Organization of Report:

The first chapter is devoted to the introduction of project work. The report includes the (national) importance of the project (considering the past performance), the expected growth of the market share of a product, its importance to small-scale industries. The chapter also explains the importance of the project to various Institutes and several research scholars. The broad objective to undertake this work is also reported. The work carried out to achieve the stated objectives is reported from the Chapter Two onwards.

The second chapter deals with the report of literature review. The literature review is reported in three main sections. Literature study contains also the study relating to Design and Design Problem Formulation. This report is devoted mainly to find out the importance of Customer Preferences and its importance in product design selection. The study contains the details such as Design Definitions, Quality Concept and Quality for Design, Quality Function Deployment, DOE, Taguchi’s Method, Product Design and Industrial Design, Study of various Design Parameters, and study of various researchers contributed in this area, etc. The next section deals with the study of SSI, the status of R & D work in SSI, growth, performance, and sickness in SSI sector, etc. The remaining chapter is devoted to report the gap found in the literature study followed by objectives finalized for this study.

The chapter three is devoted for reporting the research methodology selected and used for this work. The research methodology reports the various approaches selected, the various steps followed for completion of this work and the justification for these steps. Then, this chapter reports the design of fieldwork. The fieldwork consists of six field studies. These are classified in six groups: (a) report of six practical case studies, (b) one pilot survey, (c) report of analytical study, (d) hypothesis testing, (e) designer’s preferences using pair’s comparison method, (f) stakeholders preferences.

The chapter also contains the detailed report about the research design for experience survey. It contains method used to finalize the design parameter. The report includes the decisions with justification for various aspects such as the objectives of the survey, type of population, sampling unit, sample size, plans for data collection, design of data collection instrument, pre-test for questionnaire, selection of method for data analysis, etc.

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The chapter four contains the report about the process of the data collection and experience survey. It reports the list of collected data in the tabular form of field studies and pilot survey. Six units, two successful, two moderate successes and two sick units are studied in case studies. The reasons for the success or failure are analyzed and the role-played by design in it. A pilot survey is reported in this chapter, it was carried out to understand the design awareness and its use in small-scale industries. Stakeholders and pilot product is confirmed from the analytic study. Based on these conclusions the experience survey is planned and reported in the next chapter.

The chapter five contains the detailed report on the analysis and findings. This chapter reports the results of the Univariate, bivariate and multivariate analysis. It also includes hypothesis testing using t-test; Pair’s Comparison Method used for finding the designer’s preferences. The results of analysis are presented in tabular form as well as in graphical form. The observations after analysis and the conclusions are also reported in the following chapter.

The chapter six is devoted to the discussions of findings, conclusions, and recommendations regarding observations and analysis of the data. The conclusions are listed after the critical discussions. These conclusions are suggested to optimize Design Parameters and improve the customer satisfaction of the user about the product. For improving the performance, the recommendations are listed in this chapter. The recommendations are for existing entrepreneurs, new/potential entrepreneurs, to Universities/Educational institutes to frame/modify the syllabus to educate the students and entrepreneurs for modeling and decision-making. Recommendations are made to the government for policy decisions like establishment of Technology Park, Design Park, etc. This chapter also lists the contribution and further scope of the research work in the area. The references and appendices are attached in support of this report.