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Tesis

Implementation´s Influence of an Inventory Control System with Sure Step Methodology in Euro Peru S. A. C. Company

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Implementation's influence of an inventory control system with sure step methodology in Euro Perú S.A.C. Company

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Euro Perú SAC is a company that manufactures leather shoes for women, however, the order of production of the final shoe products is not organized properly, it only has a basic file, as a result of this poorly organized process, there is a delay constant in the development of products and excessive expenses for additional purchases, affecting inventory management and the company's economy. In response to the company's problems, it is desired to implement an internal control system using the kardex methodology to improve inventory management, improving learning in systems and adapt to machine learning. For the implementation of the Kardex system, the Sure Step methodology was used and then the Kardex methodology was used, based on good practices. For the research, the quantitative approach was used with the explanatory scope, likewise, "the pre-experimental research design" was used, in addition, the sample of 8 types of leather corresponding to 3 categories of a population of 100 types of leather was defined. , the pre-test and post-test was also applied with the recording technique and registration form instrument, once the kardex system was implemented, the "Shapiro-Wilk normality test" was carried out, resulting in the 4 indicators having a normal distribution. To subsequently perform the Student T test which was less than 0.05 in the 4 indicators, therefore, the implementation of an internal control system improves the management and integration of information within the organization. In the conclusion it is mentioned how the methodology influences the successful implementation of the inventory software, and it is also compared with other research where it confirms the positive influence of the methodology proposed in this study.

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Additional Keywords and Phrases: Kardex methodology, Sure Step, inventory management , Shapiro-Wilk

1 Introduction

In Peru there are many shoe producing companies. According to the Ministry of Production, the footwear manufacturing chain in Peru is made up of more than 5,600 companies. Approximately, 93% of them are microenterprises and are located mainly in the cities of Lima, Villa El Salvador and Rímac; and in Trujillo, in El Porvenir [1]. The company Euro Peru SAC is considered a micro-enterprise with sales in Huancayo, Lima, and different cities in the north of Peru, however in the production order process, the company had different inventory control difficulties, taking advantage of this deficiency, an inventory system was implemented, focused on the category of shoes, when carrying out the investigation it was possible to find the points to be resolved [2]. the costs affect the company in some cases are known as a penalty they propose Reward Constrained Policy Optimization, or RCPO, which incorporates cost functions as a penalty signal in the reward function. This penalty signal guides the policy towardsviable solutions[3]. This is why supply chain inventory management (SCIM) is a critical challenge faced by several companies; It involves making decisions about the number of lots to be produced in the factory and how many of them are sent to each distribution warehouse[4]. Some strategies taken for an equilibrium, when inventory is high, a middleman posts a lower retail price for accelerate sales and reduce the wholesale price to slow down purchases[5]. Other strategies are data-driven evolutionary algorithm to efficiently solve the service-constrained inventory optimization problem using historical data generated by supply chain digital twins [6]. We consider a two-product retrial queue inventory system with holiday interruption. When purchasing the first product, the second product is provided as a complementary item. In contrast, no item is offered as a gift for the purchase of the second item. Only the first product is stored in dedicated shared storage for replacement when it fails [7]. Some companies make decisions such as The objective of maximizing total profit per unit of time by determining the optimal order quantity, the selling price of the product, and the duration of the economic cycle [8]. By taking measures to solve these problems, challenges are faced in the process of solving the bottleneck of companies. The challenges of inventory management are to optimize inventory levels, minimize stockouts and optimize the production process. the supply