

Learning the ABC: case analysis of activity-based costing and profitability management



When the global financial crisis hit economies in 2008, the market for domestic home appliances went from enjoying a period of rapid growth to facing a dramatic slowdown in demand. As companies

prepared to chase fewer customers in more volatile market conditions, they looked internally to maintain cash flow and profitability, embarking on cost reduction and performance improvement programs and re-evaluating their strategies.

Companies looked to implement greater levels of automation to improve

performance, while investing in more efficient logistics processes and distribution channels to achieve long-term cost savings. However, while these efforts reduced the direct costs involved in the creation and delivery of products, indirect costs (such as rent and administration costs) were harder to reduce. Many companies analyzing their strategies chose to adopt an activity-based



costing (ABC) approach in order to help them re-evaluate their pricing models and make strategic decisions.

This case study focuses on one of our clients, a large manufacturer of white goods and small domestic appliances, based in China, whose turnover was just under RMB100 billion in 2009. Between

2000 and 2008 they enjoyed annual growth rates of in excess of 30%; however, as the effects of the global financial crisis filtered through the market, growth stagnated and profit levels flattened. Management embarked on a three-year plan to improve current profit levels and create sustainable margins, and engaged Ernst & Young to help them build an

end-to-end cost management platform to make their cost allocation and profitability analysis more detailed and accurate.

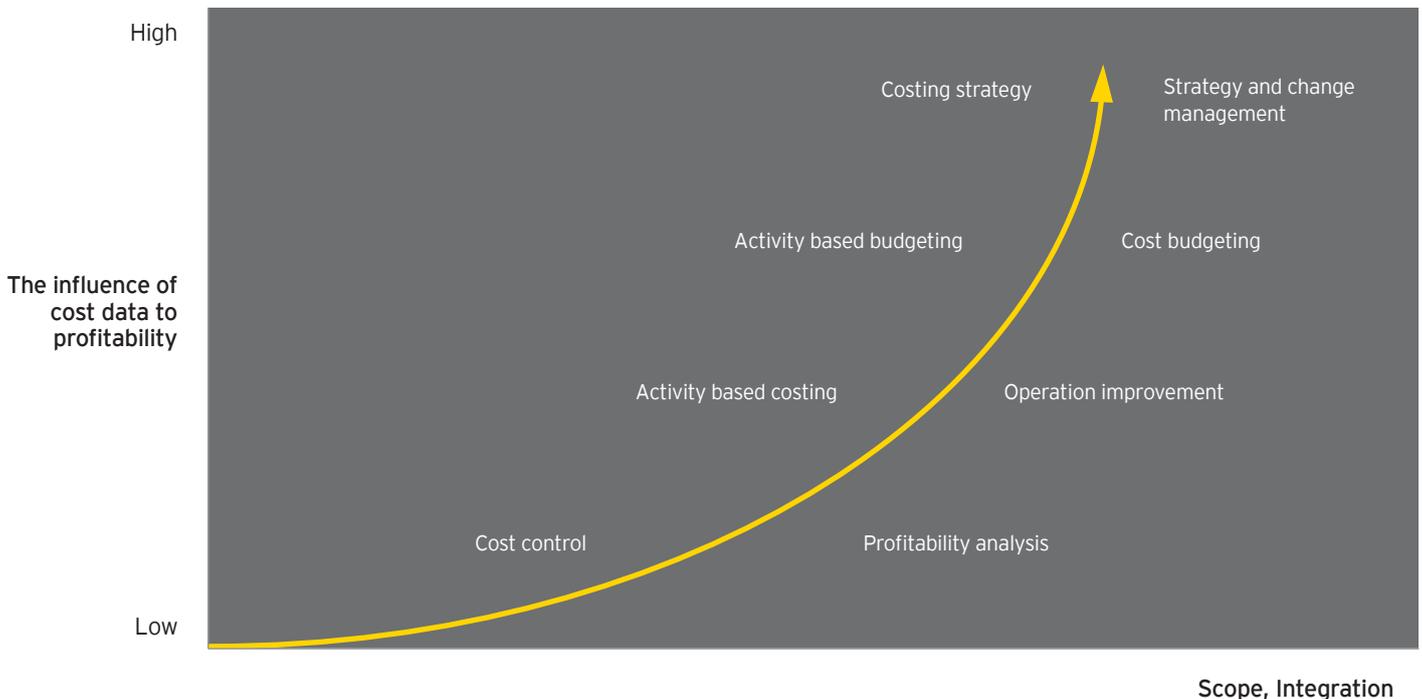
Benefits of ABC

ABC is a model that allows organizations to pinpoint the exact production costs – both direct and indirect – to give accurate total costs and profit levels for each unit produced (see Figure 1). This allows

organizations to identify products and services that may be priced incorrectly and adjust pricing up or down accordingly, and those which are unprofitable so they can be replaced or removed from

the portfolio. ABC can be applied across the enterprise value chain and therefore can support decision-makers evaluating their portfolios, pipelines, prices and long-term strategies.

Figure 1. Model integration framework



Source: Author's research



Scope of the project

Our client's objectives were very clear: they wanted to get a more holistic view of the costs per unit produced by fusing direct costs with indirect costs, including the cost of operations in multiple factories and the cost of distribution using various channels. Prior to engaging with Ernst & Young, manufacturing overheads were allocated to products by the proportion of products or fittings' costs. This traditional method was not precise and would distort the real cost of the product, which in turn would have a negative effect on product pricing and operation strategy.

Our brief was to set up a framework that would utilize cost allocation models (which look at manufacturing overheads, direct labor costs of a plant and the expenses of sales functions), build a multi-dimensional profitability analysis system and embed the new system into their operational processes.

Challenges

As with all change projects, successful implementation can only be achieved if management gains the full support of their teams. How to engage teams effectively is a common problem faced by all financial consulting projects.

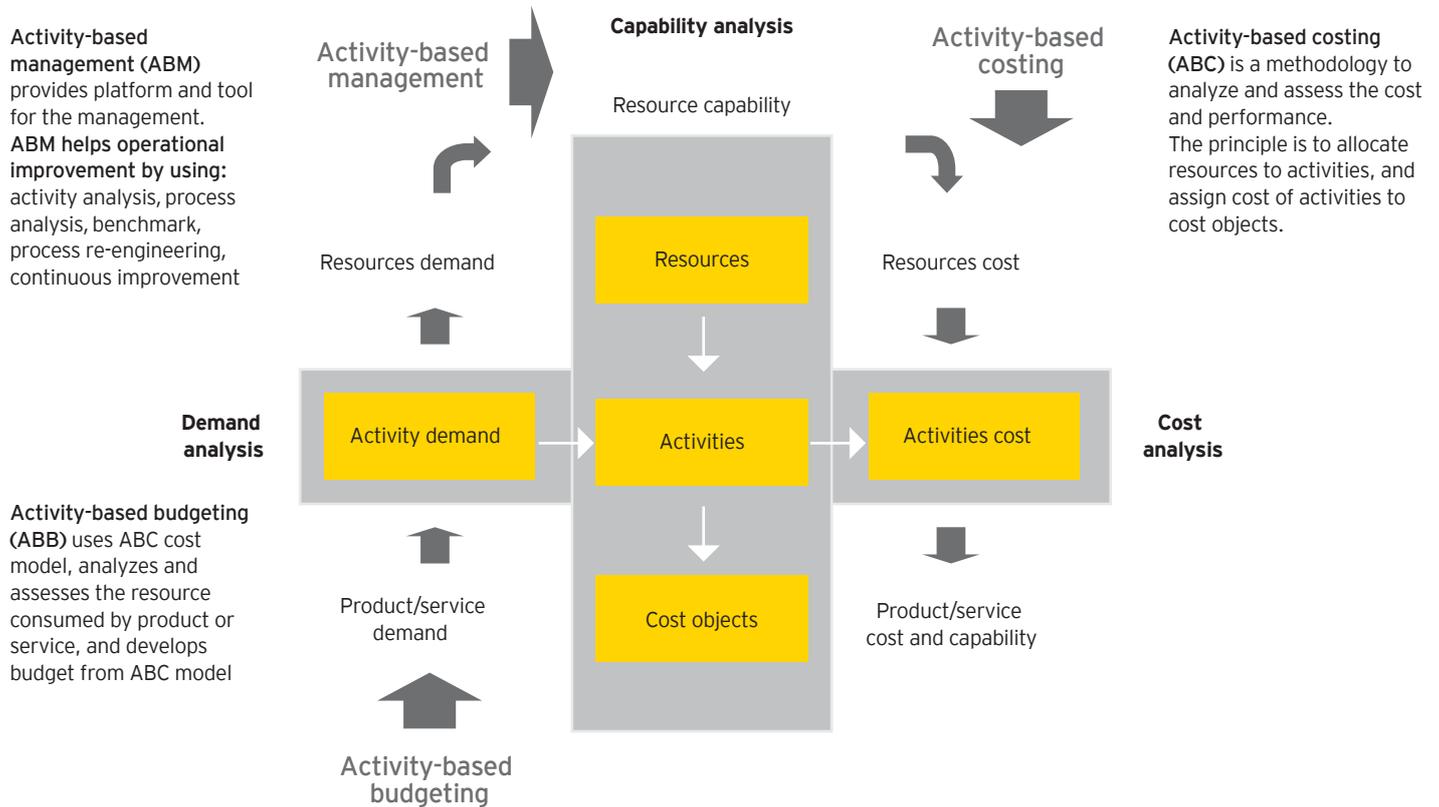
In this case, our client needed the manufacturing, operations, sales and channel management teams to be engaged for this project to be a success. These teams are very busy with their day-to-day roles and were not familiar with financial management and activity-based costing. As a result, our client needed to communicate the changes taking place effectively, the value expected to be delivered to the business and the role the teams and individuals could play in achieving this.

Ernst & Young's methodology

When devising our approach to the project, we were able to identify two stages to the project (see Figure 2):

1. Identify costs and profit levels using ABC – conduct analysis and build processes to identify the cost of products and the cost flow from resources to activities.
2. Optimize processes across the value chain using activity-based management (ABM) – to provide management with additional data to support their decision-making.

Figure 2. Project team's methodology



Source: Author's research

Our approach to implementing ABC

We worked in partnership with our client to:

1. Conduct “as-is” analysis to learn which resources were used by different products and business processes, as well as daily activities and their costs.
2. Design the cost allocation and profitability analysis framework.
3. Develop the ABC allocation model, which involved:
 - ▶ Identifying resources and their costs
 - ▶ Developing a list of activities involved in creating the product, mapping the hierarchy and dependency within the activities, and identifying a resources driver¹ for each resource
 - ▶ Developing a cost object list² and structure, and identifying activity drivers³ for each activity

4. Develop a profitability and cost analysis model. This involved designing an analysis framework including dashboards, charts, pivots and reports to support multi-profitability analysis and identify costs of activities.
5. Deploy the models. As this was an end-to-end project, system implementation was critical to the success of the project. We used the Oracle Hyperion Profitability and Cost Management (HPCM) system as the platform to deploy all the cost allocation and profitability analysis solution. We built interfaces to link with enterprise resource planning (ERP) and customer relationship management (CRM) and other applications with HPCM. This allowed the client to achieve a greater level of automation as these systems were programmed to automatically and periodically extract data from

different data sources and load into HPCM. We also set up and configured the allocation process and drivers in the HPCM module so that the resource data and driver data only had to be loaded into the module once; the allocation script would then run automatically, allocating costs and expenses to products.

We presented the data to the client in multiple forms including dashboards, pivots tables, reports and charts. By utilizing the new data, we had a clear story line to support our client in their management analysis and decision-making.

1 We use head counts as the resource driver to distribute the labor cost to different departments.
2 Products, clients, channels etc.
3 We use work hours as the activity driver to distribute labor cost on activities to products.



Value created for client

Through this project, we helped the client by supporting:

1. **Profitability analysis** – the client had a clearer and more detailed view of the profitability structure of different products within the portfolio.
2. **Product pricing** – the costs and expenses were allocated to each product type, so the client could identify the profit margins for every product line, which aided pricing decisions.
3. **The optimization of resources deployment** – the client was able to analyze the return on investment based on the detailed cost information.
4. **The improvement in activities** – enabling the client to analyze the efficiency of each activity and improve the processes across the value chain (using ABM).
5. **The optimization of performance assessments** – more precise information about costs will enable management to evaluate departments' and roles' performance more effectively for longer-term benefits.

Conclusion

The project allowed our client's management team to incorporate the direct and indirect costs attributed to the production of their appliances, and accurately identify the true cost of production and the profit levels each product line can generate. By precisely allocating manufacturing overheads, labor and distribution expenses according to products, clients and channels, our client has been able to re-evaluate their pricing strategies and improve their operational management strategy.