

ABSTRACT

Transport is a key enabler of mobility and growth, providing the physical networks and services upon which the economy depends for exchange goods and services. Approximately 50% of the world's populations live in cities and this requires the need for well-organized and sustainable transport management strategies is growing. Nairobi experiences excess traffic congestion and initiatives to relieve it needs a clear plan with clear objectives and strategies. The purpose of this study was to establish the influence of strategic options for streamlining traffic flow in Nairobi CBD. The objectives of the study were to determine the influence of traffic marshals on streamlining traffic flow in Nairobi CBD; to examine the application of technology on streamlining traffic flow in Nairobi CBD; to determine the effects of flyover and underpasses on streamlining traffic flow in Nairobi CBD. The study used descriptive survey research design was used. The study was anchored on the Global Village by Marshall McLuhan (1964). The target population was 179 comprising of traffic police, traffic marshals working in Nairobi CBD, Nairobi Traffic Police Commandant, Nairobi County Traffic marshal Commandant, Roads Engineers and road users. Sample size of 99 was sampled using mixed methods including snow balling and random sampling. The Traffic Commandants and the Roads Engineers were key informants, while road users were used for cross validation. Data was collected using questionnaires for quantitative data, interview schedules for qualitative data and observation schedule for on-spot observation on activities specified on annex. Validity of the instruments was assessed through expert scrutiny of the supervisors while reliability was established through split- half method. Quantitative data was analyzed using computer aided software Package (SPSS version 22.0) and was presented in descriptive statistics. Regression analysis was further applied on quantitative data and presented in inferential statistics to help draw conclusions. Analysis of Variance (ANOVA) was used to determine whether there were differences between the strategic options and traffic flow. All tests of significance was computed at $\alpha = 0.05$. For the qualitative data a thematic analysis was done. Correlation coefficient for influence of traffic police/marshals was established at 0.768 signifying strong positive correlation, while the one for application of technology was at 0.885 also implying a strong positive correlation. The correlation for the flyovers and underpasses was established at 0.315 implying a weak positive correlation. The streamlined traffic flow model showed the relationship between the independent variables and how they influence traffic flow. In conclusion, the study found that the strategic options played an integral part in streamlining traffic flow and that there is need for a holistic integrative approach to strategic options in order to streamline traffic flow in the CBD. Study recommended that traffic staff need to be increased, strong legal framework, invest in technology, promote public awareness and education on the strategic options and monitoring of flyovers and underpasses for a streamlined traffic flow.