ABSTRACT

The performance of the manufacturing companies over the past few years has been declining as demonstrated by the decline in sector growth as well as the influence on the country's GDP which dropped from 10% in 2014 to 7.6% in 2020. The manufacturing sector growth dropped from 3.6% in 2018 to 2.5% in 2019 and declined further to -0.1 per cent in 2020. As a result, Kenya's manufacturing sector is far from achieving the Big Four Agenda's projection that it will contribute 15% of the country's GDP by 2022. To address this trend, firms have attempted to incorporate information and communication technology in manufacturing process to innovate, increase productivity and improve resource efficiency. Enterprise Resource Planning system aids firms in effectively and efficiently managing their operations. Enterprise Resource Planning system integrates business activities that allow for a smooth flow of information and interaction across all divisions. This study aimed to determine the impact of enterprise resource planning (ERP) system on how manufacturing firms tended to perform in Kenya's Nairobi County. The specific objectives were to determine the effect of production planning and control module, financial and accounting module, procurement module and human resource module on the way manufacturing firms performed. The five-stage growth model and systems theory formed the basis for the research. The descriptive research design was used. The population of the study consisted of 533 manufacturing companies in Nairobi County that were members of the Kenya Association of Manufacturers. Krejcie and Morgan's formula was used to obtain a sample size of 223 firms. In the study, stratified random sampling was used. With the use of Microsoft Excel and SPSS version 25.0, descriptive and inferential statistics were used to evaluate the data, which was collected using a structured questionnaire. To examine the association between variables, multiple regression analysis and correlation analysis were performed and hypothesis was tested using t-statistic and F- Ratios at 5% significance level. With a regression coefficient of 0.709 and a p-value of 0.000, the study discovered that the production planning and control module had a favorable and significant impact on firm performance. The effects of both accounting and financial modules on the performance of a firm were recorded to be both significant and positive. The statistical values included a regression coefficient of 0.547 and a p value of 0.000. Additionally, it was established that the human resource management and procurement modules had respective p-values of 0.000 and 0.000 and positive regression coefficients of 0.565 and 0.622. The study concluded that the performance of manufacturing firms in Nairobi County was positively and significantly impacted by the modules for production planning and control, financial and accounting, procurement, and human resource management. Moreover, the combined effect of ERP components on the performance of manufacturing firms was statistically significant ($p=0.00<0.05$). The interaction between firm growth and ERP system had p-value of $0.514>0.05$ implying that the relationship between the ERP system and firm performance was not statistically moderated by firm growth. The study recommends that firms should endeavor to adopt and use ERP system and adopt appropriate modules to cover key company functions. In addition, it also recommends that functions to be automated and integrated with ERP to boost organizational productivity. The study findings would be helpful to those involved in the manufacturing industry to appreciate how the ERP system affects firm performance. The research outcomes from the current study can also help future researchers and academicians by contributing to the existing knowledge gap and also acting as a reference point and recommendation for their work.