ESTIMATION POWER OF PRINCIPAL COMPONENT, MAXIMUM LIKELIHOOD AND GENERALIZED LEAST SQUARES OF STOCK RETURNS

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ABSTRACT

This paper seeks to study comparison of three estimation methods applied in Factor Analysis which includes Principal Component Analysis, Maximum Likelihood and the Generalized or Weighted Least Squares estimation methods using data collected from stock exchange. Our result shows that three estimation methods gave the same number of underlying factors i.e. each method extracted six (6) factors. However, the Maximum likelihood estimate appears to be the best method judging by their percentage of variance explained by the six extracted factors and the residual matrices.