



WHITE PAPER

Beyond Cost Centres: Profit by Project, Branch or Salesperson with Accounting Dimensions

How ERPNext lets you tag every transaction with an extra analytical axis — project, branch, territory, salesperson, anything — and slice your P&L and balance sheet by it.

For CFOs & finance leaders · 8 min read

EXECUTIVE SUMMARY

Every finance leader eventually asks a question their chart of accounts can't answer: which project actually made money, which branch is carrying the others, which salesperson's book is profitable once you net out the cost of servicing it. The usual response is to bolt more branches onto the cost-centre tree until it collapses under its own weight. ERPNext offers a cleaner path. Accounting Dimensions let you tag every transaction with one or more extra analytical axes — Project, Branch, Territory, Salesperson, or any DocType you choose — that ride alongside Cost Center rather than replacing it. Because the tag is written onto the underlying ledger entries, you can then re-cut the Profit and Loss statement and the Balance Sheet by that dimension without maintaining a parallel set of accounts. This paper explains, grounded in ERPNext's actual data model, what accounting dimensions are, how they are implemented, how to analyse by them, and the mandatory rules and filters that keep the data clean — plus where an experienced partner earns their keep.

The limits of a rigid cost-centre tree

Most finance teams start with one dimension of analysis: the cost centre. It works, up to a point. You split the business into departments or locations, tag transactions to them, and read a P&L per cost centre. Then reality asks for a second cut. You want profitability by project as well as by department. Then a third — by branch. Then someone in sales wants it by salesperson, and marketing wants it by territory.

The cost-centre tree can only bend one way. To get profit by project and by branch, you end up multiplying the tree — a cost centre for every branch-and-project combination — and the number of nodes explodes. Worse, a cost centre is a single hierarchy: a transaction lives at one place in it. It cannot simultaneously say "this belongs to the Kochi branch, the Metro project, and Priya's sales book." So teams fall back to exporting the general ledger to Excel and rebuilding the analysis by hand every month — slow, error-prone, and impossible to audit back to the books.

The real problem isn't the cost centre. It's asking one axis to carry every question you have about the business.

- One hierarchy, one answer — a transaction sits at a single node in the cost-centre tree, not several at once.
- Combinatorial explosion — profit by branch and by project forces a cost centre per branch-project pair.
- Excel drift — the real analysis ends up in spreadsheets that no longer reconcile to the ledger.
- The recurring questions — which project, branch, territory or salesperson actually made money — go unanswered in the system of record.

What accounting dimensions actually are

An accounting dimension is an extra analytical axis you attach to transactions, over and above the cost centre. Think of it as a second, third or fourth label that every relevant document and ledger entry can carry. Where the cost centre answers "which part of the org?", a dimension can independently answer "which project?", "which branch?", "which territory?" or "which salesperson?" — all on the same transaction, at the same time.

In ERPNext, two dimensions ship built in and are always available: Cost Center and Project. Accounting Dimensions are how you add more. The crucial detail is where the tag lands: the dimension value isn't just stored on the sales invoice or payment for display — it's written onto the underlying General Ledger entries the transaction produces. Because the ledger itself carries the tag, every downward-looking financial report can be re-cut by that dimension, and it always ties back to the double-entry books. You are not maintaining a separate reporting layer; you are enriching the ledger you already trust.

- A dimension is an independent axis — project, branch, territory, salesperson — that coexists with the cost centre.
- Cost Center and Project are built-in dimensions; you add the rest as Accounting Dimensions.
- The tag is written to the General Ledger entries, not just the source document — so reports and books stay in lockstep.
- Multiple dimensions on one transaction — a single invoice can be branch and project and salesperson at once.

How ERPNext implements them: tag any axis you like

ERPNext's design here is elegantly general. You create an Accounting Dimension record and point its Reference Document Type at any DocType in the system — Project, Branch, Territory, Sales Person, Department, or a custom DocType you invent, such as "Business Unit" or "Product Line." ERPNext then automatically adds a field for that dimension to every accounting transaction — sales and purchase invoices, journal entries, payments and the rest — and threads it through to the GL entries those documents generate. There is no code to write; choosing the reference DocType is the setup.

Because the dimension is backed by a real DocType, its values are just the records in that DocType. A "Salesperson" dimension draws its values from your Sales Person master; a "Branch" dimension from your Branch master. The dimension's own name must be unique, and once created its reference DocType is locked, because changing what a live dimension points at would strand the tags already written to history. This is the mechanism that dissolves the cost-centre bottleneck: instead of forcing one tree to represent everything, you stand up as many independent axes as the business genuinely needs to analyse.

- Point a dimension at any DocType — Project, Branch, Territory, Sales Person, Department, or a custom one.
- ERPNext auto-adds the dimension field to transactions and carries it to their GL entries — no custom code.
- Dimension values are simply the records in the referenced master (e.g. your Sales Person or Branch list).

- The dimension name is unique and its reference DocType is fixed once created, protecting historical tags.

Anatomy of an accounting dimension in ERPNext

1

Reference Document Type

the DocType the dimension points at (Project, Branch, Territory, Sales Person, or a custom one); its records become the dimension's values.

2

The dimension field

added automatically to sales/purchase invoices, journal entries, payments and other accounting transactions.

3

General Ledger entries

the chosen dimension value is written onto the GL entries the transaction produces, so the books carry the tag.

4

Per-company defaults & mandatory rules

a default value plus separate 'mandatory for P&L' and 'mandatory for Balance Sheet' flags for each company.

5

Dimension filter

allow or restrict which dimension values may be booked against which accounts, per company.

6

Reporting

filter the Profit and Loss, Balance Sheet and General Ledger by the dimension, re-cut straight from the ledger.

Business Unit • Enabled

Reference Document Type *

Business Unit

Dimension Defaults

No.	Company	Default Dimension	Mandatory For Balance Sheet	Mandatory For Profit and Loss Acc...		
<input type="checkbox"/>	1	Unico Plastics Inc.	Industrials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Edit

Add Row

Defining an accounting dimension in ERPNext — the reference document type sets the axis, and per-company rows carry a default value plus separate 'mandatory for Balance Sheet' and 'mandatory for Profit and Loss' flags.

Analysing the P&L and balance sheet by dimension

Tagging is only worth doing if you can read the results back cleanly — and this is where accounting dimensions pay off. Because every GL entry carries the dimension, ERPNext's core financial statements can be filtered and grouped by it. Open the Profit and Loss Statement, the Balance Sheet or the General Ledger and you'll find your dimensions among the filters, right alongside Cost Center and

Project. Choose a value — a single branch, one project, a salesperson — and the statement re-computes to show only what carries that tag.

That turns a static, whole-company P&L into an analytical tool. You can produce a real profit-and-loss for the Metro project, compare two branches on the same basis, or see which territory's contribution actually covers its cost to serve — all from the same underlying books, with no export and no reconciliation. And because dimensions are independent, you can combine them: the profit of one project within one branch. The single most common complaint finance leaders have about their old system — "I can't get a clean P&L by the thing I care about" — is precisely what this solves.

- Financial statements filter by dimension — P&L, Balance Sheet and General Ledger all offer the dimension as a filter.
- A real P&L per project, branch, territory or salesperson, computed from the same ledger — not a spreadsheet rebuild.
- Combine dimensions — e.g. one project within one branch — because each axis is independent.
- Everything ties back to the books, so the analysis is auditable rather than "a number someone made in Excel."

		Debit (USD)	Credit (US...	Balance (USD)	Voucher Type	Voucher No	Against Acco...	Party Type	Party
1		75,000.000	75,000.000	0.000					
2	03-23-20...	0.000	7,500,000.000	-7,500,000.000	Journal Entry	ACC-JV-2021-00003	Salary - UP		
3	03-23-20...	7,500,000.000	0.000	0.000	Journal Entry	ACC-JV-2021-00003	Payroll Payable...		
4	03-24-20...	12,350,000.000	0.000	12,350,000.000	Sales Invoice	ACC-SINV-2021-00004	Sales - UP	Customer	Sysco Inc.
5	03-24-20...	0.000	12,350,000.000	0.000	Sales Invoice	ACC-SINV-2021-00004	Sysco Inc.		
6	04-14-20...	0.000	535,550.000	-535,550.000	Purchase Invoice	ACC-PINV-2021-00001	Stock In Hand ...	Supplier	Apple Inc.
7	04-14-20...	535,550.000	0.000	0.000	Purchase Invoice	ACC-PINV-2021-00001	Apple Inc.		
8		20,385,550.000	20,385,550.000	0.000					
9		20,460,550.000	20,460,550.000	0.000					

The General Ledger re-cut by dimension — alongside Cost Center and Project, a custom dimension appears as its own filter, so the statement shows only entries carrying the chosen value.

Guardrails: mandatory rules and dimension filters

A dimension is only as useful as it is complete — a P&L by branch is worthless if half the transactions were saved with the branch left blank. ERPNext gives you two levers to enforce discipline, both configured per company (which matters if you run several companies in one instance). First, defaults and mandatory rules: for each company you can set a default value for a dimension and mark it mandatory — and mandatory is split deliberately into "mandatory for the Profit and Loss" versus "mandatory for the Balance Sheet." That distinction is real: you might insist every income and expense line names a branch, while not forcing it on every balance-sheet entry.

Second, dimension filters. Using an Accounting Dimension Filter, you can control which dimension values are permitted against which accounts — set to either allow only a listed set of values or restrict a listed set — again scoped per company. This stops nonsensical combinations from ever being booked (for example, a value that shouldn't touch a particular account), so the data going in is clean rather than something you clean up later. Together, the mandatory rules and the filters are what let you trust a dimension-filtered report months down the line.

- Per-company defaults — pre-fill a dimension value so users don't start from blank.
- Mandatory, split two ways — enforce a dimension separately for P&L entries and for Balance Sheet entries.
- Dimension filters — allow or restrict specific dimension values against specific accounts, per company.
- Clean-on-entry — the guardrails block bad combinations up front instead of leaving month-end cleanup.

Setup and the pitfalls to avoid

Standing up accounting dimensions is not hard, but a few decisions made early save a lot of rework. Start by deciding which axes the business will genuinely act on — resist tagging everything; each dimension you make mandatory is a field every user must fill on every transaction, forever. Choose the reference DocType deliberately, because it's fixed once the dimension is live. Then, before you enforce anything, set per-company defaults and turn mandatory rules on so history doesn't accumulate blanks that quietly poison the reports.

The classic pitfalls are all about completeness and timing. Turning a dimension mandatory only after months of use leaves a gap of untagged transactions that no filter can recover. Over-tagging frustrates users into entering junk values just to save the document. Forgetting that rules are per-company trips up multi-company groups. And treating dimensions as free-form text rather than backing them with a clean master (a tidy Branch or Sales Person list) leads to duplicate and misspelled values that fragment the very analysis you built them for. None of these are hard to avoid — but all of them are expensive to fix after the fact.

- Tag what you'll act on — every mandatory dimension is a field on every transaction, forever.
- Fix the reference DocType up front; it's locked once the dimension is in use.
- Set defaults and enforce mandatory early, before blank history accumulates.
- Remember rules are per-company — configure each company in a multi-company instance.
- Back each dimension with a clean master so values don't fragment into duplicates and typos.

Getting help

Accounting dimensions are one of those ERPNext features that look trivial in a demo and prove decisive in practice. The mechanics take minutes; the value comes from choosing the right axes for how your business actually makes and loses money, wiring the mandatory rules and filters so the data stays trustworthy, and designing the masters so the reports hold up a year later. Get that design right once, at implementation, and finance gains a self-serve analytical view — profit by project, branch, territory or salesperson — straight from the books, with no monthly Excel ritual.

As an official ERPNext partner working with Indian finance teams, we help CFOs decide which dimensions are worth the discipline, configure the per-company defaults, mandatory rules and dimension filters, and shape the reports and dashboards so the answers are one click away. If your current system can't tell you which part of the business is actually profitable, that's exactly the gap accounting dimensions — set up properly — are built to close.

KEY TAKEAWAYS

- 1 A rigid cost-centre tree can only answer one question at a time; accounting dimensions add independent axes — project, branch, territory, salesperson — that coexist with it.
- 2 You point a dimension at any DocType and ERPNext auto-tags every transaction and its General Ledger entries — no custom code, and the books stay authoritative.
- 3 Because the tag lives on the ledger, the Profit and Loss, Balance Sheet and General Ledger all filter by the dimension, giving a real, auditable P&L per project, branch or salesperson.
- 4 Per-company defaults, split P&L/Balance-Sheet mandatory rules and dimension filters keep the data complete and clean, so dimension-filtered reports stay trustworthy.
- 5 The value is in the design — choosing the right axes, enforcing rules early and backing each dimension with a clean master — which is where an experienced partner pays for itself.

FAQ

How is an accounting dimension different from a cost centre in ERPNext?

A cost centre is a single hierarchy: each transaction sits at one node, so it can answer only one analytical question. Accounting dimensions are additional, independent axes that ride alongside the cost centre — a single invoice can carry a branch, a project and a salesperson at the same time. Cost Center and Project are built-in dimensions; you add others (Branch, Territory, Sales Person or any DocType) as Accounting Dimensions.

Can I get a profit-and-loss statement by branch or project?

Yes. Because each dimension value is written onto the General Ledger entries a transaction produces, ERPNext's Profit and Loss Statement, Balance Sheet and General Ledger all let you filter by the dimension. Pick a branch, a project, a territory or a salesperson and the statement re-computes to show only entries carrying that tag — a real P&L for that slice, straight from the same books, with no export to Excel.

Can I make a dimension mandatory so staff don't leave it blank?

Yes, and the control is deliberately granular. For each company you can set a default value and mark the dimension mandatory — split into 'mandatory for the Profit and Loss' and 'mandatory for the Balance Sheet' separately. You can also use a dimension filter to allow or restrict which values are permitted against which accounts. Enforcing these early, before untagged history accumulates, is what keeps a dimension-filtered report trustworthy.

Does this work if we run several companies or GST registrations in one ERPNext instance?

It's built for it. The defaults, mandatory rules and dimension filters are all configured per company, so each company in a multi-company group gets its own settings for the same dimension. That lets an Indian group standardise its analytical axes — say, branch and project across the group — while tailoring which are mandatory and which values are allowed for each company independently.

Talk to a real ERPNext expert.

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