

**ROAD MAP FOR ADD-ON MODULES FOR SUSTAINABLE ERP  
SOLUTION FOR APPAREL INDUSTRY**

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**ABSTRACT**

*Enterprise Resource Planning applications are implemented in various industries to automate the processes of the organization. Organisation take necessary measures to ensure the features provided in the solution covers entire automation of the organisation processes, while taking the organisation's growth factor in to consideration. Ever growing needs of the market and dynamics of the business increases the desire to add more features in the ERP solution used in the organisation. In order to achieve operational excellence and get the best on Return on Investment it is proposed to have add-on modules to cater the needs of the organisation. This paper discusses about the Road Map for Add-on modules for exiting ERP applications used in the apparel industry.*

**Keywords:** Apparel Industry, ERP implementation, Upgradation

**Introduction**

Enterprise Resource Planning provides a complete technological solution to integrate and streamline the organisation processes and ensure a smooth flow of information. It bridges the information gap across the organisation and facilitates to integrate the resources of the business. The ERP provides a solution to eliminate issues related to material management, productivity, customer service, cash flow, finance management, quality, inventory, delivery and so on.

Apparel manufacturing process is as good as any manufacturing processes such as automobile, pharmaceutical, steel manufacturing etc. Apparel Manufacturing has set of processes which are interrelated and share vital source of information from one another. Ready to use ERP applications are widely used in the apparel industry. Organisations needs are ever growing it's never possible to upgrade the ERP software frequently. Organisations

re-engineer its processes in order to adapt best practices, new techniques and innovations to excel and compete in the business. In order to carry out its processes reengineering and cope up with the changes, organizations make changes in the ERP application by customizing the existing ERP application according to the growing needs of the organization. Dependency Level of the organization with software vendor and implementation agency does not give adequate provision to make changes every now and then as it requires time, money, testing, training and deployment.

### **Data Analysis**

A study was conducted in the apparel industry, nearly 200 industries where ERP has implemented with about 50 in Chennai, 100 in Tirupur and 50 in Bangalore. The questionnaire was distributed among these industries and only 117 industries have responded. The response rate is 58.5%. Out of 117 companies, 27 industries were from Bangalore, 69 industries from Tirupur and 21 industries from Chennai. In order to understand effective ERP implementation in the Apparel Industry, data collected from the 117 industries were analysed under broad outlines such as ERP Implementation, ERP Technical information, ERP success factors – Organisational perspective, Human Resources perspective, Technology Environment, ERP Failure analysis, Major CRUX in ERP implementation and other features.

The study revealed that most of the industries were not satisfied with product based manufacturing cost calculation and analytics on cost analysis. Industries are also looking or more features in warehouse management, stock tracking features stock handling features and physical stock analytics in the existing ERP application.

This indicates that there is a crux in the existing ERP software used in the apparel industry and there is a scope to address the following areas

- Calculation of Manufacturing Cost
- Cost Analysis Report
- Warehouse Management and
- Stock Management

In order to incorporate the requirements of the industry the ERP application used in the industry has to be upgraded or new module has to be procured in the market and integrated to

the module used in the organisation or new ERP application has to be procure. All these options are time consuming and requires lot of time.

### **Software Upgrade Issues**

Every software company releases upgraded version of the ERP application based on the current trends and requirements. Upgrading the existing ERP application is not very easy. Organisation encounter difficulties during the Upgradation process and they are Technology related, Project Management Related and Business strategy related.

#### ***a. Difficulty related to Technology***

Cost involved in upgrading existing hardware, IT infrastructure and software plays a significant role in decision making. In case the upgrade is developed on a Newer version of backend the organisation has to invest on the software upgrade, similarly upgrade is developed with a new technology which requires new infrastructure. Organisation has to invest on the infrastructure in replacing exiting technology.

#### ***b. Difficulty related to Project Management***

Project Management related difficulties are primarily classified in to the upgrade strategy, parallel projects and training. Organisation needs to have an *upgrade strategy* to perform technical upgrade in place before carrying out the functional and strategic upgrade. Upgradation process should be carried out as a *parallel project* so that the existing project is not disturbed. However new processes needs to replace the existing ones where ever there is a change in the process. Team needs to be prepared for the upgrade by completing *Testing, Training and documentation* processes.

#### ***c. Difficulty related to Business strategy***

ERP upgradation should not take place when the market conditions are not conducive such as market recession, business merger, and when the market is volatile. Organisation should take the following parameters in to account while proceeding for

customisation such as new functionalities which takes time to deliver, down time, delay in deployment etc.

In general the upgraded versions of the ERP application cover general features but not the customized portion of the client. The process of upgrade generally takes about 3 to 5 years which is not a tolerable time. This provides a scope for an add-on solution.

Many of the ready to use ERP applications are available on Cost of Ownership (TCO) basis. Garment companies buy these ready to use software and host it and maintain it with the internal resources which are trained by the vendor. These organisations has more flexibility in terms of modifying and customising the product according to their requirements in post implementation phase.

Organisation can take a decision on the new requirements and add new features based on the business needs, enhance the business intelligence and business analytics. Add-on feature can bring in a measurable business impact in the areas of operational excellence and business strategy. Add-on feature also Reduces the risk on IT investment, ensures sustainability and reduces Total cost of ownership (TCO) in acquiring on upgrading new modules. Organization needs to have a defined strategy which include the scope of the project, project duration, return on investment and ensure that the process increases the business value, existing functionality and fulfils the organisations objectives goals.

### **Road Map to add-on solution**

Add-on solution has 3 distinct phases as functional enhancement, strategic enhancement and technical upgrade.

### **Functional Enhancement phase**

This phase focus on increasing business value by implementing the most valuable functions that are created and laying the foundation for future business innovation and improved process automation. This phase is Directed toward business benefits. Operational excellence is improved by picking and implementing best practices - functions that offer the greatest business benefit with the least effort.

### **Strategic Enhancement phase**

This involves implementing new and optimized business processes and scenarios that fully exploit new ERP functions and enable Enterprise SOA (Service-Oriented Architecture). It may include implementing other software systems or components and is very much dependent on the business needs of your organization. Enterprise SOA enables you to shorten application innovation life cycles and implement strategic business enhancements at your own speed.

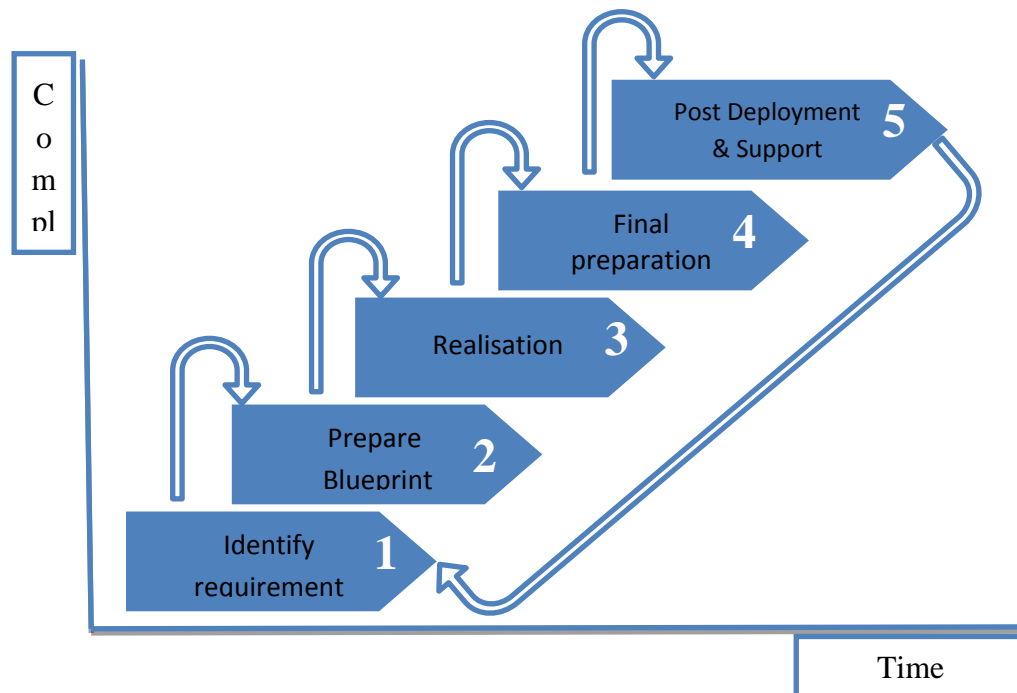
### **Technical Upgrade Phase**

This phase involves a purely technological upgrade whose major goal is the implementation of the new software release as the foundation for all subsequent improvements. The impact of this phase on business processes is very limited:

- Previously used business functions are retained
- Modifications and custom developments are reduced (which reduces cost of operations and system complexity)
- Universal code conversion shall take place in order to make the code compatible to the new versions.

The technical upgradation simply creates the basis for functional and strategic enhancements.

Road Map for Add-on module for Apparel industry



1. **Identify requirement**

Requirement identification is a first phase for this process which requires analyzing the actual situation, defining the objectives, preparing a project plan and carry out organizational preparation. New requirements projected should result in enhancing existing processes, improving quality, productivity and performance of the processes which are already in place.

2. **Prepare a Blueprint**

Preparation of a blue print with the system and components affected, business processes to be mapped and identifying the requirements regarding business data. The process flow to achieve the best results needs to be clearly defined.

3. **Upgrade Realization**

In this phase, the solution described in the design phase is implemented in a test environment. This creates a pilot system landscape, in which the processes and all their interfaces can be mapped individually and tested on the functional basis.

#### **4. Final Preparation**

The next phase in the process is final preparation which includes Testing and Training. However the processes which are developed to enhance the existing ones are deployed simultaneously to reduce the down time.

#### **5. Post Deployment and Support**

Deploy the Add on solutions to every ERP solution, post processing activities and solving typical problems during the initial operation phase.

#### **Conclusion**

Add-on model is expected to complete the cycle within two to three months as against 3 to 5 years taken for a complete upgrade of the ERP software. This again depends on the scope and complexity and also includes various other factors that depends on the system the ERP package under use and on the individual organisation's interest. This model eliminates the Risk factor in terms of acceptance, reliability bringing in a new system and stabilising the same.

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