ABSTRACT

The research titled “IT strategic framework for sustainable ERP implementation in the Apparel Industry” is a study aimed at providing comprehensive solutions to sustainable ERP implementation in the apparel industry. The main objective of this study is to identify various ERP systems used in the apparel industries, identify the barriers by using the ERP systems and difficulties involved in the implementation process and offer a set of guidelines to adapt for implementing ERP systems in apparel industries.

The methodology followed for the research includes review of literature relating to ERP implementation in the apparel industry and critical success factors with regard to implementation. The review also included the analysis of case studies from the apparel industry sector, reports published by government agencies, consultants in the industry and analysis on the salient features of various ERP applications used in the apparel industries. Further, revised version of the questionnaire was finally administered; it includes general information, technical, technological, finance, vendor, features used, and benefits derived from ERP implementation.

This questionnaire was tested through a pilot study of 21 companies and the questionnaire was fine-tuned and made use for 200 companies; out of which responses have been collected from 117 companies. Data collected were analysed by using SPSS software. The findings of the analysis revealed that apparel industry face issues relating to implementation primarily due to
lack of expertise in adapting ERP applications. The study also revealed that apparel industries where ERP is in practice were facing issues relating to the up-gradation as the needs of the organization are ever growing and dynamic. In order to address these issues, a solution in the form of Road Map is recommended to the apparel industries for the effective process of implementing ERP applications. Yet another solution is proposed to the industries where the ERP is already implemented, inorder to make the ERP more sustainable in the form of a Framework. Further, in the framework provided for sustainable model ERP, it was suggested to have an add-on solution to the existing ERP applications used in the apparel industries in lieu of upgrading the existing ERP application used by the industries. A model has been designed to address few issues identified in the apparel industries during the study. It includes a classical cost analysis and a simple warehouse management model. This web based model has been designed accordingly, and can work independently or as an add-on solution for the present use of ERP in the apparel industry.

In the classical cost analysis model, the application throws light on solution to calculate the actual profit made out of each style on the completion of manufacturing a particular style by comparing it with the projected cost. The advantages of classical cost analysis model proposes the actual profit gained out of each style, by identifying the deviations in each parameters in which the cost is defined; In addition to analyzing the cause for deviation and the productivity in manufacturing the said styles. The Simple warehouse management system provides solution for effective space
and stock management practice. This module enables the organization to identify the availability of space in the warehouse, its utilization, appropriate management so as to identify the dead stock.

The Performance evaluation has been carried-out for the proposed classical cost model by using simple and multiple linear regression and the results are discussed in Chapter 6. Similarly, performance evaluation has been carried-out in the simple warehouse model to identify the warehouse capacity utilization along with reports simulated from the sample data based on the proposed algorithm. The final chapter focuses on the limitations of the present study and foresees the scope for future research for the effective ERP implementation in other manufacturing process based industries too.