## **ABSTRACT**

## THE CHARACTERISTICS OF PARAMETER ESTIMATORS GENERALIZED F-3 PARAMETER (G3F) DISTRIBUTION WITH THE GENERALIZED METHOD OF MOMENT ESTIMATION

By

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Generalized F-3 parameters (G3F) distribution have three parameters:  $(\alpha, m_1, m_2)$ . The  $\alpha$  parameter is scale parameter which is a numerical parameter that indicates the amount of data distribution, whereas  $m_1$  and  $m_2$  parameter is a shape parameter which is a numerical parameter that show the shape of the curve. The parameter estimators of G3F distribution is obtained by using Generalized Method of Moment in form  $M_{l,r}$ , where r is taken equal to 0 and taken  $l = l_1, l_2, l_3 (l_1 \neq l_2 \neq l_3)$  which not necessarily integers and positive. After obtained the parameter estimators of  $\alpha, m_1$ , and  $m_2$ , then examined the characteristics of these estimators which include unbiased, minimum variance, and consistent. By using the form  $M_{l,r}$  can also be obtained asymptotic variances and covariance matrix of the parameter estimators of  $\alpha, m_1$ , and  $m_2$ , that is seek variance and covariance of the sample moments  $\widehat{M}_{l_1}, \widehat{M}_{l_2}$  and  $\widehat{M}_{l_3}$ .

Keywords: generalized F-3 parameters (G3F) distribution, generalized method of moment, unbiased, minimum variance, consistent.