

Digital technology application among Malaysian value-added wood products manufacturers

ABSTRACT

The application of digital technologies (DT) has been on the increase within the manufacturing industries since a decade ago. It has been widely suggested that the onset of the COVID-19 pandemic has accelerated the adoption of DT in manufacturing industries worldwide, as countries have tried to contain and mitigate the spread of infection through lockdowns and stringent standard operating procedures (SOPs). Hence, a study was undertaken to evaluate this trend in the Malaysian wood products industry, and to identify the key DT used. A questionnaire-based survey was implemented and targeted at the furniture, moldings, and builder's joinery and carpentry sub-sectors, with the assistance of the relevant trade associations. A total of 477 responses were obtained, and it was found that digital technologies, such as computer aided design (CAD), computer numerical control (CNC), digital communication, digital marketing, and enterprise resources planning (ERP) systems, were highly adopted, but they did not significantly differ in terms of company size or product type. However, the rate of adoption was not uniform, as 5% of the respondent companies did not adopt any digital technologies. The study revealed that wood products companies adopted digital technologies that boosted their production and marketing, while those with limited DT adoption were more severely impacted during the pandemic.

Keyword: Digital technology; Wood products; Covid-19; Labour intensive; Marketing; CAD; CNC