VI. KESIMPULAN

Berdasarkan hasil yang telah didapat dan diuraikan dari penelitian ini, maka diperoleh kesimpulan sebagai berikut.

1. Momen pertama hingga momen keempat dari distribusi *G2R* adalah

a. Momen pertama

$$«_1 = -\frac{1}{a}\left(\Gamma'(1) - \frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)}\right)$$

b. Momen kedua

$$«_2 = \frac{1}{a^2}\Gamma''(1) - \frac{\Gamma''(\sim+1)}{\Gamma(\sim+1)} - 2\Gamma'(1)\frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)} + 2\left(\frac{\left(\Gamma'(\sim+1)\right)}{\left(\Gamma(\sim+1)\right)}\right)^2$$

c. Momen ketiga

$$«_3 = -\frac{1}{a^3}\left\{\begin{array}{l}\Gamma'''(1) - 3\frac{\Gamma'(1)}{\Gamma(1)}\frac{\Gamma''(\sim+1)}{\Gamma(\sim+1)} - \frac{\Gamma'''(\sim+1)}{\Gamma(\sim+1)} - 3\Gamma''(1)\frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)} \\ +6\frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)}\frac{\Gamma''(\sim+1)}{\Gamma(\sim+1)} + 6\frac{\Gamma'(1)}{\Gamma(1)}\left(\frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)}\right)^2 - 6\left(\frac{\Gamma'(\sim+1)}{\Gamma(\sim+1)}\right)^3\end{array}\right\}$$

d. Momen keempat

$$«_4 = \frac{1}{a^4}\left\{\begin{array}{l} \Gamma^{(4)}(1) - 6\Gamma^{(2)}(1)\dfrac{\Gamma^{(2)}(\sim+1)}{\Gamma(\sim+1)} - 4\Gamma^{'}(1)\dfrac{\Gamma^{(3)}(\sim+1)}{\Gamma(\sim+1)} - \dfrac{\Gamma^{(4)}(\sim+1)}{\Gamma(\sim+1)} + 6\left(\dfrac{\Gamma^{(2)}(\sim+1)}{\Gamma(\sim+1)}\right)^2 \\ +8\dfrac{\Gamma^{'}(\sim+1)\Gamma^{(3)}(\sim+1)}{(\Gamma(\sim+1))^2} + 24\Gamma^{'}(1)\dfrac{\Gamma^{(2)}(\sim+1)\Gamma^{'}(\sim+1)}{(\Gamma(\sim+1))^2} - 27\dfrac{\Gamma^{(2)}(\sim+1)(\Gamma^{'}(\sim+1))^2}{(\Gamma(\sim+1))^3} \\ -4\Gamma^{(3)}(1)\dfrac{\Gamma^{'}(\sim+1)}{\Gamma(\sim+1)} + 12\Gamma^{(2)}(1)\left(\dfrac{\Gamma^{'}(\sim+1)}{\Gamma(\sim+1)}\right)^2 - 24\Gamma^{'}(1)\left(\dfrac{\Gamma^{'}(\sim+1)}{\Gamma(\sim+1)}\right)^3 + 24\left(\dfrac{\Gamma^{'}(\sim+1)}{\Gamma(\sim+1)}\right)^4 \end{array}\right\}$$

yang diperoleh dengan menurunkan fungsi pembangkit momen dari distribusi *generalized Rayleigh* sebagai berikut :

$$M_x(t) = \frac{\Gamma(\sim+1)\Gamma(1-\frac{t}{a})}{\Gamma(1-\frac{t}{a}+\sim)}$$

2. Kumulan pertama hingga kumulan keempat dari distribusi *G2R* adalah :

a. Kumulan pertama

$$K_1 = \frac{1}{a}\left\{\cdot\ ((\sim+1) - \cdot\ (1)\right\}$$

b. Kumulan kedua

$$K_2 = \frac{1}{a^2}\left\{\cdot\ ^{'}(1) - \cdot\ ^{'}((\sim+1)\right\}$$

c. Kumulan ketiga

$$K_3 = \frac{1}{a^3}\left\{\cdot\ ^{''}((\sim+1) - \cdot\ ^{''}(1)\right\}$$

d. Kumulan keempat

$$K_4 = \frac{1}{a^4}\left\{\cdot\ ^{'''}(1) - \cdot\ ^{'''}(\sim+1)\right\}$$

yang diperoleh dengan menurunkan fungsi pembangkit kumulan dari distribusi *generalized Rayleigh* sebagai berikut :

$$Q_X(t) = \ln\Gamma(\sim +1) + \ln\Gamma(1-\frac{t}{\mathrm{a}}) - \Gamma(\sim -\frac{t}{\mathrm{a}}+1)$$

3. Fungsi karakteristik dari distribusi *generalized Rayleigh* adalah :

$$\ddot{}_{x}(it) = \frac{\Gamma(\sim +1)\Gamma(1-\frac{it}{\mathrm{a}})}{\Gamma(1-\frac{it}{\mathrm{a}}+\sim)}$$