If you apply a basic DEA model, you can use this report

Help: Replace the yellow highlighted areas with the output values obtained from the software

Data envelopment analysis (DEA) can be utilized a linear programming based technique and optimization for assessing the efficiency of each unit. With the aim of improving the efficiency of each unit, a reference set for an inefficient unit is determined and the efficiency of various units can be compared to the efficiency boundary.

**Project Specifications**

In this study, A as decision making unit (DMU) was investigated with respect to B input and C output. The DEA type used in this study is the model D based on the model E and using approach F.

A: the number of decision making units (DMUs)

B: the number of inputs

C: the number of outputs

D: the DEA type

E: the model

F: the approach

**Efficiency**

The value of efficiency obtained by the defined model is presented in Table 1. In addition to the value of efficiency, its type can also be shown in this table.

**Table1.**

The unit is inefficient if the efficiency is less than 1.

If the efficiency of a unit is equal to 1 and there is zero slacks, then it is the Pareto efficiency.

If the efficiency of a unit is equal to 1 and there is nonzero slacks, then it is known as the weak efficiency.

Figure 1 also shows the values of efficiency.

**Figure1.**

**Reference Set**

In each linear program of DEA, the solution technique will attempt to make the efficiency of the target unit as large as possible. This search procedure will terminate when either the efficiency of the target unit or the efficiency of one or more other units is equal to one. Therefore, for an inefficient unit at least one other unit has the efficiency equal to 1 with the same weight of the target unit obtained from the solution of the model. These efficient units are known as the peer group for the inefficient unit. Table 2 shows the peers.

**Table 2.**

Table 3 also shows the number of the repeated peer units.

**Table 3**.

**λ (Weights for Peer Units)**

When the value of each input and output is changed in such a way that the unit under consideration can be located on the efficiency boundary (i.e. its efficiency is equal to 1), then the hypothetical unit located on the efficiency boundary can be viewed as the virtual unit. λ represents the combination of the peer units used to construct each virtual unit. The values of λ are presented in Table 4.

**Table 4.**

**Weights (values of the variables for the primary model)**

Tables 5 and 6 show the values of the variables for the primary model, which is coefficient or weight assigned by DEA to input and is coefficient or weight assigned by DEA to output.

**Table5. Input weights**

**Table6. Output weights**

**Input and Output slacks**

Input and Output slacksrelated to each unit are provided in Tables 7 and 8, respectively.

**Table 7. Input Slacks**

**Table 8. Output Slacks**

**Target Values**

Tables 9 present the actual and target values of each input.

**Table 9. Inputs & Target inputs**

Tables 10 present the actual and target values of each output.

**Table 10. Outputs & Target outputs**