

## **Pharma Machines India (PMI)**

**The company:** Pharma Machines India – PMI was started by Anand K about 30 years ago. He was working for a company that was importing / selling and servicing Pharmaceutical machinery in India. Anand K was a commissioning and servicing engineer and quickly built a reputation as a sincere engineer who can quickly set machines right. Gradually he also learnt about the processes being followed in the pharmaceutical industry. Thus he was also able to provide advice to customers on processing and how the machines can be used well.

**The Clients / Customers:** The customers were Indian Pharmaceutical companies who were involved in manufacture of pharmaceutical products like – Intravenous fluids, vaccines, injections etc. 30 years ago, Pharma processing machinery had to be by and large imported. Such imports were handled by agents, who also provided support in installation, commissioning, spares and maintenance. But slowly Indian companies were trying to manufacture machines in India itself – primarily driven by India's shortage of foreign exchange. Further imported equipment were expensive.

**The beginning:** Anand K built for himself a strong reputation as a competent engineer who understood machines and also the processes followed by the Pharma Industry. Some of the customers who he served kept egging Anand K to start a company to manufacture such machines in India. They were willing to give him an advance to enable him to start. The customers understood that engineers like Anand K have the talent, but no money and that banks are not going to fund them. Companies in the pharma industry were willing to provide a substantial advance to Anand K if he was willing to make those machines in India. Slowly, the idea that such machines can be made successfully in India and sold sank into Anand K's mind.

He started making a few equipment – sterilizers, water for injection plants, autoclaves, and a few more. He flourished in this business. Several people joined him and many of them left in course of time. As his business grew he brought in a distant relative of his to handle the accounts / finance side of the business. Thus Ajit became the accountant cum finance manager cum purchase manager of the company. In 1996 Anand K's nephew, Mohan completed engineering and he was also roped into the company. Mohan learnt the business with great interest and grew to be the Vice president of the company.

**Now:** The company is a leader in the small niche area – Sterilization and related equipment. PMI makes and sells about 160 machines in a year. There are two other competitors – one of them is significantly big and the rest are small competitors. The company is today operated by Anand K – Managing Director, Mohan – Marketing / Operations VP and Ajit, head of Finance & accounts + Commercial.

**The Business:** PMI has built a strong reputation for supplying good machines. Well designed and properly priced. They have an enviable client list, virtually the *who is who* of the Indian Pharmaceutical Industry. They have also spread their wings across other continents and have a significant volume of exports – about 20% of their output is

exported to Africa, Poland, Latin America and Middle East. They are still a small company with a turnover of about 35 crores. But they have some serious problems. Anand K keeps saying – *“when we were at 8 crores turnover we were making more profits and I was seeing money in hand, but with 35 crores, I do not see the same amount of profits and as far as cash is concerned, we are always hand to mouth”*

#### **Ground Reality:**

PMI has a great reputation for good machines and reasonable prices. Imported equipment of comparable capacity (probably a bit more sophisticated) costs anywhere between 150 to 400% of PMI's prices.

But PMI has a very poor record of 1) On time deliveries 2) delays in commissioning machines 3) also sending incomplete machines to customer site – some PLCs are missing etc.

Yet they receive a large number of enquiries and PMI sends offers to all of them. They book orders promising a delivery time of 12 – 16 weeks, knowing fully well that they are NOT going to fulfill the promise. They take a 25% advance before they begin making the machines. When the machine is fully made, the customer visits the PMI factory to conduct a trial (FAT – Factory Acceptance test) – after successful trials or after corrections identified during trials the machines are dispatched to the customers' place. When the machine arrives the customers' place, they are supposed to release another payment of 65% (the last 10% is paid after installation and commissioning)..

Since equipment are delivered late, often the 65% payment gets delayed and PMI is not able to insist on payments. Also, this delay in dispatching the machine is compounded by further delays in Installation and commissioning. Here again, collecting the last 10% is a very difficult job.

**The Process of making machines:** PMI is a typical fabrication shop.

Stage 1) Stainless Steel sheets are cut, rolled and welded into shells

Stage 2) Door and door components are made from Stainless steel

Both these stages happen in one manufacturing unit and then the components are transported to a larger unit – the main unit.

Stage 3)

In the main unit – the shell and door are put together and gaskets are mounted.

Stage 4) Then piping work is taken up. Pipes are welded together in appropriate form and assembled with the shell + door assembly. This is painstaking work.

Stage 5) arrange for bought out components like strip chart recorder, electrical panels, PLCs etc and assemble with stage 4 output.

Stage 6) Test the equipment in presence of the customer. FAT – Factory Acceptance Test.

Stage 7) Pack and dispatch.

**Current Situation:**

PMI has orders for the next 7 months of production!.

Some customers are pressurizing for delivery and at the same time some customers have not lifted their machines!!

The shop floor is full of machines in various stages of completion. Towards the end of the production / manufacturing line some equipment are not complete since some components are not available. Some have been ordered and will arrive. For other components there is not enough money to pay.

In a typical machine, the material cost is about 60 to 65% of the selling price of the equipment. Of this the customer gives initially 25% and in some cases, they are able to collect another 10 or 15% during the course of fabrication of the machine.

*Ashwin, the plant head says – you give me material, I will give you machines. Do not pressurize me for machines when you are not able to feed me with components when I need. I am forced to take components from other (finished machines) to put into a different machine, particularly when a customer is coming for trials and machine is not complete due to non availability of components. I have been telling Purchase team to give me components and consumables in time. In spite of continuous follow up, we have large delays. Also, I have no space here – completed machines are not going out. I have packed and kept them ready for dispatch. When customers come for trials to our factory, we find it difficult to work in such small space, which is already crowded with several other machines.*

*Sumit, the Purchase head says – this is not my problem. I have been requesting for funds. We need to pay our suppliers and some of them are large companies like Siemens, Allen Bradley and Mitsubishi and I cannot force them to supply. They are very strict about their payment terms. We have negotiated to the bone on prices and stretched them as much as possible on credit period. There is nothing I can do now.*

*Finance head, Hitesh says – there is no point asking me for money. There are no collections. Several customers owe us money. Further our Customer Service Department people who go to the site also keep submitting their TA and DA bills – but I do not see them collecting the 10% payment that is due from customers towards installation and commissioning. We have fully stretched our bank limits and there is no where to go. Our consultant also keeps insisting that we should not borrow from “non Banking” sources (like local money lenders who charge higher interest, but will provide funds without security and documentation). So what can I do?*

*Rajesh, Customer Service Department head says – First of all we send machines late to the customer and that too incomplete. Our customer service technician goes there and is confronted by hostile customer – who is upset about delays and lack of components. Our Technician diagnoses the missing components and informs us. I run around to purchase department and suppliers to get the missing component and courier it to the customer location. All this takes time. During this period, our technicians just wait, wasting time.*

*How do you expect them to collect the last 10% - i.e. Installation and commissioning charge when we cause so much trouble for the customer? Why can't we send complete equipment? Why blame poor technicians who are at the bottom of the ladder. They are away on tour for 20 – 25 days in a month and do not meet their families. On top of it we delay their TA and DA.*

***In the meanwhile: Anand K has developed another machine – Lyophilizer, which is useful for manufacture of vaccines and these are big ticket items compared to their current range of machines.***

*Sales Executives say – we are always delaying dispatch of equipment. Customers shout at us. How can we go and pressurize them for payments when we have delayed by 3 or 4 months ?? We are talking to them politely. It might take some time, but money will come. We should see how to deliver machines on time. People like our machines and all of them know and appreciate Anand Sir – but they will not accept huge delays. Our problem is not just delays – after 2 or 3 months delay, we still do not know how much more delay will happen! Under these circumstances what do you want us to do? There is also so much competition in the market.*

*Advisor to the company says - You guys are not doing what needs to be done. You are just lamenting about your problems.*

*Quite seriously – I have not seen a company which has so many opportunities which are not converted to business / profit. You have orders on hand. You have reputation, technology, factory, trained manpower... I have been telling you what to do.. \*\*\**

*Also, today you have an installed base of 2000 machines – many of them are more than 10 years old. Why don't you offer AMCs to customers? They will definitely be interested. Last month, I asked Rajesh (head of Customer Service) check with clients. Within 2 months he signed up 8 clients for AMC. Imagine, if you have 500 machines on AMC at Rs. 100,000 pa each – you have annual revenue of Rs. 5 crores with not more than Rs 1 crore in expenditure. What are we waiting for?*

*An upset Mohan (VP Marketing and Operations) says – This is all very easy to talk. We have problems in installing and commissioning the machines, which we have sold. How can we divert people for running behind AMCs?*

*A tired and surprised Anand K says – When we were only 8 crores turnover, we were making more profits and I had cash in hand – now at Rs 32 crores, I do not have profits and cash!! Also, I need money for developing new machines which have large potential. My old friends in the industry are calling me every day to check on our new LYOPHILIZER. The Vaccine Industry in India is picking up very fast. If we lose these opportunities, we cannot grow.*

*Ajit Accounts / Finance / Purchase head – Hitesh's boss, who was silently watching all this started: I have been saying for a long time now, that banks will not give any more*

*funds – Anand keeps asking for money for developing new machines and acquiring new plot of land for building a new factory. Collections have become very slow. Suppliers are also upset, since we do not pay on time. We are in a jam and we need a way to get out of this mess.*

**Can you help them get out of the mess? Do you think that Theory of Constraints can be applied in this situation? How?**

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