MFN, Durable Goods Monopoly, And Licensing

BY LAWRENCE P. SHANDA* and MARK D. KLEINGINNA**

A creative economic analysis of a widely used licensing provision; explains motivations of parties to include MFN clause

Irrespective of the form intellectual property takes, it derives its value from the economic benefits that accrue to its holder. A rational holder of intellectual property will, therefore, want to maximize these benefits. However, there are many alternatives by which to pursue this goal, and they range from personally employing the IP to licensing the property to others for exploitation. Once the holder decides to exploit the IP through license agreement(s), he(she) must determine if an exclusive license would be more appropriate than a nonexclusive license.[1]

In this article we discuss the economics of nonexclusive licenses in general, and specifically the impact of the Most Favored Nations clause[2] on nonexclusive licenses. After a brief review of the MFN, the economic theory of the durable goods monopoly problem will be described. Application of this economic theory to the licensing process is utilized to offer an explanation as to the motivations of both the licensor and licensee to include the MFN in a license agreement.

THE MOST FAVORED NATIONS CLAUSE

To protect his competitive edge, a nonexclusive licensee wishes to ensure that the terms of his competitors' license agreements with a particular licensor are no more favorable than his own agreement. This is usually accomplished by inclusion of the MFN into the license. The general terms of this clause state that the licensor cannot license the IP under more favorable terms to others. Although several variations exist as to remedies under the MFN, if the licensor were to establish additional agreements deemed to be more favorable, the more favorable terms would usually apply to all other existing agreements containing an MFN.

One could conclude that including the Most Favored Nations clause is solely for the licensee's protection. The licensor appears to grant a significant concession to all licensees without receiving anything in return. This appearance is magnified by the fact that most nonexclusive licensees demand that the MFN be included and that the licensor normally concedes to this demand in order to license his IP nonexclusively. Although we will demonstrate that the licensor actually gains by including the MFN in nonexclusive licensing situations through the application of the durable goods monopoly problem, the licensor should ensure that this clause does not limit his alternatives in future license negotiations.

In this regard, license terms and rights may vary across geographic regions, industries, and the like and should not trigger MFN adjustments. The licensor should realize that this clause is only intended to protect the licensee from a competitive disadvantage, and the applicability of the MFN should be as specific as possible. Items that should be clearly delineated are: the field of use, the definition of "favorableness" and how to evaluate this factor, and the impact of past and future infringements that may create implied licenses.

For example, it is highly probable that a license specific to the bulk chemical industry would have significantly different terms and royalty rates than would a license to the medical instruments industry. The field of use would be dissimilar. Therefore, different terms or royalty rates should not present a competitive disadvantage to one industry or the other, since they are not in direct competition. In this instance, the original license should limit the field of use for the licensee, so that including the MFN would be innocuous.

A licensor wishing to grant multiple licenses for his IP faces incorporating a Most Favored Nations clause in nonexclusive license agreements. This clause, when well written protects the licensee and gives the licensor the flexibility required to continue licensing. Moreover, the MFN also grants economic benefits to the licensor, as we explain in the following section.

THE DURABLE GOODS MONOPOLY PROBLEM

A durable good is any good that will be useful to its owner over a long period. A classic example of a durable good is a washing machine. Consumers do not buy a washing machine to do wash for just one day; they buy a washing machine to do wash in the future as well. The washing machine is useful to the consumer for a long period.

In the market for durable goods there are pricing cycles. A pricing cycle is characterized by a series of discrete intervals in which the price of a particular good (in our example, a washing machine) fluctuates from one period to the next. Pricing cycles occur because different customers have different tastes and budget constraints concerning the

*Assistant Vice-President, Valuations Services Group, AUS Consultants, Moorestown, New Jersey.
**Economist with Equitable Gas Company, Pittsburgh, Pennsylvania.

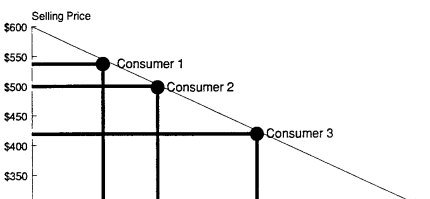
same durable good.

The supplier of the durable good would like to be able to charge each customer exactly the amount that equals the value the customer has placed on the good. If the supplier knows the relative value that each consumer has placed on the good, he could first degree price discrimination.[3] Being able to first degree price discriminate should result in maximum profitability to the supplier by completely eliminating the consumer surplus in this market.

The definition of consumer surplus is the difference between the value placed on the durable good by the consumer and the amount that the consumer actually pays for the good. Chart 1 presents a demand curve in which the consumer surplus equals zero. In this instance, the amount of value that each consumer has placed on the washing machine is indicated by the labeled point on the demand curve and the associated x-axis intercept. Chart 1 shows that Customer 1 values the good at $540, while Customers 2 and 3 value the good at approximately $505 and $425, respectively. This chart also indicates by the lines connecting both axis to the consumer demand point that the selling price is equal to the value that the consumer has placed on the durable good.

As one might conclude, the difficulty of pricing a durable good for each separate consumer is enormous since durable good retailers do not have this type of consumer information. Suppose, however, that a retailer were to offer a washing machine that cost $300 for a retail price of $600. When he feels that everyone who would have bought the washing machine at $600 has done so, he will lower the price to, say, $500. The retailer will then wait until he thinks he has sold all the washing machines he can for $500, and will systematically lower the price until the price equals marginal cost. It seems upon this analysis that the retailer can use time to second degree price discrimate.[4] The retailer seeks to reduce the consumer surplus as much as possible through price discrimation. In reality, this is the maximum revenue that the appliance retailer could hope to generate.

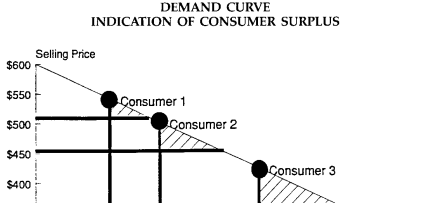
DEMAND CURVE
INDICATION OF ZERO CONSUMER SURPLUS



Value of Good to Consumer

Chart 1

DEMAND CURVE
INDICATION OF CONSUMER SURPLUS



Value of Good to Consumer ($)

Chart 2

Chart 2 is an example of a demand curve with consumer surplus present. As presented on this chart, the value that the consumer has placed on the durable good exceeds the price that he will pay for the good. Consumer 3 has indicated that he values the good for slightly over $425, as shown by the vertical line intersecting the consumer demand point and the x-axis. At the same time, however, the horizontal line connecting the price or y-axis to the consumer demand point shows that the price paid for the machine is $350. The shaded area bounded by the demand curve and these two axis intercepts is the consumer surplus.

Although this phenomenon of pricing cycles is interesting, it is only half of the durable goods monopoly problem. Suppose that the durable goods retailer was the only seller in town and that he could change the price of the good at any time. In addition, suppose that the durable good lasted forever. If the consumer were rational, he would delay the purchase of the good until the following period. Theoretically, the good will be less

expensive due to the retailer lowering the price in an attempt to price discriminate. In fact, as all consumers delay in purchasing the good, the period between price changes will shorten, and the monopolist's price will quickly approach his marginal cost. It is the durable goods monopolist's pricing flexibility that is his downfall.

The only way out of such a dilemma is for the retailer to credibly commit to maintaining a price at a certain level for a relatively long period. If he cannot commit to a certain price level over a period as described above, an interesting phenomenon occurs. The durable goods monopolist starts to compete with himself. This happens because the next period's less expensive machine and this period's machine are very close substitutes, and they get closer and closer to being perfect substitutes as the decision period shortens. The problem faced by the durable goods monopolist is how to ensure that he will obtain some of the economic profit that would normally accure to him. The appliance retailer, as we have seen, struggles with these pricing cycles all the time. He can, to a certain extent, credibly commit because there are rigidities in changing appliance prices.

ECONOMICS OF MFN

Let us now examine the IP license as a durable good. The application of durable goods monopoly theory to IP licensing requires only that the IP and any license to exploit the IP be considered a durable good. As previously defined, a durable good is any good which is useful to its owner over a long period. Since patents are granted for 17 years and licenses are negotiated for multiple years, intellectual property can be considered a durable good.

The holder of intellectual property who wishes to license his IP faces the same dilemma as the appliance retailer, except for one factor. The IP holder has greater pricing flexibility, in that he can lower the price of his good at any time. The licensor must therefore find a way to convince prospective licensees that he will not lower the price to other licensees in succeeding periods. This is accomplished in a legal context by including a Most Favored Nations clause in the license.

Such a clause insures the prospective licensee that no one else will receive more favorable license terms than him. If the IP holder does license others with more favorable terms, the licensee can direct the implementation of the MFN to obtain these terms. The licensor, on the other hand, can commit to the licensee that the terms negotiated are and will be the best available.

As we have previously discussed, the licensor appears to have conceded a major point without receiving anything in return. On the contrary, the licensor uses the MFN to mitigate the durable goods monopoly problem. By pledging to license terms that will not follow pricing cycles, the licensor has defined his market. Licensees who value the good at a price higher than or equal to the stable terms will enter license agreements. Those who value the goods for lower than these license terms will not enter license agreements. In addition, those who value the goods for less than the current license terms should not expect the terms to be reduced, as would normally be the case in a durable goods monopoly. Therefore, the entire decision for the licensee becomes whether to license, not when to license.

The ramifications of including MFN for the licensor are twofold. First, the licensor is not initially minimizing the consumer surplus. Utilizing Chart 2 as an example, we can see that if the selling price is $450, Customer 1 will exhibit a significant consumer surplus and Customer 2 will have the surplus that is indicated on the chart. Additionally, Customer 3 will never be able to enter into a transaction, as a result of his valuing the good for less than the most favorable terms offered.

Second, realizing that more favorable terms will never be offered in a future time period, Customer 3 may eventually reevaluate his decision and enter into an agreement. Inclusion of the MFN may have the affect of forcing Customer 3 to reconsider the value he has placed on the license. The total universe of potential customers for the good at the committed price in the current market, therefore, may increase in absolute terms. The result is that the licensor can counter the effects of creating a large consumer surplus by compelling potential customers to decide in the initial period.

Although the licensor is faced with many of the same factors that a durable goods monopolist faces, the MFN lessens their impact. In fact, the MFN is actually helping the licensor to maintain or increase his profitability, while simultaneously protecting the economic interests of the licensee.

CONCLUSION

The licensor of intellectual property can completely mitigate the durable goods monopoly problem by granting exclusive licenses. However, in many cases the optimal licensing strategyfor the IP holder is to license to more than one firm. Therefore, if the IP holder gives up the exclusive license form of commitment (the major factor in the durable goods monopoly problem), he must find another way to commit to license terms or he will lose all his monopoly profits.

The origin of the most favored nations clause has an economic basis, which is explained and supported by the theory of the durable goods monopoly problem. The motivation of the licensee to include the MFN is apparent, in that without the MFN, the licensee could potentially find himself at a competitive disadvantage. The licensor should be motivated to include the MFN, as well. Not only will including the MFN help in negotiating and closing an agreement, but by committing to maintain the terms of the agreement, the licensor increases his expected profitability.

FOOTNOTES

1. The decision to license exclusively or nonexclusively should be based on the amount of income that can be generated by each method and the relative risks of achieving that income stream. See "Making the Exclusivity Decision," Mark D. Kleinginna and Lawrence P. Shanda, *les Nouvelles*, Vol. XXVI Number 4, December 1991.

2. Also commonly known as the most

favored licensee clause.

3. First degree price discrimination is the phenomenon in which the seller has prior knowledge of the amount that each and every consumer is willing to pay for a durable good. Consumer surplus in this instance equals zero.

4. Second degree price discrimination is characterized by the circumstance in which the seller is able to determine the amount that each consumer is willing to pay for a durable good through pricing cycles. In this instance, the seller does not have prior knowledge of the consumers demand-price function.