# Cost segmentation for strategic decision-making 1/41/24

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Cost segmentation is crucial for businesses aiming to maximise profitability and enhance operational efficiency. Categorising expenses helps companies identify cost-saving opportunities, optimise resource allocation and make informed strategic decisions. This process provides a detailed understanding of various cost drivers and their impact on the overall financial health of your organisation.

## Essential input data for effective cost segmentation

For accurate and meaningful cost segmentation, businesses must gather comprehensive and high-quality input data, including:

| Input data | Examples |
| --- | --- |
| Transactional records | Sales, purchases, service charges, billing |
| Vendor pricing information | For products and outsourced services |
| Inventory turnover rates | Resource utilisation rates |
| Fixed asset data | Technology infrastructure for services |
| Labour costs and utilisation | Employee hours, productivity, costs |
| Customer data | Demographics, lifetime value, service history |
| Service level data | Contract types, service tiers, performance |
| Operational efficiency metrics | Delivery times, error rates, re-service incidents |
| Technology utilisation | Costs related to software and hardware |

Ensuring data quality is paramount. This means cleaning datasets to remove duplicates, inconsistencies and errors, as well as integrating data from multiple sources like ERP systems, spreadsheets, accounting software and CRM systems to ensure completeness. The optimal amount of data dimensions should strike a balance between detail and manageability, depending on the business specifics, typically encompassing 8–12 dimensions, such as department, cost centre, project, product line/ service type and period.

## Handling initial segmentation gaps with tools

Initial segmentation in your system may often have gaps. Incomplete entries can occur when data is missing for certain fields, creating gaps and inconsistencies in the segmentation process. Also, discrepancies in data synchronisation across platforms can lead to misalignment. Modern tools and technologies can help fill these gaps effectively. Data warehousing solutions (like Google BigQuery or Amazon Redshift), big data processing frameworks (such as Apache Spark) and data transformation tools (like Alteryx, Power Query or custom scripts) enable structured and understandable cost segmentation. These tools not only automate data processing, ensuring consistency and error reduction, but also provide clear documentation on how segmentation was achieved and the factors considered.

# Step-by-step segmentation process

*Data collection and preprocessing*

- Excel/spreadsheets: Use Excel or similar spreadsheet software to aggregate data from various sources. Leverage functions and pivot tables for initial data exploration.
- Data warehouses (BigQuery, Redshift): Employ data warehouses for efficient ETL (Extract, Transform, Load) processes, handling large volumes of data seamlessly.
- Power Query: Automate ETL processes within Power Query to ensure data consistency and reduce manual errors.
- Apache Spark: For large-scale data processing and transformation, Apache Spark provides a powerful, distributed computing framework.

*Automated data cleansing*

- Power Query: Clean the data by removing duplicates and correcting inconsistencies. Power Query's intuitive interface shows each transformation step, ensuring traceability.
- Alteryx/ETL tools: For complex datasets, use tools like Alteryx or dedicated ETL solutions to clean and prepare data, creating a documented workflow for transparency.
- Custom scripting: Use Python or R to create scripts for advanced data cleaning and transformation tasks.

*Segmentation logic implementation*

- Alteryx: Apply segmentation logic using Alteryx's drag-and-drop interface, making it simple to define and adjust cost categories based on specific business rules.
- Excel functions and Power Query: Use Excel's built-in functions or Power Query's advanced editor to apply segmentation rules and categorise costs.
- Big data solutions: Implement segmentation logic within big data frameworks or data warehouses to handle large datasets efficiently.

*Validation and adjustment*

- Visualisation tools: Review the segmented data using visualisation tools like Excel Charts and Pivot Charts, Power BI or Tableau. These tools provide clear visualisation, helping you validate the applied logic.

*Reporting and visualisation*

- Business intelligence platforms: Create dynamic dashboards in Power BI, Tableau or Looker to visualise segmented cost data. Real-time insights make it easier to understand trends, outliers and opportunities.

# Comprehensive reporting for strategic decision-making

Once the data is segmented, it facilitates the creation of various reports that are critical for decision-making in both manufacturing and service-based businesses:

- Vendor pricing analysis: Helps negotiate better terms by understanding cost trends and vendor performance.

- Labour cost analysis: In service-based businesses, analysing labour costs and utilisation can lead to optimised staffing and reduced overheads.
- Service delivery performance: Tracks metrics on service delivery efficiency, customer satisfaction and service quality.
- Inventory turnover reports: Optimises stock levels and reduces holding costs for manufacturing businesses.
- Fixed asset management: Tracks asset utilisation and depreciation, useful in both manufacturing (for machinery) and services (for IT infrastructure).
- Customer profitability analysis: Evaluates the profitability of different customer segments to inform marketing and sales strategies.
- Markup analysis: Assesses intercompany and non-related party markups to ensure alignment with market standards.

## Conclusion

While data quality and modern tools significantly enhance the segmentation process and the quality of end reports, leading to more informed decisions, it's crucial to recognise that each business has unique characteristics that must be considered. This article provides a framework of basic principles and tools, but the nuances of each business will require the expertise of a business-specific professional to uncover and implement additional specifics tailored to their unique context. Adapting general practices to fit the particulars of a business is essential for leveraging cost segmentation to its fullest potential.