STATISTICAL ANALYSIS OF RATE OF MEAT CONSUMPTION IN NIGERIA

(A CASE STUDY OF LAGOS STATE)

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ABSTRACT

The project work is on statistical analysis of rate of meat consumption in Nigeria (a case study of Lagos State). Time series analysis was used as a statistical tool to estimate the trend, and forecast the future consumption of meat for five years. In analyzing the number of animals slaughtered in Lagos State data, the data was extracted from the Ministry of Agriculture and Cooperatives.

The trend and the seasonal variation are estimated using the least square method and multiple model approach respectively. Time plot and the ACF correlogram was plotted using the S-plus package while the trend plot plotted for each type was done using the Minitab package. The trend line equation for animal slaughtering was found to be $T = 445,484.1 + 20,302.5(t)$ which shows that it increases gradually with the trend line having positive gradient.

It was observed at the end of the analysis that the pattern of movement of the number animals slaughtered follows a non random process. The forecast value of the number of animals slaughtered in Lagos State from year 1991-2010 shows that there is an upward trend in meat consumption rate which is caused by the increase in population of Lagosians. Moreso, the time plot plotted shows that the plot was non-stationary which signifies the presence of the trend in the series, the correlogram that was plotted shows that it decays very slowly to zero.