LEAN CONSTRUCTION WITH FOCUS IN PRODUCTION PLANNING AND CONTROL: A CASE STUDY IN BRAZIL

Ramon Roberto Deschamps, Federal University of Santa Catarina, Brazil

Caetano Fontana Bez Batti, Federal University of Santa Catarina, Brazil

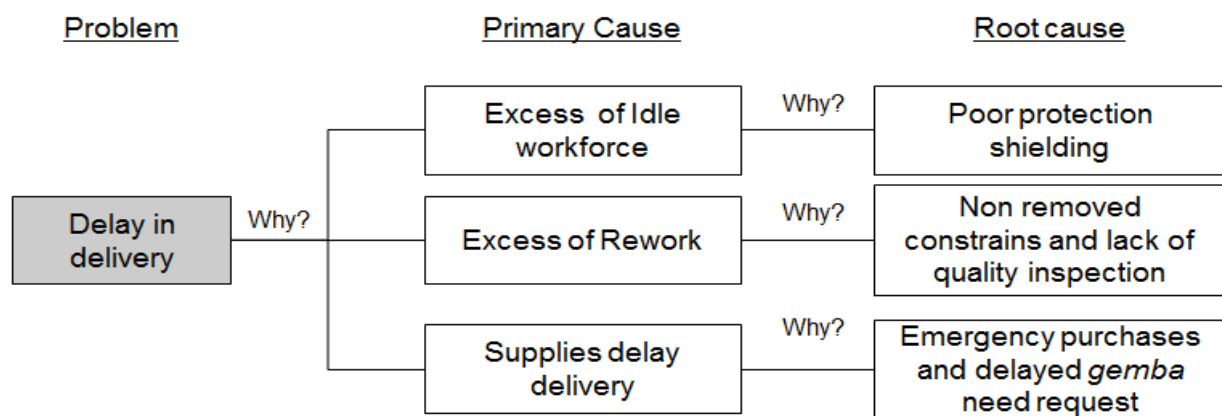## 1. Background and Current Conditions

Lack of production planning causes the managers to push the projects dead line forward in order to hide the wastes on gemba.

Characteristics of the studied company:

- 30 years of market experience;
- Residential and comercial buildings 7 to 17 floors;
- 6 ongoing projects (88.710,46 m²);
- Location: Florianópolis City – Brazil;
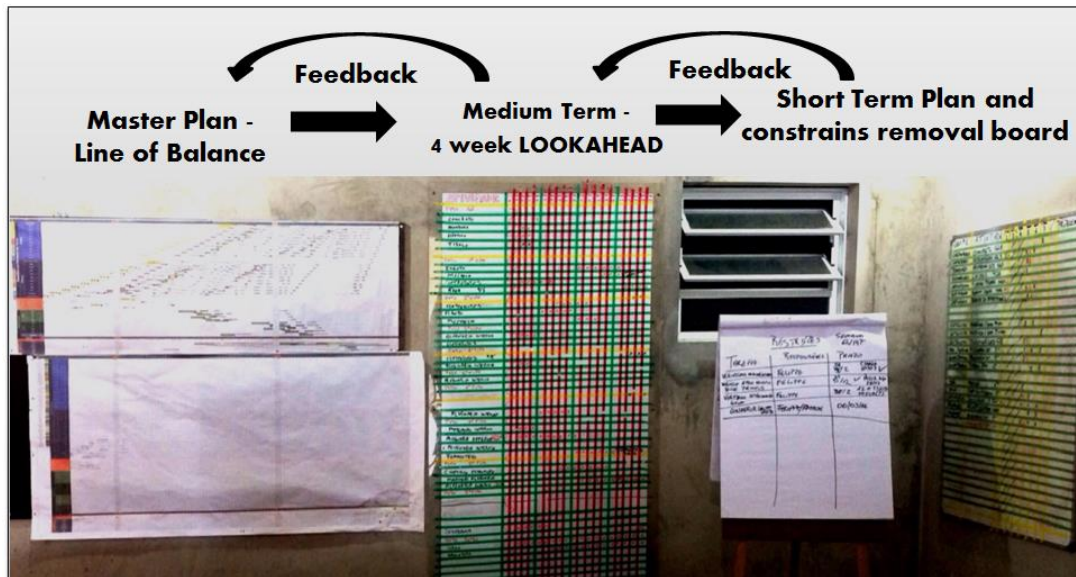- Small management gemba team.

2. Analysis

3. Goals and Targets:

1) Balance the activities by managing the manpower making it work in the same rhythm (takt);

2) Implement a regular meeting for planning the next week and remove constrains;

3) Always have the right material in the right place at the right time (JIT) with the lowest cost;

4) Eliminate 100% of rework;

5) Increase the proportion of variable salary workers;

6) Create a culture of continuous improvement and self-control in the company.

4. Proposed contra measures:

A systematic approach for planning and control of production for the company projects was prepared. This method was applied with success in the project and follows the logic described here:

5. Plan:

Activity	Responsible	Duration
1. Define Tools	Manager	15 days
2. Collect productivity	Intern	30 days
3. Define projects Dead Line	CEO (market)	5 days
4. Define rhythm and cycle time of each activity	Manager	60 days
5. Develop a supply purchase plan	Buyer and Manager	20 days
6. Bring Master plan to operational	Gemba Team	20 days
7. Constant Feedback (kaizen)	All Involved	∞ days

6. Follow up:

KPI	Before	After	Benefits
Delay services beginning (delay services / total services)	50%	10%	**80%**
Emergency purchasing per week	2	0	**100%**
Services complete with quality (services with quality / total services)	80%	100%	**20%**
Percentage of variable salary workers per total workers	20%	50%	**30%**