

## **A COMPOUND OF CONSUL DISTRIBUTION WITH GENERALIZED BETA DISTRIBUTION**

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### SUMMARY

A compound (mixture) distribution arises when all (or some) parameters of a distribution vary according to some probability distribution called the compounding (mixing) distribution. In this paper, an attempt has been made to obtain a compound of Consul distribution with that of generalized beta distribution by treating the probability parameter  $p$  in Consul distribution as a generalized beta variable. The resulting distribution so obtained generalizes beta distribution, geometric distribution, compound of geometric distribution. In addition to this, first order factorial moments of some compound distributions have also been discussed.

*Keywords and phrases:* Consul distribution; generalized beta distribution; compound distribution; factorial moments..

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