"ENTRY ENCOURAGEMENT"

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Abstract

In this paper, we investigate the possibility that a dominant firm will encourage rather than deter entry of a potential competitor. We find that entry can be encouraged by a dominant firm in order to induce a new entrant to resolve the demand uncertainty in a new market. We propose a specific incentive mechanism that the incumbent can use to encourage entry and find plausible circumstances under which entry encouragement is a dominant competitive strategy.

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1. Introduction

The process and timing of entry is of vital importance to our understanding of competitive market structures. Marketing scholars are becoming increasingly interested in this area to the extent that it has important implications for new product development, pricing and advertising decisions in competitive markets. So far, the literature has focused on the idea that existing firms can exploit their first mover advantage and deter entry of potential competitors. By contrast, we identify circumstances under which entry of potential competitors should be encouraged by incumbent firms.

The existing theory of entry suggests that entry in some industries is naturally difficult because of some barrier that has to be overcome. Such barrier might include customer loyalty to existing products, economies of scale or absolute cost advantages (as recognised by Bain (1956)). In some instances, the incumbent's advantage might even be so large that entry is blockaded. That is, even if the incumbent behaves as a monopolist, the entrant cannot operate with a positive profit, as will be the case if the incumbent's monopoly price is below the entrant's (minimum) cost. Even if entry is not blockaded, this is not to say that entry will take place. Indeed, the incumbent's problem is then to credibly commit himself to react aggressively towards the entrant, if entry occurs, to such an extent that the entrant's profit would then be negative. If such a commitment can be realised, in equilibrium the entrant will prefer to stay out and entry is deterred (see e.g. Schelling (1960) and Dixit (1980)).

Several entry deterrence mechanisms have been proposed in the literature : for example, the incumbent can credibly commit himself to make

entry unprofitable by proliferating the number of its brands (Schmalensee, 1978), by building excess capacity (Spence, 1977, Dixit, 1980), by choosing an appropriate level of advertising (Spence, 1980). These commitments will entail a cost. However, entry deterrence, if feasible, can be a profitable strategy : even though the incumbent(s) incurs a cost, he could still turn out to be better off than if entry occurs (in which case profits are depressed by competition). Even if entry occurs, prior commitments will enable the incumbent to manipulate to its own advantage the conditions of post-entry competition (see Fudenberg and Tirole, 1984). Implicit in these mechanisms is also the idea that being first in a market is desirable.

This need not be the case, as the following two examples indicate. "Matsushita generally allows its competitors to experiment with new product concepts. When potential is demonstrated, Matsushita enters the market with a state-of-the-art product backed by large investments and sales targets geared to make the company the volume leader in two or three years" (Abegglen and Stalk, 1985). This observation suggests that (i) Matsushita actually lets competitors move first in new markets even though it presumably has the resources to go first itself and that (ii) if the market turns out to be promising, Matsushita "moves second" with a clear intention to dominate the market. This is somewhat puzzling ; it seems that what Matsushita gains is a reduction in uncertainty, while foregoing the potential (uncertain) profits of early production (accruing to the first mover). Still, everybody in the industry could act that way ! How can we explain that some firm actually takes the gamble of moving first while Matsushita doesn't, even if it could ? This is particularly puzzling given that any entrant will realise that Matsushita will eventually dominate them if the new market is a success.

In the mid-eighties, Coopers and Lybrand, a successful accountancy firm, was attracted by the growing management consultancy market in Europe. They feared, however, potentially damaging effects on their overall reputation if their entry in the new market was a failure. In order to reduce this uncertainty, they induced a small start-up company, O.C.C., to enter the management consultancy market in 1986. They provided O.C.C. with cash, via a small participation and more importantly introductions to their business contacts from their accountancy business. In 1987, having learned, through O.C.C., the keys to success in this new market, Cooper and Lybrand entered themselves the new market via C.L.S. (Cooper and Lybrand Strategy). Following their successful entry into the management consulting market, they are now progressing towards their aim of dominating the European consultancy business in the early nineties. This example illustrates that a large firm might find it profitable to provide incentives (cash and contacts) to a newcomer to move first, in order to reduce the uncertainty and avoid the potential loss of overall reputation in case of failure.

In this paper, we show that in some circumstances it is actually profitable for a dominant firm to **encourage** entry of a competitor; the dominant (incumbent) firm will thus find it profitable to give some entrant the incentive to move first in a new market. The fundamental reason as to why this strategy is profitable, is that the dominant firm attaches a higher value than the entrant to a reduction in uncertainty. As discussed in section 2, this naturally arises because the incumbent is more likely to be concerned about a loss of reputation if the new market is a failure, or because the incumbent is more risk averse. The specific incentive mechanism that we develop in this paper goes as follows.

Consider an incumbent firm operating in a blockaded market and facing a potential new market for which it can use its current technology. The

size of this market is however not known for sure. Still, the probability that the market will prove to be sufficiently large to justify entry can be estimated. As suggested above, the incumbent attaches a higher value to reducing uncertainty and he would like the new entrant to venture into the new market and thereby clear the uncertainty. However, if the initial entry investment is high and the expected payoff from developing the new market is low, even an entrant who is more willing to bear risk might decide not to enter. In those circumstances, the incumbent might give the entrant the following incentive : by letting the new entrant into the original market, he will provide him with the possibility of reducing average cost and enhancing average revenue, in such a way that entering into both markets at the same time will be an attractive prospect. That is to say that the incumbent will encourage the entrant to accept the risk of exploring the new market. If the uncertainty in the new market resolves in a favourable way the incumbent will act as a second mover in this new market.

Our analysis shows that entry should be encouraged if the original market is large relative to the new market and has a lower growth rate than the potential growth rate of the new market. This implies that entry in the new market by the incumbent becomes more attractive later in the game. Furthermore, the demand in the initial market should originally be fairly inelastic implying that letting the new firm in will not be very costly. The probability of success for the second market should be moderate. If the probability of success is too high the incumbent will enter himself. If the probability of failure is too high the incentive necessary to induce the entrant to come into the market will be too costly for the incumbent.

In Section 2, we set out the model and specify the game between the incumbent and the potential entrant. The general conditions under which

entry encouragement will occur are discussed in section 3 and in section 4, we present an illustrative model, which is simulated. In section 5, we summarize our findings.

2. The Model

Assume there is a well established market, market 1. There is also a potential market, say market 2, for a new product that can be manufactured using the same technology as the one required for market 1. It is unclear whether this second market exists at all : there is a probability α that with a marketing expenditure R, this market will actually develop and yield a quantity demanded x_{2t} , at a price $P_{2t}(x_{2t})$ in period t. With a probability $(1 - \alpha)$, the market won't materialise and the marketing expenditure R will be lost. Uncertainty in market 2 will only be resolved if a firm takes the risk of entering the market.

We consider a two period game with two players ; firm 1, the incumbent, and firm 2, the potential entrant. Firm 1 operates with a fixed cost F and a constant marginal cost of production C. The potential entrant would incur upon entry (in either market) an investment (sunk) cost f, which would yield a capacity k and operates with a constant marginal cost of production c. In addition, we assume that the cost advantage of the established firm is such that its monopoly price in market 1 and 2 is below c and hence, that entry is blockaded in the market(s) in which it operates.

As outlined above, we assume that the incumbent attaches a higher value than the entrant to a reduction in uncertainty. This is likely to be the case for the following reasons.

First, the incumbent will be concerned about the effect of a failure on his reputation and the ensuing reduced profitability in market 1. By contrast, the entrant has no reputation to defend. In other words, the payoffs of the game are not the same for the entrant and the incumbent, because the latter faces an externality between the two markets. As a result, he has more incentive to have the uncertainty cleared.
Second, it is likely that the incumbent will be more risk-averse than the entrant. In principle, finance theory suggests that shareholders, being well diversified, will take decisions, so as to maximise the expected value of the firms. As a result, firms should be described as risk-neutral agents. However, managers (being less diversified) are likely to exhibit a risk-averse behaviour. If managers and shareholders are different persons, so that management and control are separated, there is thus a conflict of interest. Principle-agent theory is concerned with the problem faced by a principal (the shareholder) in giving the agent (the manager) proper incentives (through e.g. a contract or a remuneration scheme) to maximise expected value. However, because of the impossibility of writing complete contracts, and because of the asymmetry of information between shareholders and managers, standard results in principle-agent theory suggest that managers cannot be forced into a completely risk-neutral behaviour (see e.g. Shavell (1979) and Grossman and Hart (1980)[2]). Consequently, it is

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2 Grossman and Hart (1980) actually show that the market for corporate control will not in general be sufficient to force managers to act in the interest of shareholders, because of a free-rider problem between shareholders.

appropriate to describe firms decisions as risk-averse[3]. In addition, given that large firms are more complex than small firms, the task of shareholders in gathering appropriate information and monitoring the managers is accordingly more difficult. As a consequence, the behaviour of large firms is likely to be more risk averse than the behaviour of small firms. That is also to say that the incumbent in our model will attach a higher value to a reduction in uncertainty than the small entrant.
In terms of modelling, one could either assume that the incumbent has a different payoff from the entrant, in case of failure, or to assume that the incumbent is more risk-averse. We have taken the latter route. We assume that the incumbent has a von Neuman-Morgenstern utility function $U(W)$, with $U' > 0$, $U'' < 0$, where W is the level of wealth and a $'$ ($''$) denotes a first (second) derivative. The potential entrant is less risk-averse and without loss of generality, we assume that he is risk neutral and maximises expected profits.

The game unfolds as follows. In period 1, the incumbent first commits himself to some price and quantity in both markets. Its decisions are observed by the entrant, which in turn responds by setting quantities in both markets. If either, or both, firms have entered market 2, uncertainty resolves.

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3 This accords with casual observation. Interestingly, even insurance companies, which should be best diversified, exhibit a risk averse behaviour when the stakes are high and the events non repetitive, e.g. events for which there is no statistical regularity behind the likelihood of occurence of alternative states of nature ; in such "catastrophic" events, insurance companies typically subscribe to joint underwriting, which indicates some risk aversion. Similarly, large oil companies frequently form joint ventures with each other in order to explore new oil fields, altough the probability of success of such ventures are reasonably well known before the drilling activities start. A company faced with high stakes and a non-repetitive event, as in our case, is thus likely to be even more risk averse than otherwise.

In period 2, the incumbent again sets prices and quantities, to which the entrant reacts optimally.

Notice that in period 1, the incumbent by setting prices and quantities decides whether to enter market 2 himself or to accommodate entry in market 1. Of course, accomodating entry in market 1 could only arise if market 2 is so risky that the entrant won't take the gamble of entering market 2 only. Accomodating entry will provide the entrant with an additional incentive because of the following : having a certain return in market 1, the entrant can, by allocating his capacity optimally between the two markets, obtain a non-negative expected return.

Notice also that accomodating entry can be a subgame perfect equilibrium only if the entrant makes non-negative expected profits in period 1 ; indeed, since by assumption the variable cost of the entrant is higher than the incumbent firm's monopoly prices, the entrant realises that the incumbent firm can, and will, force it to exit from both markets in period 2, once the uncertainty is resolved.

There are three possible outcomes to the game:

(i) <u>The incumbent remains a monopolist in market 1 and neglects market 2</u>

Because of the incumbent's cost advantage, entry is blockaded and this solution is feasible. The incumbent takes no risk at all and sets strict monopoly prices and quantities in market 1 in both periods. His expected utility can be expressed as:

$$E\,[U\,(W^N)] \;=\; U\,(W^N)$$

where $W^N = \Pi_{11M} + \Pi_{12M} - 2F$, is the wealth in case the incumbent

remains a monopolist in market 1 and neglects market 2.

and Π_{jiM} = monopolist's total revenue, net of variable costs, in market j, in period i.

(ii) <u>The incumbent enters himself the new market in period 1</u>.

Entry is a gamble; with probability α the new market will be a success, in which case it obtains :

$$W_S^E = \Pi_{11M} + \Pi_{12M} - 2F + \Pi_{21M}(X_{21}) + \Pi_{22M} - R$$

$$= W^N + \Pi_{21M}(X_{21}) + \Pi_{22M} - R$$

where W_S^E : wealth for the incumbent when he enters the new market and this market is a success

X_{21} : quantity produced for market 2 in period 1.

This quantity is not the same as the monopoly quantity for market 2 because of the incumbent's risk aversion and the stochastic nature of the demand.

With probability $(1 - \alpha)$ the market will be a failure, i.e. a quantity X_{21} will be produced by the incumbent and zero will be sold.

The incumbent's wealth is then written :

$$W_F^E = \Pi_{11M} + \Pi_{12M} - 2F + L_E(X_{21}) - R$$

$$= W^N + L_E(X_{21}) - R$$

where $L_E(X_{21})$ are the losses in market 2 in period 1, as a function of the quantity produced, i.e. $L_E(X_{21}) = C\,X_{21}$.

The expected utility for the incumbent if he enters himself market 2 becomes:

$$E[U(E)] = \alpha\, U(W_S^E) + (1 - \alpha)\, U\,(W_F^E)$$

(iii) <u>The incumbent encourages entry</u>

Since market 2 is not sufficiently large to induce the entrant to come in exclusively in this market, the incumbent has to provide an additional incentive to make the entrant accept the risk of entering the stochastic market[4] . He therefore lets him also into market 1 by setting a price and a quantity off the demand curve in this market, such that the entrant can supply the excess demand. That is to say, the price and quantity set by the incumbent in market 1 will ensure that if the entrant allocates its capacity optimally between the two markets, it will supply a quantity in market 1 which absorbs the excess demand and it will obtain zero expected profits. that allow the entrant to generate zero expected profits in both markets together. The incumbent sets a price higher than his optimal monopoly price and hence foregoes profits L_A in period 1 to let the new firm in. With probability α this incentive will enable the incumbent to enter market 2 in period 2 without any risk. Allowing entry is therefore a gamble which yields, with probability α:

$$W_S^A = W^N - L_A + \Pi_{22M} - R$$

and with probability $(1 - \alpha)$:

$$W_F^A = W^N - L_A$$

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4 If market 2 is large enough for the new firm to come in with a profit, no entry encouragement from the incumbent is required.

where W_S^A (W_F^A) is the incumbent's wealth in case of success (failure) under the scenario of allowing the new firm to enter.

The expected utility under this scenario is thus:

$$E\,[U(A)] = \alpha\, U\,(W_S^A) + (1 - \alpha)\, U\,(W_F^A)$$

Of these three alternatives, the incumbent will select the one which maximises his expected utility, anticipating the best response of the potential entrant.

3. Equilibrium

We investigate the conditions under which accomodating entry will be a subgame perfect equilibrium. First, notice that the quantities chosen by the incumbent if it accommodates entry are not affected by the fact that he is risk averse ; in period 1 on market 1, quantities under entry encouragement are determined by the constraint that the entrant has to be able to enter market 1 and ensure non-negative profits. In period 2, the incumbent's price and quantity decisions in both markets are those of a risk neutral monopolist since there is no uncertainty left.

Allowing entry will be a subgame perfect equilibrium if and only if:

(a) the entrant's expected payoff in period 1 is non negative.

(b) $E[U(A)] > \max \left[U(W^N), E[U(E)] \right]$

Condition (a) is embodied in the definition of W_A^F, W_A^S. We deal with condition (b) in two steps. First (i), we compare the expected utility of

allowing entry versus that of entering itself. Subsequently (ii), we compare allowing entry with neglecting market 2.

(i) Notice that it is necessary that $W_F^A > W_F^E$, for $E(U(A)) > E(U(E))$. Indeed, since the probability of success is independent of which firm enters market 2, only if accommodation yields higher wealth under failure, will accommodation be chosen. The reason is that accommodation certainly yields lower wealth than entry in case of success ; thus, the only case where accommodation may be attractive is when it decreases the cost of failure. Indeed, if $W_S^E > W_S^A$ and $W_F^E > W_F^A$, entry by the incumbent would always be preferred.

<Insert figure 1 here>

Notice however, that the expected wealth under entry encouragement ($E(W^A)$) could be smaller than the expected wealth under entry by the incumbent himself ($E(W^E)$), because the incumbent is risk averse. The difference between $E(W^E)$ and $E(W^A)$ cannot however exceed some value, for which the expected utility will be the same in either case. We will investigate this critical difference in the space of indifference curves.

As stated above, the expected utility in case of entry is written :

$$E[U(W^E)] = \alpha U(W_S^E) + (1-\alpha) U(W_F^E)$$

Taking the total differential of this expression, one obtains :

$$\alpha U'(W_S^E)\, d\, w_S^E + (1-\alpha) U'(W_F^E)\, d\, w_F^E = 0.$$

The slope of the indifference curve evaluated at W^E can thus be expressed as:

$$\frac{\partial w_S^E}{\partial w_F^E} = - \frac{(1 - \alpha)}{\alpha} \frac{U'(W_F^E)}{U'(W_S^E)} \qquad (1)$$

For E(U(A)) > E(U(E)) to hold, it is necessary that wealth under accommodation lies on a higher indifference curve than wealth under entry. This can only arise if the vector pointing from W^E to W^A (see figure 2) is flatter than the indifference curve evaluated at W^E. That is to say, it is necessary that W_F^A, W_S^A, W_F^E, W_S^E are such that :

$$\frac{W_S^E - W_S^A}{W_F^A - W_F^E} \leq \frac{(1 - \alpha)}{\alpha} \frac{U'(W_F^E)}{U'(W_S^E)} \qquad (2)$$

<Insert figure 2 here>

(ii) A similar argument can be developed for the comparison of encouraging entry (E (U (A))) and neglecting the new market (E (W^N)). It is necessary that accomodating entry lies on a higher indifference curve than neglecting market 2. A necessary condition for this is that the vector pointing from W^N to W^A is steeper than the slope of the indifference curve at W^N. That is :

$$\frac{1 - \alpha}{\alpha} < \frac{W_S^A - W^N}{W^N - W_F^A} \qquad (3)$$

This condition can also be expressed in terms of the profits generated by the incumbent in market 1 and market 2, i.e.

$$\alpha\,(\Pi_{22M} - R) \;>\; L_A$$

It is apparent from conditions (2) and (3) that entry accommodation will not be a dominant strategy and that the condition under which it is optimal will depend on cost and demand primitives as well as on the degree of the incumbent's risk aversion. In order to gain more insights into those conditions, a more specific model is specified and simulated in the following section.

4. An illustrative model

In what follows, we shall assume that the incumbent's risk aversion can be characterised by a logarithmic utility function, i.e. $U(W) = \ln(W)$. In addition, we postulate constant elasticity demand functions in both markets ;

$$P_{1t} = a_{1t}\, X_{1t}^{-\beta t} \qquad \text{for } t = 1,2$$

$$P_{2t} = a_{2t}\, X_{2t}^{-\eta t} \qquad \text{in case of success, probability } \alpha$$

$$P_{2t} = 0 \qquad \text{in case of failure, probability } (1 - \alpha).$$

The wealth and utility accruing to the incumbent for each of the three options he faces can then be written in terms of these parameters:

(i) The incumbent remains a monopolist in market 1 and neglects market 2

The computation of W^N is straightforward, i.e.

$$P_{1t} = \left[\frac{1}{1-\beta_t}\right] C \quad \text{and} \quad X_{1t} = \left[(1-\beta_t)\frac{a_{11}}{C}\right]^{1/\beta_t}, \text{ implying}$$

$$W^N = C \sum_{t=1}^{2} \frac{\beta_t}{1-\beta} \left[(1 - \beta_t) \frac{a_{1t}}{C} \right]^{1/\beta_t} - 2 F$$

(ii) <u>The incumbent enters himself in market 2</u>

To determine U (E), we compute X_{21}. The quantity X_{21} will be set at a level that maximizes U(E), i.e.

$$\max_{X_{21}} \alpha U \left[W^N + a_{21}(x_{21})^{1-\eta_1} - CX_{21} - R + C \frac{\eta_2}{1-\eta_2} \left[(\eta_2 - 1) \frac{a_{22}}{c}\right]^{1/\eta_2} \right]$$

$$+ (1-\alpha) \; U \left[W^N - C X_{21} - R \right]$$

The first order condition to this optimization problem yields, after some manipulations :

$$\left[\alpha a_{21}(1- \eta_1) (W^M - R) \right] X_{21}^{-\eta_1} - C \alpha a_{11} (1 - \eta_1) X_{21}^{1-\eta_1}$$

$$- C \left[W_S^E - X_{21} P_{21} \right] + C^2 X_{21} - C (1-\alpha) a_{21} X_{21}^{1-\eta_1} = 0$$

Solving this equation for X_{21}, one can compute E[U(E)].

(iii) <u>The incumbent encourages entry</u>

In this case the incumbent has to set a price and a quantity in market 1 such that the entrant obtains zero expected profits in period 1, knowing that the entrant will allocate its capacity optimally between the two markets. Hence, it will select X_{11} and P_{11} such that :

$$P_{11} = a_{11} (Q_{11} + X_{11})^{-\beta_1} = \alpha a_{21} Q_{21}^{-\eta_1} = E (P_{21}) = c + \frac{f + R}{k}$$

given that $Q_{11} + Q_{21} = k$

where Q_{it} is the quantity sold by the entrant in market i in period t. These conditions determine P_{11}, X_{11}, Q_{11}, Q_{21}. L_A can then be computed and the equilibrium values of W_F^A, W_S^A and E [U(A)] can be derived.

Given the number of parameters and the number of non-linear equations to solve simultaneously, it is difficult to characterise analytically the parameter region for which accommodation is an equilibrium. We have investigated this region using a numerical simulation.

First, we identified a set of values for which accommodation is an equilibrium and then performed a sensitivity analysis. The starting values are as follows ;

- Demand :

$$P_{11} = 10\ (X_{11})^{-0.98} \qquad P_{21} = 5\ (X_{21})^{-0.95}$$

$$P_{12} = 15\ (X_{12})^{-0.8} \qquad P_{22} = 10\ (X_{22})^{-0.6}$$

These assumptions imply that market 2 grows much faster than market 1 and that simultaneously market 2 can become more price sensitive in period 2 than market 1. In the first period market 2 is much smaller than market 1 but equally price elastic.

Market 1 might be an industrial market in the growth phase of its life cycle. Market 2 could be a mass consumer goods market which is in its introductory phase in period 1.

- Variable costs :

$$C = 0.05 \qquad 0.25$$

This important cost difference might reflect an industry with a 70% experience curve, where the incumbent has a four to five years advantage to the new entrant.

- Sunk costs and capacity :

$R = 5 \qquad F = f = .05 \qquad k = 1$

Relatively low fixed costs and high development costs for the new market is typical for mass market consumer goods.

- Uncertainty :

$\alpha = 0.40$

A moderate, non negligible, probability of success.

As can be checked, for these parameter values entry encouragement is an equilibrium. Sensitivity analysis of these parameter values reveals the following insights.

(1) Probability of success in the second market ($0.26 \leq \alpha \leq 0.46$)

If the probability of success exceeds .46, the second market becomes sufficiently attractive to the incumbent to enter himself. For very low success probability (less than .26), it would be very expensive for the incumbent to induce the new firm to enter. It is also too unattractive to the incumbent to enter himself. Under these low success probabilities the incumbent would neglect the second market and continue to operate as a monopolist in his original market.

(2) The marketing investment in the new market ($4.70 \leq R \leq 5.25$)

If the marketing investments are lower than 4.70, a new entrant does not have to be encouraged by the incumbent to enter market 2, i.e. the entrant can make a profit in market 2 without entering market 1. For investments in

excess of 5.25 the price increase required in market 1 is too costly for the incumbent to encourage entry profitably.

Although these market development investments might seem very steep (about 80% of the size of market 2 in period 1 if the incumbent entered and the market were a success), they are not exceptional in the introductory phase of consumer goods markets.

(3) The entrant's capacity ($k \leq 2.1$)

Under monopoly conditions in market 1, the production level of the incumbent is 10.48. If the capacity of the new entrant exceeds some 20% of the incumbent's production level, the entrant would flood market 1, thereby making entry encouragement too costly for the incumbent.

(4) Market sizes and growth rate

The sensitivity analysis shows that market 2 has to be smaller but faster growing than market 1 to make entry encouragement a profitable strategy. This is in line with the product life cycle concept.

5. Conclusion

In this paper, the strategy of encouraging entry is investigated, while common knowledge and research focuses on deterring entry. Entry can be encouraged by an incumbent firm in order to induce a new entrant to resolve the uncertainty of demand in a new market. We propose an incentive mechanism that the incumbent can use to encourage entry and show that under admittedly limited, yet plausible, circumstances entry encouragement is a dominant competitive strategy.

A number of caveats should be expressed. First, the incentive mechanism that we propose here is not likely to be the only one which can be implemented.[5] In the same way that there are many ways to deter entry, there are probably several ways to encourage entry. Second, entry encouragement is itself only one of several alternatives to deal with the uncertainty and the downside risk of the new market. For example, the incumbent could reduce the uncertainty via test markets, market research or joint ventures. One might however argue that actual entry by a competitor is likely, at least in some circumstances, to bring more information than these alternative methods. Finally, from an empirical prospective it is clear that the behaviour of Matsushita and Cooper and Lybrand, as presented above, can suffer different explanations than the one we provided here. More generally, dominant firms might let small entrants come in and develop lucrative markets for totally different reasons : first, because of economies of scale, scope or experience, the incumbent might not be able to compete effectively with the new entrant which has lower average costs at small output levels. Second, the large incumbent might simply overlook the new market opportunity. What we do in this paper is to provide another explanation in which the incumbent explicitly encourages an entrant to come in a new market.

A number of avenues for future research can be suggested. A further characterization under more general conditions of the subgame equilibrium conditions could provide more general results and would lead to more general

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5 It is worth noticing that an efficient solution could be achieved if the incumbent could "bribe" the entrant, giving him a lump sum to venture into the market. This solution is however difficult to enforce ; because side payment (bribes) are illegal, the incumbent could not legally bind the entrant and hence, could not prevent him from taking the money and running away.

managerial implications. A second possibility would consist of a more empirical approach to go beyond the mere anedoctical level of the example cited above. Indeed, new insight might be gained from detailed investigations into real world examples of entry encouragement.

References

Abegglen, J. and G. Stalk, (1975), Kaisha, the Japanese Corporation, Harper and Row

Bain, J., (1956), Barriers to New Competition, Harvard University Press, Cambridge, MA

Dixit, A., (1980), The Role of Investment in Entry Deterrence, Economic Journal, 90, 95-106

Fudenberg, D. and J. Tirole, (1984), The Fat-Cat Effect, The Puppy-Dog Ploy, and The Lean and Hungry Look, American Economic Review, Papers and Proceedings, 74, 361-366

Grossman, S. and O. Hart, (1980), Takeover Bids, the Free-Rider Problem, and the Theory of the Corporation, The Bell Journal of Economics, 11(1), 42-64

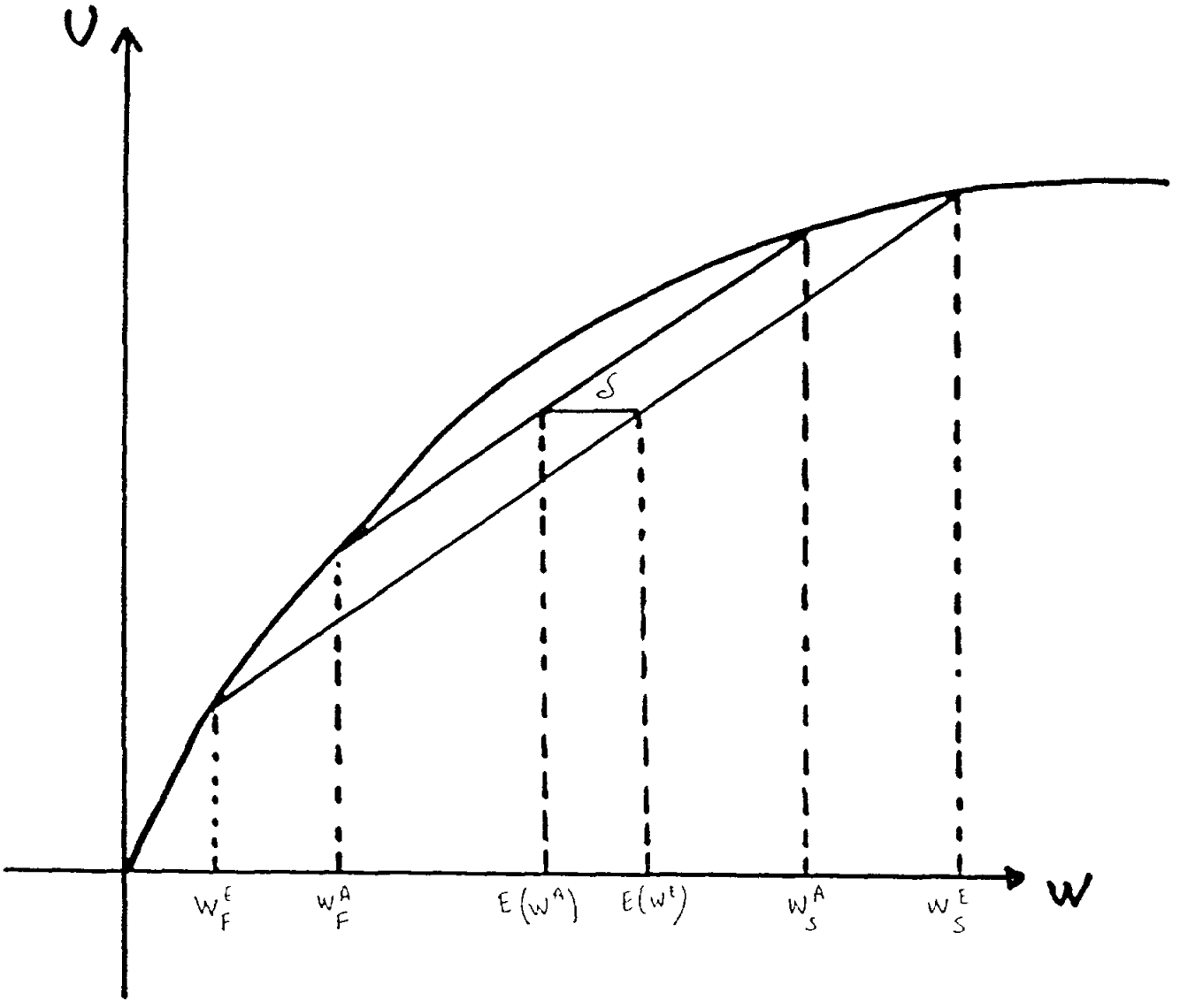
Schelling, T., (1960), The strategy of Conflicts, Harvard University Press, Cambridge, MA

Schmalensee, R., (1978), Entry Deterrence in the Ready-To-Eat Breakfast Cereal Industry, Bell Journal of Economics, 9, 305-327

Shavell, S., (1979), Risk Sharing and Incentives in the Principal and Agent Relationship, The Bell Journal of Economics, 10(1), 55-73

Spence, M., (1977), Entry, Capacity Investment and Oligopolistic Pricing, Bell Journal of Economics, 12, 49-70

Spence, M., (1980), Notes on Advertising, Economies of Scale and Entry Barriers, The Quaterly Journal of Economics, 493-507



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