# "Give the Customers what they want...and No More!!"

Through the practice rounds, we found the importance of analysing every products customer buying criteria.  It was very important to make sure the first 2 of the 4 criteria was met, but there was some freedom on criteria 3 and 4 in the list.  The third and fourth criteria could be utilized to allow for the meeting of the first two criteria.

We found that the following items helped us achieve the best customer survey score:

* **Traditional**– For this product the buyers prefer an age of 2, so it was very important to make small adjustments to the size and performance of the product to ensure that the age range progress through the age of 2 at some point during the round. The performance and size were the third criteria for this product, and the segment prefers the product to fall in the middle of the circle.  Since this segment has a slower drift rate, the small changes required to maintain age also allowed us to maintain the needed position of our product. The second criteria deemed important for this product was price.  In order to lower the price, we had to reduce material cost.  In the initial rounds this was achieved by reducing the MTBF, which fell as the fourth buying criteria and held the least importance to the buyer.  In later rounds we were able to take advantage of the TQM’s to allow for extra material cost savings.
* **Low-End** – This segment’s buyers preferred price and age over ideal position and reliability. To meet the preferred price for this product it is important to hold the product at the lowest reliability score and again take advantage of TQM once available.  To hit the proper age of 7.0 for the product, the product needed to age over several rounds without R&D work.  In the later rounds once the product aged past 7, it was important to modify the product and set it at the ideal position of the product once it would again progress to the age 7.  To properly set the position of the product, it was important to take into account that the ideal position was +0.8 pfmn and -0.8 size from the segments center.
* **High-End** – This segment’s main focus was on ideal position and age, followed by a lower level of importance on reliability and price. This segment has a very fast-moving drift rate, so it was important to have this product in R&D every round.  R&D kept the product young by reducing the products perceived age to be half the original age, it was also important to consider that the ideal position of the product was +1.4 pfmn and -1.4 size from the center of the segment.  This segment really enjoys the introduction of a new product, as this is the only way to hit the ideal age of 0.  To keep the costs of maintaining such drastic movement in R&D within reason, it was necessary to keep reliability on the lower side while keeping the price higher.
* **Performance**– The focus of this segment was reliability followed by ideal position, and then price and age. For this product it was very important to make the product as reliable as possible, and as a result the material cost were higher driving up the price of the product.  Since buyers put little importance on price, the higher price was not an issue in terms of demand.  Ideal position of this product was +1.4 pfmn and -1.0 size from the center of the circle.  As a result, this product required constant R&D modifications, which played nicely with the age being 1 and having little importance to the customer.
* **Size** – The final segment placed their main focus on ideal position and age, followed by reliability and price. The ideal position of the product was +1.0 pfmn and -1.4 size, which placed the product toward the front of the circle on the perceptual map.  To maintain this position constant R&D updates were needed, which played nicely in the younger age of 1.5 preferred by buyers.  Material costs of the product could be reduced by decreasing the reliability and increasing the price on the product.

# "Torture the Data until it confesses!!"

When making decisions for each round, I heavily utilize the data on pages 4 – 10 of the Capstone Courier in coordination with the information available in the Conditions Report. I put this information towards making decisions for R&D, Marketing, and Production.

**R&D Decisions**

I generally start out with the reviewing the Conditions Report for the round we will be entering and adjust our products in R&D to meet the customer’s expectations.  From there I review the production analysis to see how the changes made by our competitors aligned with our products.  I also review the revision dates of competitor’s products.  This provides information of any changes they may have made that will impact our products in the next round.  It also allows me to see the timing their products are coming out of R&D in relation to our products, which may impact how big of a change we will make to a product in R&D.  I then move into the segment analysis for each product.  At this point I mainly look to see how customer scores are aligned with our competitor’s products, and where we could have improved.  I’m also watching for trends in their movements, so I can predict what they may do in the next round.

**Marketing**

            Within Marketing I use the available data to help drive decisions around pricing, promo/sales budget, and forecasting.  For pricing, I utilize the segment analysis to review where our competitors are pricing their product, as well as evaluate how pricing seems to impact the overall demand.  For promo/sales budget, I also utilize the segment analysis to help me understand how the amount we are spending compares to our competitors and the impact our spending has on our awareness and accessibility.  This will help prevent under spending that will cause a reduction in our customer score or overspending that is simply lost cash.  Finally, I utilize the segment analysis, production analysis, and market share to make forecasting decisions.  The segment analysis is useful in determining the industry demand for the next round.  Next, I review our actual versus potential market share to determine how much of the market we were able to pick up with our available inventory versus what we could have potentially taken.  Finally, I review the production data to estimate how our products will compare in relation to what our competitor’s may be planning to determine the lowest percentage of the market our products will make up to create the worst-case scenario.

**Production**

            Within Production, decisions on the number of products to produce need to be made.  For this I have to calculate the best-case scenario. To do this I utilize the same data mentioned above to determine the worst-case forecast, but this time I evaluate our competitor’s products to decide what highest amount of the market that our products will be able to take.  This will help us determine the appropriate amount of inventory to produce to prevent stock outs.  I also use this data to determine what the demand will be for each product in the final rounds, to decide if we will need to buy or sell capacity.

# "Pick a Strategy..any Strategy!"

Our group planned on staying competitive in all segments by meeting the buying criteria for each product for each round and then spending an adequate amount on the Sales and Promotional Budgets. In this way our strategy mainly fell into the category of Broad Differentiator.  The mission statement for this strategy calls for the offering of premium products that withstand the test of time.  In coordination with the strategy, we focused a lot of time and effort in R&D, as well as focused on the awareness and accessibility of our product.

However, by the time we got into the first round of competition we realized that we would need to shift our strategy some to respond to what our competitors were offering.  Our competitors were all matching meeting all the buying criteria for each product and had taken the approach of introducing new products.  As a result, they were flooding the segments that made up the largest portions of the industry which created a lower percentage of the market available to each product.  Our competitors would be making up a higher percentage of each segment by having multiple products, and our products would just fall into the mix of a bunch of well-designed products.  As a result of this our strategy began to shift to more of a Broad Cost Leader.  We realized we were going to have to make our products stand out to our customers in a way that our competitors would not be able to easily match.   We had to keep our design up with competitors but utilized TQM to the maximum to reduce overall material and labor costs down as well reduced our spending in the criteria that customers seemed to not be responding to.  We also focused on keeping inventory carrying costs as low as we could with avoiding stock outs.

Our team also found early on in competition that the product we considered to be our most difficult product to manage became a standout product for us.  In the practice rounds we struggled with making money on our Performance Product, and this continued in the first competition round.  We began to shift our focus as a team on what we could do to improve this product.  This focus began to shift our strategy towards that of a Niche Differentiator.  This also seemed to work for us as our competitors were flooding the Traditional and Low-End Markets with new products.  We realized at this point we would need to take as much of the high technology portion of the industry that we could to remain competitive.  This was working fairly well for us until one of our competitors introduced a new high-end product and took over that segment.  We could react to this by introducing our own new product.  However, at this point in the simulation it seems like the best plan is to continue managing our existing products to our customer’s expectations and keeping prices low rather than spending money on bringing a new product into the mix.