

ABSTRACT

Time-based manufacturing enables firms to improve their performance by reducing lead time and cost of conversion. The critical part of time-based manufacturing is to compete successfully in a rapidly changing environment. In this regard, the need to adopt time-based manufacturing practices ranging from lean, agile to leagile continues to be a pressing one. This assertion was tested using data from sample of 103 small and medium factories randomly selected from Kampala Capital City and Western region of Uganda. Quantitative data collected from factory managers were analysed using regression. In the analysis, the contributions of three practices of lean, agile and leagile manufacturing in improving factory performance were examined. However, the results revealed mixed findings regarding the benefit of adopting individual practice. For instance, the findings indicate that factories exhibiting higher level of agility are able to improve their performance. This implied that as factories strive to improve performance, emphasis is put on integrations of components and processes, collaborative strategies and customer sensitivity to quickly dispose products to the unpredictable market at a less cost. However, within the context of agile manufacturing practice, regression results further revealed that small and medium factories would perform better if they focus more on process and information sharing dimension of agile manufacturing. Surprisingly, the influence of lean and leagile manufacturing was not supported statistically. Overall, the influence of lean and leagile manufacturing revealed statistically insignificant influence perhaps due to the fact that these practices require substantial amount of resource for their successful implementation. However, within the context of leagile manufacturing practice, transshipment revealed a statistically significant effect on factory performance. This finding indicate that insignificance of lean and leagile manufacturing should not be generalized for all factories, probably as small and medium factories expand their scale of operation, they should pay attention to promoting lean and leagile manufacturing. Based on the findings, the study recommends that managers of small and medium factories need to understand the characteristics of their customers and vitalize their agile competencies to gain competitive advantage in ever-changing environment.