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INSIGHTS

Using Experience Curves to Gain Competitive Advantage

We sometimes hear firms express surprise that competitors are able to offer similar services at significantly lower prices than they are able to offer. Often they assume that the competitor is discounting, or trying to ‘buy’ the work. But it’s more likely that the competitor is benefiting from substantial experience in similar matters that gives them a competitive advantage.

The experience curve is a simple, but powerful, model of the common sense phenomenon that processes become more efficient with repetition: A task completed once is done a little more efficiently the second time, even better the third, and so on.

The effect was noticed and quantified in business in relation to the production of airplanes and ships during the Second World War. The manpower required to complete a unit was seen to fall at a fairly steady rate of 10-15% for every doubling of cumulative production.

Assuming a ten percent reduction per doubling of experience, a task that takes 100 hours to complete the first time requires only 90 hours the second time, 81 hours the 4th time, 73 hours the 8th time, and so on. After a task has been repeated around 100 times the time taken to complete it has reduced to approximately 50% of the initial level.

The Boston Consulting Group popularized the application of the theory by studying, and successfully applying the curve in a large number of different industries. The effect has also been demonstrated in professional services: In a study of consulting engineers a 12% reduction in the time taken to complete a project was found with every doubling in the number of similar projects completed. The effect is curiously similar in impact regardless of industry or activity. In almost all instances the rate of improvement falls within the range of 10-15% for every doubling of experience.

On the assumption that this effect exists in professional services such as law there are important implications in terms of both the nature of competition and firm strategy.

Profitability and Experience

Imagine an experienced firm has completed an initially one-hundred-hour project on one hundred occasions and so that it is now able to complete such projects in 50 hours. When asked to submit a proposal for a similar project the firm could quote a price for such work at 50 hours. At this level it may assume that this work will be profitable (50 hours at 100% realization). For an inexperienced firm to match this it would need to price at a similar level (100 hours at 50% realization) for a reasonable chance, all else being equal, of winning the work.

Alternatively, the experienced firm could decide to price its proposal at 100 hours, or somewhere else above the 50 hours required to complete the work. At this level it can make a healthy profit and still price the service at or below the level of competitor firms.

Regardless of its decision the experienced firm is at a significant advantage to the newcomer. It has the choice: To price down to reflect its experience so as to dissuade the newcomer from entering the market; or, pricing up with a view to making additional profits until the newcomer has developed the experience to become competitive.

Knowledge Management and Experience

Progression down the experience curve depends upon the application of previous experience and knowledge. What has been learned may not be retained, not be shared, or professionals may neglect to apply it in the next instance. The wheel may be reinvented time after time. In order to make progress the experience of previous projects and the lessons learned need to inform both the content of future professional advice and how it is delivered (e.g., project management).

A firm that is habitually better at capturing its experience and using its knowledge to inform future work will be more competitive than a firm that fails to do so. The better a firm is at learning from its experiences, codifying the knowledge and then applying the lessons learned in its work, the steeper the gradient of their experience curve. A well-managed firm captures its knowledge, mobilizes its experience, reduces its costs, improves its efficiency and moves faster down the experience curve than its competitors.

Strength-in-Depth and Experience

It is common in professional firms to talk about the strategic advantage of a practice with strength-in-depth. The reason that practice scale confers competitive advantage may be explained in a large part by the experience curve. Greater practice size is related to high volumes of work which results in the rapid accumulation of experience. Experienced practices develop knowledge of the professional discipline and its application and they also become more efficient. These are all sources of competitive advantage and once the practice has established a leadership position it is difficult and expensive for competitors – especially smaller ones – to catch up.

Strategic Implications

A handful of firms in any professional market stake their competitive positioning at the top of the experience curve based primarily on professional technical prowess and intellect. These firms claim to start every project afresh, that they are 'Plain Paper Thinkers'. Their strategy assumes that the practice will focus on novel projects, and perhaps repeat them a few times, but it will not invest in high levels of leverage, or the knowledge capture and systematization necessary to be competitive lower down the curve.

An alternative strategy is to compete on the basis of the efficient application of existing knowledge, on the types of projects that have been run many hundreds or thousands of times. At this point the experience curve has reduced the hours required to complete the work, and the price clients are prepared to pay for it, to a fraction of the original. Firms following this strategy compete on the basis of their process knowledge (i.e., how to run the work efficiently) and their ability to codify and systematize the advisory process so as to reduce the professional time and costs involved. The firms make large investments in the information technology and professional infrastructure required to reduce their costs per project still further. Extremely high leverage is used to minimize costly partner time.

There are a number of firms that follow one or the other of these strategies in many markets. For those following the first strategy the concept of experience curves may not be particularly relevant while for those following the second it is highly relevant. Most firms in reality follow neither strategy exclusively. And, of course, even single client matters have some elements that are not subject to the impact of the experience curve and others that are.

In our view there is significantly more work in many firms that is subject to the impact of experience curves than is acknowledged and that firms are losing a potential source of competitive advantage when they do not recognize this and adapt sufficiently urgently to remain competitive.

The experience curve does not provide universal answers but understanding its impact and considering its implications does provide a useful perspective from which to address a range of issues such as defining the limits of a firm's focus (including potentially no longer offering certain services), investing appropriately, managing pricing and profitability, ensuring the scale to compete effectively and addressing the complexity of internal and external issues that result.

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