Lampiran 8 : Perhitungan Jumlah Sampel

$$UP = \tfrac{1}{2} \ln \left(\frac{1+\rho}{1-\rho}\right)$$

$$n = \frac{(Zi-\alpha+Zi-\beta)^2}{(UP)^2} + 3$$

$$UP = \tfrac{1}{2} \ln \left(\frac{1+\rho}{1-\rho}\right) + \frac{\rho}{2(n-1)}$$

$$UP = \frac{1}{2} \ln \left(\frac{1+\rho}{1-\rho}\right)$$

$$= \frac{1}{2} \ln \left(\frac{1+0,3}{1-0,3}\right)$$

$$= \frac{1}{2} \ln \left(\frac{1,3}{0,7}\right)$$

$$= \frac{1}{2} \ln (0,619039208)$$

$$UP = 0,309519604$$

$$UP^2 = 0,095802385$$

Iterasi 1

$$n = \frac{(Zi - \alpha + Zi - \beta)^2}{(UP)^2} + 3$$

$$n = \frac{(Zi - \alpha + Zi - \beta)^2}{(UP)^2} + 3$$

$$n = \frac{(1,96 + 1,28)^2}{(0,31086398)^2} + 3$$

$$n = \frac{(3,24)^2}{(0,31086398)^2} + 3$$

$$n = \frac{10,4976}{(0,09580238)^2} + 3$$

$= 109{,}5755659+3$

$= 112{,}5755659$

Iterasi 2

$$n = \frac{(Zi - \alpha + Zi - \beta)^2}{(UP)^2} + 3$$

$$n = \frac{(1{,}96 + 1{,}28)^2}{(0{,}31082413)^2} + 3$$

$$n = \frac{(3{,}24)^2}{(0{,}31082413)^2} + 3$$

$$n = \frac{10{,}4976}{(0{,}096611639)^2} + 3$$

$= 108{,}6577157+3$

$= 111{,}6577157$

Iterasi 3

$$UP = \tfrac{1}{2} \ln \left(\frac{1+\rho}{1-\rho}\right) + \frac{\rho}{2(n-1)}$$

$$= 0{,}30951960 + \frac{0{,}3}{2.(111{,}6577157 - 1)}$$

$$= 0{,}30951960 + \frac{0{,}3}{2.110{,}6577157}$$

$$= 0{,}30951960 + \frac{0{,}3}{221{,}3154314}$$

$$= 0{,}30951960 + 0{,}001355531$$

$$= 0{,}310875131$$

$$n = \frac{(Zi - \alpha + Zi - \beta)^2}{(UP)^2} + 3$$

$$n = \frac{(1{,}96 + 1{,}28)^2}{(0{,}310875131)^2} + 3$$

$$n = \frac{(3{,}24)^2}{(0{,}310875131)^2} + 3$$

$$n = \frac{10{,}4976}{(0{,}096643347)^2} + 3$$

$$= 108{,}6220658+3$$

$$= 111,\ 6220658$$

Berdasarkan perhitungan jumlah sampel diatas setelah melakukan berkali-kali iterasi, maka jumlah sampel dalam penelitian ini min (n) = 112 orang responden.