Exercise Set 15

IMPERFECT COMPETITION

III. Questions

1. Select values for each firm's sales (say, in millions of dollars).

   Let Firm A's sales = $120 million; B's sales = $60 million; C's sales = $20 million.

2. Compute the market share for each firm.

   Market share for Firm A = Firm A's sales / Industry sales

   = 120 / (120 + 60 + 20)

   = 60%

   Therefore, $s_1 = 60$.

   Similarly, $s_2 = 30$; $s_3 = 10$.

3. Obtain the HHI value for the industry.

   HHI = $s_1^2 + s_2^2 + s_3^2$

   = 3600 + 900 + 100

   = 4600

4. Suppose Firms B and C merge. Compute the market shares of Firm A and the newly-formed firm. Obtain the corresponding HHI value.
   [Assume that the sales of Firm A have not changed, and that sales of the merged entity is the sum of the sales of B and C prior to the merger.]

   Firm A's market share is 60%, so $s_1 = 60$.

   The other firm's market share is 40%, so $s_2 = 40$.

   New HHI = 3600 + 1600 = 5200

5. From the preceding, we note that when firms in an industry merge, the HHI for the industry will [**increase / decrease / remain the same**].

   HHI has increased after the merger.

6. If Firm A were a monopoly, the industry's HHI would be _______________. Explain.

   For a monopoly, s_1 = 100.

   Accordingly, HHI = 100^2 = 10,000

7. Suppose an industry has 3 firms and it has an HHI value of around 3500. Does the fairly high HHI value indicate that the firms are unlikely to compete vigorously in the market? Discuss critically, noting the importance of the presence -- or absence -- of barriers to entry in the industry.

   A high value for HHI implies that a small number of firms dominate the industry. But if barriers to entry are insignificant, the prospect of new firms entering the industry will ensure that competition among the current firms remains vigorous. This is the idea behind "contestable markets."