Issues and Challenges with Product Life Cycle Management (PLM) System Implementation Guidelines

Chander Shekhar Devra

Abstract: Deployment of PLM System is today’s need for all commercial organizations. For successful implementation of PLM system solution, Commercial organisation adopt various available implementation guidelines. Sometime available implementation guidelines may results into un-successful implementation/ re-implementation. Each Unsuccessful / re-implementation leads to waste of time, money & efforts. There is a need for analysis of current available implementation guidelines with bit detailing in real PLM implementation project in Indian context specifically process manufacturing industry. Paper will provide reliable guideline for successful PLM implementation specific to Indian Process manufacturing Industries. It will reduce the failure rate of PLM implementation. It will provide faster PLM implementation. It will save cost & efforts for implementation.

Keywords: PLM System, successful, specifically process manufacturing industry.

I. INTRODUCTION

A. What is PLM (Product Lifecycle Management)

Companies dealing with product related activities facing more challenges year on year due to complex development process, complex workflow system, complex product data, and large team working across the globe. Aligning corporate strategy with product development/commercialization. Companies having pressure on cost reduction & shorter time to market for new products. Product lifecycle management (PLM) systems can be considered as important enablers for achieving true coordination and effective management of product development processes. PLM Strategy is used to work upon complex product related activities which works with People, Process & Technology. PLM Strategy start with product concept to commercialization and ends with product retrials. Product Life Cycle Management runs through various phases of product:

1. Concept
2. Design & Develop
3. Prototype & Pilot
4. Launch & Ramp
5. Production
6. Service & Support
7. Phase out & Retrials

Product Life Cycle Management Solution is IT based Tool which enables PLM Strategy.

II. AVAILABLE GUIDELINES

Zimmerman (2008) summarises findings from a study of a more than ten-year long PLM implementation project. In order to ease future projects, he recommends controlling project progression, dividing the project into sub-projects, and establishing a coherent multi-layered PLM architecture. A summary of the above guidelines is presented in Table 1.

A more detailed description of the above PLM implementation guidelines has been compiled by Bokinge (2011).

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<thead>
<tr>
<th>Guideline category</th>
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<tr>
<td>Project process</td>
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<th>Guideline category</th>
<th>Guideline(Level 1)</th>
<th>Guideline (Level 2)</th>
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| Project process    | • Divide project into sub-projects, perform a pilot project  
|                    | • Conduct pre-study prior to system selection plan carefully  
|                    | • Follow-up and control project process  
|                    | • Be prepared to adjust the plan when business changes  
| Goals              | • Define benefits for all stakeholders  
|                    | • Aim to satisfy rather than optimize.  
|                    | • Do not force the same solution on the whole organization.  
|                    | • Carefully estimate the magnitude of change  
|                    | • Select the Methodology Waterfall / Agile  
|                    | • Define the project Review Frequency  
|                    | • Do Project Initialization, Planning, Monitoring & Control  
|                    | • Prepare Detailed Change Management plan  
|                    | • Create the business need / Issues document in As-Is study.  
|                    | • Check whether Benefits get reaped after project closure. |
System and process design
- Establish a coherent PLM architecture
- Improve processes prior to or simultaneously with PLM project
- Align processes with system capabilities
- Only roll out tried software releases
- Minimise Customization

Organisation
- Ensure management support
- Involve users from all departments and disciplines
- Authorise the project participants
- Use expertise from third parties
- Educate system users

- Detail out the Business Process Re-engineering /Business Process Improvement & its impact on project timelines
- Detail out scope of work with actual users.

REFERENCES