

Executive Summary

In the past years, there has been a significant rise in the amount of food waste generated by retail stores [5]. Not only does this result in harm to the environment but is a significant contributor to the financial loss of the companies. Specifically, FreshCo retail stores, a grocery store chain that aims to provide high quality products at competitive products, faces the issue of generating high volumes of food waste on a daily basis. FreshCo generates food waste from 3 main sources: expired products, damaged products from suppliers and returned products from customer. All of these identified products are sent to landfills and generates large amounts of waste. Currently, FreshCo lacks a sustainable product disposal process which addresses the environmental and economical implications arising from food waste generated by FreshCo.

The Process Improvement Team (PIT) aims to address this issue in redesigning the current process to a future state process, in which FreshCo can provide quality products at competitive prices while ensuring processes are environmentally sustainable. The goal of this process redesign is to minimize waste of food products and supply chain costs generated as a result the large volume of waste. The report includes the approach the PIT team took, the main findings and the recommendations for FreshCo's disposal process.

The PIT team took a DMAIC (Define, Measure, Analyze, Improve, Control) approach to define the current process and to redesign the system. In the Define stage the PIT identified the customer needs, the project charter and the high level process map. The Measure stage ranked the customer needs into basic requirements, satisfiers and delighters as well as a data collection plan. In the Analyze phase the PIT performed a root cause analysis and identified the types of wastes. In the Improve stage the PIT identified improvement opportunities for the processes, physical infrastructure, and disposal services.

The major finding the PIT discovered are the lack of processes in place to address the sustainable disposal of damaged/expired/returned food items. There is no technology (IT) in place for current process of product disposal, no training provided to employees or quality check procedures in place. Further findings from the analysis and the employee interviews are discussed in the report. It can be concluded that the major reasons as to why FreshCo has an effective disposal process is due to: (1) the lack of well-defined processes and subprocesses, (2) the poor utilization of the available space, and (3) the absence of sustainable waste handling procedures.

The PIT has developed a set of 10 recommendations based off the improvement areas that were identified. The top 3 recommendations include working with suppliers to increase quality of incoming products, improving forecasting techniques to optimize the inventory levels and develop system to inspect non - saleable items to increase its value.