

Cargill is a major U.S based, international producer and marketer of agri related commodities. In India, the key portfolios of Cargill include the Oil and wheat flour Business Divisions.

Objective – Two projects:

- 1) To study and objectively assess the freight market behavior and to build a quantitative and qualitative freight calculator model to bring reliability in freight rate projections for **Edible Oil Business Division**.
- 2) To study and evaluate existing supply distribution network and to design the least delivered cost model for **Cargill's Flour Business**.

For the first project, the entire freight market has been looked at in entirety and the drivers which drive the freight rate have been studied and accounted. Later, dynamic mathematical models have been designed to track the freight rates of both the Tanker movement of edible oil as well as Primary Transportation of wheat flour. These mathematical models are user driven and the user can get the snapshot of the entire demand-supply lane with the click of a button. Also, a secondary study has been carried out, i.e. the market study – to understand for the seasonality and other economic factors which cannot be projected into the model. This amalgamation of both quantitative and qualitative analysis is the backbone of the project and helped Cargill to bring reliability and sustained improvements in freight rate projections.

In the second project, the existing network design of the wheat flour business has been studied and a least delivered cost model has been conceptualized and developed with the use of advanced excel solver and the possible wheat flour plant locations have been identified along with the markets that they need to serve. This model involved minimizing both the incoming and outward freight costs and thus the overall reduction of “Total delivered Cost”. Through this model, it has been shown that Cargill can save approximately Rs 400/MT if it explores the options presented through this project.