

# Abstract

This project's main idea revolved around conducting a feasibility study to establish a plant for producing PPR pipes to ensure the project will be successful or not in the West Bank.

The first step was to make a simple introduction that presented the problem, the most crucial project objectives, scope of work, significance of the project, and the report's organization.

The second step was a review of the literature, which is considered one of the essential parts that help in deep understanding, gives an overview about the level reached by science in this topic, and provides an opportunity to reach new conclusions, theories, and ideas.

Then, the methodology is a simple summary showing the products that have been identified, aspects of the production process required, steps that were followed to conduct the market study, in addition to an explanation of a simple summary about the questionnaire that was done, and steps that will be followed to complete both the technical study and the financial study.

The market study was started by completing a questionnaire that includes three basic categories. The questions for each category differed from the other categories. The questions aimed to study the volume of demand and supply, determine the product's market share, know the market's nature is monopolistic or competitive, and determine the most used and demanded PPR products, the production line that will be established depending on the diameters that most requested. Based on the preliminary analysis, we found that the market is competitive, the demand for these products is excellent, the PPR products that will be adopted are PPR and PPR-CT, and the project will be limited to one production line.

In the second semester, this project was completed, beginning with a detailed analysis of the market study, by identifying demand, target areas, competition, and others. After that, a technical study was made in which the machines and molds will be defined. And a 2D modeling for the production line and a 3D modeling of the extrusion die head, using the Autodesk Inventor software. Next, the financial study was defined to find out the investment capital and analyze many important indicators such as the rate of return, payback period, break-even point, and others. Finally, some recommendations and conclusions will be made in which a will be made whether the project is feasible or not.