

# A PROPOSAL TO FOLLOW UP COSTS USING THE CONNECTION BETWEEN EDH (DESTINATIONS) AND BHT (ACTIVITIES)

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## **Abstract**

External constraints like budget for material and personnel may be set outside the Division. However, the Division may measure the main output of its activities to justify the need for its resources and to maintain an optimal allocation of the resources within the Division. Before using resources (material + personnel = money) the expected output/performance should be defined. This will help us to allocate the resources where best needed and also to justify the need for resources. Possible deviations of expected output/performance may be caused by factors that should be known in advance or could not be known in advance. Deviations should be regarded as something positive – a possibility for a continuous improvement. This paper tries to show how one may use one available dimension in the financial system (EDH-BHT) to track deviations and follow up the costs.

## **1. INTRODUCTION**

Managers and decisions makers are often interested in “the cost” (or “total cost”), i.e., how much an activity or a product really costs. Depending on the purpose or level in the organization, different methods and definitions of “costs” may be used. Are managers interested in this information for internal control reasons? Is it to argue for the next year’s budget? Or is it an evaluation of an activity which one may consider to outsource?

*Example:* If we consider to let a firm do a job which we do ourselves, how will this effect the costs? Perhaps less resources on personnel administration, but perhaps more resources would be needed to cover more financial transactions and legal disagreements. Over the time, it is possible to adjust the level of personnel to a permanent change in the activity level – that is “in the long run, all costs are variable”. This paper tries to show the importance of tracking deviations and how one, on divisional level, may use the two existing systems [EDH (Electronic Document Handling) and BHT (Budget Holders Tool-kit)] in a new way to control the cost and evaluate the use of resources. Problems concerning the definition of costs will not be covered.

## **2. WHAT KIND OF COSTS PROJECT OR OPERATION?**

As a definition of project we may use: A project “is a specific assignment which has, as its objective, the task of completing contract requirements according to the specifications, on time and within the agreed resources [1]”. Of course, the quality will also have to be specified within the specifications. Operation is our “on-going business” which one may call “a project repeated from year to year”. At CERN, we split our budget into budget codes. A budget holder may use BHT and check the total for his codes, or he may have a look at all transactions for each code. For a **Project manager**, it will be interesting to break his project-budget down into cost groups and get all transactions and real costs grouped accordingly.

A budget holder for an operational code may have the same interest, i.e. to split his budget code into cost groups or activities and then compare these with the real cost.

### 3. TRACKING DEVIATIONS AND POSSIBILITY TO INFLUENCE THE FINAL COST

When one has an economic responsibility, it means that one is expected to foresee what will/may happen and act accordingly. Corrective actions may be taken if deviations are known in advance. If not, corrective actions may be taken then at least they are known in advance and we may prosper from increased confidence.

#### 3.1 Time

Figure 1 shows graphically how important it is to know the deviations in “real time”, that is when it occurs (or even in advance). After a certain time all the technical solutions and contracts have been signed, there is less we can do to influence the final cost, the “final cost is given”.

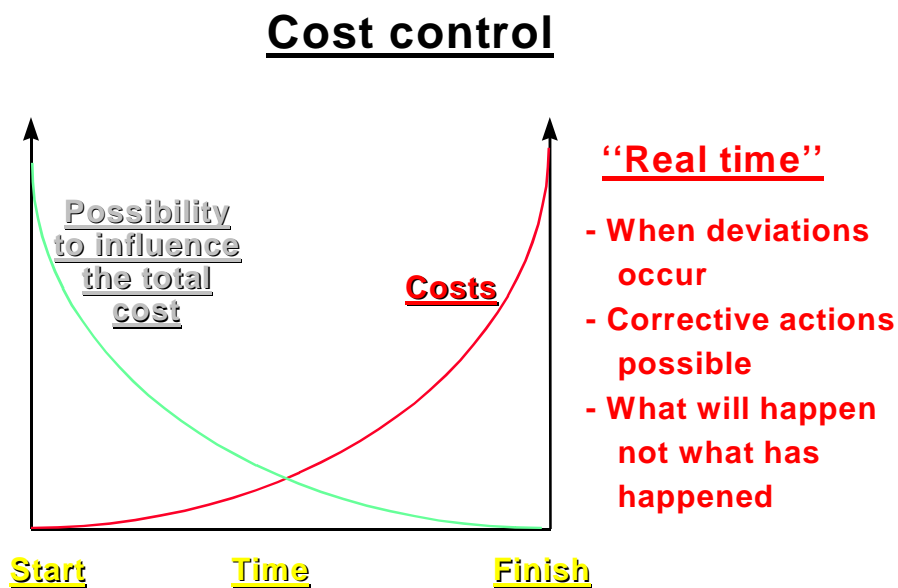


Figure 1

#### 3.2 Client of the financial system and grouping costs

We have different clients of the financial system, internal and external.

For external reasons, some information may be desired. *Example:* The Finance Committee wants to know how much we have bought from each country, paid on each contract, etc., while the Finance Division needs to know the commitment and payment situation of the different currencies for cash management reasons. A lot of reports exist in BHT today that provide this kind of information. In many cases, the budget holder is left with a summary report for his budget code and a transaction report with all transactions. For a budget holder, it would be interesting to have one dimension in the finance system that he controls all by himself.

That is, he should be able to divide his budget into groups (either cost groups or activities) and also decide for every command what kind of cost group or activity each command belongs to. In this

way, he may get a report in BHT showing the real costs for the activities or cost groups compared with the original estimates. This possibility exists in EDH-BHT today (see Section 4).

### 3.3 Activity Based Cost (ABC) and other calculation systems

Many companies use ABC to improve their calculation systems. ABC sees the activities as the fundamental cost object. All the input resources are divided into activities and then the cost for the real cost object is estimated. Other calculation systems may divide the costs in another way, but the object is the same – to estimate the costs for the real cost object.

Activities -----→ Cost for each activity-----→ Cost for real cost object  
■ Product  
■ Service

In order to follow up costs it is important that budget holder be given the opportunity to split his budget into a new dimension which he only controls. For that, we will use the activities in EDH which will give an ABC approach. We have nine main groups, three levels of activities (Ex. 2, 2.1, and 2.1.1), bringing the total of activities up to 655. This is too many and should be revised by a group of budget holders (only the budget holders should then be given the opportunity to insert the “activity code” in an order).

## 4. CONNECTION EDH-BHT

The budget holder may enter his budget by budget code and then sub-divide this into activities. When he uses the activity code when placing an order, he will be able to retrieve this information in BHT. However, what he has to be aware of is that, in BHT, one does not call an activity for activity. What one calls activity in EDH will find it as destination in BHT. All the facilities for this exist in EDH and BHT today. To make it as user-friendly as possible, the budget should be split into activities for each budget code so the budget holder does not need to have his own worksheet with this information (this information will however not change during the year.)

An overview of the nine main activities in EDH (= destinations in BHT).

1. Civil engineering and buildings
2. Electrical engineering
3. Electronics
4. Data processing
5. Mechanical engineering.....
6. Vacuum and low-temperature technology
7. Particle detectors
8. Miscellaneous
9. Design studies - various services

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**Total budget**

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*Example:* Existing report in BHT:

## BHT (Project 51732 for 1996)

Summary Query

Cost Centre		(All)
Destination (Detail)		(All)

Destination	Budget	Data		
		Pay	Comit	Open
1 : Genie Civil Et Bâtiments		620'174	660'866	40'692
2 : Electrotechnique		26'062	26'062	0
3 : Electronique	Not in BHT today !	4'415	4'415	0
8 : Divers		4'656	4'656	0
9 : Prestations Diverses		126'693	126'693	0
Grand Total		781'998	822'690	40'692

### 5. CONCLUSION

There exists today the opportunity to use the present system in a better way. We have one dimension free in the financial system that is not really used for any practical reasons. Using this dimension, called "Activities" in EDH and "Destinations" in BHT, will make it possible to follow up the costs in an even better way. The budget holders should have full control over this dimension, meaning that they should review the activities and, for each command, classify what kind of activity. In this way, it will be possible to compare the costs with the original estimates made. There is only one problem that would have to be solved: We would like to have the possibility to use activities for our budget as well.

### REFERENCES

- [1] Chengi Kuo, "Business fundamentals for engineers" (1992).
- [2] C. Horngren, G. Foster, S. Datar, "Cost Accounting"(1994).