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1) Which warehouse to open, we have to decide based on the min. cost in Rs per ton from one link (i.e. from origin to destination). As given in cost matrix table we can go to Chitradurg only from Bangalore. So, initially we have to open at least one RPW (i.e. Bangalore). Now, we just consider the fixed cost for opening a RPW but, if the fixed cost is low then number of RPW opened is more than if we consider the fixed cost high the number opened RPW decreases.
   As in formulated modal if we consider the fixed cost to be 10 then the total cost will be 58189.625Rs and all RPW are opened but, we consider fixed cost to be 1000 the
   Total cost is 62113.125Rs and only 3 RPW are opened.
2) If the fixed cost of opening the RPW is different, than in the objective function we will introduce a sum over a variable f_i and y_i which would denote if the warehouse is opened or not (Considering as an indicator variable 1 or 0) and if its opened than the cost associated with it is added to the total cost.
3) For fluctuations in demand we can consider the certain value of stocking which can also depend on previous month demand to that of forecasted demand. As we don't know the distribution of demand or the pattern of demand to determine the stocking of items to overcome fluctuations. Now considering the some stocking capacity of warehouse then if the number of warehouse open decreases the quantity stored will also decreased.
4) Consider if all the three links are opened and fixed cost is high then the total cost associated will be equal to that if all the links are closed. As, if the fixed cost is high than the number of warehouse opened are less. But, if the fixed cost is considered less, all the links are opened then the total cost will be less as that of all the links are closed. Even if we close one of the link or just use some combinations of opening the paired links the total cost is comparatively more than that of we consider total cost after opening of all the paired links.
5) The lead times for supply are typically one week from RPW to FPW and three weeks from factory to RPW. FPWs are in more direct touch with dealers and final demands and react vigorously to fluctuations. The order is placed extrapolating both increases and decreases in demand for the month ahead. Now, if we consider the ordering demand to be the average of months for FPWs. Lead time is of about 4 weeks as order is placed from FPW to factory. So for month of February the order is placed in month of January.
6) As considering of direct supply from RCF to some FPWs bypassing the RPWs the pipeline stocks reduces. Pipeline inventories would be those if some forecasted demand is more than that of the actual demand. The certain amount of stock will be blocked at the FPWs. Lead time might also affect if as the stock is directly supplied from RCF to FPW.