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Business Process: Automation And Optimization Considerations In Hardwood Lumber Manufacturing

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ABSTRACT

Historically, the hardwood lumber natural resource industry has been portrayed as a relatively low-tech industry. Most hardwood sawmills do not adequately consider the potential benefits of information systems enabled applications and solutions to enhance overall yield and efficiency. However, as computer-based technology is implemented across the entire manufacturing process, advanced optimization and automation could improve overall yield value to seventy percent or more (if properly applied). The primary purpose of this experiment is to evaluate the major benefits of using optimization and automation in the scanning carriage manufacturing component of sawmill production, including maximized efficiency and yield recovery. In addition, a significant impact comes by minimizing the wood waste, as well as by maximizing wood conversion efficiency in the manufacturing process, benefitting the environment. By maximizing efficiency while minimizing waste, the lumber industry can reduce its consumption of natural resources further aiding in the environmental resource gap as well.

Keywords

Lumber industry, optimization, automation, natural resources