Abstract — Focus of central government program in order to sustain tenacity of food is to align charging of barns of food society. This paper would examine the Gravity Location Model algorithm which is part of the network development strategy of supply chain management to determine the location of a facility (such as warehouse or factory). This algorithm is used theoretically to determine location of food barn in Southeast Minahasa. Determination of location food barn for society using Gravity Location Model is based on the rate of Normative Consumption Ratio per capita in a year. Sample location of 12 districts were taken using GPS and had been adjusted with digital map from Google Map. The result of calculation has get that food barn of society is in North Tombatu district in geographically located at 124° 41' 38.00'' east longitude and 1° 2' 28.39'' north latitude. Based on division 2 regions for the placement food barn society from 12 district. Alternative location of the first area is Ratahan in geographically located at 124° 47' 46.62'' east longitude and 1° 3' 17.71'' north latitude, and for the second alternative location area is at Tombatu in geographically located at 124° 41' 3.49'' east longitude and 1° 2' 18.33'' north latitude.

Keywords— Food Security, Gravity Location Model, Normative Consumption Ratio, Supply Chain Management