

# Implementing a Cost Based Management System

Ion Smeureanu\*, Costin Spiță\*\*

\* Academy of Economic Studies Bucharest, Str. Căderea Bastiliei, Piața Romană nr. 6, Sector 1,  
București  
e-mail: smeurean@ase.ro

\*\* Oracle, Calea Floreasca Blvd. 175, București  
e-mail: costin.spita@oracle.com

## Abstract

*This paper describes how to implement a cost based management system. There are presented strategies for implementing cost based management systems in small, medium, and large-size businesses. The purpose is to give a road map for a Cost Based Management System implementation; the goals are customer profitability analysis, product-line profitability analysis and business process analysis (process engineering). Depending on the resources available, the size, and complexity of a business, one or a combination of routes should fit the strategic profitability and cost management goals.*

**Key words:** *cost based management system, ERP, customer profitability*

## Introduction

Like any project that has to draw a significant impact on business performance a Cost Based Management System implementation will require dedicated resources, the cooperation of the business to become involved in the task of data collection, and the determination of the top team to use the results to improve the organisation's profitability.

The success of using a Cost Based Management System comes when every business function sees uses for the model.

The top team should all be very interested in seeing product and customer profitability. Further more, the outputs from the model need to be seen by everyone both as the fundamental base of knowledge to make better decisions on the products or services portfolio, the mix of customers the company wishes to acquire and nurture and as the launch pad for significant process improvement.

If the primary aim were profitability analysis then the initial model would generally start with a high level of activity analysis. If the aim of the model is to establish profitability first, followed by process improvement, then activity data need to be detailed enough to pick up the failure activities and the attributes must be prepared in a way that readily allows process analysis by type of activity.

During any Cost Based Management System implementation project it is invariably the case that as the model starts to deliver new and significant insights about the business this prompts further questions to be asked. Not all such questions can be determined during the planning

stage. In these situations the flexibility of Cost Based Management System comes to the fore. At any stage, more detailed data collection can supplement any initial high-level data. At any stage, where the model is deemed to be particularly sensitive to a range of cost drivers rather than the initial raw driver chosen, the activities and drivers can be modified. At any stage, if subtle insights can be obtained by further segmenting of the customer categories, appropriate activity drivers can be found to assign activities to a more detailed level. The only discipline that must be followed rigidly is to keep the log of changes to the model completely up to date.

## **Possible Paths for Implementation**

The road map starts with an assessment of company's resources for building a Cost Based Management System. A successful implementation will only be possible if there are the necessary resources and commitment as determined in the assessment.

### **Path 1 – Do It Yourself**

It is especially appropriate for firms with a limited budget for outside consultants or for firms in business lines where their industry trade association has not yet developed industry workbooks or computer models for Cost Based Management Systems.

Path starts with either an informal or formal assessment of the information and accounting systems, personnel capabilities and availability, organization structure, and financial resources. The following is a sample of the type of questions that should be addressed:

- What cost driver data (e.g., number of invoices, number of invoice lines, number of deliveries, individual product weight or volume characteristics, etc.) is your current Information System capable of capturing?
- Can your current accounting system map expense and cost data related to activities and processes in your business? If yes, how much effort is involved in using the system's mapping capabilities? If no, what would be the cost of modifying your current system software to map cost data of activity pools versus passing cost data of a PC or client-server network that will do the mapping?
- Who in your organization has the time and ability to undertake the initial project of gathering costs, evaluating or developing software, and putting in place systems and procedures for cost analysis and evaluation? Who in your organization will maintain the systems and modify them to reflect the on-going needs of your organization?
- What capital investment money are you able to allocate to the initial project? How much are you willing to spend on an on-going basis to maintain and modify your Cost Based Management system?

Although small and medium size firms may be able to survive without formal cost accounting, it would be hard to argue that they will survive without formal customer and product-line profitability analysis.

### **Path 2 – Do It with Others**

We call this path "do it with others" because it involves working with other companies in your line of business to build an "industry model" for doing Cost Based Management. The "others" may be members of a trade association, users group or consortium of similar firms.

The near end-point of this route is an industry Cost Based Management model with accounts and structure that are common to all members of the company group; the end-point is modifying the industry model to the specific structure and needs of your organization. Economics of scale and cost sharing are the financial reasons for pursuing this path as an implementation strategy.

### Path 3 – Do It with Consultants

The third possible path is done with outside consultants. Our assumption is that no association or consortium arrangement is practical, or that the operations are complex and unique, or that time to implementation is critical. The cost of this path is probably higher than that of the other two paths but the end-point should be a powerful, firm-specific model.

**Table 1.** Market Share – Implementation Path matrix for a Cost Based Management System implementation

	Small Sales < 1 mm RON	Medium Sales between 1-10 mm. RON	Large Sales between 10-50 mm. RON	Very Large Sales > 50 mm. RON
Do it yourself	*	*		
Do it with others		*	*	
Do it with consultants			*	*

### Key-Steps

The implementation process steps outlined here are generic. Care needs to be taken to ensure that for each Cost Based Management project, the specific steps to follow and the detailed content of each step are tailored to the needs of the company. The following check list of each step and the desired outcome is a useful guideline for most Cost Based Management projects.

#### Project Start-Up and Detailed Planning

- Establish Steering Committee and Project Team. Confirm objectives;
- Provide thorough pre-project training in the principles and practice of Cost Based Management techniques;
- Prepare and undertake briefing/ communications to senior managers;
- Define products and customers to be costed;
- Assess characteristics of segmentation and availability of sources of data;
- Preliminary identification of processes, activities and drivers;
- Assess suitability of general ledgers for analysis and agree period;
- Select systems to capture and model activity based data.

#### Establish Preliminary Understanding of Cost Dynamics

- In key areas, such as Sales, Customer Service, Production, etc. make field visits to understand the business;
- Create process maps.

### **Identify Activity and Cost Driver**

- Review organization, processes, activities and cost drivers with managers;
- Identify sources of quantitative data for activities, cost drivers;
- Agree allocation of indirect costs.

### **Development and Validation of Activity Costs**

- Agree basis of allocation of general ledger costs to activities and resources;
- Classify activities by type and by process;
- Build first Cost Based Model to reflect cost allocations and activity type and reconcile activity costs to general ledger
- Review activity costs with managers

### **Identify and Quantify Cost Drivers**

- Identify suitable sources of cost driver data and surrogate drivers where necessary;
- Download or manually record as appropriate;
- Review with managers and compare volume variations with level of driven activities.

### **Revenue Data**

- Capture revenue by product, channel, customer, and any other segment of interest;
- Download hard data or manual input;
- Review revenue data with managers.

### **Building the Cost Based Model**

- Design final structure of Cost Based Model and agree principles with Steering Committee;
- Build the model and apply cost driver and revenue data;
- Reconcile to general ledgers;
- Review activity costs and output costs with department managers, and amend model as necessary.

### **Cost Based Management Software**

Cost Based Management models can be built on spreadsheets, but only the simplest analysis can be undertaken. The creation of spreadsheets to handle the assignments of resources and activities soon leads to a spreadsheet of vast complexity full of look up tables and multiple sheets, increasing the demand for more in-depth analysis. The main disadvantage of spreadsheets is that they are rarely documented as they are built. Only the creator can remember, and then only vaguely, how it was all put together.

Database tools have a lot of the functionality required to undertake ABM analysis but on their own still have gaps in undertaking all the necessary requirements of a model.

The best results are obtained using Cost Based Management software. The software should facilitate the building of large models of high complexity while at the same time making it easy to track the logic of the cost assignments.

The software includes simple links to import and export data from and to other spreadsheet and database tools, as well as packages to present the output from analyses in graphical format.

A Cost Based Management model requires a lot of fast processing power, but sufficient power is available on most PCs. In a team environment, each member can work on building parts of the model and entering activity and driver data on their own machine, periodically integrating the data on the main model via network. The team should also have access to the company's transaction files.

Depending on the size of the business and the level of integration required in the longer term, the Cost Based Management model can be linked to the company's main systems and files. This may involve feeding from the normal transaction files or from and to a datawarehouse. For geographically dispersed businesses, data feeds via the Internet can also be established.

Many of the data items, which are necessary inputs to a Cost Based Management model, may reside within an ERP system. Cost savings will be realized from the use of the ERP system as a data source. Automated links can refresh financial data required by the Cost Based Management model. This financial data can include revenues by customer, costs by department and costs by expense type. Non-financial data, such as resource driver and activity driver volumes, can also be obtained from the ERP system on a timely basis. The alternative of manually gathering and inputting this data can be much more time consuming. Relying on manual updates can significantly undermine the delivery of timely Cost Based Management System results to decision-makers.

The benefits of integrating a Cost Based Management System with ERP are more profound in a situation where the ERP system includes more than just the financial and human resources components. These highly integrated or widely encompassing ERP systems will have integrated themselves with existing information systems, or will include their own modules, that record the details of transactions such as inventory movements, capital acquisitions & construction, service delivery orders, and sales contracts. These additional modules will provide many of the inputs related to resource driver and activity driver volumes for the Cost Based model. These inputs are central to the Cost Based Management model structure and the ability to deliver results by customer or product dimension.

## **Final Considerations**

A successful Cost Based Management implementation project is measured by:

- The credibility that the inputs and results of the Cost Based Management model achieve among middle and senior management;
- The speed with which the project can be used to influence decision-making;
- The degree to which the project creates a self-sustaining centre of Cost Based Management expertise in the organization capable of maintaining the use of Cost Based Management on an on-going basis;
- The Cost Based Management System implementation brings significant benefits to the business.

During the Cost Based Management implementation project phase, data collection, particularly the collection of cost driver volumes, usually involves analysing a wide range of company systems' files from a number of sources. These analyses are normally completed 'off-line' within the team. Where possible, these analyses need to be automated so that the relevant data to refresh and update the model can be downloaded from the company's systems with little need for manual manipulation. An important aspect of the Cost Based Management System implementation project is the technical embedding of the methods employed so that future updating of data can be achieved quickly and with fewer resources.

When the initial model is built we make a number of assumptions concerning level of detail, relevance of certain cost types and so on. The initial approach tends to bring too much detail into the model. During the project, the team will have analysed the business in some depth and will be able to make a judgement on data relevance once the model has been created.

With the knowledge gained during model building, and in conjunction with Business Managers, the team will be in a position to simplify the model in areas where such a change does not affect the outputs from the model. For example, there may be too many activities in a department, each costing very little. The results from the first Cost Based Management model represent a snapshot of the organisation. The model will need to be refreshed so as to be up to date. The model must remain credible if managers' critical decisions are to be based on the outputs.

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## Implementarea unui sistem de management prin costuri

### Rezumat

*Articolul prezintă modalitățile de implementare a unui sistem de management prin costuri. Astfel, sunt descrise strategiile de implementare a acestui sistem în organizațiile mici, medii și mari. Scopul acestora este crearea unui ghid care să ofere mai multe căi prin care se poate realiza implementarea unui sistem de management prin costuri, care să permită o analiză a profitabilității clienților, produselor și a proceselor afacerii. În funcție de resursele disponibile, mărimea și complexitatea afacerii se poate alege o cale sau o combinație de căi care corespund scopurilor strategice de profitabilitate și management al costurilor.*