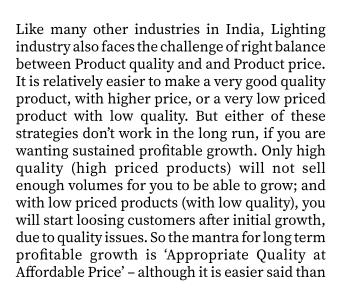
## **Striking the Right Balance**

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done.

So, how do some companies do it and some struggle. Some companies who have got this mantra right keep going on for years and years not only in terms of growth of sales, but also giving good profits to their shareholders. But a vast majority struggles – they keep tilting from this side to that side, or in many cases keep switching their business lines, because of failure in one particular business line, and in certain cases, completely shut down.

A good comparison of striking this balance of quality and price can be made with riding a two wheeler. You find it almost impossible to balance



a two wheeler when it is standing, but when it is moving even a child is able to balance with no extraordinary skills needed. The difference is that while moving, by tilting the front wheel slightly to the right or the left, you keep correcting the out of balance constantly, and you achieve an ongoing balance – in other words you are making micro-adjustments and keep countering the sideways forces that are encountered from the environment without loosing your balance completely. You can't do that in a standing two wheeler as you don't have the capability to do that micro-balancing using the turning of the front wheel.

So, between quality and price too there is this regular micro-balancing necessary. The expectation of 'Appropriate Quality' keeps changing from time to time, and from customer set to customer set (or market to market). And similarly the expectation of 'Affordable Pricing' also keeps changing with time, as new players enter (or old ones exit), with new technology coming in, new ideas coming in to the market. If you are unaware of these changes, or you are not able to 'micro-balance' quickly, you loose your balance (or fall down, as in a two wheeler).

You can't always say that you make the 'Best Quality' (which will not, obviously, come at the Affordable Price). Because sooner rather than later someone will come with slightly lower quality, and still meet the needs of most customers (i.e. more Appropriate quality), at a lower price and customers will move towards that. Similarly, you cannot always say that you make the 'Lowest Price' product (which will have some dissatisfaction in terms of quality for customers). Because someone else will make

products eliminating those dissatisfactions, at a minimal price increase (but still within affordable range that customers are willing to pay to get rid of that dissatisfaction, and customers will move towards that).

So, you need to constantly keep researching the market, the competitors (both domestic and international); and parallely keep working on new ideas to improve your product or lower prices for the same quality. This means investment in Market Research and Product Research. Unfortunately, very few companies do this and most of the companies try to do catch-up after someone has done something and

depending on their speed of catch-up, they keep lagging behind. And some don't even realize these changes and never even catch-up and face more severe consequences.

Let me give you some examples of these from the Lighting Industry and some possible areas where we can look for solutions.

Change from fluorescent to LED technology is the biggest example of this phenomenon. We have all seen how, many large companies went out of lighting business altogether, and how, so many others (lot of them small companies) came into lighting. Here the quality of light increased and the price dropped.

Within LED itself there have been numerous changes in business models. The range and pricing of quality widened vastly - meaning, the gap between best and lowest quality increased and so did their pricing gap. This meant that different product ranges for different customer groups. On one hand you have very high quality and durable LED lights at higher prices, which go to high end customers or projects (eg. NHAI, or some large projects etc.); and on the other hand you have low quality, low durability products and lower prices which are preferred by other customers, and other projects, typically like the village panchayats etc. With earlier technology this gap was not as wide. So, now the lighting manufacturers and their products are also divided among these lines.

Coming to some of the nitty-gritties I am giving below some examples in a typical luminaire of what all you can do to achieve this micro-balance (and Chinese seem to be better in this game than us, whom most of us keep following).

Examples of quality Vs cost adjustments in a typical luminaire:

Al quality for luminaire housing: The extremes are use the best quality Aluminium of LM grade, or use complete scrap Aluminium. But to strike the right balance, you need to see what grade of Al will be the most appropriate for your requirement. You need to see what is the difference in heat conductivity of various grades, what is the difference in their strengths, what is the mouldability difference (due to which you can achieve right balance between the thickness and height of the fins to get optimal heat dissipation). But without deep dive and



research into all these factors, and assessing things from the basics, you will only end up copying this or that (generally Chinese) product. But this can only be done if your organization does some trials with new ideas, and has an environment where people can make suggestions without hesitation.

- Which LED to use Now there are numerous brands, quality, and efficacy (Lm/W) LED's available. In terms of Appropriate Price, we can work out the cost per lumen of various LED's driven at various percentages (compared to it's maximum capacity) and pick which will be the most appropriate one to use. Then we can check what life and warranty are needed and pick the appropriate brand and type of LED. All this can be done effectively, if all this data is prepared and available to the luminaire designer ready to use. Otherwise we may just go and use certain LED because everyone is using for that application, without understanding the 'why' of it which is unfortunately happening in most of Indian industry.
- PCB thickness Which PCB thickness will be most appropriate from a cost, heat dissipation, electrical resistance and mechanical point of view. Not just going by saying 1.6 is better quality than 1.2 or 1, or thinking that everyone is using this, so we should also do so. These kind of things also need some kind of experimentation and be prepared with some data in advance, so that when it is time to pick, we are not picking anything in a rush, or just copying someone.
- Potting material which potting material is best for your drivers, and is it always necessary to pot, or can we do without potting – will the heat dissipation still be ok without potting etc. Quite often, we just go by our normal processes without sufficient deep thinking, and without asking these questions or doing trials to assess these results. If we let these questions be asked in the organization, and experiments be done and be ready with data, we can optimize on these matters.
- Driver Housing Is there a housing needed at all for the LED driver, which is sitting

inside a luminaire cavity, which itself might be IP protected. Can you just put a heatshrink sleeve and achieve the same results. Again, try these things out before rejecting these ideas.

There could be numerous such ideas that can help you with this micro-balancing. There could also be more ideas with regard to resolving certain un-expressed customer needs, which might show up when you do deep dive into customer needs or market studies. These ideas will help you put in more features in your products, for which a customer is more than willing to pay. This will also help you differentiate from others – albeit in the short term, before others copy it

The core aspects from a management point of view, relevant to Organization Heads for doing this balance successfully, is to create an environment where people are encouraged to not only express, but also try out new ideas. Locate such people in your organization (because they may also be rare to find), and give them the right environment to bring and try out these ideas. At the same time keep naysayers at bay,

especially if they are at senior levels of your organization – they may demotivate people with new ideas. Have structured VAVE exercises, where cost Vs value is assessed for various products and modifications done accordingly.

Unfortunately, from where I see, this is not particularly a strength of the Indian Lighting Industry, that's why even minor improvements are observed in our markets, only after someone in China or the West have done it. There is not so much of a shortage of talent in India, but there is definitely a shortage of this kind of environment and culture – of thinking and trying out something new.

