"Love for Variety", Outside Option, and Platforms

Addendum to the Thesis Submitted to Jadavpur University

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The Addendum to the Thesis

1. Page 77, last line after Assumption 6: A footnote is added that reads, "The change in results on violation of Assumption 6 is discussed later."

2. Page 82, after Proposition 2: A footnote is added that reads, "If Assumption 6 is violated, the platform chooses $F_S = \frac{(1+C_S)}{2}$ under unconstrained profit maximization, and F_B solves $(F_B - C_B)\frac{\partial N_B(.)}{\partial F_B} + N_B(.) = 0$. A lower C_S implies a lower F_S. However, F_B and N_B do not change. The number of varieties on the platform rises. $\frac{\partial \pi}{\partial C_S} = \frac{\partial[(F_S - C_S)(1 - F_S)]}{\partial C_S} = \frac{C_S - 1}{2} \gtreqqless 0 \ \ iff \ \ C_S \gtreqqless 1$."

3. Page 83, after Proposition 3: A footnote is added that reads, "If Assumption 6 is violated, $F_S = \frac{(1+C_S)}{2}$, and F_B solves $(F_B - C_B)\frac{\partial N_B(.)}{\partial F_B} + N_B(.) = 0$. A lower C_B implies a lower F_B. However, F_S does not change. The number of varieties on the platform remains unchanged, but N_B rises. $\frac{\partial \pi}{\partial C_B} = \frac{\partial[(F_B - C_B)N_B]}{\partial C_B} = (F_B - C_B)\frac{\partial N_B(.)}{\partial F_B} < 0$."

4. Page 107 at the start of the footnote, the following lines are added: "The location of the sellers at far-off places from the mall would increase the buyers' cost of accessing the differentiated product because of the transport costs. Therefore, the buyers' indirect utility would fall, and the marginal buyer exits from the market for the differentiated product, adversely affecting the intensive margin of all the sellers in the market. Therefore, the sellers who do not enter the mall locate themselves just outside it."

5. Page 132, after Proposition 2: A footnote is added that reads, "If the assumption of $T_0 < \frac{(1+C_S)}{2}$ is violated, the platform chooses $F_S = \frac{(1+C_S)}{2}$ under unconstrained profit maximization. The mall chooses to locate at $a = 0$, the opposite extreme of the city, which is farthest away from where the homogeneous product market is located (i.e., $a = 1$). A lower C_S implies a lower F_S. However, a

and N_B do not change. The number of varieties in the shopping mall rises. $\frac{\partial \pi}{\partial C_S} = \frac{\partial[(F_S - C_S)(1 - F_S)]}{\partial C_S} = \frac{C_S - 1}{2} \gtreqless 0$ iff $C_S \gtreqless 1$."

6. Page 133, after Proposition 3: A footnote is added that reads, "A similar corner solution as discussed in Proposition 2 will occur if the assumption of $T_0 < \frac{(1 + C_S)}{2}$ is violated. A lower C_B implies a lower F_B. However, F_S does not change. The number of varieties in the mall remains unchanged, but N_B rises. The effect on profit will be, $\frac{\partial \pi}{\partial C_B} = -N_B - C_B \frac{\partial N_B(.)}{\partial C_B} \gtreqless 0$ iff $C_B \frac{\partial N_B(.)}{\partial C_B} \gtreqless N_B$."

Signature of the Candidate

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