Automation and Operations Management

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Businesses today deal with the pressures of doing more with less but still do it in a way that coincides with their operations management strategic plan. Bridging both automation and the operations management workforce allows companies to increase productivity and minimize their operating expenses. Using automation as part of the operations management strategic plan helps organizations decrease production time and costs, eliminate human error, and compensate for labor shortages. Companies have implemented robotics and automation for various factors that require a solution to a problem.

Factors driving automation and robotics

Several factors are driving the use of automation and robotics in operations management. These decision-making factors must deal with costs, labor forces, solutions to problems, quick delivery, and quality control. Businesses need to consider how automation will best serve them while increasing their productivity and bottom line.

A surge in Last-Mile Delivery

Amazon started the trend of mailing packages that arrived to consumers the same day they ordered products. Since Amazon was able to accomplish this in certain cities, consumers' expectations shifted; therefore, the use of automation and robotics increased to meet these demands. Fulfillment centers were built across the country and fitted with robotics that can meet these demands quickly and accurately (Randy, 2022).

Automated Solutions for Smaller Spaces

The technology for automation and robotics has allowed these processes to be made for compact spaces, increasing interest in demand for under 5,000 square feet companies. Small

businesses are using these automation processes effectively and productively, allowing these organizations to mitigate the cost of opening another distribution location (Randy, 2022).

Quality Control

Another factor influencing the increase in businesses using robotics is quality control. Unlike humans, robots do not get tired and mitigate errors. Humans make errors; therefore, they put the quality of manufactured goods at risk and can be costly for a company to correct. Repetitive tasks can cause injury and wear an individual's joints or ligaments, adding to a company's expense with medical claims. These repetitive jobs are best suited for automation and can be fine-tuned through robotics (Fuller, 2022).

Inflation and Robotics

Increasing prices is unavoidable in an inflationary economy but can be minimized using robotics. Robotics can reduce expenses in manufacturing and warehousing. Companies that implement automation and proper software within their manufacturing processes can help executives during the decision-making process regarding when to raise prices; furthermore, in a way that can give a company a competitive advantage over its competitors (Randy, 2022).

Costs

Although implementing automation and robotics is costly, it does reduce a company's expenses in other ways. Employers save money by hiring and training new employees, sourcing workers through a temp agency, and reducing manufacturing delays. Robotics and automation will pay for themselves long-term; furthermore, basic tasks will become cheaper, and more output and higher productivity will be achieved, mitigating the initial investment expense (Fuller, 2022).

Conclusion

Incorporating automation and robotics into a business has many benefits, such as expedited delivery times for consumers receiving goods and ensuring they receive quality products. However, for small businesses, adding them as part of their operations management strategy may be too high of a burden to undertake, even though the costs would be recouped long term. The best way to implement automation and robotics into a business is with a well-thought-out organizational strategic plan.

Reference

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