Case study: on costing systems and cost control

Business

The analysis uses a number of examples to highlight the significant differences in costs between the two systems, and the Impact that these variances have on the cuisines. It is concluded that the new system does provide a definite improvement over the existing one, based on the benefits perceived from its introduction versus the implementation costs envisaged.

The benefits include more effective cost control and performance measurement, precise stock valuation and more accurate profitability analysis.

This would result In better decision-making on Issues related to key product markets, profit margins, product Introductions and deletions, as well as cost reduction. General advice is also provided as to the extent to which further breaking down of he department into a larger number of cost centers would be useful, and the reasons behind objections by members of staff to the new proposal. Analysis of Existing costing system The current system uses a single average hourly charge to allocate labor and overhead costs to the valve department.

This rate is being calculated on a monthly basis by dividing the sum of the accumulated labor charges and department overheads by the number of labor hours worked. Job costs are determined by multiplying this single rate by the time each Job spends In the department.

Data for the calculations are derived as follows: Total labor hours from timeshares. Labor hours are actually recorded separately for each of the 5 sections of the department on a monthly basis, and then added up to provide the department’s total hours of labor accumulated during a particular Mont.

Labor charges are calculated by section and then added up to provide the total monthly labor charge for the department. *Total overhead fugue (blanket hourly rate) is derived by selecting suitable allocation bases to apportion indirect costs by department on a monthly basis. Examples of suitable bases would be the total floor area of the valve department to allocate bills or rent and rates, building insurance and depreciation; or machinery power rating to allocate electricity bills.

Further allocation of overheads by section is not performed under the existing system.

(Total labor charge/month + Overhead costs/month) = ?¬89. 77/hour Total labor hours/month Use of a single rate may be unsatisfactory as it does not account for different products spending varying times in the 5 sections, each of which also has different labor skills and rates. It also allocates inaccurate costs incurred by the valve department in servicing other departments.

In August, other departments' products that used resources within the valve department used up more labor hours within the machining section, which has the most expensive labor, than in the other sections. The issues described above result in: *Cross-subsidizing of non-standard products with standard ones, and other products, leading to inaccurate cost calculations for the individual products *Inaccurate stock valuation *Complicating cost control (identifying the section where costs may be increasing month-on-month) *Ineffective performance measurement and improvement *Poor data for decision-making purposes

Analysis of Proposed Costing System Since labor is already being apportioned by section in the existing costing system, labor charge rates are calculated in the proposed system by dividing total labor costs per section by the corresponding labor hours.

Concerning overheads, the new proposal suggests a two-stage apportionment by settles, I. E. Slung ten Uninominal Stetsons as ten appropriate cost centers to wanly costs are allocated, rather than Just the overall department.

This would be performed using a suitable allocation base for each overhead cost, once again using the same reminisces previously followed to apportion overheads on a department basis. Overhead charge rates would then be calculated for each section by dividing total overhead costs per section by the corresponding labor hours. Total cost per hour for each section would then be obtained by adding the labor rate to the overhead rate for the section in question.

Perceived Benefits of the Proposed System Breaking down costs by section rather than simply by department (I. E. Further level of detail), definitely provides a better understanding of the cost structure, and represents an improvement for the following reasons: It reduces cross-subordination of the different products, including the standard versus non-standard ones, thus arriving at more accurate costs and better analysis of profitability. *It provides more realistic estimates for the costs incurred due to work done for other departments, thus providing more accurate cost allocations for the various products, which in turn leads to more accurate budgeting and

planning of department costs. It enables cost control to be exercised by identifying on a month-by-month basis the areas where cost variances are occurring and easily tracing the reasons for these arranges.

*It facilitates performance measurement and improvement, as well as increased operational efficiency. *It provides more reliable data for decision-making on matters such as the key product markets, profit margins per individual product and per product mix, product introductions and deletions, as well as cost reduction initiatives. It provides more accurate stock valuation Comparison between the two systems The costs of producing a valve 301 run, some spare parts and the work from other departments were compared using the two systems, on both percentage and absolute levels. The differences between the results were found to be significant (please refer to tables 1, 2 and 3 below). The main reason for these divergences is that the selected items spent most of their production time in the machining section (settles 3), wanly NAS ten largest total cost per nor, tens resulting In an underestimation of their actual costs if the single rate system is used.

Use of a single rate allows these variations to be absorbed by other products that spend different proportions of time in the various sections (perhaps more time within assembly), and once incorrectly estimates the cost of products, leading to inaccurate profitability analysis.

Figure 1 below compares the cost of work per section during the month of August using the present system with that using the proposed system. Cost of work per section is represented as a percentage of the total department

costs for the month. The effects of changing the system used, particularly on the cost of Jobs using sections 3 and 5, is clearly depicted.

Cost-Benefit Analysis Since the plumbing and pipe-fitting market is primarily price-driven, a new costing yester would not directly impact pricing, although it would lead to a better understanding of margins, and enable more rational decision-making. The benefits perceived by deploying the new cost system need to be measured against the expected costs of fully implementing the system. The level of detail and complexity that should be built into the system should be determined by the potential benefits that may be realized.

For example, would a further breakdown of cost centers by apportioning costs to machines within each section be worthwhile? Whether this would represent a real improvement can only be clarified by further examining product cost differences calculated using the various cost systems and evaluating the impact on decision-making, reporting, cost control and performance measurement. This would again be compared against the extra effort involved in gathering the required information and implementing the costing system, to Justify the added value of more detailed apportionment.

Internal Conflicts Opposition to the new system by department heads can be attributed to various reasons which need to be carefully considered and addressed. *The new system shall obviously give rise to a change (either upwards or downwards) f the calculated costs charged to other departments as a result of using resources within the valve department. It should be expected that those whose costs increase shall probably object, as in the case of the pipe fixture department, complaining that they cannot remain

within budget, while those whose costs decrease shall probably remain silent.

However, if the new rates were indeed proven to be still high compared to the norms, or to other departments' rates for doing the same work, then the reasons would have to De Investigated Ana cost control measures would nave to De strictly entrance on he valve department, and vice versa; I.

E. The new system would uncover operational inefficiencies which may then be corrected. Also, department budgets may be better assessed and possibly re-allocated between departments based on more accurate cost forecasting. The sales manager is satisfied as the current situation is favorable in terms of perceived overall performance of the sales team (volume sales, apparent profitability), especially if these are the targets on which sales performance and compensation are measured. However, on deeper analysis, incorrectly defined arising on some individual products could be resulting in loss of significant amounts of business in some sectors (especially bulk dealers or distributors), and continuous sales of other, possibly non-profitable products.

The fact that complete valve lines show an apparently positive net margin does not necessarily mean that the individual products that make up the line are all profitable, or that the company is doing as well as it can. Also, products may be introduced or discontinued from the company's portfolio, based on inaccurate knowledge of profitability, thus directing he company's strategy using erroneous data. To obtain support from the sales department for the new system, the sales compensation plan must encourage sales staff to adopt the system. The head of the valve department has no incentive to

accept the change, since it will only bring on additional administrative work. Even if costs were allocated to different departments, the valve department budget would Just be adjusted, and the only outcome would be additional complications in management accounting of the valve department. The valve department head incentive and bonus plan thus need to be aligned with specific objectives that include cost reduction as a primary measure, in order to obtain the necessary buy-in.

Final Recommendations Five cost centers are better than one to satisfy the objectives set in this case. This may be as far as you would go. Further level of detail could be necessary if, for example, during each section, different products spend significantly different times on each machine, and the labor and overheads associated with each machine vary greatly. Another example could be when the laborers within a certain section have varying skills and rates. Otherwise, one should stop when the cost of using more detail is not worth the additional benefit derived.

The information presented does not suggest that one should go any further than the level of five cost centers identified by Mr.. Jan Larson. At this level, the effort required to collect additional data is not substantial. In order to ensure successful implementation of the new system to achieve the primary company objective of cost control, it is essential that the various departments’ incentive plans are in line with the cost reduction and control initiative and the benefits perceived by the Implementation