






Market- Competitors



- MTC was the highest margin among competitors, but the advantage kept going down, even be lower than others in 2014, we might foresee it will be worse in 2015 upon the trend.
WHY AND WHAT HAPPENED?


Financial- each aspect % of revenue

% of Revenue	2010	2011	2012	2013	2014	
Cost of Goods Sold	32.5%	31.2%	33.8%	32.1%	33.0%	
Research, development and engineering expenses	5.0%	5.4%	5.6%	5.4%	5.9%	
Selling, general and administrative expenses	37.3%	37.0%	37.9%	40.0%	45.1%	
Intangible amortization	0.5%	0.8%	1.5%	1.4%	1.5%	
Other	1.0%	1.7%	0.9%	0.9%	0.5%	

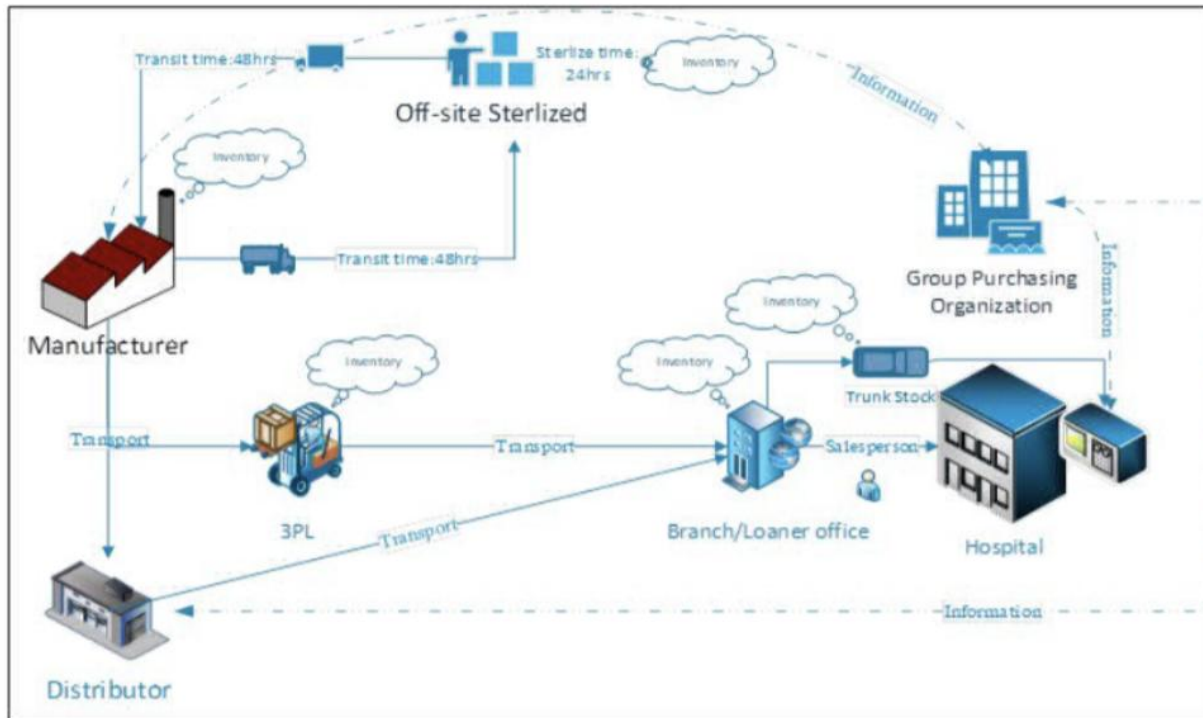
- S&GA (Selling, general and administrative expenses) occupy the most of total revenue, and keep trending up significantly year over year
- Cost of Goods Sold kept slightly trend up, the 2nd parts of total cost



S&GA

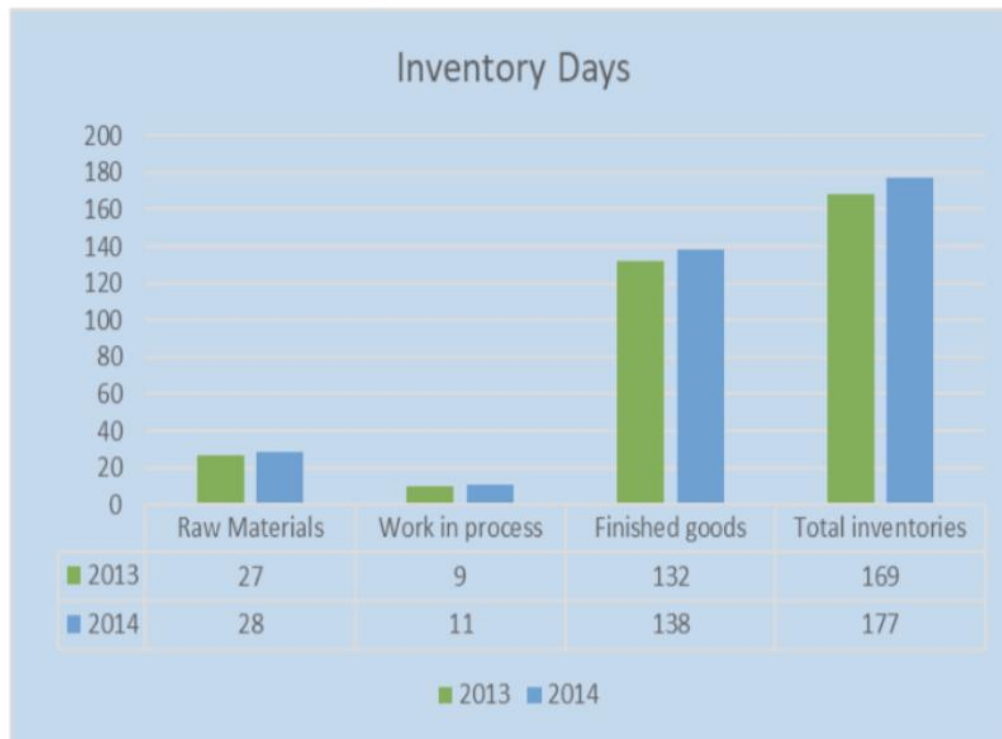
- We don't have much data on the S&GA cost. Just knowing that the sales got very high commission of \$300K-1MM per year, we need more analysis to determine if we need to change the model. This could be a method to lower the cost significantly
 - We need to control the spending i.e. travel cost, Capex investment, IT purchasing and others which not be essential to current business. This will help to cut down administrative cost
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Supply Chain- Logistics



- Cancel the off-site Sterilized supplier, move the sterilization into plant by MTC self. In most cases, this in-house production will lower the cost. Also this will reduce lead-time and overall supply chain inventory finally
- Cancel the Branch/Loaner office, have 3PL and/or distributor to deliver kits to hospitals directly, this will reduce the cost of Branch/Loaner rent. I know this will make sales unhappy because of the probably lack of flexibility and increase of lead-time. But actually we have saved lead-time by 4 days from the in-house sterilization, so the total lead-time could not change much

Supply Chain- Operations



- Total inventory 177 days, that means they stored almost half year stock on hand, this will impact seriously the cash flow, increase the capital cost very much. We need to reduce the inventory in below aspects:
 1. Cancel the off-site sterilized supplier, this would reduce 98 hours at least or 4 days inventory
 2. Cancel the Branch/Loaner office to reduce inventory
 3. Sales trunk stock is not good practice because they are not professional or motivation to manage it well. In most cases, we found that trunk stock keeps too much inventory even aging inventory. We may replace this by Smart Kiosks put into hospitals, this is Kanban for inventory and release sales from inventory
 4. We should not keep so much FG inventory since it comprise more labor, energy and all manufacturing cost on raw material. If we have to, we may keep inventory on raw materials without these manufacturing cost, and this way also reduce the risk of FG aging or obsolete

Supply Chain- Planning



- Planning needs to optimize the sales forecast since this will decide the capacity plan, production plan, inventory plan and distributor plan. MTC's forecast is more like Naïve model. Current production plan generate too many finish goods inventory as outlined in Operations, target to reduce the FG inventory to 60 days or less. This will need to:

1. Adjust the forecast model to Naive
2. Although we know the production constraints only 7200 units per week, we still need to change the production model to be more flexible and bigger capacity under current resource, these method includes SMED(single minutes exchange die), One piece flow etc... lean tools

Supply Chain- Sourcing


% of Revenue	2010	2011	2012	2013	2014	
Cost of Goods Sold	32.5%	31.2%	33.8%	32.1%	33.0%	

- We do not have data of raw material purchasing cost analysis. Just referred to the COGS, we assume the purchasing cost got a slightly up. Its sourcing team may categorize all suppliers into strategy, bottom neck, leverage and non-critical sectors.
1. Strategy suppliers, win-win model with R&D, Marketing, Operation all functions involved to achieve total cost saving and continuous supply
 2. Bottom neck suppliers, either to develop them to strategy supplier or find alternative supplier to reduce MTC's risk
 3. Leverage suppliers, besides to keep good relationship with them, we need to get more savings
 4. Non-critical suppliers, we may combine those non-critical materials and centralize the sourcing to reduce the suppliers, get more saving by reducing suppliers



Others

Besides the internal changes, MTC also try to acquire other companies located in low tax region



All these model changes are not easy for one company, they must be fully understood and supported by leadership team. In this case, looks sales leader did not understand the business model change is critical for company cost. And also maybe other functions like production will say no to turn into flexibility production, and may quality leader will say no to control the in-house sterilization quality, maybe.....

As supply chain head, his/her 1st priority is to convince the CEO, leadership team and subordinate, they are all in one boat. Certainly before that he/she need more financial data and analysis like how much estimated savings will be catch, what negative impact maybe come and what's our preventive plan..

