The Medical Services Supply Chain Case Study

1. Let's start by examining the requirement for savings: Looking at Table 2, what should the US$ target be to achieve the same Net earnings? In addition, please be sure to detail how you can achieve the goal of maintaining the same Net earnings.

Ans: According to my analysis, the annual gross profit target should be between $3000 - $5000 and has to be ensured the profit margin is maintained in the future years and does not go beyond. This will maintain the overall net earnings. There are various factors and expenses which can be re-implemented or even can get rid of to save their annual net earnings and on the other hand gain a huge margin of profit.

The MTC has multiple contributors and due to which they are unable to tackle new ways to reduce cost by 2.3% of excise tax in revenue. Manufacturers, medical surgical distributors, third party logistics (2PL) firms and hospitals manage the complete flow of different medical products from the manufacturing plant to delivering to the hospital medical rooms Due to this the transit/lead time of the products getting delivered gets extended. The major concern which I observe here is their management of inventory which the total cost of goods per year is very expensive. Since the products being delivered to the hospitals are mostly surgical kits from different distributors, the hospital should rethink their logistics and inventory by trying to find out ways to manufacture the surgical kits at their own place and directly provide then further to the surgeons who will use it for different types of operations performed for the patients. This will also result by removing the lead time delay and most importantly the transportation costs to different vendors.

Likewise, other costs like for eg: (Intangible, selling/general costs can be reduced) in order to further maintain the net earnings because then if you look at some other expenses like for land and technology, these investments are an important factor to survive and sustain in the supply chain market. I would recommend that by reducing these types of expenses, MTC can instead spend more revenue on research and development and also on operations by implementing lean methodologies and the DMAIC approach. In terms of sourcing, they should also look at some innovative solutions to evaluate and keep a monitor type on their various medical distributors from where they get surgical kits and also the cost of sterilization. Currently, the MTC has a contract with a vendor where they give all the surgical kits for the sterilization process. The vendor then sends all the sterilized surgical kits to the distributor who ships them to the MTC for reuse leading to transportation costs. Instead the MTC should use their own 3PL firms to get the surgical kits sterilized and also then get verified by the quality assurance department. In this way, transportation and logistics expenses can be neglected.

In conclusion, the MTC has to rethink and build a strong and well sustained supply chain process under the guidance of Chris Evert by analyzing and come with up major decisions and implementing them (reducing unnecessary expenses and investing in operations and innovation) can give them more flexibility and this will eventually boost their profit margin and also their net earnings will be steady in the future years by covering the new imposed ACA medical device tax of 2.3% of total revenue.

**This is my rough estimation and forecast: If you consider a profit of $4500 with 2.3% device excise tax cut in total revenue with increase in the total inventory costs, the total revenue can reach up-to approx $7215.86 million and by increasing the R&D and operational income the net earnings can come up-to $700-$750.**

1. Now that you have an idea of what the target is, what possible gaps in the company's supply chain do you see that you would consider exploiting. In your answer, please be thorough about all the issues you see with the company's supply chain strategy as it stands right now.

Ans: The major issue and gap which I observe in MTC’s annual report is their inventory management costs and other costs such as general/selling, intangible due to which they are getting a low profit margin and less net earnings. Following are some of the issues and solutions I have understood in their supply chain process is:

1. Reduce inventory costs by redesigning an innovative solution and implement continuous improvement in the inventory management system and also keeping very less products as much as possible in the warehouse.
2. Developing relationships in a continuous manner with all of your manufacturers and medical distributors by evaluating their performance in a timely manner and also try to negotiate with them in order to develop trust and obtain minimal transportation and logistics costs.
3. Hire labors according to your requirements with a minimum wage/salary and produce the products within your warehouse (in-house) as much as possible.
4. Ensuring and doing quality check control after each finished product before starting to use and follow all SOP’s, and safety compliance measures.
5. Always keep monitoring the lead/transit time with regards to delivery of the required equipments from your suppliers if at any point it is getting delayed.
6. Look around and analyze the setting up of multiple centralized and regional distribution centers within close proximity to the hospital especially for emergency equipment and purposes.
7. RFID tags must be attached to every single product and should be delivered from a single distribution center to avoid multiple checks and confusion.
8. If you are comfortable and satisfied with your suppliers and distribution, then try to strengthen your relationships and provide them with long term contracts where the hospital and its supplier/distributor will get a profit with maximum net earnings.
9. Sterilization process of medical surgical kits should be routinely and also a warranty should be provided stating it is safe to use.
10. Customer satisfaction throughout and a strong, resilient and sustained supply chain network will be key for more business.