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Facultad de Ingeniería y Arquitectura

Carrera de Ingeniería Industrial

LEAN MANUFACTURING PRODUCTION MODEL TO INCREASE PRODUCTIVITY UNDER THE DMAIC APPROACH IN PERUVIAN SMEs GARMENT MANUFACTURERS

Tesis para optar el Título Profesional de Ingeniero Industrial

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Lean Manufacturing Production Model to Increase Productivity under the DMAIC Approach in Peruvian SMES Garment Manufacturers

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Abstract: In recent years, exports of the clothing textile sector in South America has been surpassed by countries in Central America. Peru is the only South American country with a relevant position, so it has a great opportunity at the regional level to be the leader in the clothing industry. The present work seeks to face the challenges of Peruvian clothing companies related to time, cost, and above all product quality. According to the aforementioned, it is essential to monitor all production processes to find the most notable deficiencies. Likewise, it is possible to conclude that the common problems of the sector under study are about the level of productivity and quality control. Because of this, the presentation is based on a complement of the Six Sigma, 5S, and Standardization tools of the work in a Peruvian textile company; all the data is executed in a simulation in the Arena software to corroborate the variation in productivity. Using the proposed model, thus obtaining an 82.98% increase in productivity.

Keywords: 5S, Standardized Work, textile company, productivity, DMAIC

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