

ABSTRACT

The advancement of industries demands fierce competition to provide products with high quality and competitive prices. This can be achieved, among other things, by improving the efficiency of the production process, which is commonly designed by indirect workers and eventually executed by direct workers. Before making improvements, it is necessary to know the current efficiency condition. There are several methods that can be used to calculate efficiency, such as two well-known methods: SFA and DEA. However, since 2010, a new method has been discovered that can utilize the advantages of previous calculation methods. In 2021, a module was designed to facilitate the implementation of StoNED using the Python programming language. By using pyStoNED, the current inefficiency condition at PT. XYZ is found to reach 9% based on financial report data from 2019-2022. Building upon the inefficiency that occurs, improvements are made in various aspects, usually related to information systems to increase productivity. The improvement program design is carried out using Excel VBA, which utilizes features ranging from modules to forms to expedite information processing. With all the improvements that have been made, a reduction in inefficiency is achieved, reaching 84% from the previous condition or from 41.99 to 6.82 hours per month based on VSM, with achievement against the Business Plan target of 12%.