Smart Campus

Case Study¹

"INNOVATION AND IMITATION"

CASE:

Suppose that firm A has an idea for a new product (a new software package, say). It will take research and development to bring the new product to market and, of course, whether or not it will then be a success is uncertain. At present the idea seems quite good and the product is given at least a 50% chance of success in the marketplace. Once it is launched, it will take a year before the commercial success or failure of the product can be determined. Overall, and at first glance, it seems like a worthwhile endeavour.

However, the product is easily and rapidly imitated (or "cloned") and it is difficult to obtain an *effective* patent. It is possible to get around any patent by making minor and basically inconsequential design variations. Firm A's competitors are unaware that it is thinking of introducing such a product and will remain so until the product actually arrives on the market.

If firm A decides to introduce the new product, its rival firm B has three options:

- (1) Do nothing
- (2) Introduce a clone as soon as A's product appears on the market. All resources that the cloning project requires have to be committed at the time the decision to clone is made and cannot be withdrawn later
- (3) Wait for a year after A's product is introduced to see whether or not it is a success. If B decides to wait and A's product is a success, B would lose a one-year head start to A. However, if it is a failure, B can save on the cost of the cloning project.

If the product is a success, that is, if consumers like it, its clone will also be a success. Consumers have no preference for the original product over the clone if both are in the market.

If firm A decides to introduce the new product the possible gains and losses can be summarized as in the table below. All figures are *annual* gains and losses over *current* profit levels in millions of euros.

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Firm A, Firm B

	Does not Clone	Clones
Product is a success	3, -1	1,1
Product is a failure	0,0	0,0

Figure 1

The first number in each box denotes firm A's annual profit gains over current levels and the second number is firm B's gains (or losses) relative to current levels. Notice that this is *not* a "game matrix". It just gives both firms' profit gains in various scenarios. The numbers are easily interpreted. If the product is a success, total sales will increase and industry profits will rise to the tune of \in 2 million. If both firms have the new product these increased profits are shared equally as consumers are indifferent between the original and the clone. If only firm A has the new product and it is a success, it gains all the increased custom and the resulting profits (\in 2 million), and it also steals some of the existing market (to the tune of \in 1 million) from firm B.

In the event the product is a success, it is expected to have a life of 10 years after the date of first introduction.

What to do if you were firm B's Chief Innovation Officer?



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