**File Name: Suppliers.xls**

**Data Set Information:** Adopted from Maghsoodi, A. I., Kavian, A., Khalilzadeh, M., & Brauers, W. K. (2018). CLUS-MCDA: A novel framework based on cluster analysis and multiple criteria decision theory in a supplier selection problem. *Computers & Industrial Engineering*, *118*, 409-422.

Supplier Selection (SS) is a critical issue that affects a company’s expenses. Experts have identified the following criteria to select an optimal supplier in the ICT (Information and Communication Technology Sector).

|  |  |  |  |
| --- | --- | --- | --- |
| Id | Criteria | Description | Ideal |
| C1 | Financial Elements (Price/ Cost) | Financial elements such as the price of the product, the cost of the maintenance, transportation costs, etc. are one of the discriminant factors for selecting the supplier | Minimum |
| C2 | Service cooperation | Cooperating with the terms and conditions | Maximum |
| C3 | Conforming service | Achieving quality perception | Maximum |
| C4 | Flexibility | Supplier’s flexibility concerning multiple elements such as costs, time, | Maximum |
| C5 | After sale services | Receiving the guarantee / warranty services in the future | Maximum |
| C6 | Complaint management | Number of complaints regarding the supplier | Minimum |
| C7 | Waiting Time | Wating time for the product | Minimum |

MAMUT Corporation’s wants to select ideal suppliers from its existing supplier database based on the measurement criteria specified in the table above. The database attributes are described below:

**Attribute Information:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Type** |
| Cost/Price (Financial Elements) | Cost Associated with the supplier | USD $ |
| Other variables | All the other variables rated on the following scale based on database values  Very Poor = 0  Poor = 40  Moderate = 60  Good = 80  Very Good = 100 | Continuous |

Help them develop a scheme to identify the best suppliers in the “contractors” category.

What are the other observations regarding suppliers?