

DIPLOMA THESIS
Process optimisation in the laboratory of a pharmaceutical company
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Abstract

The surrounding conditions in the pharmaceutical industry as well as the provisions of national and international law due to the specific products lead to some particularities that complicate generating an appropriate income return for firms doing business in this line. According to § 1 of the Austrian Arzneimittelgesetz, drugs are substances or preparations of substances that according to the common customary usage or the character and form of placing on the market are intended through application on and in the human or animal body to heal, relieve, avert or identify diseases, sufferings, physical injuries or diseasedness pain. This definition indicates that the products of a pharmaceutical company need to be of good marketable quality. Therefore the state acts highly restrictive. In this connection the laboratory of a pharmaceutical company has the duty to check compliance with these requirements and not till then the drugs are allowed for sale.

The aim of this diploma thesis is to analyze the laboratory of a specific pharmaceutical enterprise to identify options to counteract the cost pressure considering the special challenges in the pharmaceutical industry. Therefore documents of the laboratory were analyzed to elaborate the current processes which then were the basis for the interviews with the staff of the laboratory.

The analysis revealed some weaknesses in the laboratory: processing errors, lack of expertise, waste in the leadership, waste in the documentation, waste in the planning, waste in the bundling of activities and lack of structure. Based on the collected data and the concept of KAIZEN some opportunities for process optimisation were developed. These activities refer to a systematic advancement of the potential of staff (education, advanced training, activities in small groups, discipline in compliance with the characteristics of standards, incentive scheme), implementation of a Laboratory-Information- and Management-System, improvement of the technical equipment and the infrastructure, improvement of the planning, support of the improvement through collection and evaluation of Process Performance Indicators.