Customer loyalty and customer value - 6

Interpreting value ratios

By Chuck Chakrapani

In the November 1997 issue of Imprints we discussed the procedures and formulas to derive various ratios related to customer value, such as Market Perceived Quality Ratio (MPQ), Price Satisfaction Ratio (PSR), Relative Price Ratio, and Customer Value ratio. The calculations are reproduced as follows.

Exhibit 1: Calculating value ratios

	(1)	(2)	(3)	(4)	(5)
	Derived	**Performance ratings**	**Performance ratings**	**Ratio**	**Weighted**
	Importance	**You**	**Competition**	**(2)/(3)**	**(1) x (4)**
Quality					
Product	10	8	7.5	1.07	0.11
Billing	20	8.8	9.1	0.97	0.19
Customer service	15	6.7	6.2	1.08	0.16
Competence	40	8.4	9.4	0.89	0.36
Flexibility	15	8.9	8.2	1.09	0.16
Market Percent Quality Ratio (MPQ)*					**0.98**
Price					
Product	15	7.5	7.2	1.04	0.16
Accessories	20	7.8	7	1.11	0.22
Replacement parts	5	6.5	6.4	1.02	0.05
Lease interest	60	5	6	0.83	0.5
Price Satisfaction Ratio (PSR)**					**0.93**
Relative Price Ratio***					**1.08**
Customer value ratio vs. competition******					**0.97**
*	This is the sum of weighted quality ratios as calculated in column (5)				

**	This is the sum of weighted price ratios as calculated in column (5)				
***	This is the inverse of the sum of weighted price ratios				
****	(MPQ x Quality weight) + (PSR x Price weight). Customer value raio here is calculated in this example assuming that the customer attaches as a weight of 80 to quality and 20 to price.				

What do these ratios tell us and how do we interpret them?

Market Perceived Quality (MPQ)
The first ratio that we calculated was the Market Perceived Quality ratio. This ratio weights each performance attribute by the importance customers attach to it. MPQ is a very important ratio because it deals with attributes that make up quality as perceived by customers, weights them by their importance and makes comparisons with our competitors possible.

Here is how to interpret the MPQ ratio:

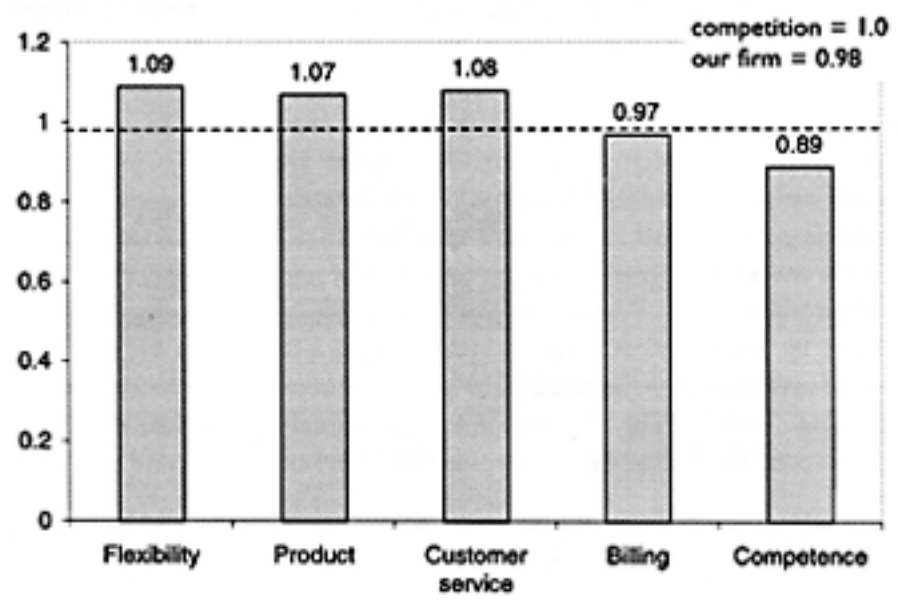
1. When this ratio is 1.0, we deliver the same quality as our competition, as perceived by the market. We don't offer any added value in terms of quality. Neither does the competition.
2. When the ratio is below 1.0, the quality offered by our competitor is perceived to be better.
3. When the ratio exceeds 1.0, the quality offered by us is superior to that offered by our competitor.

The greater the deviation from 1.0 in either direction, the greater the disparity in perceived quality between us and the competition.

"Although we excel in three of the five attributes that make up the quality dimension, we underperform the competition overall in market perceived quality."

We can now plot the ratio of individual attributes against the competitor (Exhibit 2). The plot shows something of interest. Although we excel in three of the five attributes that make up the quality dimension, we underperform the competition overall in market perceived quality.

Exhibit 2: MPQ - Individual attributes

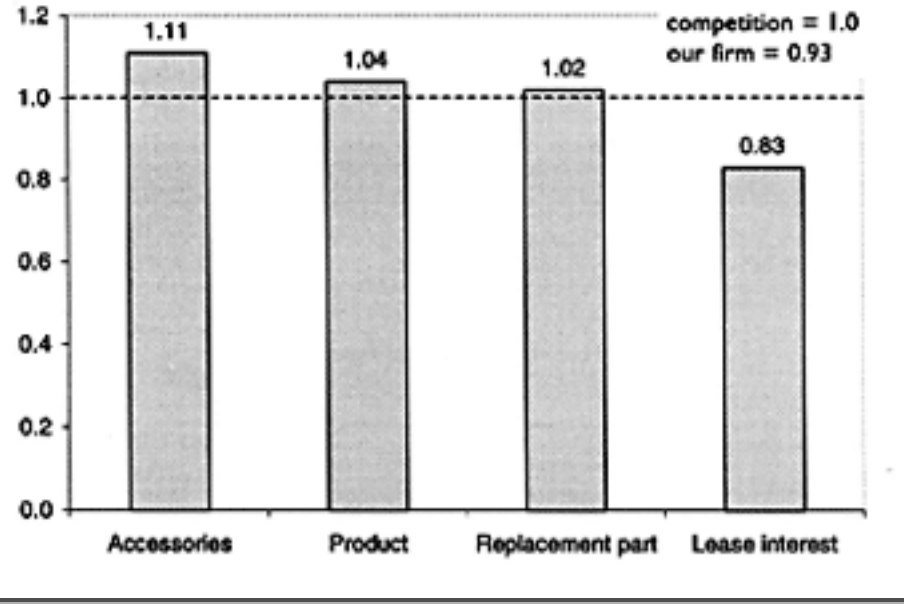


This is because we seriously underperform the competition in an attribute that is deemed most important by customers: competence. 40% of market perceived quality is driven by competence. If we want to outperform the competition either we need to increase our competence or, alternatively, we need to be considerably superior to our competition in other attributes such as product, customer service, flexibility and billing.

Price Satisfaction Ratio (PSR) and Relative Price Ratio

Similar interpretations apply to the relative price ratio as well. The problem we discussed earlier - excelling in a majority of attributes and still trailing the competition overall - is even more obvious here (Exhibit 3). We excel in three of the four attributes and yet do not achieve even parity with the competition because in one very important attribute (lease interest) we seriously underperform the competition.

Exhibit 3: PSR -Individual attributes



Because the higher the price the lower the price satisfaction, we calculate the inverse of price satisfaction to arrive

at the relative price ratio (see Exhibit 1) and use this to create a customer value map.

Customer Value Map
A customer value map plots market perceived quality against relative price ratio (see Exhibit 4). The purpose of the plot is to identify the fair value line. The fair value line is the line of points at which competitors will neither lose nor gain market share. In practice, we do not know what these points might be. So how do we arrive at the fair value line?

One common way of arriving at the fair value line is to derive the importance customers attach to quality and to price. We can either ask the customers or, as is done more and more frequently, derive the relative importance of these two sets of attributes using the techniques we used to derive the importance of attributes in each set.

Once we have these derived importance scores, we can plot the fair value line such that its slope is equal to:

Quality weight / Price weight

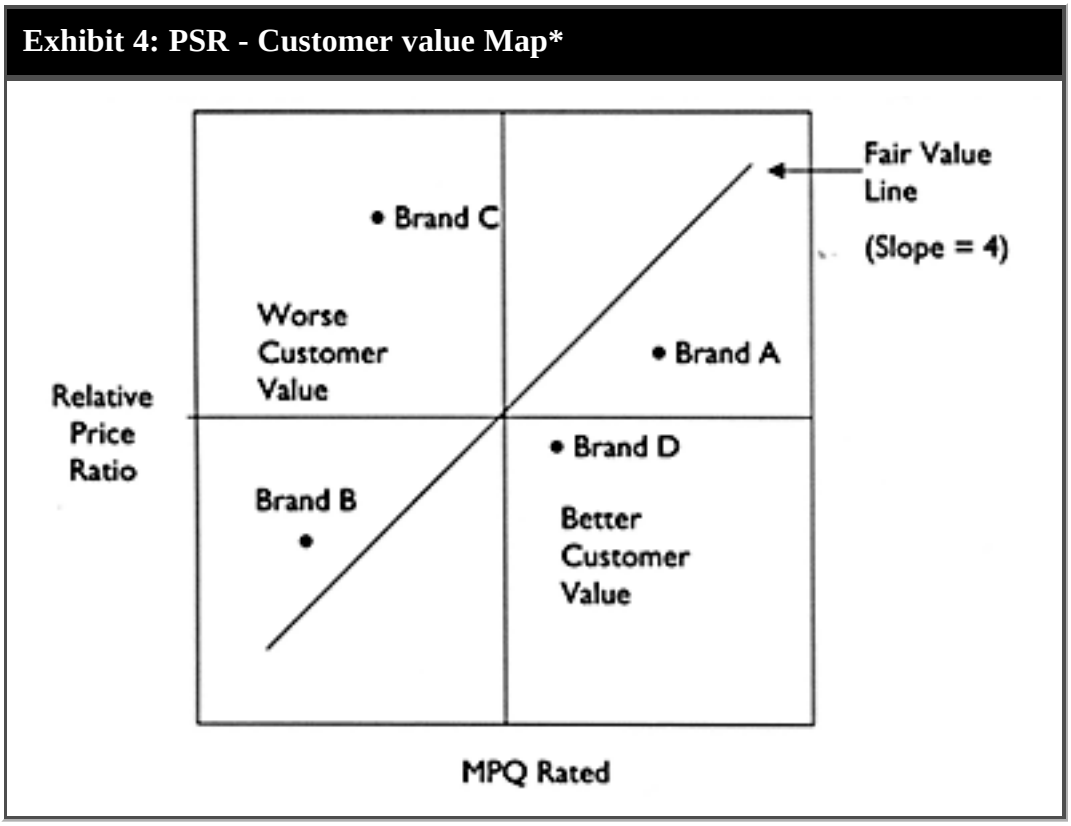
In our example, this would be

0.8 / 0.2 = 4.

This is how the fair value line is calculated and is shown in Exhibit 4.

1. Firms that are below this line on the right quadrants have low relative price ratios but have high market perceived quality. Therefore they are good candidates for gaining market share.
2. Conversely, firms that are on left quadrants above the line have high price ratios but low market perceived quality. Hence they are candidates for losing market share.

Exhibit 4: PSR - Customer value Map*



* Hypothecial map (not based on the data presented)

Customer Value Ratio
If we assume customer value is a function of market perceived quality and price, then it makes sense to combine

the two ratios to arrive at a single number to represent the customer value ratio. The Customer Value Ratio is calculated by

[(Derived importance for Quality x MPQ]

+ [(Derived importance for Price x PSR]

In our example,

(0.98 x .8) + (.93 x .2) = 0.97

As before, we would like the ratio to be at least 1, the higher the better. Even though we did not perform very well on price, because customers attached greater importance to quality, our overall performance turned out to be close to that of our competitor.

How do the ratios contribute to an action plan?
In addition to providing a way of assessing where we stand in relation to the competition, these ratios and maps provide us with concrete ideas to improve customer value and, as a result, customer loyalty.

1. The ratios attached to each attribute show where we are weak relative to the competition. For instance, if we are above the customer value line on the left side of the customer value map and our competition is on the right side below the line, then obviously we need to improve our customer value ratio if we are to remain competitive. The analysis shown in Exhibit 1 shows how to achieve this.

2. By providing separate weights for price and quality, the ratios provide a means of altering one or the other (or both) as a means of increasing customer value. A firm which has no means of decreasing the price can improve the overall customer value ratio by strengthening the components of quality.

3. The weights of variables that are used to compute MPQ and PSR identify the attributes that have the highest leverage in changing the ratios. For instance if the actual price of an automobile has a weight of 0.1 while the lease interest has a weight of 0.4, PSR will be strengthened much more by lowering the lease interest than either by offering discounts or by lowering the price. This information can be valuable, especially if all other alternatives have similar costs as far as the firm is concerned.

4. By doing this analysis by demographic groups (or by other segments), we can gain new insights as to which attribute we should pay attention to for different groups.

5. We can use the customer value ratio as the leading indicator of market share change. Other things being equal, firms in the top left, above the line will lose their market share to firms on the bottom right below the line firms.

6. We can uncover potential opportunities that might help us prevent churn. For instance, if our price is amongst the lowest on the market but customers attach only a 0.1 weight to price and 0.9 to quality, it is an indication that we can deflect resources towards building quality. Should this move increase the price, it will still be acceptable, since churn due to poor quality is 9 times more likely than churn due to dissatisfaction with price.

Dr Chuck Chakrapani is President of Standard Research Systems Inc. He can be reached at (416) 340-1722 or *srsystems@msn.com* .