Given two random variables being independent or not, we have the following equation $\mathbb{E}(X+Y) = \mathbb{E}(X) + \mathbb{E}(Y) = \int_0^\infty f(x)dx + \int_0^\infty g(y)dy$. For variation, we need to know the independency to have

$$\mathrm{Var}(X+Y) = \mathrm{Var}(X) + \mathrm{Var}(Y)$$