In the following formula I will use a and a combined to :

$$\boldsymbol{Y} = f(\boldsymbol{X}) + \boldsymbol{\mathcal{E}} \approx \overset{}{}_1(\boldsymbol{X}) + \overset{}{}_2(\boldsymbol{X}) + ... + \overset{}{}_m(\boldsymbol{X}) + \boldsymbol{\mathcal{E}}, \quad \boldsymbol{\mathcal{E}} \sim \mathcal{N}_n(, \sigma^2 \boldsymbol{I}_n)$$