

FACULTAD DE INGENIERÍA

Escuela Académico Profesional de Ingeniería Industrial

Tesis

**Application of the SLP Methodology to Improve
Productivity in SMES Textiles**

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Application of the SLP Methodology to improve productivity in SMEs Textiles

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Abstract. The use of the SLP (Systematic Layout Planning) methodology presents the capacity of an optimized design of the work areas of the entire company, showing an optimization of the productive processes. Twenty-one textile SMEs were analyzed, taking as a reference one of these companies because they share similar characteristics to which the SLP methodology was applied for its study. This model was applied taking as references the processes that are carried out from obtaining the raw material to the packaging for its commercialization, also the measures of the space and the execution times of each area were used. The result was an improvement of 29.09%, that is to say, what the company used to manufacture 55 garments, by applying the methodology it is possible to manufacture approximately 71 garments, due to the reduction of transportation times and the elimination and/or redundancy of processes. In future research, it is expected that the methodology presented will be applied on a large scale.

Keywords: Commercialization, industrialization, optimization, production.

1. Introduction

Globally the economy is a priority in each country, among the main economic activities are mining, agriculture, tourism, etc. Additionally, the textile sector plays an important role due to the fact that it is complemented by other main activities, for example, when tourism is carried out, it is used to promote the textile industry of the place, also when the commercial deal is made at international level, this manufacturing is an essential economic support in countries that are developing, as well as Latin American and Caribbean countries, and it also contributes to the advancement and progress of the locality [1][2].

Each place has similar characteristics, for example one of the main producers of clothing and the largest number of textile industries in the world is China [3], with the increase of textile industries there is also the increase of electrical components and these produce heat, these problems are seen in countries such as Taiwan, China and Japan