



Dimensionality in Reporting

MAKE SMARTER DECISIONS

Reports are vital in understanding business performance. But they cost a lot to create and are a continuous source of frustration for those searching for meaningful insights from the data.

Enormous amounts of time are spent every month by often the most senior (and expensive) staff on generating and interpreting reports. They are an essential element in decision-making.

Why is it that reports represent such challenges for organisations to extract information about all the data they capture? Information silos are one of the culprits, as are multiple, disconnected systems. This article considers another issue in reporting, the concept of dimensions within data – specifically in the major financial system of the general ledger.

Insights from the field

Often systems are judged by their users in terms of the reports they provide.

We see time and time again, that users criticise applications based on poor reporting, but articulating exactly what reports are required can be met with resistance.

It's easy to confuse the wrong information being captured by an application, with the design of the reports available to users.

Reports are often the interface between the data collected by a system and decisions made on that data.

It's common practice for data to be presented in some reports as aggregates or totals. Summarising the information allows for a more holistic, overarching view of content to allow swifter, smarter decisions made on immense amounts of data points.

Compare this with a congested report listing pages and pages of information, which is difficult to interpret all at once. But the devil is in the detail. Sometimes it is a single transaction that makes all the difference when making decisions. Too much detail and you can't see the data forest for the trees.

Just a summary and you might be able to get some greater understanding but lack the comprehensive information on which to base any valuable action. Using dimensions can allow the same information to be presented in multiple ways – showing varying levels of detail as required.

Enabled by dashboards that contain an ability to "slice and dice" data by dimensions, these reports can be interactive – providing the user the ability to "drill into" the detail when needed, or stand back and take an all-encompassing view so they can spot trends or relationships in the data.

Dimensions provide the structure to enable aggregation into a variety of categories or groups to facilitate the summary reports.

Types of dimensions

So, what are some different ways of dimensioning your data? Here are some ideas of considering ways of categorising information:

- Teams-based dimensions
- Location-based dimensions
- Activity-based dimensions
- Asset-based dimensions

Teams-based dimensions may include things such as organisational teams, departments, cost-centres or profit-centres. Location-based dimensions could include cities, regions, states or countries.

Transactions may be broken up into different activities, such as jobs or projects.

Some dimensions, such as asset dimensions, may allow for certain transactions to have an extra dimension made available during data entry, such as an asset number or code. This could be used to identify a range of different costs that might apply to a vehicle for example.

It's important to ensure that systems are able to identify when some dimensions are available, mandatory or prohibited.

Dimensions can also relate to each other in different combinations.

For example, if two location dimensions are used, such as "state" and "city", only certain combinations of these are valid. Having a system that can recognise appropriate combinations of dimension values can avoid incorrect entries as well as speeding up the data entry process.

So why not just create lots of different dimensions?

With so many dimensions, we create a new problem ... that of having to break up otherwise simple transactions into an array of individual amounts split between dimensions. We don't want to add significantly to a manual data entry task, so the answer is automation.

Automation can be delivered in two ways. Firstly, it can create the transactions with their dimensional data easily from source data. Alternatively, it can run as a separate process after the original transaction has been entered, to interject all the additional lines of amounts broken up by dimension.

With lots of dimensions in your chart of accounts, an opportunity presents itself – the ability to use permissions to allow certain user or groups of users to post particular dimension values.

For example, sales managers in each region can create and post invoices for their own regions, but not for each other's.

In more sophisticated systems, this can be combined with the ability to limit which transactions can be posted based on the value of the transaction.

So, we can extend the example to only sales managers in each region who can post transactions where they are coded to their own region and only up to a dollar value of \$100,000. They can be entered, but not posted beyond this limit. This provides an ability for a Sales Director or CEO to confirm that the invoice should be processed, ensuring that delegations of authority are upheld.

One further nuance to the above example, is to combine the steps of the business process into an automated workflow, that routes the

transaction exceeding a particular user's permissions to another, who can approve the transaction.

These types of 'approval workflows' are a great way of implementing some robotic process automation into an organisation to improve efficiency and ensure consistent compliance with policies.

Dimensions are the Solution

Systems that support large numbers of dimensions allow for streamlined data entry, automation of processes, reporting enhancements and greater accuracy of information. Ultimately, dimensions transform decision-making, to support the achievement of strategic goals, risk management and sustained business growth.

Dimensions in Business Central

Business Central supports an unlimited number of dimensions to classify transactions into groups for reporting, analysis and costing purposes.

Dimensions can be configured to apply in certain situations only, such as a 'department' code being required for all accounts in the revenue or expense account categories.

Other dimensions may be optional or prohibited, depending on the underlying general ledger account. Dimensions may also be combined into dimension combinations,

where additional validation rules and automatic filtering apply.

Allocation entries may be posted within Business Central's cost accounting module, to allocate costs between dimensions based on a variety of drivers, such as percentages, head count, FTEs or other dynamic allocations.

Business Central's dimensions are the key feature that permits slicing and dicing of information in tabular or graphical reporting, by introducing 'slicers' within Excel or PowerBI reports and dashboards.

