

P R E F A C E

The present study evaluate's the working pattern, Operations and performance of the selected small scale agro based industries situated at Udyamnagar, Kolhapur. In this dissertation applications of quantitative techniques is done to small scale agrobased industries. The Researcher has shown how one can apply quantitative techniques to data collected from the small scale industries. The study gives optimal combination of products which gives maximum profits to the industries. The dissertation not only highlights the importance of the quantitative techniques to small scale industries but also how one can utilise the available resources in an optimal way to maximise the profits. Here only Linear Programming Problem, Inventory Control and Planning and Sales forecasting techniques have been applied. Bt one can study the importance of the quantitative techniques like transportation and assignment problem etc. if the required relevent data is available.

The selected industries are run by the partnership and sole proprietorship. This study has been an attempt to evaluate the significance of quantitative techniques for the small scale industries from the point of view of Optimal Production Mix and profitability. It was with a view to ascertain whether these quantitative techniques could be a viable mode for small scale industries for improving their working pattern, operations and performance.

~~In~~ all 10 small scale agro based industries are located in Udyamnagar, Kolhapur out of which 4 units have been selected by using simple random sampling method.

The essential data has been collected from the production planning department, inventory department and sales department for formulating linear programming model, inventory model and forecasting the sales, for the coming five years. The above details has been collected by personal observations and interviews. Four small scale industries have been selected for the comparative study regarding working pattern, operations and performance.

The present study has been covered in five chapters

The first chapter takes account of the Scope, Objectives, Methodology and Limitations of the study.

The second chapter offer a brief profile of the selected small scale industries situated at Udyamnagar, Kolhapur. This chapter provides us necessary background, working pattern, operations and performance regarding the selected industries. And also provide the information regarding uses of agricultural impliments.

Third chapter, regarding the theoriatical introduction to the subject. This chapter provides importance of Quantitative Techniques in business and industry, and their field of applications, Linear Programming Problem its importance and applications.

Chapter Fourth concentrated on developing linear programming model, Inventory model, and forecasting of the sales for the coming five years for these selected small scale industries.

Chapter Fifth presents the main Conclusions and Suggestions.

1. The management of the small scale industries should apply the available Quantitative Techniques for the production department, Inventory department which improves not only the overall functioning and performances but also profit margin of the selected industries.
2. The industries should utilise scarce resources such as Machine, Manpower, Money, Time etc. in an optimum way. which gives maximum profit.
3. Depending upon the industries financial capacity they should try to modernising the available machines.