

inducing the budget from cost

P. Fischer

2020-03-27

Abstract

Cost Centre Budgeting is about expressing the **Cost** (vector of Cost Centres) in the **Budget** structure (vector of Cost Elements) with the formula $z = Bk\gamma$. We take the **B-matrix** from observation and **induce budget lines** by multiplication with a given costbase (γ) and a distribution (k).

NB. A further decomposition can be $k = p * e$ where p, e are resp. the price and employee weightings of π (average price) and ω (total workforce). Hence $\gamma = \pi * \omega$.

How to induce the Budget with $Bk\gamma$ (or alternatively with $Bp * e\gamma$)

having $\gamma = 1586.294$

Table 1: This is derived from Cost !

	z
Allowances & other benefits	235.231
Basic Salaries	720.159
Duty travel	6.051
External experts & outsourcing	23.898
Miscellaneous expenditure on staff	34.627
Other expenses	237.465
Pensions & social security	321.551
Training	7.311
NA	0.001

where the **B_matrix**

Table 2: B= column-normalized cost pivot

	DG0	DG1	DG2	DG3	DG4	DG5	DGno
Allowances & other benefits	0.11	0.16	0.15	0.12	0.06	0.12	0.00
Basic Salaries	0.47	0.60	0.54	0.65	0.25	0.50	1.02
Duty travel	0.02	0.00	0.01	0.00	0.01	0.01	0.00
External experts & outsourcing	0.02	0.00	0.06	0.00	0.03	0.01	0.00
Miscellaneous expenditure on staff	0.02	0.02	0.02	0.02	0.02	0.02	0.00
Other expenses	0.21	0.00	0.00	0.00	0.53	0.16	-0.02
Pensions & social security	0.15	0.21	0.21	0.20	0.09	0.17	0.00
Training	0.01	0.00	0.01	0.00	0.00	0.00	0.00
NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

and **k** the cost weighting

CC	k
DG0	0.022
DG1	0.708
DG2	0.067
DG3	0.040
DG4	0.249
DG5	0.037
DGno	-0.124