

## **Abstract**

Agriculture is still a main stay of Pakistan's economy and livestock holds a key position by producing the largest share of agricultural value addition. Present study is the first attempt in efficiency literature that is going to measure the TE of the livestock farms of the Livestock and dairy Development Department, Government of the Punjab. This study is aimed at the measurement of efficiency of livestock farms of government of the Punjab and to quantify these efficiency levels in efficiency scores. A one-step stochastic production frontier methodology is used and MLE results are estimated by using the software Frontier 4.1c. An SFA model is specified using a CD production function. Total value of output is dependent variable while animal capital, labor cost, energy expenditures and materials are independent variables in SFA model. Four inefficiency variables are employed in inefficiency model included in the error component term. Mean TE score of all farms was found 64% for the observed time period. The results of this study show that there is a potential for efficiency improvement, so increasing productivity in this way. Labor is the most important input as its coefficient is quite high and significant. On the basis of the empirical results it is highly suggested that both the quality and quantity of labor should be enhanced to increase the productivity and efficiency of these farms.

**Key words:** Technical Efficiency, SFA and DEA.