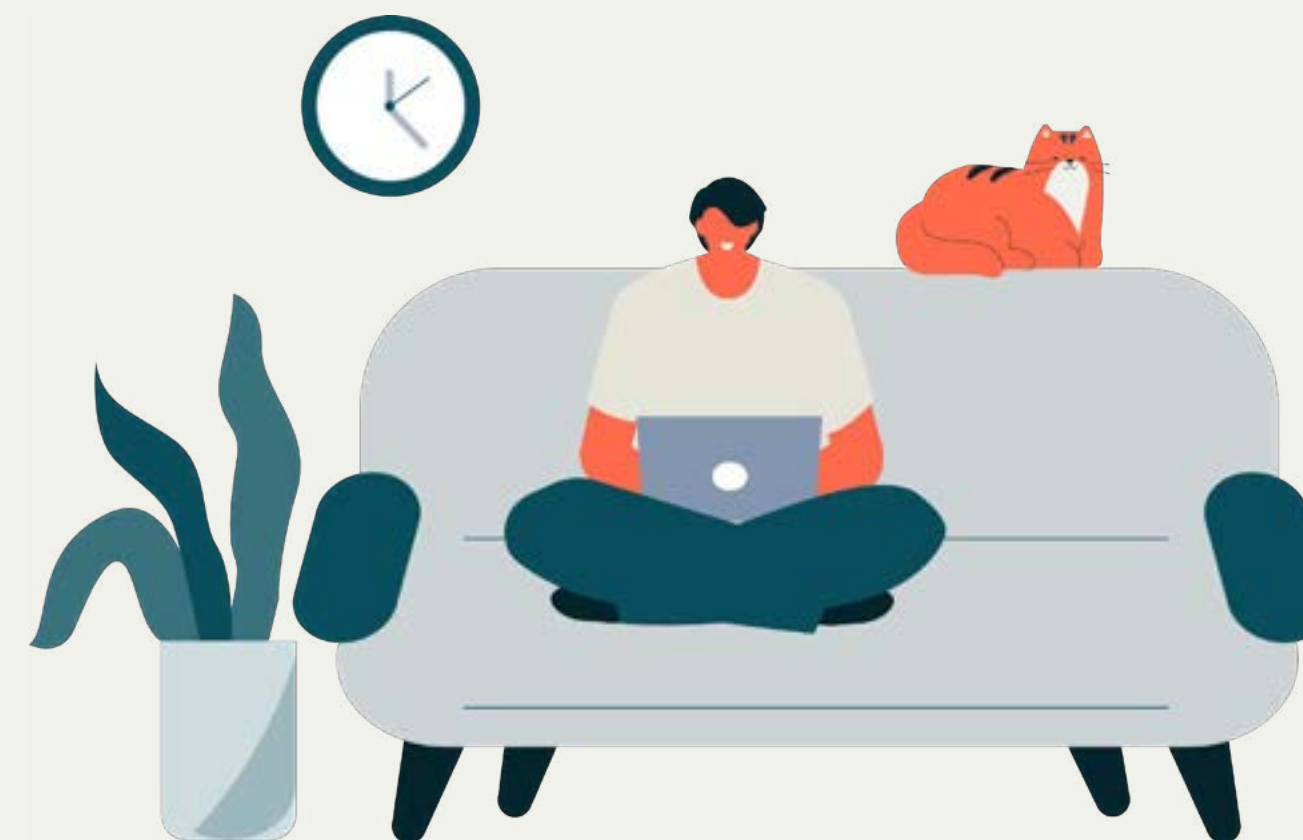
The trail of clues in the case had thus far led Holmes from revenue to optimising procurement processes. This logic naturally had Holmes wondering about other cost centres that may be due for review.

Armed with Microsoft Fabric, Holmes ventured into the heart of the company's cloud operating environment.

Using the platform's Data Factory capabilities, Holmes unified billing data from multiple cloud providers, resource utilisation logs, and application performance metrics into a single, coherent view. The Data Lakehouse provided a foundation for analysis, while Fabric's Power BI visualisations painted a clear picture of the company's cloud expenditures.

Fabric's Data Activator also reveal an alarming amount of duplicated and outdated data clogging company cloud storage systems. Further analysis with Synapse Data Science confirms absent or inconsistently enforced archival policies.

The most telling insight emerges from examining cloud services. Fabric's AI-driven Cost Optimisation Insights flagged redundant services—multiple cloud instances performing similar tasks across different departments. Without centralised governance, siloed teams had independently provisioned services, leading to wasteful duplication.



CASE NOTES

Deduction:

Overprovisioned resources in non-critical environments inflating costs unnecessarily. Inefficient storage policies increase costs without adding value. Fragmented service provisioning contributes to inefficiency.

Elementary Actions:

Utilise Fabric's Data Engineering tools to automate resource scaling in development environments and align usage with demand. Leverage Fabric's Data Governance features to ensure old and redundant files are automatically archived or purged. Deploy Microsoft Purview module in Fabric to enforce centralised resource management and eliminate redundancies.

ACT 4

The Cybersecurity Conundrum

Where money flows, skullduggery is sure to follow. All too familiar with the wicked ways of the underworld, Holmes knew he must consider the potential impact of cybercriminal activity and sleuth for insider risk.

Access and endpoint logs from devices, network traffic, and cloud applications, are ingested into Fabric's Data Lake along with email communications, file sharing activities, and behavioural analytics. Holmes parses the data with Microsoft Sentinel. Its advanced threat hunting capabilities quickly pick up on suspicious patterns.

"Curious," Sherlock mutters, as Watson peers over his shoulder. A cluster of unusual login attempts during odd hours revealed potential vulnerabilities in remote work setups.

Pointing to a visualisation rendered by Power BI, Sherlock also spots an employee accessing sensitive design documents far outside their usual scope of work. A moment later, a large volume of these files is transferred to an external storage platform.

Another analysis, powered by Fabric's Real-Time Analytics, flagged a cluster of encrypted communications between an employee in the finance department and an external domain. This was no mere oversight.

Diving deeper into email metadata, Fabric's machine learning algorithms identified signs of obfuscation—an attempt to disguise potentially malicious correspondence.



● ●
Fabric's AI and machine learning capabilities truly drive a new level of thrill into each discovery. How exhilarating to watch algorithms uncover anomalies, correlations, and trends just as I might, but in the span of seconds!

CASE NOTES

Deduction:

Misaligned access policy enabling accidental insider risk. Deliberate insider activity poses an insidious threat.

Elementary Actions:

Use Fabric's Purview platform to strengthen MFA policies and implement behaviour-based threat detection.

Rectify misaligned permissions and automated restricted access to sensitive data. Limit access to sensitive data based on role and behaviour. Deploy Fabric's predictive analytics using behavioural baseline to pre-emptively flag deviations.

Integrate Microsoft Defender for Cloud in Fabric to trigger automated alerts to the security team, based on behavioural anomalies.

ACT 5

The Business Continuity Quandary

Having unravelled revenue, profitability, cybersecurity, and cost challenges, the case progresses to the question of operational resilience. Holme's renowned intuition is tingling. He is sure this stage of the case will reveal more untapped opportunity for his client.

Using Fabric's Data Integration capabilities, Holmes aggregates data from the IT department's incident logs, cloud storage records, disaster recovery plans, and security policies.

The platform's Purview modules prove invaluable, allowing Holmes to map the flow of sensitive and critical data across systems, pinpointing gaps in backup coverage and governance.

Zooming into a dashboard generated by Fabric's Power BI platform, Holmes can see the redundancy in the company backup systems is not as it seems.

While key customer data is routinely backed up, operational logs and development records are

stored inconsistently. Worse still, Fabric's Sentinel Integration flags potential risks: some backups are stored in regions vulnerable to regulatory compliance issues.

Fabric's Unified Security and Data Governance Framework illuminates a broader insight: cybersecurity measures are operating in silos, separate from business continuity strategies. By integrating these two critical functions through Fabric, the company could enhance its ability to anticipate and respond to threats while ensuring critical systems remained operational.

Another piece of the puzzle falls into place as Fabric's Data Science and Machine Learning tools analyse historical backups. Customer service logs reveal recurring pain points that have not been picked up during field service assessments.



CASE NOTES

Deduction:

Backup policies were inconsistent, and data governance lacked oversight. Security and continuity strategies needed to converge for greater resilience. Backup data, when treated as an analytical resource, could generate insights to drive strategic improvements.

Elementary Actions:

Standardise backup policies and redistribute sensitive data to comply with regulatory standards. Leverage archived product telemetry to source ideas for efficiency improvements in production.

ACT 6

The Competitive Innovation Crunch

Keen to identify the core issues allowing competitors to take customers from his client, Holmes spots an opportunity to leverage the power of Fabric's data pipelines.

He sets up and automates the extraction, transformation and loading of competitive data from public sources, including competitors press releases, websites and digital advertising campaigns. Holmes then deploys a Dynamics CRM connector in Fabric to ingest unstructured notes and anecdotal information from the sales team, and customer helpdesk tickets from the IT team. Dataflows make quick work of cleaning and transforming the data for loading into OneLake, ready for analysis.

Using Fabric's Data Science and Machine Learning tools and Power BI integration, Holmes is able to analyse and visualise patterns from customer feedback, sales notes, product usage data, competitor activity and industry trends.

One insight leapt out:

The company had not picked up on a high number of repeated customer requests for new features.

There's a twinkle in Holme's eye as he turns Watson, saying "the voice of the customer is the most valuable clue of all. Luckily for our client, their competitors have also failed to heed the call. The game is afoot, so we must act quickly!"



CASE NOTES

Deduction:

Reprioritise development of highly requested features to drive innovation.

Elementary Actions:

Leverage Fabric's Azure OpenAI Service to generate customer-ready concepts from data-driven prompts and support rapid product prototyping.

Dear Watson,

I remain intrigued by the power of modern technology. This latest case offered a peculiar satisfaction in the immediacy of action.

All too often, time is the enemy in an investigation. Fabric, with its real-time analytics and seamless integrations, allows one to pivot from insight to resolution with unparalleled speed. No waiting for bureaucratic delays or laborious calculations; the answers are there, ready to act upon.

Such efficiency would have turned the tides in many a past case, I assure you.

In short, my dear fellow, Microsoft Fabric is not merely a tool—it is a partner in the pursuit of truth. Fabric that does not supplant my intellect but

amplifies it, allowing me to pursue not only the obvious but also the oblique the connections others fail to see.

Were Fabric a living entity, I might even consider it worthy of joining our little circle here at Baker Street!



Ready to learn how Microsoft Fabric can help your customers find hidden insights within their data assets?

Check out the **Microsoft Fabric Partner Guide in the Crayon Enablement Hub** for additional blogs, videos, solution education and training links.



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