



NEWSLETTER

Arête

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Dear reader, we are delighted to bring you yet another edition of Arête. We have endeavoured to make each edition of Arête as fresh and content rich as possible. This time around we have added new case studies and knowledge nuggets, which we're sure you will find intriguing and enlightening. Please feel free to share your thoughts and views by writing to us at knowledge@ssa-solutions.com.
Happy reading!

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Chairman's desk



Dear reader, I take this opportunity to wish you and your loved ones a Happy Diwali and Prosperous New Year. In this edition, we bring you new case studies and knowledge nuggets. One of the featured case studies is that of a factory improvement exercise we helped deliver for an SME manufacturing industry in UAE. This exercise helped to identify opportunities for space saving, material saving, easy material movement as well as 5S opportunities for easy storage and retrieval of tools and dies. The second case study again pertains to a manufacturing unit in Middle East where we helped achieve CAPEX-free capacity expansion through correcting layout, flow and shop-floor controls and better equipment utilisation. In knowledge nugget, we focus on *Level Scheduling*, a valuable tool in the lean arsenal. From the history pages, we reminisce a Lean Six Sigma program we undertook for a prestigious public sector industry in India. In News, we are pleased to announce my book review session at the prestigious Royal College of Sri Lanka. Last but not least, I'm delighted to announce that *Arête* has completed one year in circulation, and we couldn't thank you enough for the continued patronage!

Case Study 1: Lean Improvement in SME Manufacturing



Situation: This project focused on bringing in lean systems and practices in an SME industry in UAE.



Actions taken: SSA facilitated re-design of floor layout, material handling systems, visual management and 5S systems.



Results: The new system helped in improving material handling, identification and traceability of tools and molds, improved material management, and better information exchange.

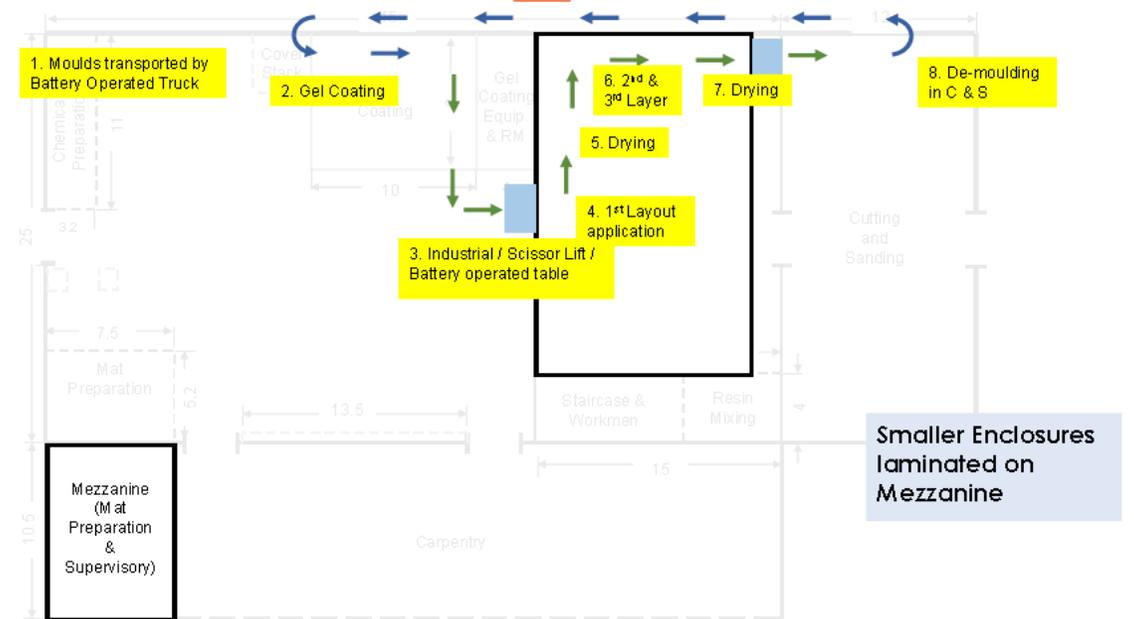
Situation – deep dive

The client wanted to bring in Lean Systems in the organisation with a desire to challenge entrenched practices and to build a change mindset among its workforce. The improvement themes were focused on reducing burden for people, improving information and material movement as well as improving overall shop-floor culture.



Actions Taken – deep dive

- A value stream mapping workshop revealed several improvement themes.
- These were classified into:
 - Material saving
 - Space saving
 - Ease of operations
 - Quality improvement
- Detailed solutions were developed and implementation action plan drawn based on immediate and long-term actions.
- The 5S efforts helped to clear out wasteful material and helped create a visual workplace for mould management.



Results - deep dive

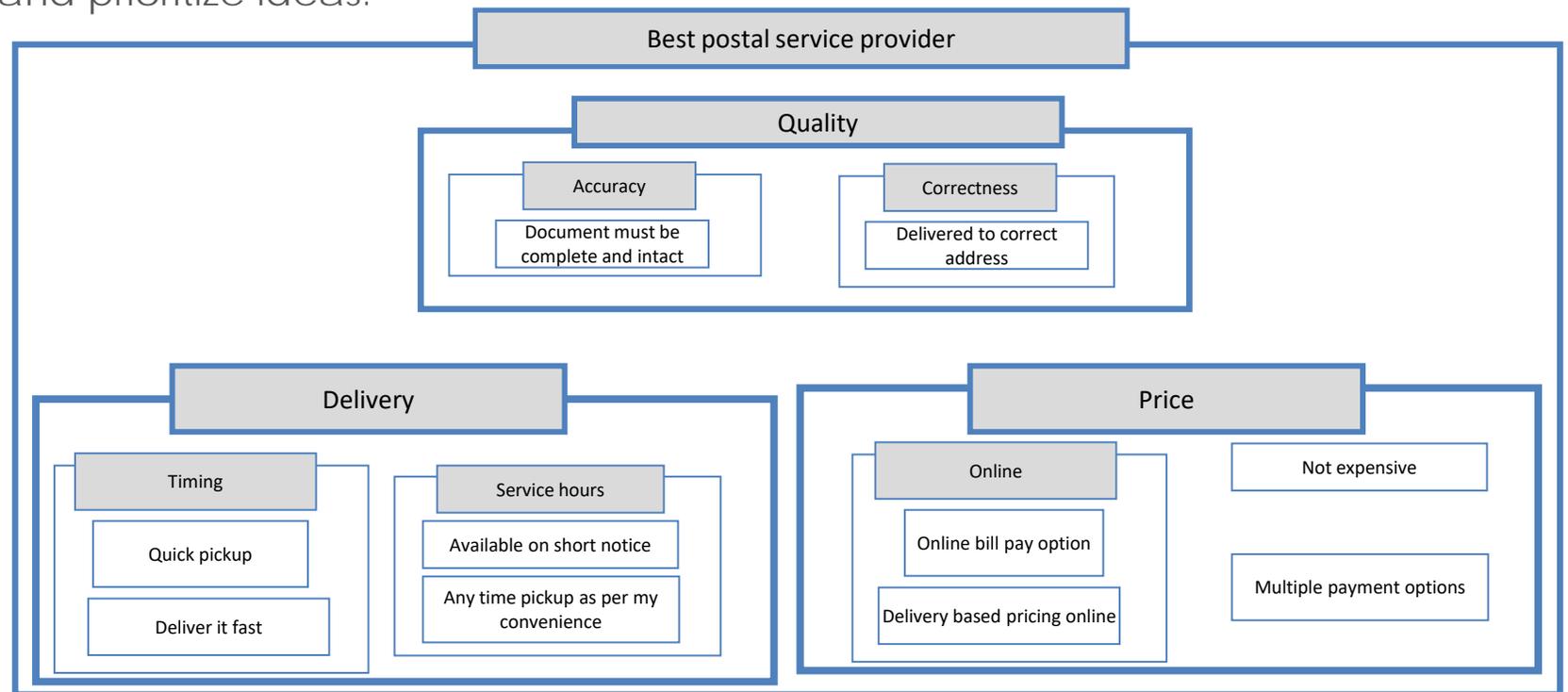
The news system promises to deliver the following outcome:

- Improved flow and ergonomics.
- 5S led to Bright and productive workplace. Also helped improve identification and traceability of tools and dies.
- Layout corrections heled optimise factory space.
- Visual Management helped improve shop-floor communication and helped boost morale of workforce.
- Future improvement plan heled create a 3 year plan to make the factory world-class with phase investment.



Knowledge Nugget: Affinity Diagram

An Affinity Diagram is a tool that gathers large amount of language data (ideas, opinions, issues) and organizes them into groupings based on their natural relationships. The Affinity process is often used to group ideas generated by Brainstorming and helps the team to quickly organize and prioritize ideas.



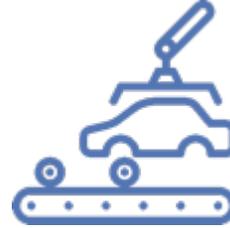
News: SSA Kicks off Lean in Utilities Sector

SSA is proud to announce that it has been chosen as the partner of choice by the utilities sector of Oman to drive a multi-year Lean transformation program across the group. This program aims to build lean competencies across the organisation and deploy several continuous improvement projects that will help solve burning issues as well as develop strong internal capability for Lean and Continuous Improvement.

The project aims to bring in momentous change in the sector and we are eager to share further updates in the days to come.



Lean Tip: “Level Scheduling”



Level Scheduling

Level Scheduling (also known as Heijunka) is a manufacturing technique that aims to create a smooth flow of production over a period. Its objective is to minimize disruptions caused by sudden changes in demand levels by matching the product family schedules with product-by-product schedules. To achieve the objectives of level scheduling, both the sales and production departments must agree on a fixed level of output volume and output duration. Heijunka helps avoid the inefficiencies of manufacturing in large lots by putting the production process closer in line with customer demand. The flexibility that Heijunka instills brings three benefits to manufacturing:

- Predictability – Happens when demand is level
- Flexibility – Achieved by reducing changeover time
- Stability – Averaging production volume and type over the long term

Organizations that implement a Heijunka system in their manufacturing processes can create a number of advantages over their competitors such as flexibility to produce what the customer wants when they want it, reduced inventory of unsold goods, balanced use of labor and machines and predictable demand on the upstream processes and suppliers.

Case Study 2: Eliminating Bottlenecks in Manufacturing



Situation: This assignment focused on increasing the production throughput close to 25% by re-engineering the production processes and developing the information flow velocity through lean in support function processes.



Actions taken: SSA undertook a complete diagnostic study of the value stream with an aim to identify gaps in current manufacturing system and designed the future state for the factory. This was Implemented in two stages i.e. demonstrator to garner support and buy-in followed by scale-up across the plant. Further the support functions were aligned to Lean manufacturing systems.



Results: Redesigning of the core assembly processes resulting in debottlenecking of constraint operation thereby enhancing the throughput of the line. Significant reduction in Production lead time and improvement in monitoring systems via performance dashboards.

Situation – deep dive

ABC Ltd (name changed to protect confidentiality) is a leading distributor and service provider of in the HVAC value chain in GCC region. This assignment focused on increasing the production throughput by at least 25%, developing the information flow velocity through lean in non-manufacturing processes.

This project focused on:

- Increasing the throughput by redesigning their core assembly process via demonstrator inculcating lean methodology based on diagnostic study of their entire value chain.
- Gap identification between manufacturing and support functions. Design of future state to align support functions to Lean manufacturing
- Visual factory production. Implementation of tracking & monitoring system.



Actions Taken – deep dive

- SSA embarked on the transformation journey through an executive leadership workshop
- **The Diagnose Phase (D1):** In order for diagnosis to be accurate, SSA mapped the end-to-end Value Chain to identify the pain areas across the value chain. Identifying the effectiveness of the current processes and setting up the baseline for future transformation. Detailed capacity calculation of the entire facility being carried out to gauge the constraint processes and available capacity in hand.
- **The Design Phase (D2):** SSA charted a Future State Value Stream Map via Demonstrator for the constrained manufacturing operation to re-engineer it. Detailed study of future process flow based on lean principles, resource identification, infrastructure & MHE identification were carried out. Full facility future state designs for horizontal deployment based on demonstrator output were created.
- **The Deployment Phase (D3):** Deploying the demonstrator for the chosen product family and running it for few weeks. Collecting the data to demonstrate the success and debottlenecking the challenges in demonstrator. Post demonstrator success, SSA embarked on the horizontal deployment with readiness of the entire facility (resource allocation, MHE readiness, storage systems, Kitting requirement, physical relocation of machines). Keen focus was attributed to Visual management of the entire facility which was facilitated by facility wide 5S event. Developing the information management system with Lean KPIs to bridge the gap between support functions were carried out simultaneously through specific kaizen projects.



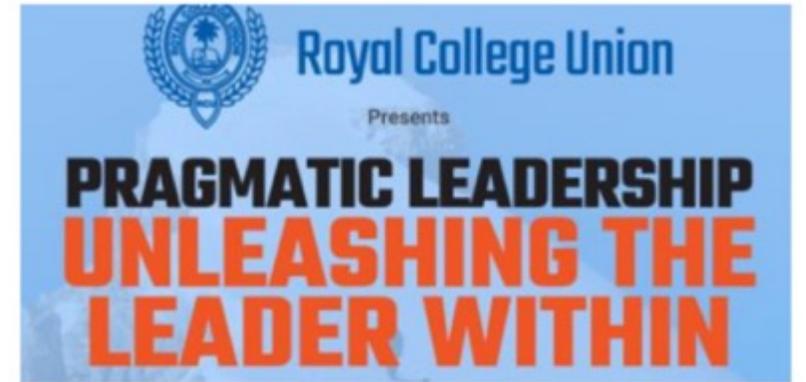
Results – deep dive

- The throughput (monthly volume) of the plant increased by 25%, and order fulfilment lead time reduced significantly.
- Re-engineered production process post horizontal deployment and achieved the desired throughput enhancement. Achieving the visual factory management across the facility
- Bridging the gaps between support functions and manufacturing processes through specific Kaizens and CRM Module thereby ensuring Lean flow across the entire value chain.
- Developed management information system of performance tracking and monitoring which included core Lean KPIs



News: NC's Book Review in Sri Lanka

Our Founder Chairman, Mr. NC Narayanan, recently held a book review session on his seminal book entitled 'Pragmatic Leadership'. This session was organised by Royal College of Sri Lanka. The session was attended by over 150 participants from elite public and private institutions. The session spurred a lively discussion and debate on leadership skills and ways to imbibe them in personal and professional life.



From The History Pages: RCF Lean Six Sigma journey

SSA helped launch continuous improvement program at Rashtriya Chemicals and Fertilizers (RCF), India back in 2011. RCF is an iconic public sector company and largest producer of Fertilizers in the country. The CI program helped identify opportunities for plant optimization, yield improvement and material saving. Tools such as Lean, Six Sigma were extensively applied in the process. The initiative resulted in over 1 million dollars of annualised savings.

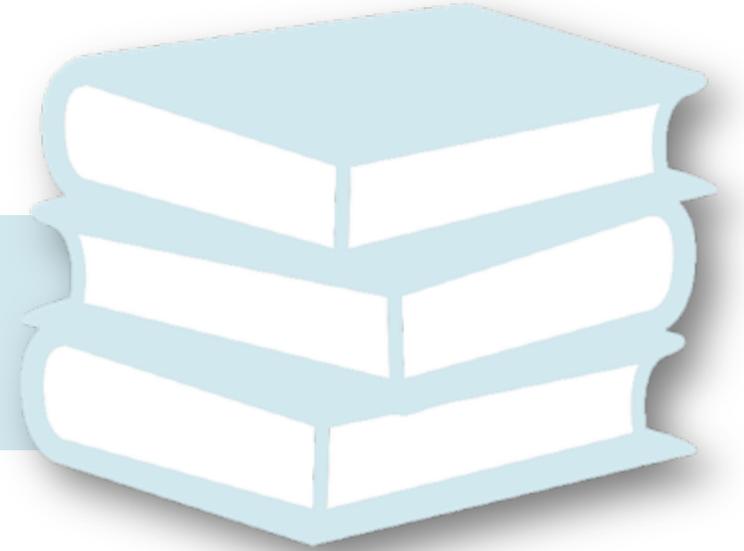
<https://youtu.be/vlO69vfaPw4>



Upcoming Events

Lean Leader's Forum

Muscat, December 12th, 2018



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