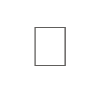
**Transcript**

October 10, 2024, 4:10PM

 **Ashish Singh Bisht** 0:06  
OK guys.  
As per the discussion yesterday.  
I have gone with the season analysis. We can see in the season analysis.  
Is the demand average?  
Demand and demand percentage related to storage.  
It says that it is relatively low in spring because most of the recreational entertainment will start over that and it is pretty high in the month of summer and followed by fall and winter.  
Yeah, like now going for the logging that we used.  
So we went with we went ahead with the linear programming approach.  
So our objective was basically to minimize the total storage based on the inventory levels for the each exhibition that we are going to have in the future.  
So we have the objective, but there are still some constraints that had to be.  
We had to set up some constraints for it so that included inventories that should not be that should not exceed the storage capacities and then inventories that must.  
Cover the demands. Having a buffer factor of a buffer limiting as well, and then if the exhibitions are interdependent, if their exhibition that happened one after another or they are independent, then the inventory levels must be taken into account.  
And approach and all the algorithms that we're supposed to use must factor in both interdependent exhibitions.  
Oh, and on top of this, optional safety stocks have to be insured.  
So there's always a higher inventory level for certain emergencies that occur throughout the year.  
So this might depend on your holiday seasons or some specific days which are beyond the control of human control and then commit with the code part. So each part of the code is has to be designed to ensure the inventory management. The problem, the optimization problem that we.  
Are dealing with.  
Has the space limitations, the interdependencies between the exhibits and the safety stocks into considerations?  
So yeah, we were able to form a logic and A and we were able to put together a well defined code for the optimization problem.  
I was so prouding so far. After analyzing optimize inventory levels and the inventory levels at the initial ones, we have come so far and over here in this graph as you guys can see.  
So we are comparing the inventory levels, the demand and the optimized inventory levels. So over here, the green one represents the optimized inventory levels and we can see it is much higher than both the demand and the initial invent.  
For all the exhibitions we have in our museum, so this is basically done to keep some extra.  
Resume that.

 **Tazeen Sudan** 3:15  
OK, done.

 **Ashish Singh Bisht** 3:20  
Yeah, best time.  
Sorry, prism is prism is.  
I'm sorry, OK?  
So over here we can see that the optimized inventory levels are basically higher than what initial inventory and the demand this is done on purpose to have some extra buffer stock to meet the unexpected demands. Just in case we have more visitors than we do expect, but it.  
Is always going to be lesser than the total storage we have available for each of the exhibitions in the.  
Yeah. So does George Graph showcase the time series comparison between optimized inventory level versus demand over a span of years?  
The blue line represents optimized inventory, while the red line represents demand.  
Both of the things are luxury significantly, but inventory appears to closely follow the demand.  
As you can see, in overall years in spring and winter or basically in the start of a year, it is less and it gets a spike when we move towards pause the same again seeing this draft, this current one, there are initial inventories and then optimize inventories.  
It is also showing the same that the demand is getting higher.  
By fall season, since people go out more often in summer fall.  
So overall guys, if we compare like the optimized inventory levels by the exhibition categories, we can also see that like science exhibitions do have a larger inventory level, let's say, and the art and history have comparatively lesser inventory as well as the optimized inventory levels which basically reflect.  
That people do.  
Prefer going more to the science exhibitions and the they have a larger, let's say, a seating capacity.  
So overall this looks good.  
And let's finalize this.  
And yeah, let's go ahead and export it. Let's see.

 **Ashish Singh Bisht** stopped transcription