

Capsim Simulation: Maximizing the Traditional Segment Position on the Perceptual Map

In the Capstone Team Member Guide 2012, page 4, section 2.15 titled *Market Segment Positions on the Perceptual Map*, students are given guidance about how to arrange products within the center circle. At the bottom of page 4, graphs are shown depicting segment positions and how they drift apart from the beginning of the simulation to the end of the simulation. The Y-axis is Size and the X-axis is Performance. Each axis extends from 0 to 20 units. The text uses Able, the traditional product for Team Andrews as an example.

In the 2012 summer session at Georgian Court University in Lakewood, NJ there are five Teams with 3 members each: Andrews, Baldwin, Chester, Digby and Erie. A sixth team is the computer team Ferris. Each team (company) will develop their own strategy through six rounds. The modules are: Research and Development, Marketing, Production and Finance. In the third round the Human Resources Module will be added.

This lesson is specific to positioning the Traditional product. A team should download the Industry Conditions Report for Round 0. In Section 1: Segment Locations and Drift Rates, on the first page, Table 1 depicts the Segment Circle Drift Rates. Every year the customer demands increased performance and decreased size. However there are varying degrees of demand depending upon the segment.

The Traditional Segment has a yearly drift rate of +0.7 for Performance and -0.7 for Size. The Perceptual Map shows the Traditional Circle in the Center of the upper right hand corner of the map. Note the overlap of all segments: Low End, Performance, Size and High End at the beginning of Round 0. Table 2 displays the segment centers at the end of each round. Drift rates will be different for each segment. Every team should make a copy of Table 2, so they can judge where the center segments are located at the end of each round.

Next the teams download the Capstone Courier for Round 0 and go to Traditional Statistics. Note the inner circle has a solid line and the outer circle has a dashed line. A company does not want their product to be outside the dashed line. If this occurs the company will not sell the product. In the Traditional Segment, Ideal Positioning is 21% in importance for the customer buying criteria for the product. Age is the most important customer buying criteria in the Traditional segment at 47%. A product will never be too antique or too new to be considered for purchase.

In Round 0, Able and all the competing teams traditional product start with a Performance (Pfmn) Coordinate of 5.5 units and a Size Coordinate of 14.5 units. In Round 0, the Traditional Statistics indicate that the Ideal Position on the perceptual map is Pfmn 5.0 units and Size 15.0 units. Therefore product Able is already in a good position since its Pfmn begins at 5.5 units which is greater than 5.0 units and its size is 14.5 units which is smaller than 15.0 units.

Now teams check the Industry Conditions Report Table 2. The Traditional Segment center located at the end of Round 1 is Pfmn 5.7 units and Size 14.3 units. Team Andrews goes to the Research and Development Module and increases Able Pfmn from 5.5 units to 5.7 units and decreases size from 14.5 units to 14.3 units. This is not a large increase or decrease and the R&D cost should not be overly expense. Also the revision date for the upgraded product is ready within a few months. You will have a newer product in the Traditional segment. In the Traditional Segment, Age is the most important customer buying criteria. Therefore you want the age of the product to be within six months of the ideal age of 2.0 years.

In the Industry Conditions Report Table 1 shows a yearly segment drift for Pfmn of +0.7 and Size of -0.7. If a team wants to maximize Performance than increase Pfmn from 5.5 units to

Pfmm of 6.2 units and decrease Size from 14.5 units to 13.8 units. The cost to R&D will increase and the Revision Date of the product will be much later. You want all revisions done by January 1 of the next year. The upgrade of the product will make the Traditional product newer at the later date. Therefore during the year you will keep your product at 2.0 years old. Remember that the most important customer buying criteria in the Traditional segment is product Age at 47%. As each round progress, the companies will have to adjust to what their competitors are doing. One year a company may make a large adjustment in the performance and size of the Traditional product. In another year it may not be necessary to change the coordinates because you want the age of the product to be close to ideal.

Each segment: Traditional, Low End, High End, Performance and Size have different customer buying criteria with expectations and varying degrees of importance. In the Low End segment Price is most important at 53%. Ideal Positioning is just 16% in importance. In the High End segment Ideal Positioning is very important at 43%. However, Age is fairly important at 29%. The Performance Segment has Reliability, Mean Time before Failure (MTBF) as the most important customer buying criteria at 43% and Ideal Positioning at 29%. In the Size segment Ideal Positioning is the most important aspect at 43% and Age is second most important at 29%. During the competitive rounds it is a real challenge for a team to get the proper alignments of Performance, Size, Ideal Age, Price and Reliability (MTBF).

This is an added note. In the Performance segment Reliability, Mean Time before Failure (MTBF), is the most important customer buying criteria at 43%. The MTBF range is 22000-27000 hours. Do not go beyond the MTBF of 27000 hours. Any increase in hours beyond the maximum range is a waste of money.