

(STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS) SWOT ANALYSIS LEADING TO IDENTIFICATION OF SIX SIGMA PROJECTS

During a Gemba walk to a cement organization (Cementia), a manager (Mr. Ajay) asked LASSIB Society team, “Why should we do SWOT analysis?”

One of the LASSIB Society Team Members (Mr. Govind) replied, “Completing a SWOT analysis will enable you to pinpoint your core activities and identify what you do well or what could be improved? And Why? It will lead you towards where your great opportunities lie, and highlight areas where you need to make changes to make the most from your business.”

Ajay: Oh! Can we use it in goal setting to help us identify goals that will give us the biggest benefit?

Govind: Yeah, Why not? We can do it for Cementia.

Ajay: How do we start?

Govind: First we need to set up teams according to their function. Then we will invite them to complete the SWOT analysis for their respective functions.

After 7 days, the workshop was conducted by LASSIB Society Team. Templates were distributed among all the teams. One team was from “Operation Department.” They identified their core processes. One of them was from “Limestone Crushing Operation”.

Teams were given an hour to complete their SWOT analysis. The Operations team prepared their SWOT as shown below in table.

<p>Strengths (Internal):</p> <ol style="list-style-type: none"> 1) Reliability Factor is 97.5% when compared to the organizational average of 97% 2) High Performance Factor of 98.7% when compared to the organizational average of 98.5% 3) 0 fatalities and 1 near miss incident over the last 10 years 4) 96% - 100% performance score in 5S audits, vs. an organizational average of 94.3% 	<p>Weaknesses (Internal):</p> <ol style="list-style-type: none"> 1) Utilization factor is 86% when compared to the organizational average of 93.6%, due to lower Reliability Factor for downstream equipment like Kiln 2) Lower Power Factor of 87% 3) 70% of operators retiring in the next 2 years 4) Notice from Pollution Control Department regarding Dust Emissions at 234 mg vs. norm of 112 mg
<p>Opportunities (External):</p> <ol style="list-style-type: none"> 1) Fail-over and load-balancing motors to eliminate Mean – Time – Between – Failures (MTBF) 2) Availability of quality Machinery Engineers for recruitment from the MaCaZaKa School of Machinery 	<p>Threats (External):</p> <ol style="list-style-type: none"> 1) Dust storms in the region stopping production 2) Increased flooding in the area around the crusher due to heavy monsoons in the region

3) Samara Crushers willingness to maintain consignment stock for crusher related inventory	3) Regional disturbances due to sensitivity between different sections of the community causes workforce unavailability
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After completion of SWOT analysis, LASSIB Society team asked all teams to convert their SWOT to potential Projects.

One participants asked, "How the SWOT's can be converted into Projects?"

LASSIB Society team explained that

- Strengths can be strengthened further
- Weaknesses can be resolved
- Opportunities can be leveraged
- Threats can be addressed and/or controlled

After that, teams spent half an hour to identify potential projects. For the "Limestone Crushing Operations" process, potential projects were identified:

Potential Projects:

Category	Description	Potential Project
Strength	Reliability Factor is 97.5% when compared to the organizational average of 97%	Improve Reliability Factor from 97.5% to 98.5%
Strength	High Performance Factor of 98.7% when compared to the organizational average of 98.5%	Improve Performance Factor from 98.7% to 99.5%
Strength	0 fatalities and 1 near miss incident over the last 10 years	Strengthen the Psychometric score of associates around Safety from 87% to 95%
Strength	96%-100% performance score in 5S audits, vs. an organizational average of 94.3%	Maintain the 5S audit performance score between 97% - 100%
Weakness	Utilization factor is 86% when compared to the organizational average of 93.6%, due to lower Reliability Factor for downstream equipment like Kiln	Increase Utilization factor from 86% to 93.6%
Weakness	Lower Power Factor of 87%	Improve Power Factor from 87% to 97%
Weakness	70% of operators retiring in the next 2 years	Create backups for hiring, with >90% skill of skilled operators, for taking up role 2 months before retirement of operators

Category	Description	Potential Project
Weakness	Notice from the Pollution Control Department regarding Dust Emissions at 234 mg vs. norm of 112 mg	Reduce dust emissions from 234 mg to 112 mg
Opportunity	Fail-over and load-balancing motors to eliminate Mean – Time – Between – Failures (MTBF)	Undertake cost benefit analysis of fail-over and load-balancing motors
Opportunity	Availability of quality Machinery Engineers for recruitment from the MaCaZaKa School of Machinery	Increase local recruitment by leveraging local higher-educational centers
Opportunity	Samara Crushers willingness to maintain consignment stock for crusher related inventory	Increase consignment stock for the crushers area
Threat	Dust storms in the region stopping production	Reduce or eliminate stoppages due to dust storms in the region
Threat	Increased flooding in the area around the crusher due to heavy monsoons in the region	Reduce or eliminate flooding in the area around the crusher due to heavy monsoons in the region
Threat	Regional disturbances due to sensitivity between different sections of the community causes workforce unavailability	Reduce or eliminate situations of workforce unavailability

Potential projects were identified by each functions. But as you can see, operations team in itself found total 14 potential project which are huge number for the operations team.

In the next blog, we will discuss how the LASSIB Society team helped operation department to prioritize potential project with the maximum benefits.