## SOLUTION

1. **What are the significant issues faced by Amortex Inc.?**

The company currently uses DLSS for the warehousing and logistics for it’s CII products (Narcotics drugs). The top 90% of the spend corresponds to Storage vault costs, Outbound handling charge, Regulatory charges. **(Exhibit 5)**

In the amendment meeting with the incumbent, DLSS has come up with price increase leading from $90 to $97.49 **(Exhibit 3 - detailed RFP)**.

The Incumbent has been charging Amortex for minimum pallet utilization of 600 pallets instead of average monthly volume of 513 pallets. This has led to cost difference of $99K annually when the number of pallets billed are compared with the actual number of pallets stored.

Further more, the accounting cost for the incumbent is relatively higher than industry standards.**(Exhibit 3)**

1. **What are the key factors to be considered by the Supply Chain Manager while deciding the vendor mix?**

9 suppliers were recommended by the procurement as potential partners for the warehousing and logistics services **(Exhibit 2).** The vendors were shortlisted based on key industries catered to (preferably pharmaceutical), wholesaler relationship, warehousing capabilities, operational capabilities, compliance to regulation and certifications workforce capabilities and reporting capabilities **(Exhibit 1).**

To analyse the RFP responses received, procurement considered the cost, industry standards and quality based on the discussion with the stakeholder.

1. **Formulate the mathematical model to determine the appropriate vendor mix and, using Excel solver, identify the same while meeting the goals set by the management.**

Refer to Sheet *‘Q3-Scenario 1’* in the Excel sheet *‘SAG10-05’* and the Word document *‘SAG10-04’* for Mathematical formulation.

The model shows WDSrx as the most optimal vendor to give charge of part of the shipment due to lower costs. However, since the vendor has a low vault capacity, the contract is not scalable to any increased future requirements. Thus, it does not justify incurring the cost of shifting to the new vendor in the long run.

Thus, a second scenario has been used to calculate the optimal vendor mix by eliminating the outlier (WDSrx) from the decision variables.

Refer to Sheet *‘Q3-Scenario 2’* in the Excel sheet *‘SAG10-05’* and the Word document *‘SAG10-04’* for Mathematical formulation.

1. **If the incumbent vendor (DLSS) changes their costs for storage and handling after negotiation to match the quote by RxTPL, what is the impact on your decision?**

Refer to Sheet *‘Q4-What\_if’* in the Excel sheet *‘SAG10-05’* and the Word document *‘SAG10-04’* for Mathematical formulation.

1. **Using the Network Optimisation framework and Excel solver, find the most optimum network among the selected warehouses for Amortex Inc.**

Refer to Sheet *‘Q5-LogisticsNetwork’* in the Excel sheet *‘SAG10-05’* and the Word document *‘SAG10-04’* for Mathematical formulation.

1. **Where can the costs to Amortex be reduced? Answer by undertaking an opportunity assessment.**

* The pricing model can be updated to minimum contractual commitment, pricing according to the monthly estimated volume.
* Rebate and year on year storage cost reduction in per pallet rate.

1. **What are your recommendations for the top management? Identify risks and challenges with each option.**

* WDSrx has submitted the most aggressive response with a potential cost reduction of up to $530K. The vendor has a low vault capacity, the contract is not scalable to any increased future requirements. Additionally, their pricing model is suspicious with their revenue and storage capacity requires qualifying evaluation. Thus, it does not justify incurring the cost of shifting to the new vendor in the long run.
* RxTPL emerged as the most cost-efficient supplier, resulting in savings, with provided rebate over implementation cost.
* Procurement recommends to initiate 2nd round of negotiation with DLSS and RxTPL and also, conduct a pre-qualification audit for WDSrx before initiating negotiation.

***Next Steps:***

* Business alignment on shortlisted suppliers (DLSS, RxTPL).
* Pre-qualify WDSrx: Confirmation from Business to conduct site visit and assess their capability to fulfill Client ’s requirements.
* 2nd Round of Negotiation: Procurement to go ahead with 2nd round of negotiation with DLSS, RxTPL, and WDSrx (if they qualify).