Law of Diminishing Marginal Utility

The law of diminishing marginal utility is one of the fundamental laws of consumption. Gossen was the first to formulate this law in Economics. Therefore, this law is also called Gossen's first law of consumption.

Alfred Marshall, British Economist reformulated and defined the law of diminishing marginal utility as follows:

“The additional benefit which a person derives from a given increase of his stock of a thing diminishes with every increase in the stock that he already has.”

This law is based on the fundamental character of human wants that is wants are satiable. Hence, it is called as the law of satiable wants.

Statement of the Law

This law is based on the daily experience that when a person gets more of a commodity, the desire to have still more diminishes. When a consumer consumes the first apple he may get some utility, when he consumes second and third and fourth, the utility he gets goes on diminishing. This tendency is known as diminishing utility.

This can be explained with the help of the following table

<table>
<thead>
<tr>
<th>No. of Apples</th>
<th>Marginal utility</th>
<th>Total utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>-5</td>
<td>45</td>
</tr>
</tbody>
</table>

In the above table, the total utility obtained from the first apple is 20 utilities, which keep on increasing until the consumer reaches saturation point at 5 the apple. On the other hand, marginal utility keeps on diminishing with every additional apple consumed. When he consumes the 6th apple, he has gone over the limit. Hence, the marginal utility is negative and the total utility falls.
With the help of the schedule, we have made the following diagram:

In the above diagram on X axis units of Apples are shown and on Y axis the marginal utility. The diagram shows the utility from the first, second, third, fourth and fifth Apples. As the number of Apple increases, the marginal utility diminishes.

The consumer will be in equilibrium when the Marginal utility equals the Price. At this point, the consumer attains maximum satisfaction.

Assumptions or Limitations

For the law of diminishing marginal utility to be true, we need to make certain assumptions. Following are the assumptions

1. Homogeneous units
   The different units of a commodity are identical in all respects. Otherwise this law will not operate.

2. Continuous consumption
   There is a continuous consumption of units. That is, there is no gap between the consumption of two units.

3. No change in taste and habits of the consumer
   The income, taste, temperament, habit, etc. of the consumer also remain unchanged. Consumer’s mental outlook should not change during consumption. If these change, the this law will not operate.

4. Standard units of consumption
   The units of consumption consist of standard units. If a man is thirsty, then water should be given in units of a glass. If you give him a spoonful of
water, then the second spoon would conceivably have higher utility than the first.

**Exceptions for the Law of Diminishing Marginal Utility:**

There are certain things on which the law of diminishing marginal utility does not apply. Following are the exceptions for this law:

Desire for money, Desire for knowledge, Use of liquor or wine and Collection of rare objects.