

Purpose: The purpose of the study was to analyze the effect circular economy practices on sustainable performance of plastic and rubber manufacturing firms in Kenya. **Methodology:** Descriptive research design was adopted in this study. The target population of this study included all 82 plastic and rubber manufacturing organizations in Kenya registered as members of KAM according to 2021 directory. The study used a census where all the 82 plastic and rubber manufacturing firms were surveyed. To identify the unit of observation, the head of production and the head of procurement function were selected purposively because they have similar skills, knowledge, experience and exposure in the area of research. This formed 164 respondents. The study used primary data as the main data which was collected using structured and semi structured questionnaires. The collected data was prepared and analyzed with the aid of the Statistical Package for Social Sciences (SPSS) Version 26. Descriptive statistics was used to summarize and organize characteristics of a data set collected which was presented in form of means, modes and standard deviations (Kothari, 2019). Then inferential statistics through a regression model was used to test the research hypotheses. Qualitative data was analyzed using content analysis. The analyzed data was presented in form of tables, graphs, histograms and pie charts. A multiple linear regression analysis was used to establish a mathematical model that explains the relationship between dependent and independent variable. **Results and conclusion:** The response rate of the study was 63%. R square value of 0.647 means that 64.7% of the corresponding variation in plastic and rubber manufacturing firms in Kenya can be explained or predicted by (circular procurement, circular design, circular manufacturing, circular distribution) which indicated that the model fitted the study data. The results of regression analysis revealed that there was a significant positive relationship between dependent variable and independent variable at ($\beta = 0.647$), $p=0.000 < 0.05$). The findings of the study concluded that circular procurement, circular design, circular manufacturing, circular distribution have a positive relationship with performance of plastic and rubber manufacturing firms in Kenya. **Policy recommendation:** The study recommended that plastic and rubber firms should embrace Circular economy practices so as to improve sustainable performance and further researches should to be carried out in other firms to find out if the same results can be obtained.