

Operations Management: Case Study2

Action Plan for The Sure to Peel Paint Company

Specifications End Control Pallet Truck



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INTRODUCTION

The Sure to Peel Paint Company manufactures cans of spray paint that require the use of five different types of compressed gas. The company currently utilizes a receiving process that requires four employees and is both costly and inefficient.

After reviewing the details of case study two our team determined that our goal was to find an alternative solution that would allow the company to reduce costs, man hours, and operate more efficiently.

PROBLEM ANALYSIS

The Sure to Peel Paint Company uses 5 different compressed gases that are delivered in long, metal cylindrical containers to manufacture their product. The company currently utilizes two dock workers to offload these containers at a dock onto four wheeled trucks and another two material

handler workers to move these containers to their storage areas within the warehouse, however, this method has proven to be time consuming & inefficient.

Our team analyzed the problems facing the company by taking time to conduct individual research and conducting meetings to discuss our findings. This process allowed us to reach a consensus decision that we could all agree on (Levi 191).

We believe that the best solution for the company is to invest in a one-person controlled lift. The lift would increase efficiency by reducing the number of workers needed to unload, transport, and store the containers in the warehouse. This would allow the company to utilize those employees for other tasks and give the company to increase inbound and outbound volume which would result in increased production revenue.

Criteria

There were several criteria used in determining the best solution to solve the operational issues for offloading the cylinders. We used a criteria matrix throughout the brainstorming process that evaluated the differences between time spent on production, unloading, and transport and the cost associated with inefficient supply chain management and labor costs.

Additionally, we used a performance ratio to determine the difference between planned and actual production times (Kukla)

Through this process we determined that the best choice would reduce labor, increase production, and to increased profit for the company.

ALTERNATIVE SOLUTIONS

We considered several different alternatives before we concluded that purchasing the new lift was the best solution.

We began by considering ways that the company could reconfigure their manufacturing facility to improve operations. The team first considered adding a centralized compressed gas delivery system. The compressed gas system would incorporate piping that moved gas from large outside tanks straight into production line. This new system would encompass the entire production and provide less flexibility than a one-person lift and cost a lot more.

Another option that the team discussed was to move the paint production lines to better align with production flow movement from the inbound warehouse. These steps were necessary to reduce movement of freight from the inbound dock, straight to the production lines. The team considered many realignment options including adding an additional dock to the facility before determining that a realignment would not be the best solution. We discovered that improving the production process flow would be too costly because it would require changes to be made in all of the departments supported by the production line (Kukla).

THE SOLUTION

Our team determined that the best action plan was for the company to replace their current offloading vehicles with one man-controlled lifts.

This plan would increase efficiency by utilizing only one team member to offload trucks with the lift and one team member to store the cylinders rather than assigning four team members to each dock. This will give the company options to increase inbound volume which will increase inventory needed to ramp up outbound production for profit as well as decrease the time it takes to unload trucks leading to less overtime costs, motor carriers' layover/detention charges and decrease the staff needed per shift to cover less effective offloading vehicles.

Implementation

This action plan was chosen due to the current inefficient offloading process currently in place. Implementing these new lifts cuts down on resources needed to offload each inbound truck and would be a quick action plan to improve operations immediately. Using our teams background in logistics and research completed on the effectiveness of several lifts and trucks as well as process flow, using this one person-controlled end pallet truck while realigning the process flow provides the best overall result in cutting down resources and increasing efficiency through the cutting down of resources needed to operate them. This decision was decided democratically, all team members reviewed several alternatives that would improve the operation and agreed upon utilizing this lift and realignment, due to rapidly improving benefits in operations and the resource cost to operate them, along with the upside of allocating other resources elsewhere in the warehouse to encourage the Sure to Peel Paint company to increase their inbound/outbound volume which in turn will boost their revenue.

TEAM EVALUATION

The Process

As a virtual team we first needed to establish communication norms that allowed us to keep an open flow of communication throughout the process. We utilized a combination of same-time, different-place and different-time, different-place meetings through weekly team meetings and a group chat on Discord (Levi 306-307).

The team also used shared Microsoft Words documents to brainstorm, collect information, and edit our final paper.

Our team took advantage of the diverse backgrounds and experience of our team members to find a solution to the problem and complete our final paper as a team.

Leadership

Our team utilized the shared leadership method to complete our case management paper. Shared leadership allowed all members to participate in decisions and helped us to divide the work equally amongst the members. Once we chose our topic, we held weekly meetings to discuss our findings, goals, and deadlines. At the end of each we scheduled our next meeting and quickly reviewed goals and deadlines for the coming week.

Sharing leadership ensured that all members participated in the paper and helped motivate us to take ownership of our work.

Stumbling Blocks

Our team encountered several stumbling blocks along the way but the most difficult one to overcome was everyone's hectic schedules. It was a struggle to find an available day and time that works for all five team members in our group due to school, work, etc.

Another early stumbling block was agreeing on where we would conduct team meetings. We considered using Zoom or WebEx before we decided that Discord was going to work best for our team.

We also had trouble with group socialization. Traditional approaches to group socialization explain how new members are recruited and integrated into relatively permanent groups or teams (Levi 48). While there was no formal predeveloped team, we did however have some difficulties adjusting to a new team environment. Like a new member of an established team, we didn't quite know where we would fit.

CONCLUSION

Considering the cost reduction needs of the Sure to Peal paint company our team had many aspects to consider. While we discussed different ways of utilizing existing manpower, hourly wage reduction wouldn't be achieved through these means. Other factors the team considered were the ergonomics of the workers conditions. With the introduction of the PE Lift, the amount of physical strain would be nearly eliminated along with an increased volume of production flow capacity. The introduction of the lift along with changes in process flow met all of the handling improvements the company required. These variations enabled the flexibility and cost savings needed for the Sure to Peal Paint Company to stay viable for the future.

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