## **ABSTRACT**

. The productivity of food processing firms in Kenya has been declining due to the use Supply Chain Management Practices which are not current. The food processing subsector performance has also been declining thus its contribution to the Gross Domestic Product has reduced to 10% thus leading to operation inefficiency. Even though a lot has been done to curb the problem of poor performance in these firms the problem has continued to be experienced. Therefore, there is need for a study to be done on the Supply Chain Management Practices that could help enhance the performance of food processing firms. The overall objective of this study was to probe the effect of supply chain management practices on performance of food processing firms in Nairobi County. It was steered by the specific objectives pertinent to Supply Chain Management Practices namely, information sharing practices, logistics management and inventory management on performance of food processing firms in Nairobi County. Firm size was used as a moderator variable. The study was premised on the Complexity Theory in Logistics, The Lean theory and Grey system theory. Descriptive design was espoused. A population of 172 food processing firms and a sample size of 120 firms was determined. Stratified and simple random sampling were used to pick specific firms while data were collected using structured questionnaires. Descriptive statistics aided in describing the primary characteristics of the data. The Pearson Product Moment Correlation was used to establish the correlation between the studies constructs. Regression analysis aided to ascertain the effect of Supply Chain Management Practices on performance of food processing firms with the aid of SPSS version 28. T-statistics were used to gauge the significance of individual objectives at 5% confidence level while F-statistics was used to establish the overall significance of the model. The study established a positive significant effect between information sharing practices and performance (regression coefficient 0.247, p-value 0.029). Further logistics management was found to be positively correlated to performance, (regression coefficient 0.372, p-value of 0.000). Inventory management had a regression coefficient of 0.492 and a p-value of 0.000 indicating it is significant. The interaction between firm size and supply chain management practices had a regression coefficient of 0.257 and a p-value of 0.124 .It had a t-statics of 4.751. The study concluded that information sharing practices, logistics management and inventory management had substantial impact on performance on Food processing firms and recommends that food processing firms to apply information sharing practices and logistics management in order to reduce on cost. On the other hand, inventory management was found to be insignificant therefore it does not affect performance. Firm size was found not to alter the nexus between Supply Chain Management Practices and performance. The study recommends that firms should invest more in information sharing platform such as the EDI to enhance free flow of information. Food processing firms should incorporate the aspect of vehicle routing and vehicle scheduling to reduce the transportation cost. Further the study recommends that firms should establish adequate quality control and quality monitoring points in order to get the best quality during the production. The government to implement SCMPs and strategies that encourage businesses to espouse prudent management strategies regarding inventory to boost revenue. Further research should be conducted in different contexts and other studies should be carried out for a longer period of time to track the changes over a period of time.