The Indian textile industry is one of the largest sectors in the world. The trend in clothing changes day by day. Textile industries always have to run along with the needs of the customers. Textile industry generally involved not only the procurement, manufacturing and distribution of the product but also channel management and sales generation. Quality control is also a very important part of the industry where, like any manufacturing company, the quality of the raw material to the finished good is important. Good quality leads to a better extended life which is an important criterion for the consumers to buy the product. A textile solution makes it easier for the vendors to manage all the processes from one place while keeping their control in check. To satisfy the needs of their customers, the industries adopt many technologies. One such technology they use is Enterprise Resource Planning. They adopt this to integrate their various departments like R&D, sales and marketing, manufacturing, human resources, financial and so on and various processes like spinning, weaving, dyeing, printing, finishing and packing. A good ERP in textile industry helps organization to maintain their inventory, quality control, manufacturing process, distribution and finance. All the major processes of textile industries like production tracking, material requirement planning and production schedule and also in reduction of cost, management of inventories and timely distribution of goods can be solved using enterprise resource planning. Initially, due to its high costs, only multinational companies adopted ERP. But nowadays there are many ERP packages available in different cost. Hence many small and medium companies have started using ERP. Tirupur is a major textile and knit wear manufacturers and exporters in India. Many of the textile industries here are using enterprise resource planning to eliminate the wastages in the form of material, energy and inventory. The purpose of this article is to identify the usage of ERP in textile sector quoting some success stories.