DISEÑO DE UN MODELO MATEMÁTICO PARA UNA EMPRESA FARMACÉUTICA ECUATORIANA

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Abstract

The objective was to carry out a bibliographic review accompanied by a statistical analysis that supports the design of a mathematical model for an Ecuadorian pharmaceutical industry. A methodological approach that makes it possible to explore a path providing relevant aspects for the analysis of a pharmaceutical production process, using a study of the state of the art complemented with the determination of its variables and the statistical ratification of them.

A qualitative-quantitative approach is shown that makes it possible to determine variables through unstructured interviews with the personnel of the process, determining variables for the subsequent design of a mathematical model. The qualitative-quantitative approach addresses the objective of the research, making it possible to understand through a bibliographic and statistical support the origin of productive and logistical variables that will form part of a mathematical model.

The mathematical model is designed base on the specific business needs being differentiated by its novelty and applicability to the productive process of the organization subject matter. The results reveal an optimization of its operations according to the customer needs, by considering the demand, inventories, production and staff that works on that productive process.

Keywords

Bibliographic review, statistical analysis, mathematical model.