

Strategies for achieving Cost Competitiveness in Production

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The perspective

The business environment is changing at a dizzy pace. Rapid globalization, technological advancements, changing consumer preferences, and evolving government policies are reshaping the manufacturing industry, exponentially accelerating the pace of competition and continually raising the bar on company performance. From its influence on infrastructure development and job creation to its contribution to gross domestic product on both an overall and per-capita basis, a strong manufacturing sector creates a clear path toward economic prosperity. In today's VUCA (Vulnerable, Uncertain, Complex, Ambiguous) world competition is becoming keener than ever. In order to survive and grow, every enterprise needs to focus on Strategic Cost Management to gain competitive edge over competitors.

Production cost competitiveness around the world has changed dramatically over the past decade so dramatically that many old perceptions of low-cost and high-cost nations no longer hold. India needs to bring in cost competitiveness and raise scale to grow its manufacturing sector and compete globally. You cannot grow manufacturing by forcing people to invest because investment can happen only if there is some return coming out of it. Therefore, what India has to do is to optimize production cost.

Production Cost

Production costs reflect all of the expenses associated with a company conducting its business. The production cost can be explained as "the consumption of material or labor for the production of a product or service. It means, the sum of all the energy, labor, waste, rent, financing, etc. For an expense to qualify as a production cost it must be directly connected to generating revenue for the company. Production cost refers to the total price paid for resources used to manufacture a product or create a service to sell to consumers including raw materials, labor, and overhead.

Strategies for optimizing Production Cost

Cost competitiveness is a dynamic concept which has intimate relationship with quality and value of product. Thus, strategies for cost competitiveness take into account all aspects that affect quality and value right from product design to market performance. Almost all tools & techniques that are available for effective management are also used for strategizing cost competitiveness. For years, companies have attempted to cut the cost of making a product by taking aim at individual parts or raw materials and the companies that supplied them. Cut the price of the

things that go into making a product and a company could lower the manufacturing costs and increase profitability. But those fixes are temporary, and need to be constantly re-negotiated. More importantly, they don't lead to a better product; in fact, quite the opposite at times. Despite decades of cost-cutting efforts across all industries, as much as 25 percent to 45 percent of all costs in engineered products add no value to the product or customer, according to our research. Those findings would indicate that manufacturers are not only looking at cost-cutting incorrectly, they are wasting a lot of time and effort doing it.

Building a strategy on minimizing production costs requires a company to achieve:

- High productivity
- High capacity utilization
- Use of bargaining power to negotiate the lowest prices for production inputs
- Lean production methods (e.g. JIT)
- Effective production process
- Effective distribution channels

The increasing competition in the market creates an urgent need to search for new ways in which manufacturing companies can differentiate themselves and gain better competitive position

Track The Numbers : At the outset, you got to track your key costs. If you aren't doing it, then start doing it right now. You can't reduce something which haven't yet recorded. Get started by tracking at least the key numbers : Production capacity, Actual used capacity, Direct material cost, Direct labor cost, Manufacturing overhead, Labor efficiency, Carrying cost of inventory, Cost of goods sold, Overtime expenses, Stock in & out, Cash in & out. It's hard to believe but the fact is— even a simple recording of numbers will give you a lot of idea about what's wrong with your factory.

Examine production costs : You've probably heard of the 80/20 principle. It says: Roughly 80% of the effects come from 20% of the causes. This principle can also be applied to production. There is a good chance that a relatively small number of items are responsible for an inordinate amount of your production costs. It might not be 80/20, but it could be significant enough to warrant discontinuing those items. Look at every line item. Can its continued production be justified financially? This is an exercise that should be conducted regularly.

Managing Inventory effectively : The way you manage your inventory is worth looking at. just-in-time (JIT) inventory management approach first created by Toyota in the 1950s, leads to Manufacturing and procurement that is tightly aligned with demand. More items aren't produced simply because 'it's the rule' or because there is excess capacity. Instead, items are created 'just in time' to meet demand. What's good about this, is that it reduces unnecessary production costs, limits the amount of stock you need to house somewhere, and can also reduce labor costs.

Reduce Direct Material Cost : Direct material cost constitutes a substantial portion of the total manufacturing costs. There are a number of techniques to control the direct material cost. Let me share a few:

- Invite quotations from as many suppliers as possible
- Consider signing a long-term contract with the shortlisted supplier. That'll give a quantity assurance to the supplier who in turn can reduce the price accordingly.
- Offer cash payment in return of cash discount. Most suppliers will be willing to trade off discount in return of prompt payment.
- Ask for turnover discount at the end of a financial year. Suppliers are willing to give discounts to customers who've contributed significantly to their turnover or revenue.
- Negotiate like a professional
- Consider re-structuring your product. Can a particular raw material be replaced with an alternative without compromising on quality ?.
- Prepare a database of suppliers with details like name, phone number, email, address. That'll act like a backup in case you face an adverse market situation like price increase, lack of supply or economic depression.

The direct material is the most significant part of production cost. If you can reduce the same effectively, half of your job is done.

Reduce the carrying cost of inventory : follow these time-tested techniques:

- Set the raw material order quantity using EOQ(Economic Order Quantity) method. EOQ refers to the quantity of material that should be ordered in a single lot. Purchasing at EOQ helps to keep the total of carrying and ordering cost minimum.
- Consider using JIT(Just-In-Time) method to avoid overstocking of inventories. JIT means ordering inventories only when it's actually needed for production. That avoids unnecessary stocking & thereby reduces carrying cost.
- Prioritize & manage stock using the ABC system of control. The ABC system suggests to classify your inventory into 3 categories: A,B & C. The inventory that's high in value (comprising at least 50% of the total inventory value) falls under A category. The inventory

that's moderate in value (35%) falls under B category. And, the rest falls under C category. To reduce carrying cost, you need to have a stricter control on A category items, moderate control on B category items & low control over C category items.

- Classify inventory as per the VED(Vital, essential, desirable) method. All vital(critical for production) raw materials should be classified under Vital category. The moderate ones should fall under Essential category & the least critical ones should fall under Desirable category. The vital category of inventories requires a stricter control followed by essential category & desirable category.
- Set a threshold limit for the amount of money blocked in inventory. Example: Set an inventory carrying cost limit of 10% on sales. If the cost crosses that level, you need to take a few emergency steps to release the blocked funds.

The idea is to reduce the inventory to such an optimum level that minimizes the carrying cost & at the same time doesn't affect the production schedule or sale.

Increase Workers' Efficiency : Reducing employees' remuneration is not a great option because it results in employee dissatisfaction and ultimately in hiring and retaining unskilled employees. A more wiser approach would be to improve the labor efficiency. It's not easy but definitely worth the effort. Thus, the organization should aim at enhancing employee efficiency by:

- Hiring efficient employees
- Providing labor force with adequate training. You can reduce the time taken to produce an average unit by providing specialized training that allows employees to work at a faster rate.
- Offering incentives to the workers who produce an average unit at less than the standard time.
- Re-schedule production task to match skills. (Example: A worker specializing in packing should only pack & not get involved in other tasks)
- Share a clear production goals with the team
- Motivate the labor force as & when required. Appreciate their commitment.

Improving labor efficiency is perhaps the most cheapest strategy to reduce production costs. And, the benefits are very rewarding.

Control Manufacturing Overheads : Manufacturing overheads are mostly non-value adding expenses & thus can be avoided. To reduce the same, you may do the following:

- Set budget for these costs and review them periodically. Necessary steps are to be taken to control them.
- Costs such as depreciation are mostly time-based. You have to decide whether to own these assets or to acquire them on a lease basis.
- Reduce headcounts. Look if production supervisor's role

can be delegated to someone else. Whether the gate-keeper's job is essential ?

- Avoid fancy packaging expenses
- Consider reducing product features that don't add much of value to the end customers
- Regularly check & update machineries to avoid costly repair expenses

These costs can be tough to control. But you got to think about your business first. And, business means profit.

Eliminate Non-Value-Adding Processes : Frequent innovations are occurring in the methods of production. Periodical review of manufacturing processes is necessary to diagnose the deficiencies in them. There may be some redundant processes in the manufacturing cycle that are no longer required and are unnecessarily consuming costs. Hence you should analyze the value added at each stage of production and determine whether that activity is actually required in the present scenario. Dropping non-value adding activities in the manufacturing cycle can assist in cutting unnecessary costs and keeping the manufacturing cost to minimum. Here're a few more steps you can take to improve your manufacturing process:

- Use a tool like Process Street. It helps you to create, streamline & control your workflow & processes.
- Take your factory workers' feedback. And, make sure you communicate with them regarding the proposed process changes.
- Conduct A/B tests to test the actual improvement of production time. You should approve the new process only if the test results are favorable.
- Take into account the workers' fatigue & unproductive time while charting a new improved process.
- Use technology wherever possible. In long run, the benefits will pay off the cost easily.

In manufacturing, you got to take tough calls. Of course, no process is done without a reason. But if the reason is non-value-adding, it can be avoided.

Reduce Waste : Wastes may be in different forms such as

- Early production : producing products before they are needed leads to unnecessary blockage of funds and also some of them may get damaged by the time they're required.
- Waiting : products, people, and machinery waiting unnecessarily during the manufacturing cycle due to avoidable reasons delays the production process.
- Overstocking : Maintaining inventories in excessive quantity than required also leads to unnecessary blockage of funds.
- Motion : Unnecessary movements of people and products during production cycle delays it.
- Defectives : As already discussed, these are the finished units that rank below the standard quality and need repair even during the warranty period.

In order to reduce such wastes, your business needs to have a strong internal control system. Conduct periodical checks should be conducted to minimize wastes. As we know prevention is always better than cure. Thus, you should detect the areas of waste and implement measures to prevent them. Tighten the quality control measures, so that only those units are offered to the market that meet the quality standards.

Tweak Your Design : It's natural to get attached to your original product design (they're called "idea babies" for a reason!), but the design decisions you make while initially developing your product are not necessarily the best in the long-term. For example, you may have chosen a material without fully understanding the cost implications, or opted for a customization during manufacturing that requires higher minimums than you can regularly afford to meet. By selecting different raw materials and components, changing the way your product is constructed, or even eliminating a few bells and whistles, you can reduce costs and increase profit margins.

The right work instruction to do right : The involvement of operators in the search for continuous improvement is also to be encouraged to contribute to the optimization of quality. Giving the operator the right work instruction at the right time on the right format contributes to all of this : do right on the first time, collect data, send alerts etc..

Do not give in to the temptation of over-quality : It is clear that the company organization must be quality-oriented, but it risks its system become counterproductive if it is "too much". In the industry, over-quality is, in fact, the enemy of quality, because it generates additional costs. The challenge is to achieve products that meet customers' expectations; not to be below of course, but do not try to reach much higher levels of quality.

Optimize The Production Output Level : Optimizing output level means figuring out a quantity at which the production cost (per unit) is the minimum. Since all costs are not directly proportional to production level, we have to determine a level at which the per unit cost of production reaches the minimum. Making various cost analysis can help to arrive at the optimum level.

Using Supporting Technology : The other way to reduce production costs is by utilizing supporting technology. You can use technologies such as ERP Manufacturing to increase productivity and increase efficiency and also reduce production costs for your manufacturing company. In addition, supporting software can also measure the performance of each employee and make efficiency. sophisticated machines should be deployed which will process the products at a faster rate and minimize the firm's manufacturing cost in the long run. This technology can also be used to get the benefits from your business to reduce production costs. Of course, automation comes a huge upfront cost. So, study the cost & benefits before taking a decision in this regard. Alternatively, you may also try leasing the automated machines if it makes sense.

Cost Leadership : In a cost leadership strategy, the

objective is to become the lowest-cost producer. This is achieved through large-scale production where companies can exploit economies of scale. If a company is able to utilize economies of scale and produce products at a cost lower than that of its competitors, the company is then able to establish a selling price that is unable to be replicated by other companies. Therefore, a company adopting a cost leadership strategy would be able to reap profits due to its significant cost advantage over its competitors.

Conclusion

The coronavirus pandemic has affected every single business in the world, but some of the most affected are those that produce products, as most have had to temporarily close and social distancing guides prevent people from being too close to each other. During these difficult times, your finances might be hurting, and it's a great idea to cut as many costs as possible during the foreseeable future —things won't go back to normal for a while, probably until a vaccine is not made available for the general public. But don't worry, there are many ways to reduce your production costs. The companies can gain competitive advantage by doing a better job than competitors in performing internal value chain activities efficiently, Taking initiatives to cut down the cost of value chain activities, and recognizing the value chain to avoid or bypass some cost producing activities.

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