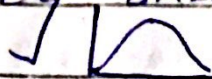


Beta Distⁿ.

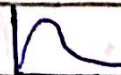
Shape of Beta Distⁿ

Shape of beta distⁿ depend upon the value of α & β if " $\alpha = \beta$ " then shape will be "Symmetric" if " $\beta > \alpha$ " then "positively skewed" & if " $\beta < \alpha$ " then "negatively skewed"

$\alpha = \beta \rightarrow$ Symmetric



$\beta > \alpha \rightarrow$ positively skewed



$\beta < \alpha \rightarrow$ negatively skewed

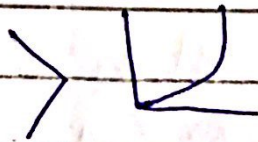


$\beta < 1$ & $\alpha > 1 \rightarrow$ U-shaped



$\alpha < 1$

if $\beta < 1$ & $\alpha > 1$



\rightarrow J-shaped.

or $\beta > 1$ & $\alpha < 1$

Applications:-

When there is

- (1) It is natural candidate for modeling engineering ratio. e.g. efficiency measure which vary over the unity range
- (2) It has wide application & v that have finite range that is from a to b .
- (3) It is frequently used as a tail distⁿ for binomial distⁿ proportions in Bayesian analysis.
- (4) It can also be use as method of elicitation in Bayesian analysis.
- (5) It is widely used in many areas of operation research.

The search shows the application of beta distn in following fields.

- (i) Risk analysis for Strategic Planning,
 - (ii) Finance & marketing engineering simulation
 - (iii) Modeling hydrology variable
 - (iv) Logarithm of aerosth &
 - (v) Activity time in pest analysis
 - (vi) Sea-state reflectivity
 - (vii) Traffic flow construction alterations
 - (viii) Isolation data in photo metric system
 - (ix) Variables effective reproduction of analysis
- Costs