## **Department of Industrial and Systems Engineering** Improvement of Food Management **Practices in FairPrice**

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## PROBLEM DEFINITION

In order to meet the rising demand of consumers, FairPrice delivers over 28 million cartons of products to their stores every year. However, while majority of food items are sold, some are inevitably disposed in the process. Therefore, the objectives of this project are to identify the critical factors that contribute to unsold items and recommend preferred practices for food management.



 $\rightarrow$  Conducted multiple site visits to each function to map processes as well as to understand operations



 $\rightarrow$  From the processes, we brainstormed possible causes for unsold items with the use of a **Fishbone Diagram** 

→ Conducted Focus Group Discussion (FGD) with FairPrice's employees to highlight key critical factors.

**Understand Processes** 

Scope of Project

**Brainstorm Factors** 

## **Identify Critical Factors**





 $\rightarrow$  The decision variables during purchasing have significant impact on the food management process



 $\rightarrow$  The calculated percentage of units leading to rejection from a sample size is lower than the current standard.

occasions of the pre-packed ice being

melted upon arrival at store<sup>3</sup>

 $\rightarrow$  The delivery process plays an important role in maintaining the freshness and quality of the food items



 $\rightarrow$  As the study was conducted over 4 months, this result could be due to the seasonality of products

## RECOMMENDATIONS

- A further review of purchasing procedure to include reduction of disposed items as a higher priority in purchase decisions •
- Conduct stricter sampling plans to increase percentage of acceptable incoming quality. •
- Conduct an observational study of the delivery process to pinpoint specific contributing factors and tackle accordingly. ۲
- Focus food management initiatives on top contributors of disposed items

<sup>1&2</sup>Based on industrial standards <sup>3</sup>Excerpts from Focus Group Dicussion