Financial Master Data

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Abstract

This article series presents financial master data as the key to connecting an organization's data to financial decisions. The first part introduces the idea of financial data as the central link for all business activities, asserting that a strong data solution begins with trusted financial data as its foundation. The second part explores the "unseen framework" of financial master data, comparing it to the core of a Rubik's Cube. It highlights five key elements: Company, Account, Cost Center, Profit Center, and Project, showing how these elements connect and provide contexts for all operational data. Next, the article demonstrates how a company that links all data to this financial master data core can gain a complete, multi-dimensional understanding of its business performance, moving beyond fragmented reporting and enabling stronger analytics and strategic insights.

In the final section, the article highlights the importance of synchronizing product master data with financial master data using the "Profit Center" element. This synchronization, whether through an ERP system or a data platform, is presented as the key to effectively linking product decisions with their financial impact. By adopting this systematic approach, companies can overcome common data analysis challenges, transform their data into a cohesive and actionable resource, and ultimately make better, faster decisions.

Sections:

The Secret Decoder Ring for Your Company's Data Puzzle

Imagine someone dumps a 1,000-piece puzzle on a table, throws the box away, and tells you you're fired if you can't solve it quickly. A dozen people watch you work on it, telling you what part of the puzzle they think you should work on first. Those people don't know what the finished puzzle looks like either.

That's what the life of a data manager feels like; it doesn't matter how good your technical skills are if you don't know what the data should look like when it's finished.

What if I told you there's a secret decoder ring that connects all the pieces of your data puzzle? What if I said it's free, easy to implement, and removes most of the friction that slows your company's decision-making?

If that doesn't grab your attention, then maybe this warning will: most analytic solutions get this connection wrong, and their efforts to connect data with business decisions usually make the problem worse. Writing more code and reports without this solution to the puzzle makes your data platform more fragile and less efficient.

The Link

This puzzle story illustrates what makes a data solution successful: it connects all the different parts of a business. Every activity in a company interconnects with all others, and a successful data solution maintains a clear relationship between various data sets at all levels.

All business activities within your company share a common link: they all connect to financial data. Changing a product design can increase or decrease the cost of building it. A pricing decision directly impacts your company's revenue. Even an injury to an employee impacts your financial data through future insurance premiums. Operational actions always have a financial effect.

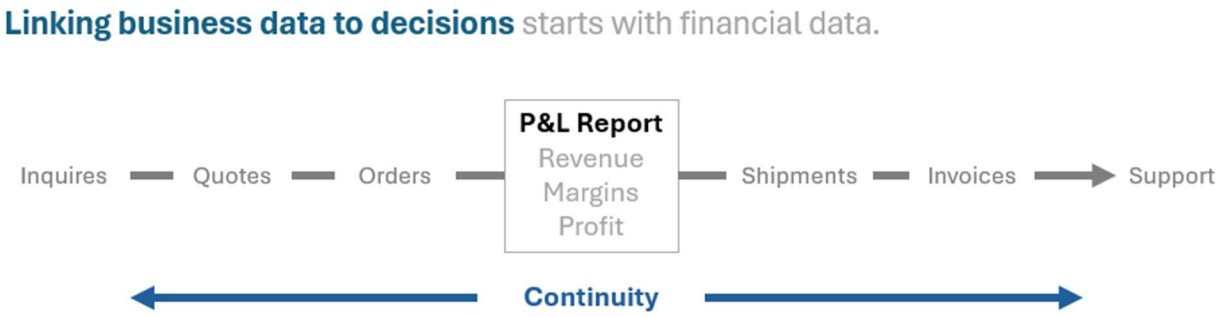
In this sense, financial data creates context for every activity — and every decision — in your company. All decisions, in some way, are financial decisions.

Where to Start the Puzzle

Here are two not-so-obvious implications of this insight. A good data solution should…

- **Start with data people trust.** People already trust financial data. You pay taxes based on it, and (if your company is publicly traded) your auditors review it for accuracy and sign off on it. That makes the ideal starting point for all analytics in your company. Link data to the financial statements, and people will trust your data more easily.
- **Start at the center of your business.** The Profit and Loss (P&L) report is the *center* of your data puzzle. Some business activities are closer to the center than others. Leads and inquiries, for example, start the sales process, but many more steps must occur before they generate revenue. That makes it hard to connect them to

financial data. But you can easily connect invoices to financial data. Starting in the middle (like with invoices) makes fitting your data puzzle together much easier.



Summary Connects Details

A P&L report summarizes your company's data but doesn't include the business details behind the numbers. Detailed operational data tells the business story. Why is your profit good or bad, increasing or decreasing? Look to the sales orders, shipments, forecasts, or even sales leads for that news.

If you accept that there's an underlying connection within all your business data, you probably realize that this changes your priorities; it will cause you to see more critical projects and build those solutions differently.

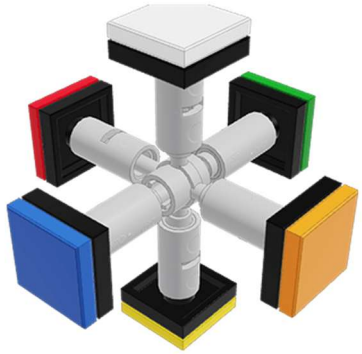
Next, I'll show you how this connection works.

The Connection Beneath Your Data

Have you ever tried taking a Rubik's Cube apart? That doesn't make solving these little plastic 3x3 puzzles any easier. However, a short YouTube video can help you easily reassemble it. Start with the cube's center core and assemble it in the following order: center pieces, edge pieces, and then corner pieces.

A Hungarian architecture professor named Enro Rubik invented the cube in 1974. He wasn't trying to design a toy; he was trying to build a structure where all the parts could move independently without falling apart. Today, research based on his invention helps design reconfigurable robots.

The cube's center core resembles a 3D cross—a scaffold of three intersecting axes extending in six directions. It holds the six center squares in place but allows them to rotate. Then, the 20 smaller plastic pieces (cubies) attach to it to form the assembled puzzle.



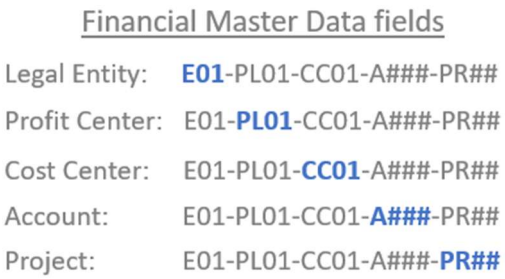
Maybe you've struggled to organize your company's data. It feels like a broken Rubik's Cube scattered on the table. Here's some good news: a secret connection beneath your business data can connect it all. Financial master data links all your business activities like a Rubik's Cube center core.

The Unseen Framework

Financial master data is the unseen framework beneath all your business data. It includes five core data elements:

1. **Company**. This is your organization's legal entity name and number. Most large companies contain dozens of legal entities. They establish complex transaction flows between them to help maximize their tax advantages.
2. **Account**. This financial master data categorizes every business transaction as income, expense, asset, or liability. Companies break down those categories into much more detail, such as services (a subset of revenue), salaries (an expense), buildings (an asset), and accounts payable (a liability). Accounts are the foundation for journal entry accounting and modern business analytics.
3. **Cost Center.** Cost centers identify the person responsible for managing different parts of a company's expenses. They are also known as "departments." Cost centers typically link directly to a profit center, but some collect general expenses (such as legal costs) that finance teams allocate to the corresponding profit centers.
4. **Profit center**. Profit centers track the financial performance for subsets of your company. Companies use various names for this data, such as business unit, line of business, product line, segment, branch, or division. It combines revenue with all the expenses (cost centers) directly related to the business unit or allocated to it. It's the lowest level of detail at which financial systems track net income.

5. **Project**. This field tracks income and expenses directly related to a specific company initiative. Companies use different names for projects depending on their industry; a semiconductor company calls this “core die,” while a university refers to it as a “course.” Projects often relate to new business opportunities that require upfront investment, so it’s helpful to use this master data to collect costs and compare them to the future revenue for the project.



Here are some important best practices for making use of financial master data codes:

- ✓ Tag every financial forecast and every business transaction with these codes.
- ✓ Study the business process to find the connection.
- ✓ Don’t create alternative solutions that avoid the connection.
- ✓ Check if this connection is missing for problematic datasets.

The Center Data Core

The Rubik’s Cube core perfectly illustrates how financial master data connects all your business data.

- Like the center core, you can't see financial master data in your business activity data. It’s hidden beneath the surface. Financial master data exists only to connect the parts.
- Some parts of your business are closer to the core than others, like the center, edge, and corner pieces of the cube.
- The touchpoints change. Not all of your business data is directly connected to other parts, but it all connects to financial master data. You can only see the connection between research and development data and sales data, for example, from certain angles.
- Like newer versions of the Rubik’s Cube, good financial master data management makes it easy to change the shape of your analytic data. It gives you built-in flexibility.

Without connecting all your data to this financial master data core, everything falls apart. That's a simple explanation for many business analytics problems.

Get Connected, Get Well

Truthfully, this connection isn't a secret at all. In fact, it's the ancient idea behind all business analytics. Still, for most people trying to help their companies make better, faster decisions, this might sound like an entirely new way of thinking about data. Maybe that's how it sounds to you.

I hope so. I've seen this insight help even some of the most seasoned finance executives understand why their business data isn't helping them with decisions. A senior analyst recently told me how this is helping her resolve problems in her company's expense allocation process. It's a way to think about your data systematically, and it can help you stop creating point solutions that answer a question but don't improve the overall usefulness of your data.

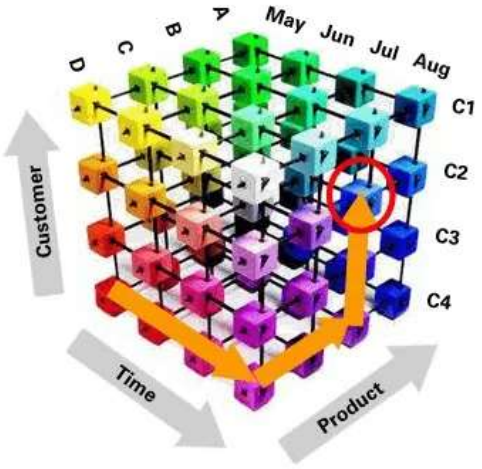
How do you unleash the power of your business data? You'll find the secret in the underlying connection, just like the center core of a Rubik's Cube.

Turn your business data into a 3D model

Pivot tables provide financial analysts with a powerful tool for analyzing data. Given their greatest wish, many might ask for all their data in a single pivot table.

A pivot table is just like a Rubik's Cube, except it's built with data instead of plastic squares. Spreadsheet tools like Microsoft Excel and Google Sheets include this built-in feature. It summarizes numbers at any level and any intersection of data that you want, instantly. It's completely interactive - you ask it questions, it finds the answers. It's three-dimensional, not flat like a report, allowing you to view the data from multiple angles. The speed makes it most fun - you can add up massive data sets as fast as you can click.

Financial master data sits beneath the surface of your business data, connecting all the activity. That connection makes your data three-dimensional, like a pivot table. Here's a conceptual drawing showing data in cube form:



Three-Dimensional Data

Financial analysts are right: all your business data should be *pivotable*, like a Rubik's Cube.

The Rubik's Cube puzzle starts with the colors all mixed up, and you solve it by twisting and turning the pieces until the colors on every side match. The cube looks three-dimensional when solved, and the solid color you see depends on which side you look at. Financial master data works like that: it connects all the pieces of your data puzzle, then helps you see your business from different points of view.

A company with fully connected financial master data can view all its business data from three perspectives, or "views."

Legal view: Accountants use this view for financial reporting to investors and tax authorities. They refer to these fields as the "chart of accounts."

Management view: Financial analysts utilize this view to assess the company's performance across various business segments.

Investment view: Business managers use this view to make forward-looking product and service decisions.

Master data element	Legal view	Management view	Investment view
Company	✓		
Account	✓	✓	✓
Cost Center		✓	
Profit Center		✓	
Project			✓

Most estimates say that about 5% of the world's population could solve a Rubik's Cube if they tried. That's about the same rate for companies and their ability to see their business activity from all three views. The other 95% either give up or struggle endlessly with manual work and fragile reporting solutions.

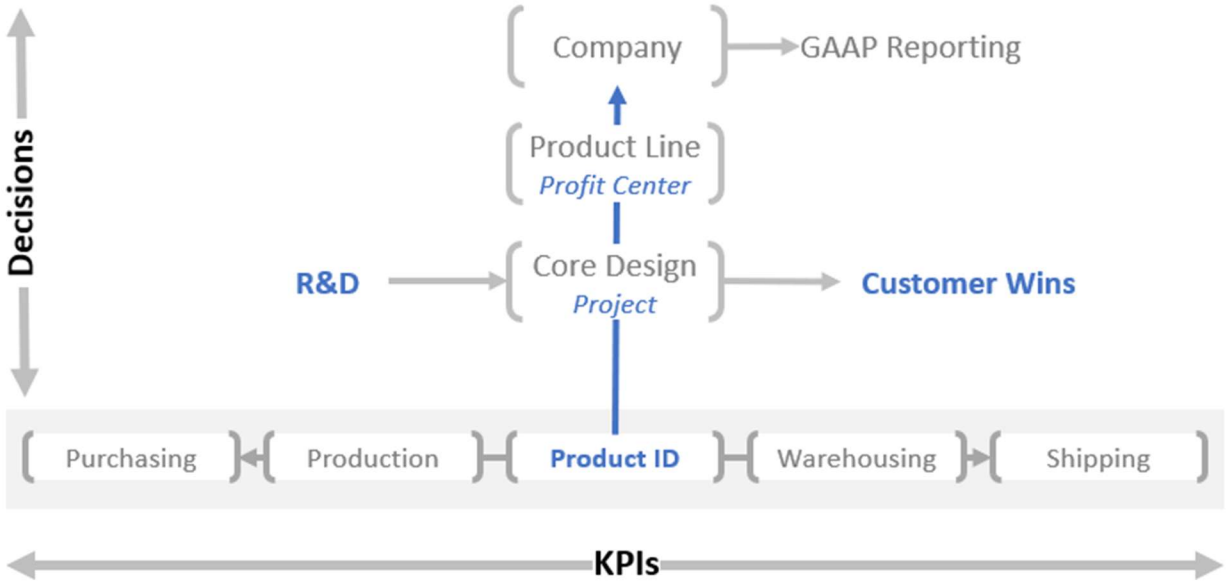
Would you like to fit all your business data into a massive, 3D pivot table? It all starts with the center core: financial master data.

How to Synchronize Product and Financial Decisions

This solution explains why Broadcom's data platform worked so effectively, helping the company grow from a startup to an $8B revenue company in just ten years. Broadcom designs integrated circuits, so my example shows how to connect those products to financial master data. You can easily substitute your own business data to fit into this model.

Product Master Data

Master data is the logical structure of your business. You can't buy, sell, or build anything until you know what you are buying, selling, or building. The graphic below illustrates the connection between financial master data and product master data.



Data flows horizontally through business *processes*, from purchasing to customer shipments, and a product ID ties them all those processes together. Consistent master data throughout the different phases enables all processes to move faster and more efficiently.

On the other hand, business *decisions* depend on master data *hierarchies*, or groupings of products. For example, a "product line" groups similar products together, helping managers make decisions for the whole set. A semiconductor company groups products into core designs ("chip" or "die") and then into product lines. Your company may use different names for these groups, such as product family and line of business.

Financial Master Data

In a well-designed data solution, financial master data aligns with the company's business master data structure, such as the product hierarchy shown above. That starts with the financial master data known as "profit center."

Profit centers track the financial performance of specific subsets of your company. It's the lowest level of detail at which financial systems can track net income. It connects directly to the Product Line in your product master data hierarchy.

A successful data solution should define a single, authoritative source for profit center master data. Then, it should synchronize these fields with product master data, ensuring they always match. Connecting product decisions to financial decisions depends entirely on how well you synchronize these master data hierarchy levels.

You can synchronize them in two ways:

- **Use your ERP system**. Enterprise Resource Planning (ERP) systems, such as Oracle and SAP, include built-in features that connect Profit Centers to Product Lines. This is the most effective way to create a fully synchronized system of record for product line data.
- **Use your data platform**. A good data solution can mimic how an ERP system synchronizes profit centers with product lines. This provides decision-makers with the visibility they need long before enterprise system projects are completed.

Both approaches work well, and the best option for your company depends on the maturity of your business operations and systems. Broadcom used the data platform to synchronize this data. As the company grew and started using larger business systems, they configured the ERP systems to make the connection. Broadcom matched financial data with product decisions perfectly, even before the company began using industry-standard ERP systems.

Most companies fail to effectively make this connection, which is the root cause of their difficulties in linking business decisions to financial data. But no matter where you're at – a startup just setting up its systems or a 30-year-old company with hardened systems – you can use this vision to guide your data strategy.

To discuss how this solution could help your organization, please contact Zane Hall (zhall@lakestreetdata.com).

About Zane:

Zane Hall led data teams at some of the world's largest semiconductor companies, including Texas Instruments, Broadcom Corporation, Maxim Integrated, and Analog Devices. His publications include *Frictionless Data: Solutions for Faster, Better Decisions* (Business Expert Press, June 2025) and his weekly newsletter (www.zanehall.substack.com).