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**Cloud Service Selection Using DEA Based on SMI Attributes**

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**Abstract**

Cloud computing allows on-demand access and fast network connection to a shared resource pool. Most companies are switching to Cloud due to the popularity and benefits of using Cloud Services. So finding a suitable and best cloud provider is a challenge for all users. Several ranking methods, such as AHP, TOPSIS, had been suggested to solve this problem by multicriteria decision making techniques. But, many of the works focused on a subset of the main QoS attributes for ranking. Cloud Services Measurement Initiatives Consortium (CSMIC) has released Service Measurement Index attributes for effectively comparing the Cloud services. The comparison of services provided by cloud based on SMI attributes which are qualitative as well as quantitative in nature is studied in this paper by one of the non-parametric methods called Data Envelopment Analysis (DEA) and ranked the cloud services based on the efficiency scores obtained by DEA. The cloud users can select the best suitable Cloud service using the proposed approach that best suit their QoS requirements

**Keywords:**

MCDM, DEA SMI, Cloud Service, QoS, CSMIC.

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